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Enterprise education and its relationship to enterprising behaviours: a conceptual and methodological investigation

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Enterprise Education and its Relationship
to Enterprising Behaviours:
A Conceptual and Methodological Investigation

MA, Suet Fan (Rosa)

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Professor 'Aeroflot' and Dr. MYOB (Ernest and Xu Qi) for the vital injection of an unbeatable sense of humour and optimism from time to time.

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To My Family

獻 給

外 祖 母 。 爸 爸 。 媽 媽

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Abstract

Enterprise education is defined by some educators as a distinctive approach to teaching with the aims of improving motivation to learning and enhancing the development of enterprising behaviours in young people (e.g. Bridges, 1992; Gibb, 1993; Harris, 1993a). However, after two decades of development, there remains a lack of empirical support to demonstrate its effectiveness, or otherwise, in achieving its aims. This is due to the problem of conceptual confusion with the political rhetoric of business imperatives and a lack of a unitary definition. Furthermore, there is a problem of finding an appropriate methodology to investigate the holistic nature of the phenomenon.

In order to investigate the effectiveness of enterprise education, therefore, the problem of conceptual confusion needs to be addressed before the key concepts can be operationlised and a potential methodology explored. The Durham University Business School's model of enterprising teaching is chosen for this purpose since the relationship between 'enterprising teaching' and the development of 'enterprising behaviours' was clearly laid out in Gibb's paper (1993) and has been shared by many other models of enterprise education.

Hence, the objective of this thesis is to explore the meaning of *'enterprising teaching modes'* and *'enterprising behaviours'* among teachers with the main focus on seeking firstly, operational definitions of the two key concepts; and secondly, an appropriate methodology to measure these concepts.

An exploratory study based upon the discourse interview research method was chosen for its strength of investigating the key concepts in depth. Findings from the ten intensive case studies suggest that the DUBS' concepts were not naturally associated with political rhetoric. 'Enterprising teaching modes' were perceived to be effective in promoting a deeper level of learning, although some modes were found to be value-laden and ambiguous. When these problematic modes were removed, the concept potentially constituted an adequate construct for distinguishing an enterprising teaching tendency from a didactic one. 'Enterprising behaviours' were also perceived to constitute a unique behavioural construct. A behavioural rating methodology was demonstrated to be an appropriate measurement instrument for both concepts. Inferences were also made which suggest that enterprising teaching modes might cause the development of enterprising behaviours in students. The current research results have arguably provided a solid conceptual and methodological foundation for further empirical investigation to follow.

List of Acronyms

CREST	Creativity in Science and Technology Awards
DUBS	Durham University Business School
DES	Department of Education and Science
EHE(I)	Enterprise in Higher Education Initiative
EIU	Economic and Industrial Understanding
EBP	Education and Business Partnership
ERA	Education Reform Act
GAP	Graduate Associate Programme
GEP	Graduate Enterprise Programme
GNVQ	General National Vocational Qualifications
INSET	In-Service Training
LEA	Local Education Authority
LMS	Local Management of Schools Initiative
MESP	Mini-Enterprise in Schools Project
NCC	National Curriculum Council
NCIHE	National Committee of Inquiry into Higher Education
NRA	National Record of Achievement
NVQ	National Vocational Qualifications
RSA	Royal Society for the encouragement of Arts, Manufactures and Commerce
SCIP	School Curriculum Industry Project
	School Council Industry Project (before renaming)
TEC	Training and Enterprise Council
TPS	Teacher Placement Service
TVEI	Technical and Vocational Initiative

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Preface

In Hong Kong, the metaphor commonly known for education is 'stuffing the Peking duck'. Having been 'stuffed' for my primary and secondary years, I came out of 'the oven' (the institution), not quite deliciously roasted, but 'burnt'! I remembered how, in my primary years, I was still curious and enthusiastic about learning. Every beginning of the new school year, my imagination went 'wild' with all the colourful pictures and interesting texts in my new textbooks. I would have read all the books before the year began. When learning was boring, at least we could just shout louder in our rote learning.

In the secondary years, the 'stuffing' became so much more fierce and the interaction with teachers was mechanistic. Schooling meant de-individualisation. Like many other students, my mind gradually shut down. By the time I reached A-Levels, it was a real struggle just to 'keep my eyes open' in lessons - my dictated notes, Chinese or English written words, slowly deformed into 'little worms'. Our strategy to stay awake was to look at the ones who were dropping off in class... This is the short history of my didactic learning at school.

I then took the role of 'stuffing'. I owned a tutorial centre where kids came to me after school for remedial lessons. The difference between my tutorial centre and schools was the personal attention that they could get from me and the close friendships that we developed in a small group learning environment. They called me 'sister'. 'Naturally', they were taught the way I was. Until one day, Bonnie shouted in the middle of the lesson, 'It's so boring, sister!' The following October, I was studying Psychology hoping that I would know more about learning, in a British university. I started to *learn about learning*.

I have had the privilege of observing the two different cultures and am fascinated by the contrast of classroom learning in Hong Kong and Britain. To express it in simplistic superficial extremes: the Chinese classroom is 'docile' and the British classroom is 'chaotic'. The constant question in my head is: Where is the balance of 'yin' and 'yang'?

While I was doing research in 'entrepreneurial learning' in Durham University Business School, I came across Professor Allan Gibb's model of enterprising learning (1993). I was attracted by the notion of 'structured guidance' that the model potentially offered which blended in well with my knowledge of the psychology of learning and my 'anthropological observation' of the teaching and learning in the two cultures. I started the Ph.D. process with a probably 'biased' attitude. What I did not expect was the amount of contention and the politicising that had happened within the literature of enterprise education in which Professor Gibb's model is located. The more I read, the more disillusioned I was. I became very critical or even cynical towards the subject matter.

It was not until I conducted my fieldwork with teachers in Britain (and informally in Hong Kong) I re-discovered the 'original' meaning of *being enterprising*. I realised the power of social construction of meaning: how the intrinsic value of 'enterprise' could inspire people to do a lot of good work. I was then able to look beyond the 'rhetoric' and re-established a healthy attitude towards my research. I might still be biased, but I am aware of it. More so, I am aware of the contributions that enterprise education has made and the lessons that need to be learnt. Through this Ph.D. thesis, I wish to share my learning process with whoever is interested in the field.

Introduction

The main thrust of this thesis is upon the *meaning* of 'enterprise education'. The concept of enterprise education remains contentious in the domain of education in this country, and conceptual confusion is acknowledged by various commentators (Coffield, 1991; Hyland, 1991a; Jamieson, 1991; Ritiche, 1991; Gibb, 1993). Gibb (1993) reasons that the problems surrounding the concept are a result of the multi-meaning of the word 'enterprise'. In the 1980s, the proliferation of enterprise initiatives under the banner of enterprise education defined the concept within a combination of various themes such as 'understanding industry and business', 'small business start-up training', 'work-related curriculum' and 'a distinctive approach to teaching and learning', etc. It is the last theme, that is, *enterprise education as 'a distinctive approach to teaching and learning'* that this thesis focuses upon.

Chapter 1 considers how 'enterprise education' emerged from the debate about education and industry in the 1970s and 1980s. Three phases of development of this debate are charted: the first phase is the 'Emergence Phase' which took place in the late 1970s; the second phase is the 'Establishment Phase' which began in the early 1980s; the third phase is the 'Consolidation/Confinement Phase' which started in the early 1990s. Against this backcloth, the notion of 'enterprise education' emerged to offer the potential for an integrative approach to perceived problems. However, to some educationalists, it was a source of contention and conceptual confusions.

In Chapter 2, these sources are investigated. Adopting the principle of discourse analysis (Potter & Wetherell, 1994), a conceptual inquiry into enterprise education is carried out. It is argued that the academic debate concerning the conceptual confusion surrounding 'enterprise education' stems from the early stages when the term 'enterprise' was first introduced into education. The lack of consensus at the initial stage of conceptualisation among 'promoters' of the term led to diverse interpretations. Political rhetoric presented the concept of enterprise as a free market economy model. This caused some academics

to conceptualise the term as incompatible with 'true' education. Outside of the academic community, however, the debate was much less contentious. The somewhat polarised academic debate can be contrasted with teachers' and students' understanding of enterprise. For them, the perceived intrinsic 'goodness' of enterprise was mainly associated with desirable enterprising attributes in a person. Therefore, the foundation for and the distinctiveness of enterprise education can be focussed upon developing enterprising qualities in people. Based on this foundation, a conceptual realignment is discussed.

In Chapter 3, a structured framework of enterprise education as a distinctive approach to teaching and learning is drawn based upon the ideological framework of liberal education (Bridges, 1992). Three models of enterprise education are classified and discussed. They are the *'work experience model'* exemplified by the Technical and Vocational Initiative (TVEI) of the 1980s; the *'business simulation model'* exemplified in the Mini-Enterprise in Schools Project (MESP); and the *'learning model'* as presented by the 'Education for Capability' campaign and the Durham University Business Schools' programme. Their separable characteristics and effectiveness in achieving aims and objectives are evaluated. Finally, an appraisal of enterprise education to-date is carried out. There remains a lack of empirical evidence that enterprise education is effective in developing enterprising behaviours. This is due to the lack of conceptual clarity and of appropriate methodology which has made evaluation difficult. Hence, it is argued that the fundamental issues which need to be addressed are the conceptual underpinning of the theory and the development of an appropriate methodology for evaluation.

In Chapter 4, the DUBS' model is taken as a focus for examination of the fundamental problems of conceptual confusion and lack of appropriate methodology as identified above. In this chapter, the model is analysed using the concept of model building (Keeves, 1988). Features which are unique to this model are discussed. Theoretically, the model is argued to contain the major elements of learning drawn from existing progressive pedagogy and Gibb's speculations of small business learning (1993). Therefore, the model can be seen as an 'ideal type' (Martindale, 1963) which can potentially lead to the two hypothesised outcomes, namely, 'greater insight to knowledge' and 'enterprising behaviours'. However, research in enterprising teaching approaches seem to show that teachers' perceptions of these approaches are that they are impractical and ineffective for core subject learning (Iredale, 1992; Cotton, 1993; Harris, 1993a). Hence, the focus of the current research, that is the search for conceptual

underpinning and methodological appropriateness, would need to take into consideration teachers' perceptions of the two key concepts within the DUBS' model of enterprise education, namely 'enterprising teaching modes' and 'enterprising behaviours'.

Chapter 5 sets out three key research questions. Firstly, what do 'enterprising teaching modes' and 'enterprising behaviours' mean to teachers? Secondly, how do they perceive the definitions offered by the DUBS' model? Thirdly, can they observe and relate to the two key concepts from the reality of teaching? To explore teachers' perceptions, the qualitative discourse interview is argued to be the most appropriate research methodological approach. It enables informants to reflect deeply on the central issues and allows them to voice concerns which are essential to them concerning the processes of teaching and learning. The rationality for choosing the discourse interview is discussed in this chapter. Finally, the research procedure and the method of analysis are introduced.

The rich discourse findings are discussed in two Chapters. The discussion on 'enterprising teaching modes' is presented in Chapter 6 and discussion on 'enterprising behaviours' in Chapter 7.

In Chapter 6, the results are used to draw out the factors which affect teachers' adoption of enterprising teaching modes, to chart teachers' teaching tendency, and to feed back from teachers' perceptions into the DUBS' concept as a whole. In summary, informants are found to perceive 'enterprise' as a neutral concept. 'Enterprise' is not readily associated with political rhetoric of business/industry, nor with a thinking in pedagogy. It is, however, naturally associated with personal attributes and behaviours. 'Enterprising teaching modes', as defined by DUBS, are believed to be complementary to didactic teaching modes. The latter are seen as providing structure for the application of the former in promoting a deeper level of learning. However, the way in which the two approaches are mixed is affected mostly by external pressure, such as exam syllabus and the National Curriculum. School organisational culture, informants' exposure to enterprise education and class size are likely to have considerable effect on teaching styles.

Some of the 'enterprising teaching modes' presented as a dichotomy with 'didactic modes' in the DUBS' definition are perceived to be value-laden. When these value-laden modes are removed, the core construct of an 'enterprising teaching approach' emerges. It is demonstrated that informants' teaching tendency can be more accurately charted by the

use of rating scales. Arguably, an enterprising teaching tendency is therefore distinguishable from a didactic teaching tendency. An interesting connotation of an 'enterprising teacher' arises from informants' understanding of the subject matter. An enterprising teacher is one who shows an enterprising teaching tendency in spite of situational constraints. Thus, the current findings suggest that it is possible to measure how different teaching tendencies (enterprising or didactic) will have an effect on the learning outcomes, i.e. 'greater insight into knowledge' and 'enterprising behaviours'.

In Chapter 7, the findings concerning 'enterprising behaviours' are discussed. Informants' perceptions of enterprising behaviours seem to be in agreement with the DUBS' definition. The DUBS' definition is argued and found to be an adequate basis for developing a meaningful construct. Informants are able to observe and infer students' enterprising behaviours, despite occasional situational constraints. Some ambiguity and conflicting values are also found in certain behavioural categories. Nevertheless, the discourse methodology allowed a negotiation of meaning with informants to clarify these problems. Based on the rich discussions with informants, suggestions are made to minimise these problems. Most importantly, findings imply that there is a possible causal relationship between enterprising teaching modes and enterprising behaviours. Finally, the rating methodology is also demonstrated to be a potentially useful tool for measuring students' enterprising behaviours.

Chapter 8 summarises the whole thesis. Based on the current research findings, recommendations are made concerning the future development of enterprise education. It is suggested that the two key concepts be refined. More importantly, it is recommended that training in enterprise education in the future places emphasis upon the development of the enterprising teacher. It is suggested that training focuses on enabling teachers to engage in deeper reflection on the meaning of teaching and learning. A holistic approach to cognitive, social and personal development towards *interactive professionalism* is discussed in detail. Finally, this thesis argues that enterprise education has potential to make a contribution in two major areas. Firstly, it can offer a better understanding of pragmatic progressivism in the form of 'structured guidance'. Secondly, the notion of an enterprising teacher can contribute to school effectiveness.

Chapter 1

Historical Analysis of the Development of Enterprise Education

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1. Introduction

This chapter discusses the background to the development of 'enterprise education'. It is argued that the development of 'enterprise education' is closely related to the continuous public debate concerning the relationship between education and industry within the context of the socio-economic background since the late 1970s (Watts, 1983; Nash, 1992; Harris, 1993a). This chapter, first of all, adopts Watts' framework of education-industry interface to analyse the problematic relationship between the two. It is argued that the problematic relationship has provided a fertile ground for the emergence of 'enterprise education' (Watts, 1984; Jamieson, 1984; Nash, 1992; Harris, 1993a). This is then followed by a discussion of developments which led to the emergence of enterprise education. This thesis identifies three phases of development within the past two decades. The diversity of enterprise activities, the political entanglement of the subject matter and the subsequent conceptual confusion are revealed.

2. Education and Industry - A Problematic Relationship

Watts (1983), in an analysis of the relationship between education and work, set out four interfaces, i.e. selection, socialisation, orientation and preparation, in which education and industry have been bonded with each other actively, though reluctantly. They provide the means for examining the paradoxes and conflicting interests between both education and industry, which have been aggravated by the post-Fordist socio-political economy.

2.1. Selection

Examination results have always been used by most employers as criteria for employment. According to Maguire and Ashton (1981), at the higher level of the

professional hierarchy, academic qualifications are generally used for administrative convenience as a crude measure of the candidates' personal ability for pre-selection. At lower levels, the utility of qualifications diminishes. However, since better qualifications would mean a better job, this has contributed to increased credentialism (Grubb & Lazerson, 1981). Ironically, the increasing emphasis on examination results coincides with the escalating claims of falling educational standards and the increased irrelevance of the academic qualifications which fail to meet the needs of industry. Marsden (1986) highlighted the tensions between education and industry:

> 'Industry is often unable to see any inconsistency between wanting youngsters to be flexible, technologically capable, economically literate, team-working, problem-solvers and yet refusing to interview them unless they have at least five O levels.' (p.21)

This results in

> '...exam results to be stressed by schools and parents even more, employers to over-recruit people with higher "academic" attainment than required and for the school curriculum to become less and less relevant for more and more pupils.' (Marsden, 1983, cited in Watts, 1983, p.26)

The problem of the relevance of a selection system lies on its lack of breadth and diversity in defining academic ability. Academic ability has been narrowly defined as achievement in traditional subject specifications as codified into examination results (Gleeson & Hodkinson, 1995). Numerous researchers have reviewed the history of the British educational system since the 1840s (Marshall, 1990; Nash, 1992; Gleeson & Hodkinson, 1995; Merson 1996). They claim that the selection system has been the basis for a fundamental government policy designed to screen out the academically able for leadership in society from those vocationally inclined towards manual work.

Millers et. at. (1991) argue that the selection system is difficult to change because of the conservative enrolment practices of traditional universities which limit academic advancement for students who are attracted to vocational education. Subsequently, a relatively limited career prospect and the relatively little pay-off in terms of social status and financial rewards contingent to the vocational path makes it subordinate to the traditional academic path.

As a result, students who are vocationally inclined have been deterred from choosing the vocational route. The competitive climate associated with a narrow selection system has

led to 'the separation of A levels from both personal and social education and the preparation for future employment' (Young, 1993 cited in Merson, 1996, p.26)

2.2. Socialisation

Socialisation in schools refers to the interactions between students and teachers within the social structure and school environment which influence attitudes and behaviour. Ashton and Field (1976) observed that students' self-identity reinforced by the social interaction in school, shaped their choice of career in a way that conformed to their own social background. This observation was supported by Banks and Roker (1992) who investigated the work attitudes of 909 students, aged 16, from matched social backgrounds. They discovered that private schools students were significantly more motivated to stay on for higher education and obtain qualifications than state schools students. Socialisation at school was deemed to enable a work orientation considerably. Schools were thus criticised for fortifying 'social inequality' (Ryrie, 1981).

Ironically, when schools are charged with fostering 'social inequality' unintentionally, they are simultaneously blamed for inspiring the working-class youth to harbour unrealistic expectations from their employers that cause conflict in the work place (Maguire & Ashton, 1981; Ryrie, 1981; Jamieson & Lightfoot, 1981). Employers have complained about young people having poor attitudes, expressed in terms of 'slovenliness' and 'disrespect'. Maguire & Ashton (1981) noted that such complaints came mainly from employers who were recruiting at a semi-skilled or unskilled level. Inappropriate curriculum, they believed, caused working-class students to misbehave and such misbehaviour was being carried from school to work. A better understanding between schools and industry in order to design a relevant curriculum for the young people who were more likely to enter the low-level labour market was suggested.

This thesis argues that Maguire and Ashton's suggestion is incompatible with the fundamental educational goal which stresses equality, otherwise, a 'relevant curriculum' may mean 'knowing one's place' and eventually engenders the vicious circle of 'social inequality' (Jamieson and Lightfoot, 1981). It is also argued that, among reasons other than the one suggested by Maguire and Ashton, poor attitudes are more a result of failure

in inducing intrinsic motivation to learning (Richmond, 1975) and inadequate career guidance to encourage mobility (Rees, 1997; Watts, 1993)[1].

Concerning the process of socialisation, Bazalgette (1978) made the criticism that school:

> '.....encourages dependence and immaturity, because of the lack of real contact with significant adults...and...the lack of opportunity to develop and exercise personal autonomy. They tend to keep young people inadequately prepared for the world of work.' (Cited in Ryrie, 1981, p.66)

Watts (1983) also discovered evidence of increased anxiety as youngsters face the issue of leaving school. Both Watts and Bazalgette argued the need for more and better adult relationships in schools, and for schools to establish better contact with the world of work.

Bazalgette emphasised the importance of enhancing students' autonomy, a personal quality required by employees at higher-levels but resented by employers at lower-levels. Such disparity recalls the dilemma that teachers face. Jamieson and Lightfoot (1981) underlined the importance of schools being concerned with the whole ability range and the need to be resistant to the idea of streaming, although unconsciously, they might succumb to a stereotyped expectation of their students and socialise them towards undesirable conformity. Watts (1983) concluded that:

> 'The process of socialisation into employment remains a strong feature of the educational system - all the stronger because it is often implicit rather than explicit, and hidden even to the teachers who promote it.' (p.21)

2.3. Orientation

Orientation is concerned with *deliberate* curricular interventions designed to help students become aware of the variety of employment opportunities, to understand their potential and make decisions on their career choice (Watts, 1983). This is usually done through careers education and work experience. Watts believed that orientation made the process of shaping beliefs and attitudes more visible than socialisation and was therefore open to question and deliberate control. Since career orientation is particularly sensitive to the immediate labour market, this attracts instant political attention and manipulation.

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[1] Ashton (1993) and Rees (1997) claim that the low-skilled youth labour market is a result of the inability of the government to envisage the global trend for developed countries to encourage high-added value industry which requires high-skilled labour that utilises human capacities.

Watts (1983) speculated that schools were cautious with the idea of orientating their students to a specific category of occupation since specification might be perceived as a precocious streaming that preserves 'inequality'. Hence, teachers tend to evade the issue to avoid the possibility of being seen to be engaged in any form of indoctrination. According to Bloomer's survey (1985), teachers were little concerned about the instrumental gain of work experience, such as job sampling for a particular type of career. They were more interested in the social and personal education a student could get through placement outside schools.

Jamieson and Lightfoot (1981) noted that work experience has been mostly carried out locally. Educators became concerned that work experience can give only restricted orientation towards the local labour market as opposed to the broader national labour market. Bloomer's survey (1985) indeed discovered that the quality of work experience is, to certain extent, dependent on the locality or regional labour distributions. Bloomer (1985) studied a hundred and eighty-three schools in the south west region. He reported that the limited range of firms in the school area especially the rural and agricultural part of the region was one of the major problems in facilitating work experience (Bloomer, 1985). There has been no indication as to how schools might rectify such an imbalance.

2.4. Preparation

Like orientation, preparation attracts central attention. It refers to the acquisition of skills and knowledge specific to a certain occupation. It is therefore inevitably associated with vocational education which has traditionally occupied an uneasy position in education (Watts, 1983). The fact that the majority of entrants into vocational education are from a 'lower-ability range' (defined in a narrowly academic way) and a working-class background, has degraded the value of vocational education and led some educators to conclude that it perpetuates social inequality (Marshall, 1991; Hyland, 1991a, Chitty, 1992).

Advocators of vocational education believe that the self-selective nature of recruitment reflects the need for variety of curricula to cater for different interests and abilities. Therefore, it should not be seen as social class-based streaming. Watts (1983) further argued that a diminishing social valuation accorded to vocational education has been a result of rather than a cause of inequality. Vocational curriculum can provide variety to meet different individuals' interests. However, this does not rule out that the self-

selective nature of recruitment is not, to some extent, a result of biased socialisation embedded within the social structure (Rudd, 1997). Furthermore, this thesis cautions that the lack of motivation in learning, regardless of the actual content to be learned (be it academic or vocational subject), is more a result of poor teaching and learning.

Marshall (1990), Hyland (1991c, 1992) and Merson (1996) argued that the provision of vocational education has been characterised by *the lack of quality* including:

- A focus upon low- or semi-skilled training which restricts advancement into professional skills and impedes career promotion
- little emphasis on the enhancement of students' ability of critical thinking and social consciousness
- a narrow curriculum which restricts transfer to academic advancement

These researchers believe that the reason for the lack of quality in vocational education is an inequality embedded in a socio-political history which has promoted the academic-vocational divide. Quality academic study is meant for the 'mental' and mediocre vocational training for the 'manual'.

A further complicating issue in respect of the role of vocational education is that it can be argued that industry should have the responsibility for training its own employees. However, whenever industry is hit by recession, the tendency is to cut training to reduce overheads. The effect is the shift of responsibility to schools, most often by political rhetoric that causes resentment from the educational establishment (Watts, 1983; Coffield, 1991; Hyland, 1992). Schools are caught in a difficult position as the number of unemployed school-leavers increases despite their attempts to enhance employability by equipping them with skills and knowledge. Although this might be done with the educational goal of developing understanding of industry and enriching the learning experience, it also runs the risk of premature orientation to a narrow occupational sector (Jamieson and Lightfoot, 1981; Watts, 1987).

2.5. Summary

Table 1.1 below summarises the problematic relationship between education and industry which is conceptual as much as practical. The debate as to whether education should serve industry needs is largely provoked by political rhetoric and is aggravated by the complexity of the class system. From a practical point of view, an improved mutual

understanding would lead to desirable changes that are beneficial to both sectors (Watts, 1984). It is argued below that 'enterprise education' can be seen as one attempt to bring the dichotic relationship into synergy for quality and relevance for individuals and industry. The next section, therefore, describes how enterprise education has emerged and how it has contributed to dissolving some of the problems that exist in the relationship. Contentions surrounding the subject matter are also analysed.

Table 1.1 The Problematic Relationship between Education and Industry

Interface	Characteristics	Problems / Concerns
Selection	• over-emphasis on academic qualifications (exam-laden credentialism)	• negligent of personal development • negligent of other abilities (e.g. creativity) and technical subjects • intrinsic motivation of learning decreased • irrelevant to industry
Socialisation	• circular causality between values and attitudes in social interaction	• social inequality (class-related) • difficult to cater for the heterogeneous requirements from industry • lack of adult interaction other than teachers
Orientation (careers service within curriculum)	• guidance to students' potential and inclination to careers choice	• sensitive towards immediate local labour market (lack of national perspectives/alternatives) • limited choice for students
Preparation	• vocational skill training for specific occupations	• semi- to low skilled training • restricted career and academic advancement • social inequality

3. The Context – Developments Leading to the Emergence of Enterprise Education

To capture the development of the industry-education debate as it has led to the emergence of enterprise education requires some understanding of the complex economic, political and educational climate since the late 1970s. This thesis summarises three phases of development in what might be termed the schools-industry movement which has generated the growth of enterprise education. The first phase i.e. the 'Emergence Phase' took place in the late 1970s. Political pressure had led to the emphasis on **improving relations between education and industry** as a remedy to the nation's poor economic performance (Crompton, 1987; Jamieson and Lightfoot, 1981; Watts, 1986; Wellington, 1986). School industry projects were established *to enrich the knowledge and skills of pupils for the world of work* (Jamieson *et. al.*, 1988).

The second phase i.e. the 'Establishment Phase' started in the early 1980s as the economic situation worsened and a major youth unemployment problem became central to public attention. Watts (1984) argued the need for a closer bond between schools and industry. Public funding and private resources were pooled into **building an enterprising and work-related curriculum** in schools. Emphasis was placed upon *developing enterprising skills, attitudes and knowledge in students.*

Towards the 1990s, i.e. the third phase, that of Consolidation/Confinement Phase, involved the establishment of the Training and Enterprise Councils and the White Paper 1991 embodying **a centrally-controlled partnership** which created the possibility of *synthesising education and industry towards a continuous learning society* (Watts, 1993). On the other hand, the multi-faceted change was seen by some as intensifying the academic-vocational divide, confining the development of enterprise education to the limited context of vocational education (Miller *et. al.,* 1991).

The above classification into three phases is by no means conclusive. It tends to over-simplify the highly complex interrelationship between economics, politics and education. However, it will serve the purpose of highlighting how enterprise education has been developed in response to changing environmental influences.

3.1. Emergence Phase (late 1970s): Improving Relations between Education and Industry

In 1976, the Great Debate initiated by Prime Minister James Callaghan attacked the education system as being 'out of touch with the fundamental need for Britain to survive economically in a highly competitive world through the efficiency of its industry and commerce' (quoted in Marshall, 1990, p.224). The three major criticisms were as follows:

o industry complained that school-leavers often lacked basic skills required for recruitment and that unemployment was due to the lack of skills;

o the ablest university and polytechnic students had 'inherited' the traditional academics' 'anti-industrial' attitude that had deterred them from careers in industry;

o progressive teaching methods had not only led to the falling of standards, but also resulted in the lack of the right attitudes, such as discipline, in the workplace.

3.1.1. Responses

The School-Industry Movement

The direct result of the Great Debate was a series of government interventions in education and training. For school-leavers, a major national training scheme, the Youth Opportunity Programme (YOP) was launched in 1978. For schools, the School Council Industry Project (SCIP) was launched in 1978 with the aim of bridging the gap between education and employment and developing skills for adult working life. One of SCIP's major tasks was to link school with local industry. This was designed to help schools to understand the requirements of the local youth labour market. Work experience including visits and work placement, was the predominant method in use. Other methods, such as inviting industrialists to get involved in school projects, were also used. At this stage, industry involvement remained peripheral. The 'industrial dimension' in the school curriculum remained confined to careers education or cross-curricular activity for the purpose of orientation and preparation.

The Debate

Callaghan's speech pointed to the inadequate preparation, narrow orientation and inappropriate socialisation that schools had provided for their students (Watts, 1983). These criticisms were seen by many educationalists as unjustified. Critics commented that education was being used as a scapegoat for the country's economic and unemployment problems (Marshall, 1990; Watts, 1983; Wellington, 1986). Wellington (1986) argued that since the Speech, and despite numerous government training programmes such as Youth Opportunity Programme (YOP) and the growth of pre-vocational education, unemployment increased from about 1 million in 1976 to nearly 3 million in 1986[2]. Furthermore, he pointed to the vagueness in Callaghan's speech concerning skill shortages and the needs of industry: there was no clear indication as to what 'skills' and what 'industry' in particular was referred to. Another problem present in the outcry concerning the relevance of the school curriculum to the skills required by industry was noted by Wellington (1986). He found that the skills so profoundly criticised as under-nourished in school and henceforth used to justify the need to expand vocational education as explained by the Department of Education and Science White

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[2]Unemployment figures since 1986 are not directly comparable with earlier figures due to the change of legislature of 'unemployment statue'. It is estimated that the change reduced the total count (Employment Gazette March/April 1986, pp107-8).

Paper (1981), were numeric and literate skills which were not outside the realm of general education.

Concerning the criticism of poor working attitudes, Maguire and Ashton (1981) argued that to treat 'industry' as a homogeneous group looking for uniform skills and attitudes was misleading. Jamieson *et. al.* (1988) contended that the criticism of progressive teaching methods as a cause of unfavourable attitudes towards industry was unwarranted as the success of government funded industry projects was largely due to teachers' dedication to this teaching approach.

3.1.2. Summary

Watts (1983) saw the aftermath of the Great Debate as a tool to force open the school curriculum to public scrutiny. Schools were urged to improve their functions in socialising, preparing and orientating students to future work. The emphasis on vocational preparation in general education in order to address the needs of industry gave rise to the so-called 'skill movement' (Wellington, 1986). The organisation of work experience on a national scale through SCIP was later regarded as one of the most significant schemes in promoting enterprise education.

Undoubtedly, during the emergence stage, the *quantity* of work placements rose sharply and more contacts between education and industry were established. Arguably, the increase in work placements meant an increase in social and personal education (Merson, 1996). However, the scope of change was limited. The issues of the drawbacks in work experience as discussed above and the problem of lack of *mutual understanding* between industrialists and educationalists, were largely left unaddressed.

3.2. Establishment Phase (1980s): Building an Enterprising and Work-Related Curriculum

The early 1980s were years of continuous growth of unemployment (see Figure 1). Rees and Gregory (1981) speculated that for every 1 per cent of increase in the total unemployed there would be a proportionate increase of 1.7% among the youth labour force. In 1982/3, unemployment between the age of 16 and 24 was estimated at 25 per cent. Watts (1983) argued that massive youth unemployment posed vigorous challenges to the existing educational system. These included, firstly, the focus of orientation to

work which was restrained to employment and not self-employment, and secondly, the problem of the revision of the existing curriculum which was increasingly seen as narrow and irrelevant to students.

Table 1.2. The Growth of Unemployment 1978 - 1986

(Measurement by thousands)

	1978	1979	1980	1981	1982	1983	1984	1985	1986
Workforce	25 661	25 088	26 028	25 944	25 955	26 627	27 050	27 172	27 367
Unemployed	1 097	1 015	1 214	2 089	2 424	2 699	2 787	2 907	2 998
Approx. %	4.3	3.9	4.7	8.0	9.3	10.4	10.5	10.7	11.0

(Source: Department of Employment)

Concerning the function of orientating students to work, Gibb (1984) speculated on the 'bias within the education... (and career advisory services) towards an *employee culture*, that is preparing people for jobs that will be provided by somebody else' (Gibb, 1984, p.18). Kirby (1992) further argued that such a 'dependency culture' *conditions* young people to be dependent on job provision, which he claimed was 'out of phase with the needs of society in the last decade of the twentieth century' (Kirby, 1992, p.27). Watts (1983, 1984, 1987) agreed that a school careers service could no longer operate in the way that an industrial society had hitherto demanded, that is to introduce students to job opportunities where they were drastically reduced. He explained that while unemployment was structural rather than cyclical, the traditional concept of job and security needed to be replaced by a wider concept of work for the future.

The curriculum was heavily criticised for being examination-laden (Gibb, 1984; Burgess, 1985; Watts, 1983). In some cases, memorisation of facts became a proxy for appreciation of knowledge. Handy (1985) contended that while theories might have been adequately taught to the students, there was a lack of exercise in putting theories into practice. He then criticised the educational system as over-emphasising knowledge acquisition and facts memorisation and ignoring the development of skills such as creativity and interpersonal communication. This claim found support from many commentators (e.g. Raven, 1977; Watts 1983; Merson, 1996) who acknowledged that schools were put under so much pressure by public exams that educating their pupils to attain academic qualifications became their prime concern, while the fostering of personal and social development was relatively neglected.

3.2.1. Responses

It was against this background of unemployment, the lack of job opportunities and the challenge exerted on education that the notion of 'education for enterprise' developed. Watts (1983, 1984, 1986) suggested the potential for widening the concept of work by encouraging 'self-employment' which was under-nourished among other alternatives of work in careers education. Bridges (1991) and Gibb (1993) were particularly attracted to the 'attributes' that 'enterprise' denoted, such as self-reliance, flexiblility and ability to cope with uncertainty. Gibb (1993) further hypothesised that the concept of enterprise (e.g. ownership) expressed in the process of learning and its related simulated activities designed for classroom learning may help to reinstate the intrinsic motivation to learning as well as inculcate the enterprising skills and behaviours. Handy (1984) highlighted the notion of enterprise which conspicuously captures the importance of understanding business and industry in the light of wealth generation.

The Government's Agenda

'Enterprise education' began to capture the interest of government. Watts (1984) put a cautionary note on the emerging campaign for 'education for enterprise' as follows:

> "Any effective educational bandwagon has to capture the ideological wind of the moment, but not to be captured by it... We need to be clear about the contradictions within the current political climate between the encouragement of 'enterprise' and the repressive nature of much current policy in the education and training field." (p.6)

Coffield (1991) argued that 'enterprise' had become a vehicle for radical changes in education and training. Hyland (1991a) suggested that one of these changes has been the 'vocationalising' of the curriculum as revealed in the 1984 White Paper (DES, 1984):

> "It (vocational education) will enable many more people to be trained and improve their prospects of employment by placing greater emphasis on equipping them with skills that are currently required." (para. 41)

Wellington (1986) noted that focus of the government rhetoric on 'skill deficits' had changed from lower-level skills to the technical and professional level. In this way, he argued, the government tried to gain credibility of the rhetoric of linking skill shortages with unemployment. Henceforth, a work-related curriculum with heavy technical and

vocational emphasis became the remedy for the economic problem. Moreover, the concept of 'enterprising skills' provided the government with further grounds to attribute poor economic performance to the failure of education. According to Lord Young (Chairman of the MSC and then Secretary of State for Employment), the education system tended to suppress the entrepreneurial qualities in young people (Foreman-Peck, 1993).

Enterprise in Action (see Appendix 1)[3]

To promote work experience, SCIP and Project TRIDENT which started in the 1970s were annexed into a government funded promotion of enterprise. TRIDENT has become the main body for providing work placement services to students. In the early 1990s, one third of the placements around the country were arranged by TRIDENT. SCIP[4] had a wide scope for building partnerships between schools and industry. Both programmes focused upon active participation of industry in establishing a substantial work-related curriculum in schools so as to enhance enterprising life-skills in students (Jamieson *et. al.*, 1988). The Technical and Vocational Education Initiative (TVEI) [5] was launched in 1983 to influence the curriculum so that it might bear greater relevance to industry (Merson, 1991). Its objectives embodied a heavy technical and vocational element which were also aimed to enable young people to be effective, enterprising and capable.

The Mini-Enterprise in Schools Project (MESP 1985 – 1994) adopted a distinctive approach to business simulation for the purpose of learning. It assumed that students learnt their school subjects and acquired enterprising skills at the same time while engaging in the business activity. Creativity in Science and Technology (CREST) Awards was initiated in 1986. It linked up science- and technology-based school projects with the appropriate industries, so as to develop young people's practical understanding of industry, creativity and problem-solving skills. The Enterprise in Higher Education (EHE) initiative was launched in 1987 (till 1995/6) with the aim of producing enterprising graduates for the future workforce. The Teacher Placement Services (TPS) started in 1989 with the central theme of enabling teachers to better prepare school

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[3] There have been numerous enterprise initiatives generated during the establishment phase. In this thesis, the major initiatives relevant to mainstream education are included. These initiatives are grouped into three different models of enterprise education. (See Chapter 2 Section 4 for detailed discussions).

[4] Since the early 1990s, SCIP has been amalgamated with the wider Centre for Education and Industry. Its function remains unchanged although the scale of work has been considerably reduced.

[5] TVEI finished in 1990 and TVEI extensions started in 1990 and finished in 1994/5

students for employment and training by placing teachers in industry for a period of at least two weeks.

In addition to the above, the private initiatives, which are free from official obligations, articulated more clearly the importance of teaching and learning in their central aims and activities. The RSA Education for Capability (1980-1990) programme stressed the importance of self-management of learning adopting a behavioural model of monitoring. The aim of the initiative was to educate the capability for 'the day-to-day management of affairs, the formulation and solution of problems and the design, manufacturing and marketing of goods and services' (RSA, 1991, p.5). The Durham University Business School (DUBS) Enterprise Education Programme, launched in 1985, emphasised the process of learning in an enterprising way so that enterprising behaviour would be developed and the intrinsic motivation to learning maintained (Gibb, 1993).

The concept of enterprise at this stage have added breadth and depth to education and industry co-operation. In terms of provision, before the 'enterprise movement', the work-related curriculum mainly catered for students of school-leaving age. This expanded to cover primary, secondary and tertiary students in the 1980s. Teachers were also targeted. In terms of learning gains, the traditional practice of work experience was restricted to orientation (job sampling) and preparation for occupational skills. Enterprise, it was argued, have broadened the learning goals to place greater emphasise upon active and experiential subject-based learning and the acquisition of personal skills (Gibb, 1993; Harris *et. al.*, 1997).

In terms of pedagogy, various 'enterprise' activities have attempted to vigorously incorporate and promote progressive learning methods such as experiential learning and student-centred learning (Jamieson *et. al.*, 1988; Preece & Harris, 1988). Through these progressive learning experiences, enterprise promoters believe that enterprising behaviours will be enhanced within young people (Gibb, 1987,1993; Harris, 1990). The notion of enterprising skills was added to the narrow categories of literacy, numeracy and specific occupational skills of the 1970s.

The above account is based on the 'ideal type' image of what enterprise initiatives might be able to achieve (Martindale, 1963). Empirical evaluations are urgently needed to

assess their actual effect[6]. Nevertheless, the concept of enterprise seems to have attracted considerable enthusiasm and resources from various sectors to work towards education and industry coherence. The diversity of enterprise initiatives with multiple objectives of has become the ground for compromise and co-operation for some, but conflicts and confinement for others, in varying degrees.

The Debate

The concept of enterprise education has been attacked by some educators. Coffield (1991) and Bailey (1992) claimed that enterprise education was a political tool of the then ruling government. It was used as a smoke screen for their bankruptcy in policy to tackle the economic problems, making education a scapegoat. 'Enterprise', they believe, would foster a wrong impression in young people that unemployment is their own responsibility for lacking enterprising skills. According to Keep (1992), the fundamental problem lies in the incompatibility between the concept of 'enterprise' and that of 'education'. 'Enterprise', as seen by Hyland (1991), operates under a 'free-market economy' which values 'income generation' and 'input/output efficiency' that is largely antagonistic to the concept of education which has 'a public service obligation to provide a free service to all those who are legally entitled' (cf. Keep, 1992, p.52).[7]

The above claims reveal the overwhelming association of the term 'enterprise' with the Conservative Party political ideology of the 1980s and early 1990s heavily coloured by the business imperative which has warranted radical changes in the educational system. Jamieson (1989) once stated that commentators could look beyond the rhetoric and examine the contribution and drawbacks of school-industry cooperation. Jamieson (1989) admitted that there has been malpractice and that there is a lack of empirical research into the effectiveness of such cooperation. He argues, however, that there has been:

> "...a re-weighting of examinations at 16 to stress skills as much as knowledge; a new flowering of debates about pedagogy, and a reorientation towards student-centred, active and experiential learning; a broadening of the curriculum at 18; a new stress on the value

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[6] The evaluation of enterprise education to date is discussed in detail in Chapter 3 Section 4.

[7] Hyland (1991) and Keep(1992) here associate the term 'enterprise' with 'free-market force' which is then associated with those educational policies, such as the Local Management of Schools (LMS) and the Grant Maintained Status (GMS) delivered by the Education Reform Act 1988. These policies have met severe criticisms from the educational sectors as putting schools in the market place, violating the principle of the comprehensive system that takes care of the deprived as much as the ones who can afford it.

of co-operative education (sandwich courses, community education, education-industry partnerships)." (p.73)

He concludes nevertheless that:

"......one has to have proper scholarly reservations about many of these initiatives. If one scrutinises the practice rather than the rhetoric of many of them we will find them wanting." (p.73)

3.2.2. Summary

In this 'establishment' stage, the active involvement of industry in the school curriculum was more clearly evident. Enterprise aimed to enrich the traditional concepts of socialisation, orientation and preparation. In theory, schools and industry moved closer allowing, simultaneously, realism from experiential learning and better understanding of industry. This also helped to raise awareness of the need for innovation in the selection system (Jamieson, 1989). Considerable opposition remained, however, as a result of resentment towards the government's rhetoric. Occasional malpractice has also been reported which sharpened the prejudices (Bailey, 1992; Coffield, 1991). These reservations, in the light of lack of research evidence as to the effectiveness of enterprise education in achieving its multiple objectives in the long term, have been followed by scepticism as to its cost-effectiveness (Coffield, 1991).

3.3. Consolidation/Confinement Phase (1990s): A Central-Controlled Partnership

In the 1990s, the government has continued its radical reform of education and training. As a result, some aspects of enterprise education have apparently become more important in the curriculum concern. In 1990, Curricular Guidance 4 was issued introducing Economic and Industrial Understanding (EIU) as one of the statutory cross-curricular themes for the new National Curriculum. Again, the emphasis was that:

"With increasing economic competitiveness, ...the nation's prosperity depends more than ever on the knowledge, understanding and skills of young people. To meet this challenge pupils need to understand enterprise and wealth creation and develop entrepreneurial skills" (NCC, 1990, p.1).

"Education for enterprise means two things. First, it means developing the qualities needed to be an 'enterprising' person... Secondly, and more specifically, it means taking

part in small-scale business and community enterprise projects designed to develop these qualities." (NCC, 1990, p.2).

In spite of the persisting rhetoric, Blyth (1994), Craft (1994) and Saunders (1993) all commented that EIU had widened the scope for understanding the broad social and economic context for all students in comparison with vocational education which was specific and confined to certain industries and students of certain social groups.

A more radical change in education and training, however, came with the 1991 White Paper - *Education and Training for the 21st Century* (DES, 1991a, 1991b). This was yet another innovation driven by the desire to foster industrial effectiveness and national competitiveness. It was designed mainly to:

- promote equal esteem for academic and vocational qualifications, and clearer and more accessible paths between them by the introduction of General National Vocational Qualifications (GNVQ);
- extend employers' influence in the education system through increasing the power of Training and Enterprise Councils (TECs);
- stimulate more young people to training, through the offer of training credits;
- motivate young people to reach a higher level of attainment with the National Record of Achievement (NRA).

The White Paper brought mixed implications for the future development of education and training. The competence-based GNVQ was established to bring about a balance between knowledge and skills. Some commentators consider this a triumph for the enterprise education campaign which advocates such balance. The equal access of students from both academic and vocational paths resembles Handy's (1984) 'many faces of success'. The concept of 'core skills' widely used in various enterprise schemes, especially 'communication skills' and 'learning how to learn', has been adopted into the GNVQ. However, Hyland (1991a, 1992), one of the major opponents, disagreed with the claim that GNVQ was a form of 'competence-based learning' which was said to be superior to the traditional approach to learning which was confined to 'knowledge acquisition'. He argued that the definition often given to 'competence' meant no more than performance or behaviour which was made to fit in with a checklist of criteria reference[8].

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[8] The adoption of the functional analysis in the form of reductionistic or atomised criteria reference has been widely criticised as narrow in specification and inappropriate for capturing the concept of competence, despite its transparency and accountability in terms of managerial ease (see Jones & Moore, 1995; Stewart & Sambrook, 1995).

Moreover, the White Paper took the role of education and business partnerships very seriously. In the White Paper it was stated that "at least half the members of polytechnic and college governing bodies, now represent the interests of local employers or professional groups" (p.30). Chitty (1993) cast doubts regarding the possibility that community responsibility meant a shift of responsibility from Government to industry (Chitty, 1992; Coffield, 1991). The White Paper delegated most of the power from the Local Education Authorities (LEAs) to the TECs. The LEAs retained their advisory function while the profit-oriented TECs took control of allocating funding and management. Since the partnership was steered and maintained by the statutory White Paper, Chitty (1993) warned that these centrally controlled partnerships would allowed the government to delegate *more* of its responsibility for education and training to industry. Such a measure might lead to danger of the increase of non-professional people (representatives from industry) in charge of education and training.

It seems logical to assume that decentralisation means that the partnership is autonomous with minimised bureaucracy so as to maximise flexiblilty and effectiveness when responding to local needs. Gleeson (1993) however warned of the danger of education and training being led by industry with the tendency to react to the precarious demands of outside market forces and thus losing sight of long term curriculum planning and quality provision. Gleeson (1993) urged the government to give a clear indication as to how the balance between a national focus and local demand could be achieved.

Ashton (1993) also claimed that the lack of government proactive intervention would mean a tendency for British industry to continue to go down the path of the labour intensive low value added production which would result in a marginalised youth labour market marked with sporadic unemployment. Rees (1997) cautioned that a 'vicious circle' of low skills would obstruct the economic regeneration of poorer regions (e.g. Wales). For education and training to get caught in industry's agenda would only lead to precarious short-term relevance and long-term inflexiblity that is counter-productive to both partners. In some cases, a wrong message has been sent to local employers that training and re-training is the responsibility of education. Rees (1997) and Stasz (1997) reported that neglect of on-the-job training and re-training was evident. These commentators (Ashton, 1993; Gleeson, 1993; Rees, 1997) believe that to ensure mutual benefit, i.e. a holistic development of the individual's capacity and hence competitiveness

in the global market, a *coherent* policy guided by proactive governmental leadership and appropriate intervention to regulate the partnership is necessary.

In the respect of the motivation of young people to take up training opportunities and 'aim high', the White Paper argued that GNVQs would encourage students to actively participate in planning and managing their own learning at their own pace. With the help of the National Record of Achievement (NRA) and the commitment of employers to learning, this would create a spirit of continual learning beyond school. This agreed with Handy (1989), an enterprise promoter, who suggested that the way to cope with living in a post-industrial society characterised by discontinuous change was to acquire a more fundamental competence, that is to learn how to learn.

On the contrary, Grubb and Lazerson (1981) questioned the effectiveness of using vocational education as a means to motivate learning. They drew attention to the problem of increased credentialism that vocational education could bring which in return would restrict employment. Moreover, this might aggravate the problem of under-employment (Murphy, 1991). As the labour market has been increasingly influenced by the ruling elite and the business elite, unless 'coherent policies are made to mediate the impact of the new forms of production… which demand a high level of conceptual and social skills as well as technical knowledge and… the prospect of continuous learning*' (Ashton, 1993, p.21), training policy of this kind will create more problems than it can solve.

In theory, NRA accompanying GNVQ could potentially monitor and reinforce continuous learning and enhance self-confidence (Broadfoot, 1991). However, the Dearing review in 1996 showed that, after half a decade of promoting NRA, nearly two thirds of employers did not use it and considered it as lacking real substance and rigour (Spours & Young, 1996). Halsall (1997) also warned that NRA might further deepen the gap between the high-achievers and the low-achievers which would only discourage the latter group further.

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* Note that although Handy (1984) and Ashton (1993) share different heuristics towards the implications of the White Paper (1991), they conclude with one same crucial factor, i.e. learning ('learning how to learn' and 'continuous learning').

3.3.1. Implications for Enterprise Education

The changes noted above have embodied somewhat ambiguous messages that are open to interpretation. How enterprise education may be located among all these changes is a challenge to enterprise promoters. GNVQs have so far received more public criticism than appreciation. To put GNVQs in a parallel place to the traditional academic A-Level route surely 'requires a major cultural change in our attitudes towards further education and training' (DES, 1991, p.4).

Hyland (1992) summarised the problems with the rationale of vocationalising education:

> "...it is high time that educators exploded the myth that declining economic performance is caused solely by ill-equipped school leavers and instead addressed the structural problems and weaknesses of the system. One of our chief problems in comparison with other European countries is the failure to provide a 'good general education covering both technical subjects and humanities'. The remedy, therefore, is not more of the failed vocationalism and narrow skills training of the 1970s and 1980s, but the re-assertion of the importance of a general liberal education for all pupils." (p.75)

Various researchers, for or against enterprise and vocationalism, have predicted that instead of equalising the status between academic and vocational paths, GNVQ and the policy of a market-driven further education would intensify the polarisation of schools towards academic orientation or vocational orientation (Miller *et. al.*, 1991; Gleeson & Hodkinson, 1995; Spours & Young, 1996; Hodkinson, 1998). So far, GNVQs have been accepted by universities. However enrolment of GNVQ students is mainly restricted to 'low status' subjects. Schools which perform well tend to attract the academically able students for the A-Level track whilst schools which have a less academic record tend to attract students for the GNVQ track (Hodkinson, 1998). Miller *et. al.* (1991), speculated that those enterprise initiatives which have a strong work-related nature (e.g. SCIP's work experience programmes) might be pulled to the vocational end.

Although EIU has been given some prominence as an instrument of 'enterprise education' in the main body of the National Curriculum, in practice it has only been relegated to very low status under the pressing weight of the subject orders (Merson, 1996). Likewise, most enterprise simulation activities (e.g. Young Enterprise) are kept in the marginal 'bolt-on' extra-curricular time-table. It would be those enterprising learning activities which are integrated into traditional academic subjects that would be able to

maintain a central position within the curriculum. Time constraints, however, might limit their application in everyday teaching and learning.

Nevertheless, it has been argued that the GNVQs have provided a significant first step, though inadequate, towards the elevation of the vocational status and the improvement of the quality of training by opening university opportunities (Spours and Young, 1996). To promote the identity of vocational education as distinctive but not discriminative of the academic route, the Dearing proposals suggested increasing flexibility and transferrability by introducing an Advanced Diploma to bridge the gap between GNVQ and A Level (Dearing, 1996). Whether any successive structural innovations would give more space and scope for work-related education would depend on three main factors:

1) A fundamental change of attitudes which value and demand quality learning;
2) A recognition of the importance of social, personal and cognitive development for a rounded individual;
3) A proof of the effectiveness of such education in delivering quality learning and personal development.

Awareness and pressure in favour of the first and second factors are rising as many commentators, e.g. Ashton (1993), has pointed out that the only effective way of providing quality recruits for industry so as to increase economic performance, is quality education and training. Concerning the third factor, more vigorous research evidence has been urgently called for (Harris, 1993a).

3.3.2. Summary

Table 1.3. below summarises the change of the relationship between education and industry through the development of enterprise education from the late 1970's onward. It can be argued that enterprise education has improved both the quantity and quality of the involvement of industry in education. Various commentators (e.g. Harris *et. al.*, 1997; Seltzer and Bentley, 1999) have argued and demonstrated the importance of work-related learning for the mutual benefit of education and industry. Students have probably benefited from a widened socialisation with adults other than teachers. Their aspirations to learning and work are reported to have been broadened. The GNVQs have opened the gateway to equal status in university selection for different career inclinations. Seltzer and Bentley (1999) urge that government should hasten the pace for industry to move

from the peripheral of job preparation to the core of curriculum planning in the form of *partnership* by sharing the responsibility for education.

Table 1.3. The Three Phases of the Development of Enterprise Education

Periods	Late 1970s	1980s	1990s
Socio-Economic Background	Decline of manufacturing industry	Massive youth unemployment	Unemployment remains high
Major Government Interventions	• Great Debate	• White Paper 1984 • Education Reform Act 1988	• EIU 1990 • White Paper 1991
Enterprise Initiatives* (& Related Gov't Policies)	SCIP, TRIDENT	TVEI, MESP, CREST, EHE, TPS; RSA, DUBS	(EIU, NVQ, GNVQ, NRA)
Coverage	• 14-18 year olds	• 5-19 year olds • university students • primary & secondary teachers	• entitlement to all 5-19 year olds via EIU • university students • pri. & sec. teachers
Models Concerning Learning	Work experience	- Work experience - Business simulation - Enterprising modes of learning	- Learning society - Life long learning
Industrial Involvement	Peripheral to curriculum	Active in curriculum	Active partner in curriculum planning
Impact on Education	Orientation Preparation	Socialisation Orientation Preparation	Selection Socialisation Orientation Preparation
Relationship between Education and Industry	Better mutual understanding	Mutual benefits	Mutual responsibility in education

*TRIDENT, CREST, TPS, RSA and DUBS are on-going while MESP finished in 1994, TVEI in 1994/5 and EHE in 1995/6. SCIP has been amalgamated into the Centre for Education and Industry in 1993/4 and its function still carries on although in a considerably reduced scale. EIU, NVQ, GNVQ and NRA are not enterprise initiatives as such but they are government policies which are said to be related to the development of 'enterprise'.

4. Conclusion

It can be argued that the 1990s have seen the change of relationship between education and industry from dichotomy to synthesis. The tightened partnership may potentially

create a favourable condition for life-long learning (Watts, 1993). Evidence can be drawn from various initiatives which have demonstrated a growing accentuation on 'learning'. For instance, after Education for Capability, The RSA's new project for the 1990s and Coffield's research series (1994) are both called 'The Learning Society'. Merson (1991) observed that at the last stage of the development of TVEI, its vocational element was reduced and there was an increase in emphasis on establishing TVEI as a learning model. The latest Dearing reports have been collated into a series entitled 'the learning age' (Dearing, 1996, 1997). Approaching the new Millenium, *quality learning* is the theme which requires a relevant, coherent education and training policy.

While acknowledging the contribution of such partnerships to learning and mutual understanding, the potential problem of the partnership, which presumably has shown a tendency of industry to dominance, requires scrutiny. The caution seems to be that enterprise education runs into the danger of being associated with narrow vocationalism (cf. Bailey, 1992). Watts (1984) suggested that for the enthusiasm of enterprise education to continue, it has to be close to the core of the curriculum. The vehicle of enterprising learning is therefore particularly relevant and crucial. In order to establish its status in mainstream educational practice, the concept of enterprise education would need a major conceptual underpinning so as to form an 'organic connection' with the main part of the educational system. This is the topic of discussion in the Chapter 2.

Chapter 2

Enterprise Education – A Conceptual Inquiry

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1. Introduction

The review in Chapter 1 reveals that the concept of enterprise education remains contentious within the academic community. At the root of this contention is the conceptual confusion which has hindered the promotion of enterprising learning in schools (Francis, 1991; Jamieson, 1991; Iredale, 1992; Cotton, 1993; Gibb, 1993). This chapter explores the basis for this conceptual dispute. The principles of discourse analysis are applied to analyse the dispute (Foucault, 1971; Potter & Wetherell, 1994). A dialectical view is then taken in an effort to recapture the original meaning of enterprise education.

This thesis argues that enterprise education can be taken to denote a distinctive approach to teaching and learning with the ultimate goal of developing enterprising attributes in young people (Gibb, 1993; Gibb & Cotton, 1998). It is important that this conceptual refinement is undertaken as it provides the foundation for the main thrust of this research and the development of an appropriate methodology for the identification of an enterprising learning approach and the measurement of enterprising attributes.

The chapter will explore the issue by firstly looking at the 'original' meaning of 'enterprise' in the standard dictionary sense. The lexical definition is used as a yardstick of the original meaning of enterprise as it refers to the general understanding of the term before it was widely incorporated into education. Different meanings associated with it by the enterprise promoters (protagonists) and the opponents (antagonists) are contrasted and scrutinised. Discourse analysis points out that both views are to some extent biased. The dialectical view of enterprise education reveals that the protagonists' understanding of enterprise education found substantial support from other social groups – teachers and students, while some of the antagonists' criticisms are valid and justified. Finally, the thesis attempts to recapture the concept of enterprise education drawing from the experience gained through practice and constructive criticism.

2. Concept and the Social Construction of Meaning

Vygotskii (1965) explained that a concept encapsulated into a noun, or a noun phrase, contained the generalisation of meanings of which the word(s) became a symbolic representation. Such meaning(s) evolved socio-linguistically[1]. Fullan (1991) explained that given the political high ground attached to educational policy making, the process of the social construction of meaning in education is even more complex and subtle, full of unstated underlying assumptions. The concept of enterprise, as it entered the socio-political arena of discourse in education, has undergone the same process of constructions in meaning among the various social groups at stake, namely the academics, the politicians, the teachers and the students.

Francis (1991, p.28) demonstrated that the enterprise discourse has been characterised by escalating debates to the extent that the enterprise specialists have been exhausted by the attempt to 'purify the meaning'. Gibb and Cotton (1998) also observed that the concept of enterprise has been interpreted by policy makers and academics in many different ways. This thesis suggests that discourse analysis offers a powerful tool to identify the source of conflict of the conceptualisation of enterprise (Foucault, 1971; Potter & Wehterell, 1993).

Bruner (1990) claims that however ambiguous and polysemous a discourse may be, it can still be brought into the public domain to negotiate its meanings. In order to interpret meaning and meaning-making in a principled manner, the structure and coherence of the larger contexts in which specific meaning are created and transmitted has to be clearly laid out. This involves the reorganisation of the process of the social discourse. Some repetitions of the contextual understanding as set out in Chapter 1 are inevitable as a result. Given that the source, the principles and the continuity of the discourse are re-discovered in an objective manner, this thesis argues that the debate in enterprise has been necessary as a step towards clarifying the concept for its future development and contribution towards education.

3. The Original Meaning of Enterprise

The Oxford Dictionary (1984 Edition) offers the following meaning for 'enterprise':

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[1] For instance, the word 'green' originally means the colour. In the social context since the 1980s, the meaning has taken to denote an environmentally friendly attitude. Hence, the social construction of meaning such as 'Green Peace', 'Going Green'.

"1. Undertaking, especially one that needs courage or that offers difficulty.
2. Courage and willingness to engage in ~s (1). *We need a spirit of ~ if we are to overcome our difficulties. He is a man of great ~.*
3. Carrying on of ~s (1); *private ~ versus government control of commerce and industry; free ~*"

The original lexical meaning of enterprise from the dictionary definition shows that the concept of 'enterprise' is first and foremost related to a generalisable set of desirable attributes as depicted in **(1)** and **(2)**. The third meaning **(3)** denotes the association with *'commerce and industry'*. Johnson (1988) categorised the two major aspects of enterprise into the 'attributional' conception **(1 & 2)** and the 'functional' conception **(3)**. Johnson's terminology, though simplistic, helps to illuminate the discussion in the sections below.

4. Enterprise as Conceptualised in Education

4.1. Initial Conceptualisations

Explorations of early writings of those 'promoters' investigating the role of enterprise in enriching the existing educational practice in the early 1980s, reveals that enterprise was seen as a fluid concept with different individuals accentuating different aspects of the original meanings (e.g. Gibb, 1984; Handy, 1984; Jamieson, 1984; Watts 1984). Few attempts were made to conceptualise the phenomenon concretely.

Watts (1984) did not define the concept of enterprise as such but classified two groups of activities related to 'education for enterprise'. The first group focused on the 'implementation of enterprise'. Its chief activities were designed to help youngsters to set up their own business and manage it. The second group emphasised 'planting the notion' of self-employment in young people at school so as to increase the incidence of business start-up after a period of 'incubation' (Watts, 1984, p.3). These 'enterprise' activities were also an important vehicle for acquiring certain life skills. Watt's proposition of enterprise was evidently functional in nature. The notion of enterprise implying self-employment was narrowly extracted from the original lexical meaning for the purpose of widening the existing concept of orientation in careers education. The attributional conception was only crudely touched upon as 'life skills'.

Handy (1984) associated enterprise with the idea of wealth generation which would be the result of self-employment and understanding business. Again, the attributional

definition of enterprise was largely left unexplored. Arguably, 'self-employment' and 'wealth generation' were common implications of enterprise. Unfortunately, a dominant functional conception such as this has created a narrow association of enterprise education confined to the 'business imperative'.

A more comprehensive conceptualisation of enterprise education was expounded by Jamieson (1984). He theorised the role of enterprise in education into three models, namely 1) education *for* enterprise; 2) education *about* enterprise; and 3) education *through* enterprise.

1) "Education for enterprise" highlighted the fundamental objective of some initiatives in helping the formation of business through direct training.

2) "Education about enterprise" emphasised the importance of an improved understanding of business and industry in the light of preparing young people for working life.

3) "Education through enterprise" embraced the idea of developing life skills such as problem solving skills, social skills, team work, etc., through enterprise activities and/or learning in an enterprising way, such as 'learning by doing' and student-centred learning. This last position focused on the learning process.

Jamieson's definition has extended the understanding of the concept of enterprise from self-employment and understanding industry to the learning process which was said to enhance the development of life skills. Although Jamieson's idea of life skills was more elaborated upon than that of Watts', the notion of *life skills* was arguably too vague to reflect fully the generic *attributional* definition of enterprise as revealed in the original lexical understanding. Furthermore, the exploration of the important link of enterprise with mainstream education remained weak as the learning activities exemplified were mainly conducted in the form of work experience and business simulation projects in schools (e.g. MESP). These activities were restricted to careers education and extra-curricular activities which were merely optional and peripheral to mainstream subject learning.

Gibb's early conceptualisation of enterprise education (1984, 1987) stemmed from the concept of entrepreneurship. Entrepreneurship, according to Gibb, was defined according to two propositions. The first proposition was closely, but not exclusively, connected with self-employment as entrepreneurship existed in a variety of occupational contexts (Gibb, 1987). This resembled the 'functional' aspect of the original lexical semantics. Gibb (1984) acknowledged that this aspect of enterprise remained a contentious subject within the teaching profession:

> "This is a contentious subject, cutting across the rightful boundaries of vocational and non-vocational education, the indoctrination of pupils by teachers in terms of transferred value systems and beliefs (the objectivity of education), the degree to which the needs of industrial society should be met by the education system... It would be controversial to suggest that teachers should seek to inculcate the principles of independent business into the minds of their pupils."
>
> (Gibb, 1984, p.17)

Gibb's second proposition captured the attributional aspects of the original definition of enterprise. The pertinent entrepreneurial[2] attributes such as independence, initiative, creativity and flexibility overlapped remarkably with the aims of education dedicated to personal development (Bridges, 1992; Gibb, 1984; Gibb & Cotton, 1998). Enterprise, seen in this perspective, is a 'natural element' of education, rather than a bolt-on foreign concept alien to the whole. Gibb (1984) explained that to effectively inculcate these 'desirable' attributes, 'it is through teaching method and style rather than through content' (Gibb, 1984, p.17). The emphasis on the appropriate pedagogy, later conceptualised as 'enterprising learning' (Gibb, 1993), has been exhibited in the Durham University Business School's series of publications of teaching materials disseminating enterprise in schools (DUBS, 1999).

From the initial conceptualisations shown above (Handy, 1984; Jamieson, 1984; Gibb, 1984; Watts, 1984), idiosyncratic elaborations on different aspects of enterprise, albeit based upon the original lexical meaning, indicated an absence of a unitary, prescriptive concept. Watts suggested that the apparent absence of an authoritative concept at the initial stage of development, has incidentally left open the gateway for the promulgation of a range of 'enterprise' activities (Bridges, 1992; Watts, 1989). Bridges (1992) quoted from the Employment Department that,

> "...there are many definitions of enterprise... institutions tend to define enterprise in ways that reflect their values and traditions ." (cited in Bridges, 1992, p. 92)

The very openness of the interpretation of the fundamental concept of enterprise as set out by the above writers has encouraged self-initiative in attaching meanings linked with individuals' experience. Much autonomy was allowed for individual communities (e.g. schools, university departments, organisations) to converse, share, define and finally implement and reflect upon the concept and the subsequent activities developed to meet individual needs (Watts, 1989). Indeed, the idiosyncratic

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[2] Notice the change of language from 'entrepreneurial' attributes (Gibb, 1984) into 'enterprise' attributes (Gibb, 1987) and 'enterprising' attributes (1993). Signifying the same property of attributes, the nomenclature indicates the effort of minimising a narrow association of these attributes to a particular functional/occupational context.

conceptualisation of enterprise has effectively allowed a great variety of activities to flourish under the banner of enterprise as discussed in Chapter 1.

On the other hand, the lack of tightly defined meanings has caused conceptual problems as Bridges (1992) pointed out:

> "...the concept is so fluid, and so centrally placed in shifting political tides, that it barely sustains much finer attempts at analysis." (p.92)

The free association of the concept adds to the problem of achieving a 'settled meaning' and leads to the problem of the concept becoming almost tautological (Bridges, 1992; Coffield, 1991). Worse still, enterprise was widely decontextualised and adopted by the Conservative government in the 1980s and early 90s to become associated with simplistic market-oriented, competition-driven management of education and training (Gibb, 1987; Hyland, 1991c; Keep, 1992). Enterprise became a currency to legislate radical changes in education, some of which were repressive and ironically anti-enterprising in nature (Coffield, 1991; Gibb, 1987, 1993; Watts, 1984), and which have stirred strong resentment within the education sector among *both* enterprise antagonists and protagonists.

Simultaneously, the growing amount of public funds invested in promulgating enterprise education was an important factor in the rapid development of enterprise initiatives in the 1980s (see Chapter 1 Section 3.2). Due to the polysemous associations of enterprise, fanned by political rhetoric in which enterprise is largely skewed to the functional definition of self-employment and wealth generation, enterprise education was degraded by antagonists as producing future entrepreneurs. Critics pointed out that the government had used 'the lack of enterprise' as a smoke screen for policy bankruptcy in dealing with the changing economic structure and unemployment (Bailey, 1992; Coffield, 1991; Hyland, 1991c). Consequently, they refuted the compatibility between enterprise as a whole and education.

4.2. Conceptual Refinement

In the face of the growing politicising of the meaning of enterprise skewing to the Conservative government ideology in the 1980s, critics have mounted demands for more concrete conceptualisation in order to maintain the original intention and integrity of the role of enterprise in the educational context (e.g. Caird, 1991; Bridges, 1992; Gibb, 1993).

Caird (1991) argued that enterprise represented a constellation of desirable elements for education and training which made the concept independent from any political convictions. The desirable elements were generic aspects which underpinned the practice of various enterprise education initiatives. These were summarised as the following (Caird, 1991, p.51):

o   participant centred

o   more skill than knowledge based*

o   applied not academic*

o   teacher as facilitator

o   interest in business activity

o   role of participant is active

o   emphasis on learning through action

o   project/business set up and management skills

Caird's categorisation highlighted some of the important characteristics which were shared among enterprise initiatives. However, such categorisation was too vague to illuminate the concept and too loose in structure to reflect its practice. Debatably, the categories marked with an asterisk* were not universally agreed. Stating false dichotomies such as '*more* skill than knowledge based' and 'applied *not* academic' has been a common error made by most enterprise promoters and has been heavily criticised (Coffield, 1991; Phillips, 1996; Thompson, 1984). Thompson's criticism (1984) of the RSA's Campaign for Capability reveals the problem of this kind of postulation. While acknowledging the achievements of the campaign, Thompson explained that it

> "misuses global concepts, postulates false dichotomies [particularly between knowledge and skills], conflates distinct issues and thus leaves itself open to a wide range of interpretation... the language of capability and skills does more to obscure than to enlighten the enterprise" (p.211)

4.2.1. The Conceptual Link between Enterprise Education and Liberal Education

According to Bridges (1992), the concept of enterprise education needs to be built within the solid, established philosophical framework of liberal education. He suggests that enterprise education finds a conceptual root in the philosophy of liberal education in that its objective of 'developing *enterprising individuals*' contains the 'liberating element' i.e. 'to equip people to make their own free, autonomous choices about the life they will lead' (p.92). Such a high degree of autonomy and independence has been expressed in various aspects of enterprise education:

"In terms of *pedagogy*, it means allowing more scope for independent, flexible and open learning...
In terms of *curriculum*, it means allowing more scope for a negotiated curriculum...
In terms of *assessment*, it means engaging students in self-assessment and a continuing awareness of their own development as an integral part of the curriculum." (Bridges, 1992, p.93)

Bridges (1992) further suggests that enterprise education has extended the philosophy of liberal education by stressing the development of *enterprising organisations.* According to Bridges (Bridges, 1992, p.93), enterprising organisations are capable of creating and responding creatively to new demands, sustaining and supporting the energy and initiative of all their staff through reduced bureaucracy and hierarchy. Subsequently, enterprise education has promoted the importance of '*a wider understanding of and appreciation of enterprise* as a component of social and economic life'. Enterprise, Bridges explains, 'means what is involved in the successful running and development of an organisation which has to attract income, market its product or services and take responsibility for its own financial health...including under the Local Management of Schools initiatives, schools.' (Bridges, 1992, p.94).

In a broad sense, Bridges' attempt to locate enterprise education in the realm of liberal education is ontologically useful and meaningful. He has successfully extrapolated the distinctive features of enterprise education systematically within the standard educational framework in terms of pedagogy, curriculum and assessment. How these features are designed for the enhancement of enterprising attributes which are in line with liberal education has clearly been established. However, the way in which he has connected enterprise education with education management (LMS in a market-driven environment) has invited serious criticism. Bailey (1992) contends that Bridges' argument lacks alternative views showing the 'negative side of free enterprise society' (p.102) and thus leads the concept of enterprise towards becoming indoctrinatory instead of being liberating. Bailey writes,

"A modern liberal education would certainly include some study of a free-market economy. However, alternative systems and alternative motivations to those of profit and selling would need to be understood as well. Also to be understood, as apparently inescapable aspects of a free-market economy, would be those frictional elements like unemployment, recessions, failure and bankruptcies of enterprises, the consequences of encouragement to borrow, gross inequalities of wealth and power – and so on. These are all undeniable parts of the free-market picture; to ignore them is grossly indoctrinatory."   (Bailey, 1992, p.102)

Bailey regarded Bridges' conceptualisation of enterprise education as 'glossing over ambiguities, and ignoring the force of the social and political context of the whole' (p.100-111).

4.2.2. The DUBS' Conceptual Refinement of Enterprise Education

Gibb (1993) has, *a posteriori*, further concretised the concept of enterprise education presented by the Durham University Business School scheme into a detailed semantic model of 'enterprising learning' (see Chapter 4 for details). Through substantial research, he has observed the self-initiated enthusiasm in learning expressed by small business owners and the subsequent enterprising attributes nourished through the zest in learning about their own business. 'Enterprise' thus gives rise to the rationale of enterprising learning characterised by the sense of ownership and holistic task structure in classroom learning.

The model is built upon fundamental educational ideologies (e.g. liberal education and progressive pedagogy) and supported by the continual development from the initial conceptualisation of enterprise since the early 1980s, and has been tested 'at a casual empirical level' (Gibb, 1993, p.26). Experience gained from working with over a thousand teachers from a wide range of subject areas, alongside companies and education advisors and specialists, through the process of developing, testing and disseminating enterprise materials with large numbers of schools (Cotton, 1991) has helped to refine the theory. Gibb firmly reiterates the uniqueness of the enterprising learning model which has captured the major twin objectives, that is:

> "...to help develop enterprising people and, in particular, to inculcate an attitude of self-reliance (Cotton, 1990) through the 'process' of learning (p.13) ...And perhaps more importantly in the formal education context, the student will arguably gain, via this process, greater insight into the knowledge being pursued (p.23)."   (Gibb, 1993)

4.3. Summary

Evident in the process of conceptualisation of enterprise *in the educational context* is that enterprise education is an evolving concept with polysemous meanings which have subsequently led to different contexts of development. In recent years, the

convergent central theme of developing enterprising individuals through enterprising learning strategies has emerged from the different areas of development under the banner of enterprise education. Noticeably in school contexts, the attributional aspect of the original lexical meaning has been elevated in the 1990s replacing the functional dominance of the early 1980s. The then prevalent government rhetoric highlighting the functional definition had largely been filtered out in the process of implementation of enterprise in schools. The pursuit of the educational goals of enhancing enterprising attributes and motivation to learning has been evident in much of the individual practice (e.g. Clerk, 1991; Leckey & Neill, 1996; Luby, 1995; Matthews, 1990).

In spite of the progress in conceptualisation, there remains several confusions relating to the underlying assumption of the concept. The next section closely examines criticisms of the concept of enterprise education. This thesis suggests that some of the criticisms are in fact helpful and essential for improving the concept and implementation in future development.

5. Antagonists' Conceptualisation of Enterprise Education

So far, the opposing views on enterprise education have been presented largely in a temporal context. In this section, despite some inevitable repetitions, these criticisms are summarised in order to provide the basis for a more focused analysis. There have been eight major criticisms on the concept of enterprise education as follows:

1. Enterprise is perceived by antagonists as centrally located in a free-market economy where the 'management' perspective dominates educational policy and decision-making with its emphasis upon input/output efficiency and the pursuit of economic goals and material wealth (Hyland, 1991c, Keep, 1992; Ritchie, 1991). This makes the concept of enterprise appear to be incompatible with that of education which is a social entitlement for all, not a commodity to be marketed.

2. Enterprise introduced into education, under the rhetoric of 'understanding industry' and 'the world of work', inflicts the narrow mission of producing future

entrepreneurs and vocationalising the curriculum (Hyland, 1991c, 1992). Education has been blamed for fostering a 'dependency culture' which is largely anti-enterprising and has resulted in unemployment and exacerbated the nation's economic problems. According to some critics, enterprise has helped promote the fallacy that it is individuals' 'lack of enterprise' rather than the government's bankruptcies of policy in dealing with a rapidly changing economy that is the root problem (Coffield, 1991; Bailey, 1992). Coffield (1991) comments that 'enterprise tends to be viewed (e.g. by Gibb, 1987) as an individual attribute and both structural factors and local economic conditions are ignored' (p.68).

3. It is argued that the lack of scrutiny of the pros and cons of the concept, and the failure in providing alternative views (especially negative implications) concerning enterprise when disseminating enterprise in schools is grossly indoctrinatory. Some enterprise critics agree that understanding industry, widening orientation and wealth generation are important aspects of education (Bailey, 1992; Hyland, 1991a). What they criticise is the over-emphasis of these aspects as if they are *the* chief goal of education. Bailey (1992) stated that liberal education does acknowledge the importance of understanding the wider social and economic context of life. However, his criticism is that enterprise education only offers a biased glossy picture of enterprise, its negative effects are totally omitted.

4. It is also argued that the concept is not tightly defined or universally agreed (Coffield, 1991; Ritchie, 1991). According to Coffield (1991), 'the plethora of organisations and initiatives has created an over-abundance of competing definitions and contrasting lists of different enterprise skills or attributes' (p.64), and that the different usage of the word 'enterprise' signifies tautologies.

5. Subsequently, enterprise is seen as not being an epistemologically sound concept as a basis for embracing the idea of generic and transferable enterprising skills, attributes or behaviours (Bailey, 1992; Coffield, 1991; Thompson, 1984). For instance, using Coffield's analogy (1991), it is questionable whether a generic enterprising skill can be distilled or ascribed from both a successful enterprising businessman and a brave enterprising fireman.

Similarly, being enterprising or capable without a context is said to be meaningless (Bailey, 1992; Thompson, 1984). Thompson (1984) suggests that it is impossible to attribute a common quality of capability to, for example, a capable administrator and a capable motor mechanic. Bailey (1992) claims that being 'enterprising' is not an absolutely desirable virtue, particularly when 'enterprise' has been closely associated with 'the enterprise society' which is not absolutely virtuous. In other words, educators need to consider 'what it is we want [students] to be enterprising about and what it is that we definitely do not want them to be enterprising about'.

6. False polarity between skills and knowledge is ubiquitous in the promulgation of enterprise education. Knowledge has been conventionally regarded by enterprise advocators as inert information, and skills, active application which constitutes experiential learning (Thompson, 1984). Henceforth, the emphasis of *skills* over *knowledge, process* over *content* to be learnt, (knowing *how* is more important than knowing *what)* has caused a serious modal imbalance in learning which has contributed to falling levels of educational standards (Phillips, 1996). Moreover, the reductionistic approach to the measurement of enterprising skills is widely criticised for leading the concept of enterprising skills into examples of atomised triviality (Coffield, 1991; Hyland, 1991a; Jones & Moore, 1995; *cf.* Stewart & Sambrook, 1995).

7. Some educationalists claim that the concept of enterprise education is no new departure but a mere usurpation of traditional educational ideas. Francis (1991), having investigated the perceptions of enterprise in educational contexts, concludes that,

> "It appears to many educationalists that enterprise enthusiasts are re-articulating experimentalism, progressivism and the value of liberal education... which were the subject of much discussion in the 1970s and earlier. The enterprise movement, therefore, is perceived as treating educational history lightly. It makes little reference to familiar conceptual frameworks from psychology or sociology. Its actions, however, have been effective – the notions of 'being enterprising' and providing 'enterprising education' are beginning to permeate educational experience even though the enterprise language may have been rejected."
> (p.32-33)

8. There is a lack of empirical support to show that enterprise education has been effective in achieving its objectives (Bailey, 1992; Coffield, 1991). Bailey (1992) claims that the enterprise educators' advocacy of the inculcation of generalisable and transferable skills through discovery learning, problem-solving and experience-based learning finds little research evidence to support its results.

Points 1 and 2 show that antagonists' conceptualisation of enterprise education is centrally placed within the political manipulation of enterprise rather than its original lexical semantics. Point 3 refers to the criticism of a biased implementation ignoring the political implication embedded in the concept. Points 4 to 8 directly refer to the conceptual inadequacy of enterprise education. The extent to which these criticisms are valid and constructive is investigated in the next Section.

6. A Dialectical View of the Concept of Enterprise Education

In order to reach a dialectal understanding of the concept, the method of discourse analysis is employed (Potter and Wetherell, 1994). First of all, the discursive organisations of the two views are reconstructed to enable an investigation of the distinct systems of 'interpretative repertoires' utilised for the presentation of arguments (Foucault, 1971). Cross references, i.e. the conceptualisation of enterprise education among other social groups, are used to examine the credibility and accountability of the two views across contexts. The result of the analysis suggests that unexplained biased assumptions exist on both sides. Some of the antagonists' criticisms are in fact valuable and constructive in refining the protagonists' conceptualisation for the future development of enterprise education.

6.1. Discursive Organisation of the Conceptual Debate

6.1.1. Contrasting Contexts

Figure 2.1 below illustrates the contrast between the 'promoters' and the 'antagonists' view of enterprise education: it demonstrates the basis for the chasm in the putative

realities and indicates how the disparity of underlying assumptions concerning the concept stems from different stages of the construction of meaning.

Figure 2.1 The Process of Conceptualisation of Enterprise Education


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                        ┌─────────────────────────────────────────┐
                        │            Original Meaning              │
                        │           (lexical semantics)            │
                        │ Attributional: courage, initiative,      │
                        │   imagination, etc.                      │
                        │ Functional: private enterprise           │
                        └─────────────────────────────────────────┘

                      Advocators'  Conceptualisation
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Self-Employment	Wealth Generation	Entrepreneurial Attributes
inculcating and incubating business start-ups (education for enterprise)	understanding industry & business start-ups (education about enterprise)	enhancing initiative, creativity, imagination & flexibility, etc. (education through enterprise)

Political Manipulation

Political Rhetoric
(transformed semiotics)
free market competition
management effectiveness

Antagonists' Conceptualisation

Opponents' Views
(transformed semiotics)
producing young capitalists
vocationalising school curriculum
ignoring structural and economic factors

Protagonists' Conceptual Refinement

Liberal Education	Progressive Pedagogy	Educational Goals
positioning enterprise in the philosophical framework of liberal education	accentuating enterprising teaching & learning strategy	developing enterprising attributes & improving motivation to learning

Figure 2.1 shows that the promoters derive the 'goodness' of enterprise from its original semantics. Enterprise is continuously perceived as adding (not replacing nor substituting) values to education by broadening the content, context and strategy of learning with realism which will ultimately lead to improved motivation for learning and the development of desirable attributes.

Accordingly, enterprise education stressing personal attributes, logically to antagonists, means the inability of protagonists to relate structural and economical factors to socio-economic problems. Bailey (1992) went as far as to conclude that,

> "The aim of enterprise education… seems expressly to make individuals efficiently competitive one against another, organisations competitively advantaged one against another, and Britain competitively capable against other countries… Such aims radiate a false impression that all can win in an enterprise society if only they are enterprising enough, that unemployment, poverty and diminished life are simply the consequences of individual lack of enterprise and nothing to do with government, politics or social organisation. Which is exactly what some politicians and others want us all to believe." (Bailey, 1992, p.105)

The assumption that an individual focus construes the neglect of the wider socio-economic factors is arbitrary. Watts (1984), one of the key enterprise promoters, for example, gave a thorough, scholastic analysis of the structural change in economy which was precisely the reason why he supported the concept of enterprise in bringing about ideological change in the understanding of education and work. Self-employment, derived from enterprise, was perceived by Watts to have widened students' orientation to work in careers education. No naïve assumption of it being an *ultimate* solution for youth unemployment or for curing the nation's economic ills was ever made as the antagonists have suggested.

In fact, Watts has prudently observed that (as quoted elsewhere)

> "Any effective educational bandwagon has to capture the ideological wind of the moment, but not to be captured by it... We need to be clear about the contradictions within the current political climate between the encouragement of 'enterprise' and the repressive nature of much current policy in the education and training field." (Watts, 1984, p.6)

Watts (1987) continues to declare that

> "If careers education is to play a role in relating schools to the future of work, it must develop a stronger political and social dimension than it usually has to date." (Watts, 1987, p.14)

Promoters, such as Gibb (1987; 1993), Jamieson (1985; 1988) and Miller *et. al.* (1991), have also been aware of and have criticised the repressive changes introduced into education through political rhetoric which is paradoxically anti-enterprising. Therefore, to assume that educators who are pro-enterprise have a narrow and naïve vision and mission for enterprise, neglecting a macro influence, is unfounded.

Moreover, the enterprising attributes presented by promoters, denoting personal development including courage, independence, initiatives and imagination, etc., seem to be objectively desirable to a great majority of teachers (Gibb, 1987, p.6; Gibb, 1993, p.14). Enterprise education persistently reiterates the importance of personal development which is essential as Fullan (1991) reveals that:

> "...the majority of curriculum innovations are directed at cognitive/academic goals rather than personal/social-development goals. The former are more concrete, easier to implement and measure, and probably more elitist (academic) in their consequences. Individual, interpersonal, and social attitudes and skills appropriated for a democratic society do not receive the equal attention that Dewey (1916) so clearly argued they should..." (Fullan, 1991, p.26)

Evidently, enterprise promoters have been politically aware of the different associations in meaning for enterprise. They have been intellectually reflective and critical of their own work. Like the antagonists, they emphasise the need to evaluate enterprise programmes in an objective scholarly way (e.g. Gibb, 1984, 1987, 1993; Jamieson & colleagues, 1981, 1983a, 1983b, 1989, 1991; Watts, 1984, 1987). However, they are rightly criticised for not discussing these concerns with schools in their dissemination.

While the protagonists are criticised for not offering alternative views about enterprise when it is introduced to schools, and for being, therefore, indoctrinatory, the opponents mostly ignore the discussion of its contributions[3]. Does this render them equally indoctrinatory? Where is the balanced picture of the contributions to and the shortcomings of enterprise education?

Gibb (1993) pointed out that the political version of enterprise, meaning entrepreneurism and market-driven management, is not found in much of enterprise

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[3] Some antagonists (e.g. Thompson, 1984; Coffield, 1991; Bailey, 1992) have acknowledged the contribution of enterprise education but in no more than a phrase in a whole sentence.

education introduced into primary, secondary and tertiary education in the U.K., which has a clear objective of developing enterprising people through the process of learning. Gibb's claim is evident particularly in the later stage of development of enterprise education in the late 1980s. Most initiatives had shifted their emphasis by then from the functional dominance (self-employment, understanding industry and wealth generation) to the predominant accentuation of the development of enterprising attributes, skills and behaviours through progressive learning paradigms (Preece & Harris, 1988; Harris, 1990; Merson, 1992; Saunders *et. al.,* 1997). For instance, Merson (1991) commented that the vocational element of TVEI had been reduced and a model of learning had emerged in its later stage of development. The 'toning down' of the 'business imperatives' in the official provision of MESP is also observed. The statement of Kevin Crompton (1987), the director of MESP, previously set out the mission of MESP within the two broad notions of 'enterprise culture' in the following,

> "The first view argues that our economic difficulties would be solved if only more people were willing to establish enterprises... We are asked by this lobby to develop a curriculum that produces young people who have the skills, knowledge and attitudes for the development of businesses... to provide them with experiences that will develop in them a positive attitude towards being an entrepreneur. Such a view...hence is closely linked to the idea of 'dependency' society.

> The alternative interpretation of enterprise culture is that everyone will need to be more enterprising in order to cope with our changing society. We will require, as individuals, greater creativity and greater ability to problem-solve and to direct our own lives. It is to this interpretation of enterprise culture that many working in enterprise education subscribe. It aims to produce a curriculum for 'risky' society."   (p. 9)

The first notion stressing the functional aspects of enterprise has been gradually 'diluted'. Preece and Harris (1988) later stated that MESP is designed for developing the personal skills and capabilities of students, 'and not, other than incidentally, as a scheme for encouraging small business' (p.172). Harris (1990a), in the MESP conference, further prioritises the learning opportunities inherent in experiential learning activities which have been vigorously incorporated by enterprise education into the curriculum. The business simulation projects are predominantly a learning vehicle in which experiential learning has been adopted. Harris (1990) admits, nevertheless, the growing importance of these projects for inculcating the ability for self-employment for students at different school-leaving stages.

This thesis argues that although the dissemination of enterprise in schools cannot be seen to be wholly political, those who are 'promoters' of enterprise must have some responsibility for raising awareness of the political manipulation of the enterprise concept, and must understand how it might be seen by 'antagonists'. In fact, such awareness is crucial when there are research findings revealing that some teachers do report conceptual confusion with the term 'enterprise' and they believe that it hinders further development in schools (Cotton, 1993; Iredale, 1992). Negotiating the meaning with teachers is a democratic and effective way of letting them explore various implications and re-discovering the 'goodness' of enterprise from its original semantics. This is also an efficient way to fend off conceptual confusion and to clear out any uncertainty which may enshroud the teachers who employ the enterprising teaching strategy (*cf.* Fullan, 1991).

6.1.2. Contrasting Assumptions

The criticism that enterprise education is not a tightly defined or universally agreed concept is widespread and justified. Gibb (1993) acknowledges that the multi-meaning of the word 'enterprise' has created the problem of polysemous exploitation for various purposes. Notwithstanding the great variation in meanings and contexts, Gibb disagrees with the notion that critics treat enterprise education as a single confused conception. According to Gibb, individual initiatives can have unambiguous meanings and can be directed to carefully selected contexts. This may explain why individual initiatives have been able to generate much good work with the dedication[4] and support of teachers. Hence, Gibb re-emphasises the belief that the 'goodness' of enterprise has been a natural and integral part of education. While agreeing with Gibb (1993), this thesis argues the importance of conceptual clarity among the promoters and that this may be transmitted to schools through objective debate and discussion.

Epistemologically, one can think of many established fields of study in Social Science which have endless and hotly contested conceptual debates. One classic example

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[4] As acknowledged by the various critics (e.g. Thompson, 1984; Coffield, 1991 and Bailey, 1992).

within psychology is the heated arguments between Skinner and Chomsky (behaviourism vs. cognitivism). Another example is positivism versus post-modernism (Cohen & Manion, 1994). Mutual criticism of conceptual inadequacy enshrouds these debates. However, these intellectual dialogues do not obstruct the development of these fields of knowledge. Quite the contrary, intellectual debates often help to refine the exploration and investigation of knowledge. In practice, the extent to which the concept is confusing is cross-examined in the next section.

Theoretically, the argument that enterprising attributes or capabilities developed in education need contextual discernment is treated as axiomatic. In practice, however, Gibb (1993) observed that discussions with hundreds of teachers about the term 'an enterprising person' have generated a list of attributes which is synonymous with the dictionary definitions (Gibb, p.14). This implied that contextual concern was taken for granted by teachers since, fundamentally, the context *is* education. Taking analytical powers for example, *in* education, all educators want to develop analytical powers in students. However, no educator will reject its goodness totally and not teach it just because it can be misused in the 'wrong' context. In the context of enterprise education, the problem is that of the disparate assumption of enterprise presuming 'intrinsic goodness' on one hand and a 'free market economy' on the other.

Concerning the criticism of enterprising skills, Coffield (1991) has precisely demonstrated that there are contrasting lists of enterprising skills offered by different initiatives. In Coffield's exemplars, the term 'skills' is defined in reductionistic criterion-referenced items. These skills range from the sophisticated to the trivial low-level mundane tasks. Gibb (1984, p.18) had warned that concentrating too heavily on check-list and self-appraisal mechanisms – as do many American programmes- would fail to provide real insight into the process of introducing enterprise for education. Unfortunately, political steering towards the simplistic notion of transparency and accountability has dominated the assessment practice during the New Right's era (Jones & Moore, 1995; Stewart & Sambrook, 1995), and hence some initiatives have adopted such an approach to operationalise enterprising skills. While Coffield (1991) regards these lists as 'contrasting', Gibb and Cotton (1998) actually disagree with the notion that enterprising skills can be defined in a clearly reductionist manner. This

thesis argues that a holistic method of defining and measuring enterprising attributes, skills and behaviours is urgently required (See Chapter 5, Section 4).

Whether enterprising skills are generic and transferable within a wide spectrum of contexts begs empirical investigation. Theoretically, skills transfer has been widely studied within Educational Psychology (Williams, 1991). Prawat (1992; 1998; 1999) summarises the research effort and concludes that transfer is best facilitated when the particular element of knowledge is well learnt (the 'what') by building connections between related knowledge within a variety of related *authentic* learning situations which emphasise *application* (the 'how'). Consequently, general rules (the 'why') are *discovered* or deduced. In other words, to enable transfer, the three elements, i.e. the 'what', the 'how' and the 'why' of learning need to be well rehearsed in a connected way in which knowledge is actively re-constructed by the learner (Riesenmy *et. al.*, 1991).

Although some of the conditions for effective learning described by Prawat (1992) have been incorporated into the model of a progressive enterprising learning approach (which also stresses realism, application and guided discovery), empirical evidence is urgently required to underpin this model, as both antagonists and protagonists demand. Bailey (1992) questions the impact of progressive learning on skills development and transfer strategies and underlines the weakness of empirical evidence in this respect. A superficial clash of empirical evidence between Prawat and Bailey is noted. Prawat and colleagues (1992, 1998, 1999) have demonstrated, nonetheless, how research on skills development and transfer has progressed since the time when Bailey's empirical evidence (Ausubel, 1968; Sternberg, 1982; Resnick, 1990) appeared.

Another positive criticism made by antagonists is that enterprise promoters frequently postulate false dichotomies, particularly between skills and knowledge, content and process of learning, etc. Referring to the skill-knowledge dichotomy, most initiatives have learnt from Thompson's criticism (1984) and have the misconception removed. Gibb and Cotton (1998) have endorsed Thompson's understanding and rectified that 'skills in themselves embody a knowledge base in the context of their application' (p.5).

Harris (1993) has undertaken a thorough investigation into teaching approaches related to enterprise education. A number of tables of dichotomy contrasting various approaches have been cited:

- 'dependency traditional' vs. 'risky progressive' (from Brandes & Gunnis, 1986, p.11);

- 'conventional' vs. 'enterprising' (from Johnston *et. al.*, 1987, p.3);

- 'control' vs. 'framed' vs. 'negotiated' (from Barnes *et. al.*, 1987);

- 'progressive' vs. 'traditional' (from Bennett, 1976, p.38);

- 'participative' vs. 'traditional' (from Boydell, 1976, p.44);

Having reviewed these tables, Harris drew up her own table positing a dichotomy as follows (Harris, 1993, p. 151):

- 'student-centred/enterprise approach' vs. 'didactic/non-enterprise approach'

There is an implied criticism of the traditional/didactical/conventional approach, while the enterprise/progressive approach is seen as democratic and empowering. Dichotomies tend to over-simplify complicated behaviour such as teaching and are bound to meet criticisms (Thompson, 1984). Moreover, empirical findings have shown that teachers tend to adopt a mixture of teaching styles to match with different learning objectives (Bennett, 1976; Galton, 1980). Recent research development acknowledges 'the middle ground' between the traditional and the progressive approach to teaching (Galton, 1999; Prawat, 1998). Gibb and Cotton (1998) have observed these changes and suggest that an enterprising teacher is one who appropriately mixes the two styles for different learning objectives. This thesis suggests that a close investigation into how enterprising learning should be positioned within current pedagogical advancement is urgently needed. (Detailed discussion in Chapter 4).

Finally, the antagonists suggested that enterprise education has not offered any new departures in education. This thesis adopts Peters' argument that education innovations often mean the *re-emphasis* of the essential issues that have currently been relatively neglected. It is interesting therefore to look at the *re-emphasis* that enterprise education to date has intended to achieve. Firstly, it highlights the

importance of personal development, especially enterprising attributes (Gibb, 1993). It has attempted to widen the existing practice of careers education by introducing the alternative of self-employment (Watts, 1984; 1987). It intends to promote the entitlement of the work-related curriculum which may enrich the content and the process of learning by bringing in the realism of industry (Jamieson & Miller, 1991). Preece & Harris (1988) claim that enterprise education has promoted progressive learning methods rigorously.

Whether these re-emphases are desirable or not, and whether they have effectively brought about desirable outcomes, or otherwise, in the long-run, is a pressing issue urged by both the protagonists and the antagonists. At present, anecdotal reports and case studies are plentiful with some quantitative questionnaire surveys on various themes of the subject matter. Hence, after nearly two decades of development, antagonists have made a justified criticism on the lack of empirical support.

Up to this point, the two competing views of enterprise education reveal the fact that it is not the original lexical meaning of enterprise *per se* that causes such conflict in opinions. It is at various *levels and senses* of the *conceptualisation* of enterprise that the term has attracted criticism (Potter & Wetherell, 1994). While some of the criticisms have undoubtedly contributed to the refinement of the conceptualisation, some are biased opinions as a result of the resentment towards 'oppressive' political changes associated with enterprise.

6.2. Cross-Referencing the Discourse – Teachers' and Students' Conceptualisations

Hotly contested as it is, the discourse of enterprise education does not stop at the academic level. Among other important social groups, namely teachers and students, the concept seems much less problematic. Frances (1991) studied the conceptualisation among academics and university students. Results support the view that the debate is mostly confined within the academic community. Among 32 students' typical interpretations of the word 'enterprise', the following conceptualisation has been recorded:

i)	'An enterprising person is not necessarily an entepreneur, but an entrepreneur must have the qualities, the attributes asscciated with enterprise.
ii)	'The educationalist who is enterprising puts his integrity on the line by being innovative, explorative, imaginative – he is laying himself open... a personal risk.'
iii)	'An enterprise seems to involve a kind of collaboration of people working together - [as opposed to] an entrepreneur who could be one person, and so could take personal gains for him or herself.'
iv)	'Enterprise is more human, social process'"

<div align="right">(Francis, 1991, p.27)</div>

The above finding is exceptionally similar to Gibb's conceptualisation of enterprise (1987). Attributes given in point ii) above (innovative, explorative and imaginative) resemble those provided by Gibb (1987, p.6). Gibb's proposition of enterprising learning modes (1993, p. 24), including 'learning from each other', 'learning from personal exchange and debate', 'learning from the reactions of many people', 'learning by borrowing from others', reflect the idea of Points (iii) and (iv) which highlight the social collaborative aspect of enterprise.

The obvious difference in the students' conceptualisation from that of Gibb is that the former assumed the negative stereotypical connotation attached to an entrepreneur who tends to 'take personal gains for him or herself'. Such an unfavourable assumption is absent in Gibb's interpretation. Gibb (1987) conveys the image that an entrepreneur is 'someone who demonstrates the marked use of a combination of [enterprising/entrepreneurial] attributes in pursuit of a particular task, usually [but not exclusively] in an industrial or commercial context' (Gibb, 1987, p.11). In contrast, students in Francis' study tended to confine entrepreneurs to the business context.

An interesting 'discontinuity' between the concept of enterprise and its relation with an entrepreneur is noted from the student's conceptualisation. While enterprise has been associated with positive connotations, an entrepreneur who possesses those desirable qualities and attributes of enterprise simultaneously possesses the negative connotation of 'taking personal gains for him or herself' (Francis, 1991, p.24-27). Francis (1991) concluded that,

"It appears that negative connotations are associated with the concept of enterpreneurialism rather than the concept of enterprise."(p.24)

According to Fullan (1991), conflicting values in educational concepts are rather common, reflecting the subtlety and complexity of social phenomena. However, the conscious mind tends to be more at ease with consistent evaluative rationalising (Brown, 1986)[5]. The students' acceptance of enterprise for its absolute good makes a fascinating contrast to the academics' rejection of enterprise for its absolute wrong. One typically 'angry reaction' from academic staff has been cited from Francis' interview (1991):

> "I've been told that enterprise is all to do with initiative and problem-solving and very positive things in education, but I don't believe a word of it. I think it's all to do with business and getting schools involved with industry and making education more vocational than it's ever been before. They are trying to breed young capitalists and I think that is desperately wrong. Enterprise in its non-political sense has *always* been part of education – *always* – and it's the politicising of it that I object to." (p.29, original italics)

It would be interesting to know how this staff member would define 'enterprise'. S/He clearly sees that 'enterprise' has '*always* been part of education' and yet rejects the use of the word for meaning 'very positive things in education' because it has been politicised. His/Her inconsistency reveals two important aspects of enterprise: its intrinsic 'goodness'; and its meaning being politically manipulated into another semiotic.

Ahier (1994) investigated student teachers' attitudes towards enterprise. Over 1,100 students from B.Ed. and PGCE courses completed a questionnaire and 60 were subsequently interviewed. Findings revealed that among the potential teaching professionals, there were no naïve anti-industrial or anti-materialistic attitudes against wealth creation as rhetoric has always suggested. In fact,

> "...there was consistent support for the pursuit of national economic growth, but many emphasised that this should not be for its own sake, but for the good it can bring to all... and most showed that they appreciated that the generation of wealth is vital to the funding of public services and other public goods." (p.35)

Ahier portrayed the way that enterprise was conceptualised by this social group:

> "The student teachers did, however, accept the ethic of enterprise, seeing it as a personal quality, important in their view of teaching as self-directed, professional work. Indeed many, especially among the postgraduates, drew our attention to

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[5] The implicit theory in Psychology explains that human mind tends to make evaluative consistency. For instance, in terms of personality, one good trait is inferred and associated with another, until a complete schema is integrated. This cognitive schema is succumbed to over-simplifying complicated matters, constituting a biased perception which tends to reject evaluative inconsistency.

the similarities between 'being one's own boss' in business, managing a small company, and the tasks of classroom teaching." (Ahier, 1994, p.40)

Although these student teachers acknowledge the importance of economic growth, wealth generation and the 'ethic of enterprise', they may be reluctant to accept the intrusion of associated *economic metaphors* into the discourse of educational reform. Ahier (1994) concluded that judging from the student teachers' perception that 'teaching was morally and personally consistent with parenting' and was 'a *continuity of caring*', the management perspectives of school, treating school as a marketable commodity, were anti-educational. Likewise, most enterprise promoters are critical towards the political version of enterprise (e.g. Gibb, 1987, 1993; Watts, 1984).

However, Ahier was concerned that 'many initiatives which seek to make teachers more enterprising[6], must constitute a very confusing context in which to develop an effective professional identity' (p.40).

Ahier's concern found answers in Hodkinson and Waite's study (1991) exploring the impact of the Enterprise, Economic and Industrial (EEI) dimensions in initial teacher education. They found that EEI provided a useful arena in which student teachers became aware of 'the balance between the *desirable* and *undesirable* in industrial and economic matters (as) a fine one' (p.48, *my italics*). This finding was consistent with Ahier's own study that showed student teachers had a healthy and reflective attitude towards these issues as a whole. A similar finding was obtained by Hodkinson's case study (1991) in which the mini-enterprise simulation was found to have enabled the development of reflective, critical trainee teachers.

Numerous enthusiastic reports and case studies, albeit anecdotal, have shown that many teachers have been inspired by the original concept of enterprise and consequently developed reflective teaching practices and brought about changes in the school curriculum (e.g. Farrell, 1992; Luby, 1995; Matthews, 1990; many reports in newspapers, the journal *'Economic Awareness'* and conference reports). Empirical

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[6] Here, the word 'enterprising' referred to the *'economic metaphor'* that Ahier discussed earlier in his paper. Therefore, this is not to be confused or connected with the 'ethics of enterprise' which he later portrayed. However, the switch of semantics from terms sharing the same morpheme (enterprise) is confusing and common (refer to Francis' interview response with staff above).

evidence is much needed to tease out the extent of the novelty effect from the possible long-term effects these collective immediate responses might have.

Undoubtedly, these publications only represent a self-selected sample of teachers who might have a predilection towards enterprise. However, this does not invalidate the effect of enterprise which seems to have re-vitalised teaching morale, through active participation and reflective evaluation, in this self-selected group. This may be important in the context of the teaching profession being subjected to so much rhetoric and subsequent 'repressive changes' in recent years (Chitty, 1993). Sarason's remark (1971) best describes such importance:

> "if teaching becomes neither terribly interesting nor exciting to many teachers can one expect them to make learning interesting and exciting to students?"
> (cited in Fullan, 1991, p. 131)

Conceptual clarification for teachers is vital for further development of enterprise education (Cotton, 1993; Iredale, 1992). Iredale (1992) contrasted the impact of enterprise on attitude and school curriculum among 46 primary school headteachers, half of whose schools (n=23) had participated in enterprise workshops and run enterprise activities, and the other half of which had not (n=23). Results showed that the majority of the participating schools (16/23) had a clear understanding of the concept. Enterprise was valued as a tool or vehicle for delivery of a variety of curricular areas, facilitating the development of problem solving skills. Only a quarter of non-participating schools (6/23) conceived such clarity. Instead, the majority (17/23) made vague references to links between school and industry.

Cotton (1993) surveyed 55 secondary school teachers who had participated in enterprise education workshops. 23 teachers regarded enterprise education as part of a capitalist culture; 12 teachers indicated that the concept itself was a hindrance to its acceptance in school; although a greater majority (46/55) perceived it to have added value to school. Almost all teachers (53/55) acknowledged that taking responsibility and solving problems were the two most important enterprising capabilities in young people.

To summarise, the heated conceptual academic debate of enterprise is only mildly reflected among teachers. They have been able to perceive the potential of enterprise

for bringing about desirable change. This however does not deny that the concept has been caught up in a political tide, that implementation has been inadequate in raising awareness, and that this has hindered its progress in schools. It would also be misrepresentational if the above evidence of good practices was allowed to over-shadow bad practices and to trivialise controversies which beg further refinement of concept and practice. Fullan (1991), having reviewed the literature of educational change for the last three decades, explains that:

> "If reforms are to be successful, individuals and groups must find meaning concerning *what* should change as well as *how* to go about it. Yet it is exceedingly difficult to resolve the problem of meaning when large numbers of people are involved. And often we find meaning only by trying something. Successful innovations and reforms are usually clear <u>after</u> they work, <u>not in advance</u>." [my underlining]   (Fullan, 1991, p.xi)

6.3. Recapturing Enterprise Education

Caird (1991) suggests that to avoid conceptual confusion, the general label of enterprise education should be abandoned. She believes that better communication can be resulted when enterprise courses, which have a clear objective of developing enterprising competencies, are differentiated from those which concentrate on small business start-ups. Francis (1991) claims that 'the enterprise language, having served its purpose in bringing innovation in education from the periphery of the system to the centre, should become increasingly redundant' (p. 21). Jamieson (1991d) views enterprise as an 'omnibus concept' which is not only unnecessary but also counterproductive in promulgating economic and industrial understanding in schools 'because of its heavy ideological connotation' (p. 62).

The danger of the term "enterprise education" becoming tautological is highlighted by both the protagonists and the antagonists. This thesis argues that so long as *the original meaning of enterprise is maintained*, the language should be kept and should continue to flourish. Disregarding the diverse meanings that the term has generated, the concept seems to have inspired and empowered many individuals to work in various aspects of enterprise, be it teaching and learning strategies in the classroom or small business start-ups. This shows that enterprise is a potentially powerful notion in its own right. What arguably needs to be done to fend off confusion and to avoid

tautology is to seek a 'conceptual re-alignment' and mark out more clearly the significance of the enterprise approach to education.

6.3.1. A Conceptual Re-alignment

As shown in the discussion above, the central theme of enterprise education emerging after a decade's practice is that of *the development of enterprising attributes through enterprising learning* (see Figure 2.2. below). Underpinning this ultimate goal is the 'enterprising approach' to the curriculum including *general subjects, careers education* and *other cross-curriculum areas*.

Figure 2.2 Recapturing the Concept of Enterprise Education

| **Original Meaning** |
| (lexical semantics) |
| **Attributional**: courage, initiative, imagination, etc. |
| **Functional**: *private enterprise* |

Reconceptualised in the Educational Context

CENTRAL THEME

Enhancing Enterprising Attributes
(creativity, imagination & flexibility, etc)
through enterprising learning strategies

Approach to Curriculum

General Subjects	**Careers Education**	**Other Curriculum Areas**
enterprising learning	entrepreneurship	enterprising learning
approach	in the context of	approach
to general subjects	small business learning	to cross-curricular themes

Enterprising learning strategies can be demonstrated to be applicable to general subject teaching by the DUBS' and SCIP teaching support materials (DUBS, 1999; SCIP, 1993). Since the major bulk of time allocation in the National Curriculum surrounds individual subjects, it may be important to demonstrate that the enterprising learning approach is a constant method employed as opposed to a one-off, piecemeal and sporadic application (Nash, 1992). Gibb hypothesises that an enterprising approach to subject learning will improve the motivation to learning and hence enables a *greater insight to knowledge while embracing the central theme of developing enterprising attributes*. This hypothesis needs to be empirically tested. The current research undertaken by this thesis seeks to investigate the feasibility of this hypothesis.

An Enterprising Approach to Careers Education

Careers education, among other curricular areas is a clear target for the concept of entrepreneurship, particularly for students of school or college leaving ages (Dearing, 1997; Harris, 1990; Gibb & Cotton, 1998). Entrepreneurship[7], in its self employment context, offers *an alternative* among conventional career orientations (Watts, 1984; 1987). Coffield (1992), having reviewed the economic situation of the North East region, admits that 'the contribution of self-employment to the economic regeneration of the region is likely to remain important but limited' (p.25).

According to Coffield (1992), the reason for the limited contribution lies in the lack of genuine funding and carefully designed support programmes. MacDonald (1991) also criticises the irresponsible system which blindly enthuses young people to start up

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[7] In this thesis, the term 'enterpreneurship' is used in a different way from Gibb and Cotton (1998). Gibb and Cotton (1998) treat 'entrepreneurship' and 'enterprise education' as synonyms. However, research suggests that entrepreneurship tends to have a strong occupational connotation. In the past, when enterprise education was equated with entrepreneurship, it was criticised as indoctrinating young people to become entrepreneurs to generate wealth. In this thesis, 'enterpreneurship' is located within the domain of careers education with its ultimate educational aim of developing enterprising attributes above the functional goal of self-employment. (see Figure 2.2). This hopefully will clearly distinguish the general theme of enterprise education from the more functional notion of entrepreneurship.

their own business without adequate and easily accessible professional support. Such half-hearted support has neglected the notion of *learning* while young people are engaging in their business activities. These important messages need to be taken on board if the self-employment alternative is to be seriously considered and promoted.

The concept of entrepreneurship can be seen to have broadened the concept of 'self-employment'. Entrepreneurship, as proposed by Gibb and Cotton (1998), is fundamentally an expression of entrepreneurial attributes. Self-employment is one of the most common contexts in which these attributes are exhibited. The implication is that careers education should, first and foremost, seek to *nurture* entrepreneurial attributes in the context of small business *learning*. Drawing from research findings (Coffield, 1992; MacDonald, 1991), government commitment to a strong, continual and professional network is required to support this form of learning.[8]

An Enterprising Approach to Other Curriculum Areas

The application of an enterprising approach to other curriculum areas, particularly Citizenship Education and EIU (Economic and Industry Understanding), tends to attract the belief that 'enterprise' is a 'subject' to be taught. To avoid such entanglement, teachers arguably can be made aware that *enterprise* education (as in *liberal* and *progressive* education) is an *approach* to education, not a subject classification (as in sex education and religious education). In that respect, BTEC courses on business and management, for instance, are not subject areas of enterprise education. They are subjects that can be approached by enterprise education (Gibb & Cotton, 1998).

Experience in the past shows that when enterprise education was interpreted as a subject or topic to be taught, the outcry of indoctrination was inevitable. It is therefore important for this thesis to clarify the concept as a distinctive approach to teaching.

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[8] Arguably, an enterprising approach to the whole careers education is possible. In this thesis, the alternative of entrepreneurship is highlighted as a distinctive feature of enterprise education.

7. Conclusion

The dialectical view of enterprise education discloses the belief that the confusion surrounding the concept is largely a consequence of serial misconceptions: ambiguous initial conceptualisation by the promoters, which was caught by the then prevailing political rhetoric and was hence heavily criticised by antagonists. Despite the conceptual disputes within the academic community, in practice, some teachers were able to extract the 'goodness' of enterprise and generated desirable changes in teaching and school curriculum. However, they also pointed out that conceptual confusion has been an obstacle to the promotion of enterprise work in schools.

The gap between concept and practice implies that conceptual refinement and realignment is necessary to sustain further development. Experience gained from the past decade's implementation, together with some of the constructive criticisms made by antagonists, have helped to recapture the concept of enterprise education for further advancement. Having attempted to settle the meaning of enterprise education, a most pressing issue to address is how effective this form of learning is in achieving its ultimate aim of developing enterprising young people. This leads on to the empirical question, which is 'How sound is the theory of this distinctive teaching and learning approach and how pragmatic is it in application?' These are the inquiries central to the purpose of the current research and are discussed further in the following chapters.

Chapter 3

Enterprise Education:
A Distinctive Approach to Teaching and Learning

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1. Introduction

In Chapter 1, the historical analysis reviewed the socio-economic *context* against which enterprise education has emerged since the mid 1970s. This is followed by the discussion of the *concept* of enterprise education in Chapter 2. It is argued that enterprise education is a distinctive approach to teaching and learning. This chapter continues to discuss the *content* of enterprise education. Due to the diversity of enterprise activities, this chapter will first of all introduce a structural framework to demonstrate the distinctiveness of enterprise education. This thesis adopts Bridges' framework of liberal education (1992) for this purpose. In order to establish a fuller understanding of the content, the three main models of enterprise education are then categorised and discussed. Finally, the impact of enterprise education to date is evaluated.

2. What is Enterprise Education? - A Structural Framework (see Appendix 2)

In the historical analysis, the diversity of enterprise initiatives and the result of conceptual confusion was noted. To avoid the term becoming tautological, Bridges (1992) and Gibb (1993) both propose that enterprise education should be contextualised and conceptualised within the general educational framework. Bridges (1991) demonstrates the uniqueness of the enterprise approach to education within the framework of liberal education. In this section, the basic structure set out by Bridges (1992) is expanded upon as follows:

    i)   Aim of Enterprise Education
    ii)   Objectives
    iii)   Curriculum
    iv)   Learning Activities
    v)   Pedagogy
    vi)   Assessment
    vii)   Evaluation

Since the focus of this thesis is upon enterprising teaching and learning in general education, a summative structural analysis is employed in order to encapsulate those initiatives which embrace the idea of promoting learning and have it clearly stated in their objectives. Initiatives (e.g. enterprise in the Youth Training System) which operate outside this particular context will not be included. Notice that the structural analysis undertaken in this Section only reflects the general state of development rather than what enterprise education *is*. Nevertheless, the study of what is regarded as enterprise education in this section helps to establish a basis for a more thorough analysis of the concept in the next chapter.

i) Aim of Enterprise Education

A review of the latest annual reports of various enterprise education initiatives demonstrates that they all share one common aim, i.e. *developing enterprising people through the learning activities* offered by their programme (see Appendix 1). This means the enhancement of enterprising attributes, skills and behaviours in learners.

ii) Objectives

Under the above shared aim, however, is a diversity of objectives of individual initiatives accentuating various themes and understandings. These objectives can be summarised as follows (refer to Appendix 1):

- To improve the economic awareness and understanding of business and industry
- To encourage industry to share the responsibility in education to enhance a relevant work-related curriculum

- To enable a smooth transition from school to work
- To inculcate a healthy attitude, knowledge and orientation towards self-employment and wealth creation

- To improve learning experience through an enterprising pedagogy

The first two objectives emphasise the industry-related dimension. The third and the fourth show the importance of a widened scope of careers service. The last one is directly related to knowledge acquisition, social and personal development.

iii) Curriculum

Attempts have been made to introduce enterprise education across the whole National Curriculum at both primary and secondary level. Copious teaching materials have been produced under various initiatives to support teaching and learning in most foundation subjects such as English, Mathematics, History, Geography, Technology and Environmental Studies, etc (e.g. Cotton, 1991; Harris, 1990a; SCIP, 1993). Enterprise education is, however, particularly seen as relevant to the teaching of cross-curricular themes, such as Economic and Industrial Understanding (EIU) and Careers Education and Guidance (ByGott, 1990).

At the tertiary level, curriculum design is mostly left to individual departments (Clarke, 1991; Foreman-Peck, 1993; Leckey & Neill, 1996; Nicholls, 1992). Small business creation and management also provide the context, as much as a content, for learning at graduate level (Kirby & Mullen, 1990; Kirby, 1992). Hodkinson and Waite (1991) show that an increasing number of higher education institutions have incorporated enterprise, economic and industrial dimensions (EEI) into their initial teacher education courses.

iv) Activities of Learning

Three main types of learning activities can be classified (see Section 4 below for details). They are learning through *work experience* (Miller *et. al.,* 1991), *business simulation* (Jamieson *et. al,* 1988) and a *project management cycle*. Learning through work experience includes work placements, visits to industry and work shadowing. Students will receive briefing and de-briefing before and after their experience. They are encouraged to keep records during the activity. Learning through business simulation stress the importance of a realistic hand-on experience of running a business. Employees from local industries are invited to be business advisors. The learning mechanism is very similar to that of project management cycle (Harris, 1990). They both emphasise active participation in team-work and involve the exercise and development of creativity, planning, doing, problem-solving and interpersonal skills. Teachers play the role of facilitators. Learning through a project management cycle, may or may not have a flavour of business.

v) Pedagogy

The learning activities stress that the process of learning is as important as the content to be taught (Iredale, 1992). The enterprising process of learning encompasses the important elements of experiential learning (Jamieson *et. al.*, 1988). Some individual initiatives, such as those of DUBS (and RSA Education for Capability, MESP in the past), have set out how their learning models are adopted from existing learning approaches. RSA Educational for Capability (RSA, 1991) uses a behavioural model which highlights the essence of self-monitoring of learning. MESP employed Kolb's (1984) experiential learning paradigm to explain the relevance of their mini-enterprise activity (Harris, 1990). The DUBS initiative has clearly set out a theoretical framework towards an enterprising learning theory which captures the important elements of learning[1] and the interaction amongst them (Gibb, 1993). In general, student-centred pedagogy is a characteristic of all of these learning paradigms which allow more scope for independent, flexible and open learning (Bridges, 1992).

vi) Assessment

The assessment of project work or task assignments is yet under-developed (Jamieson, 1991b) due to the complexity of activities. Subject-based projects tend to combine the method of *criterion-reference assessment* observing performances in tasks assigned, *marking of written project work* and *paper-and-pencil tests*. Business simulation projects implement criterion-reference assessment with little or no written examination. In other words, various methods are combined, dependent upon the nature of the activities. A prominent feature is the involvement of students in self-assessment with the aim of developing the sense of ownership towards their study, and creating awareness of their own progress (Bridges, 1992)

vii) Evaluation

The achievements of enterprise education have yet to be evaluated against its overall aims (Jamieson, 1991c). The following key questions will help determine whether or not objectives have been met:

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[1] These elements comprise *the classroom environment* in which students actively take ownership of learning; *the project management task structure* which elicits and enhances enterprising skills and behaviours; and *the teaching mode* in which the teacher takes the role of a facilitator

o   Has the understanding of industry been improved? To what extent?

o   Is there more involvement of industry in education? To what extent? In what way?

o   Is there a smoother transition to work, less anxiety about unemployment and more confidence about life after school?

o   Have the attitudes towards and knowledge about self-employment been improved? Do more young people express the intention of being self-employed?

o   Have enterprising skills, attitudes and behaviours been fostered? In which aspects?

o   Do the young people become more motivated and capable in learning? Are their academic achievements improved through enterprising learning?

Gibb's model (1977), adopted from Hamblin's model (1974), provides a strategic and scientific method of evaluation which provides a good guideline for assessing the performance of enterprise education to-date. The five levels of evaluation, directly applicable to evaluating the performance of enterprise education are described as follows:

Level Of Evaluation	Relevance in Enterprise Education	Follow-up Measurement Over time
Reaction	Immediate reactions from participants	Short
Learning	Content being learnt (literacy, numeracy and subject-based knowledge; knowledge of business and industry; knowledge of self-employment)	Intermediate
Behaviour	Personal attributes being acquired (enterprising skills and behaviour)	Intermediate to long
Organisation	The effectiveness of the whole learning programme	Intermediate to long
Ultimate Achievement	The impact on the enterprise education in society	Long

Summary

From the above structural analysis summarising various initiatives, it is clear that enterprise education can be seen as part of the general educational framework. The next section explores how different models approach enterprise education. Evaluation of their achievement is then discussed.

3. Models of Enterprise Education

Three main models of enterprise education can be categorised according to their distinctive activities. They are the *work experience model*, the *business simulation model* and the *enterprising learning model*. Since the focus of this thesis is upon enterprise education in schools, the major initiatives targeting at primary and secondary levels are used to exemplify these learning models.

3.1. The Work Experience Model

The work experience model is typified by initiatives including Technical and Vocational Education Initiative (TVEI), Creativity in Science and Technology Awards (CREST) and Enterprise in Higher Education Initiative (EHE). This model stresses the importance of learning from 'real' life experience in the work place. It mainly takes the form of work placement, work shadowing, visits to industry, subject-based industry projects or simulated work experience at school (Henderson & Knutton, 1991; Watts *et. al.*, 1987). The Technical Vocational Education Initiative (TVEI) is chosen to exemplify this model of enterprise education since a strong government commitment had been given from 1983-1990 (about £90m per year), and the TVEI Extension funding started from 1991 to last for a couple more years. Although TVEI has now ceased, work experience as a vehicle of learning prominently promoted by TVEI continues. A relatively extensive research on TVEI also allows a reasonably thorough understanding of the effectiveness of work experience as a vehicle of learning.

The chief aims of these initiatives are summarised in the following:

- To improve the understanding of business and industry.
- To enhance a relevant work-related curriculum.

o To develop enterprising skills.

o To improve learning experience.

The benefits of learning through work experience are said to be manifold (Henderson & Knutton, 1991; Watts *et. al.*, 1989). By exposing students to the 'world of work', they enjoy the advantage of a wider range of interaction with other adults at work, acquiring skills beyond classrooms (Trident Pamphlet), learning about the discipline, organisation and management of a workplace (Jamieson, 1983). The link between subject knowledge and its application in the real industrial context enables an effective form of experiential learning. The method of briefing and debriefing helps students to prepare and reflect on the experience. Debriefing, which is often done in groups, is especially important in guiding them to analyse and generalise their experience. (Jamieson *et. al.*, 1988). Hence, Shilling (1989b) believes that work experience is potentially a powerful learning method for enhancing reflective and critical thinking among students.

3.1.1. Evaluation

Research demonstrates conflicting findings of the effectiveness of this form of learning (Saunders *et. al.*, 1997). Merson (1992) notes that the early development of TVEI was full of impressive anecdotal reports from participant schools portraying a very positive picture of learning through work experience. Youngman (1992) conducted a large scale quantitative survey with 461 students. Results showed that TVEI students (n=189) had a better opinion on TVEI courses then the non-participants (n=158 in TVEI schools and n=114 in non-TVEI schools). The former perceived that TVEI had contributed to develop better problem-solving skills, more autonomy over study, better career orientation and more practical knowledge. However, it is also found that they were less confident on how well they had achieved as their attainment scores from criterion-referencing were unfamiliar to them, unlike ordinary subjects which had simple and straightforward graded exam results. This in turn had affected their level of satisfaction of TVEI courses. Youngman (1992) contrasted these findings among four cohorts of TVEI students from 1985 to 1988. A striking consistency across all four years was found.

Bloomer (1985) reported from a questionnaire survey of 183 headteachers that students gained realistic understanding of the work place through work placement. It helped students to have clearer career aims. A consequent increased demand for career

information and guidance from students was noted. Many schools reported that firms providing work experience had given temporary or permanent jobs. In terms of personal development, the results reported by Bloomer (1985) were extremely promising:

> "The impression of many [headteachers] was that through work experience pupils grew in maturity, partly in terms of their powers of self-assessment, decision-making and self-discipline, but also skills and insights into adult life... stronger motivation of pupils concerned towards their school work and further education and... greater incentive to achieve qualifications needed."   (Bloomer, 1985, p.89-90)

Most of these results were supported by Henderson and Knutton (1991) who interviewed staff and students in five schools. They reported that students having gained experience from the work place became more self-reliant, confident, mature and aware of the need of career planning.

A small scale quantitative questionnaire survey conducted by Robinson *et. al.* (1991) indicated that TVEI students (n=50) did have a more positive attitude towards school and were more satisfied with themselves than their A-Level counterparts (n=50). However, the TVEI students were less involved in school work and they avoided school work more than the A-Level students This result seems to confirm the perception that work related curriculum is more popular for students who are less academically inclined.

More importantly, Robinson *et. al.*'s findings cast doubts on the extent to which work experience has improved motivation in classroom learning. Heath (1995) reported Tapp's findings (1990) which indicated that 46% of TVEI pupils could not relate their work experience to subjects learned at school. 45% felt that they learnt more from their paid part-time jobs than their placements.

Heath (1995) also conducted a questionnaire with 92 former TVEI participants. 12 were then invited for in-depth interviews. These data were triangulated with local TVEI advisors by interviews. 55% of the students reported that work experience had provided the opportunity for job sampling. 29% believed that it had helped making decisions in their career development. 29% reflected that work-experience had put them off the type of work they intended. 10% were disillusioned. Qualitative data showed that some 'misplacements' were counterproductive to the original idea of aspiring young people to their future career.

Harris *et. al.* (1997) undertook in-depth qualitative interviews with deputy headteachers, teachers and pupils in 16 schools which were regarded as schools of good practice in this aspect. Findings showed that *a whole school culture* committed to this type of learning was an essential factor for good practice. Teachers' lack of experience or skill in the actual work context hampered them from linking work experience across the curriculum and disabled them from guiding debriefing which was the key for this learning model to be effective.

Saunders *et. al.* (1997) undertook a review of research into the impact of 'work-related curriculum'. The review pointed out that the reason for negative results was mainly due to the isolation of work experience from subject-based curriculum. Very often, the full potential of work experience was not understood by all parties, namely, the employers, the teachers and the students. Instead, work experience receded into a narrow aim of 'raising awareness' of the world of work. Good practice, on the contrary, contained clear learning targets set and agreed among the employers, the teachers and the students, so that work-based opportunities and resources were fully integrated into the general curriculum (Harris *et. al.*, 1997; Saunders *et. al.* 1997). The problems and difficulties of integration remains the major challenge for this model of enterprise education.

3.1.2. Implications for Future Development

Problems and difficulties concerning this model of learning need to be addressed. Jamieson and Lightfoot (1981) admit that debriefing is usually omitted due to time constraints in teaching. This is a serious pitfall considering the importance attached to this crucial element of learning (Shilling, 1989). Other than time constraint, Henderson & Knutton (1991) and Harris *et. al.* (1997) revealed that some teachers might not have the right attitude and knowledge to integrate pupils' work experience with classroom learning.

However, Harris *et. al.* (1997) found that schools which took part in the Teacher Placement Services (TPS) have brought about change in teachers attitudes and knowledge in that respect. Abbott *et. al.* (1996) reported that, out of a sample of 242 secondary school teachers who returned a questionnaire survey, 75% agreed strongly that contact with industry could make lessons more *relevant*. However, further research is needed to indicate the way in which this perceived 'relevance' and change in attitudes has transmitted into the *actual* subject teaching and has generated desired learning outcomes.

Another important partner in this learning model is the employers. Some employers are found to be unclear of, or have little commitment to, their role in the partnership in enhancing learning (Heath, 1995; Saunders *et. al.*, 1997). Work assigned to students in employer's premises is usually restricted to simple tasks because of time, health and safety regulations, confidentiality of the work place and the lack of skills and maturity of students (Heath, 1995; Jamieson & Lightfoot, 1981). Hence, skills being learned are limited. Jamieson & Lightfoot (1981) also think that the lack of trade union representation in the work place is another setback. There is also concern about orientating students to a limited range of local firms (Bloomer, 1985).

Moreover, there remains the problem of participation from academically able students. They tend not to choose the option of going for placement (Jamieson *et. al.*, 1988; Henderson & Knutton, 1991; Saunders, 1993; Harris *et. al.*, 1997)[2]. Saunders (1993) considers the inability to attract able students could stigmatise the status of work experience to the low-achievers, reinforcing the academic-vocational divide. Bloomer's findings (1985) seem to confirm Saunders concern:

> "One school noted improved cooperation on the part of older, less academic pupils who were periodically 'unchained from their desks' through work experience and community service, while another commented that the absence of pupils with little interest in academic work enabled others to make better progress." (Bloomer, 1985, p.90)

As early as 1983, Jamieson observed the problem with work experience in the following:

> "at school the tasks set are such that a very large percentage of children consistently 'fail' and thus have their confidence destroyed, whilst in the work-place the majority of tasks are so simple that nearly all can perform them with barely a moment's thought. It is difficult to know which situation is more depressing." (Jamieson, 1983, p.157)

The disparate research findings imply that after more than a decade's development, the full potential of the work experience as an experiential learning model has still not been utilised. Bearing in mind that the National Curriculum has heavily prescribed a timetable for the 'traditional curriculum' to meet the National Attainment Targets, teachers soon find it increasingly difficult to co-ordinate the time-consuming work-related curriculum

which emphasises 'active learning', 'negotiated curriculum' and 'problem solving' (Henderson & Knutton, 1991; Saunders & Halpin, 1990). Harris *et. al.* (1997) suggest that the recent Dearing review (1996) has taken into consideration the need to release more free time for work experience to take place in the curriculum. However, this thesis argues that unless there is a substantial change of attitude and perception by teachers, parents and students towards work experience, it is likely to remain marginalised to the less academically inclined, as Miller *et. al.* (1991) has predicted.

3.2. The Business Simulation Model

The business simulation model is represented by Mini-Enterprise in School Project (MESP) and Young Enterprise (YE). This model approaches learning through mirroring 'real life business' in the school setting. MESP, targeted for the 9 to 16 year olds, was said to be the most popular enterprise activity and grew most quickly among schools[3] (Jamieson *et. al.*, 1988). Although MESP has now ceased, the model continues to represent a popular mode of teaching and learning under the banner of enterprise education. The model provided 'authentic' experience so that young people could learn about the organisation, management and operation of a business, such as business registration, selling shares, organising production lines, marketing products and services, etc. while acquire a spectrum of desirable skills.

Jamieson (1984) describes the aims of this model as:

- To improve the understanding of business and industry
- To inculcate a proper attitude, knowledge and orientation towards self-employment and wealth creation
- To develop enterprising skills, attitudes and behaviours in young people
- To improve learning experience through an enterprising way

The learning objectives of YE and MESP are, to some extent, different. YE offers a standardised approach to an extra-curricular activity with the stress on 'economic literacy'

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[2] Although this seems to be the opposite case in higher education in which industry projects tend to be taken up by 'able' students (Clarke, 1991).

[3] MESP originally was mainly for secondary school students. Primary projects started in 1989 (Shilling, 1989).

and knowledge of key business functions. MESP (1985 – 1994) extended these learning activities into enhanced learning of school core subjects, such as English, Maths, Business and cross-curricular themes (e.g. EIU) (Harris, 1990a). Both YE and MESP emphasise the importance of adults other then teachers from local businesses to act as advisors in the simulation. Since MESP was more widespread in British schools, it will be discussed in greater detail as a model of enterprise education.

By engaging in mini-enterprise venture, students would be able to practise and develop skills such as problem-solving, decision-making, creativity, leadership, communication, negotiating, risk judging and inter/intra personal skills (Harris, 1990a, p.3).

Experiential learning (Kolb, 1984) was the learning theory adopted by MESP (see Figure 3.1 below). Crompton (1987) mentioned that debriefing was the key element in this learning model. It allowed the experience of running the business venture to be reflected upon, generalised and transferred to other situations. Business simulation was said to be effective in generating motivation to learning, particularly social learning through team-work and dealing with adults other than teachers (Jamieson *et. al.*, 1988; Harris, 1990a; Matthews, 1990). When students were marketing and selling products, they learnt more about their school, their neighbourhood and the wider community (Harris, 1990a).

Figure 3.1. Experiential Learning Adopted by MESP
(Harris, 1990a, p.6)

EXPERIENTIAL
LEARNING
CIRCLE

CONCRETE EXPERIENCE   PREPARATION

ACTIVE
EXPERIMENTATION   ENTERPRISE

REFLECTIVE
OBSERVATION   DEBRIEFING   ACTIVITY

ABSTRACT
CONCEPTUALISATION
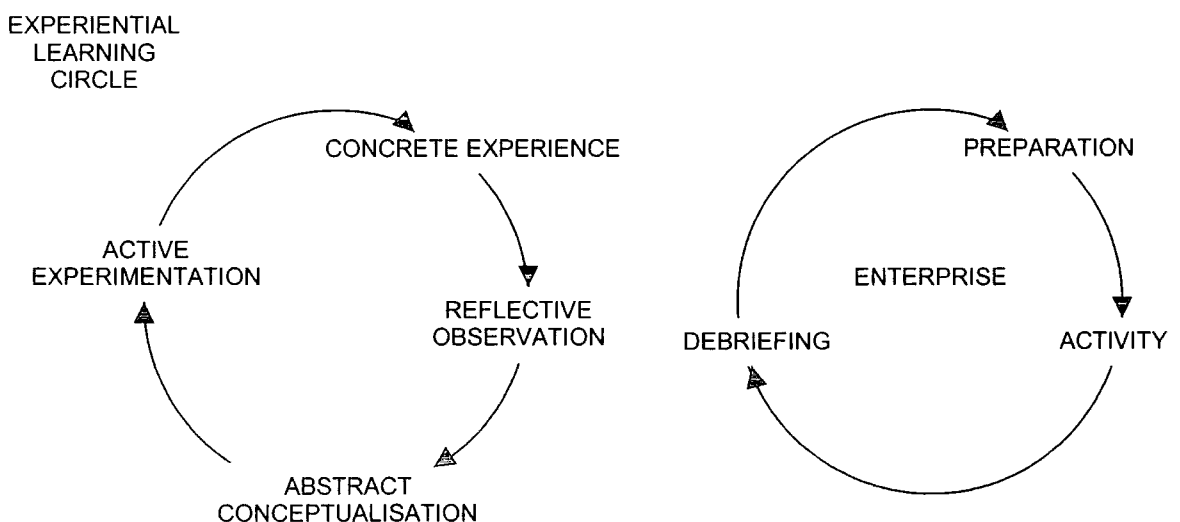
3.2.1. Evaluation

Evaluation of the business simulation model was difficult mainly because of the complexity of the learning activities and the lack of well developed assessment tools for measuring desired learning as complex as social and personal skills. (Jamieson, 1988; Fullan, 1991). Anecdotal evidence suggested very positive educational outcomes. The *"Young Enterprise" Programme* (1991) reports that students have gained a real understanding of how business works and have acquired team-work skills. It is said to have helped young people develop enthusiasm for life. Matthews' case study (1990) on the MESP in two special needs schools also reported improved motivation to learning and better communicative skills among participants.

Harris (1990b) investigated the attitudes of teachers towards 'mini-enterprise' work using a mailed questionnaire survey. 83 schools (out of 132) responded and the results were positive. More than 90% of the respondents thought that mini-enterprise was a useful and valuable teaching tool. 86% believed that it should be inherent in future curriculum development and 81% agreed that skills and credentials obtained through mini-enterprise should be taken into account by higher education institutions. 75% of respondents thought that enterprise skills should be incorporated into initial teacher training programmes. 75% also acknowledged that it should be an important component of in-service training.

Despite the supportive attitudes reported by Harris (1990b), Jamieson *et. al.* (1988) cautioned that there was a drop in motivation over time indicating the possible diminishing novelty effect in this type of learning. Research also pointed out that simulation was potentially weak in teaching factual content (Tansey, 1971, cited in Jamieson *et. al.*, 1988). Jamieson *et. al.* also reported that there was little evidence for skills transfer even within similar tasks.

The operation of the business simulation also caused concern. Jamieson *et. al.* (1988) observed that there was a possibility that commercial goals exceed educational ones, that is 'earning' over-riding 'learning', while paradoxically, 'earning' (profit-oriented) was also a learning objective in its own right in this model. These researchers observed that the MESP version of business simulation tended to reduce student autonomy since its activity could be confined by teachers' monitoring on a subject-based learning. There was

also concern about allocation of jobs. 'Able' students tended to be assigned to managerial positions whereas 'less able' students were allocated to production. Sex-stereotyping also existed when students allocated jobs among themselves.

Nash (1992) undertook thorough research into this model of learning adopted by MESP. A multiple choice test was designed based on the knowledge, skills and attitudes that mini-enterprise aimed to achieve. 424 students from twenty schools took part on this study. Students who took part in mini-enterprise activities (90%) showed insignificant difference from the control group (10%). Students in both groups showed little understanding of key financial areas in running a business. Products produced by mini-enterprises were mainly of low quality which required low-level skills and were unacceptable and not marketable in a real commercial environment. Lack of customer care and the market research were also the characteristics of min-enterprises. Nash (1992) concluded that the lack of 'realism' detracted from the potential of the learning experience from mini-enterprise activities. Given the age and abilities of students, the simulation based on a large company model was inappropriate. Drawing from Nash's finding, it seems that the effectiveness of improving understanding about business through this learning model was rather negative. Nash concluded that mini-enterprise might even reinforce the traditional bureaucratic structures typical of low tech and low value added companies which was against the trend of high tech and high value added industrial development in this country.

Nash (1992) also found little evidence from follow-up interviews with students that knowledge and skills gained through mini-enterprise activities were linked with subject learning. Not only was the lack of perceived relevance to subject learning, some students and teachers found that mini-enterprises interrupted normal lessons and it took them a while to re-focus students back to classroom learning. Nevertheless, Nash (1992) confirmed that mini-enterprise was a powerful means of social and personal education for students:

> "The group dynamics were more impressive… Examples of the censure of company members, of hidden talent(s) blossoming for the first time, and great personal sensitivity, were all revealed during the semi-structured interviews. Students discovered for themselves by first hand experience that the power of the group was greater than the sum of its individual members… the opportunity to organise their own work and work out problems for themselves was the most important aspect of mini-enterprise."   (Nash, 1992, p.246-247)

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3.2.2. Implications

Although MESP has now ceased, its implication for further development of other forms of enterprise education is even stronger. As Nash (1992) pointed out the weakness of relating enterprise activities to subject learning was the major setback for this model. With the National Curriculum which articulates the importance of traditional subjects with a prescribed time-table, this implies that enterprise activities will have to be effective in subject-based learning instead of occupying extra-curricular time which is greatly reduced.

Regarding the improvement of the understanding of business, Nash (1992) suggested that greater realism had to be enhanced. Nash believed that the model of small business would be more suitable for school mini-enterprises since it would be more realistic to start small given that resources were limited. Students would also need to be encouraged to go beyond the safe confinement of their own school and stretch out to the local community and compete with local businesses[4].

Finally, since mini-enterprise has demonstrated that it can be an effective learning vehicle for motivating students to learn, it would have greater value if such learning experience could be strongly linked to subject-based learning. Nonetheless, its achievements in enhancing social and personal development are generally acknowledged.

3.3. The Learning Models (RSA Education for Capability, the DUBS' programme)

This learning model emphasises that a structured approach to learning is the key to generating intrinsic motivation to learn and to elicit desirable behavioural change. Both this learning model and the business simulation model employ an experiential learning theory. However, the activities of the business creation model emphasise the actual running of a business as an important vehicle to deliver learning needs, whereas the learning model does not necessarily have a business focus. In terms of pedagogy, the learning model is not restricted to the cognitive experiential learning paradigm. The RSA approach implemented behavioural monitoring methods while the DUBS' scheme enriches the experiential paradigm into a cognitive-behavioural dimension, which is called 'enterprising modes of learning'.

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[4] Jamieson et. al. (1988) claimed that since mini-enterprises were only a short-term business simulations, they would not cause adverse competition among local small businesses.

The chief aims of the learning model are:

- To develop enterprising skills, attitudes and behaviours in young people
- To improve learning

Since the learning theory that RSA adopted is substantially different from that of DUBS', it will be discussed separately.

3.3.1. The RSA Education for Capability Model

Bell (1991) describes the 'capability model' for the development of 'capability' as follows:

1. Self-evaluation: the student will evaluate his/her own capability.

2. Unit analysis: 'Units of work' will then be set up, with the help of the teacher, in order to develop these capabilities.

3. Monitoring: The student would work accordingly to the pre-set units so as to reach the target.

Examples for the 'capability' chosen by students in the RSA's scheme are 'competence in using skills and knowledge, creativity, coping skills and cooperation with others'. Furthermore, the teacher 'helps to identify in any unit of work the main capabilities and the context in which they will be required'. (p.9)

Bell (1991) believes that, in this model, students are given the opportunity to take responsibility for their own learning. They develop their own action plans to reach their own targets. This increases their self-awareness and 'extends their own self-esteem' and eventually develops their capability.

Again, only anecdotal reports are available for evaluating the effectiveness of the RSA's approach. They *all* show encouraging results such as increase in confidence and motivation in learning and that capability has improved in participants from very diverse background, such as, students at school, trainees in further education and managers in training courses (Bell, 1991; Burgess, 1986). However, as Bell and Burgess are both writing on behalf of RSA and without empirical evidence, the results tend to be biased.

3.3.2. The DUBS' Enterprising Learning Model (Detailed discussion in Chapter 4)

The DUBS' model 'derives its key components from the organisational dynamics of the small business' (Gibb, 1993, p.16). The learning process dwells on the importance of the combination of three main elements namely 'the essences of enterprise into the classroom environment; a project management task structure for learning under conditions of uncertainty; and an enterprising 'teaching' mode' (p.21). The classroom environment in which students take ownership of learning allows freedom for them to learn from mistakes and flexibility for exploring alternatives. The project is usually characterised by uncertainty. Students are required to identify their own tasks and discover a structure to tackle them. This involves a cycle of generating ideas, planning, putting the plan in action, and self-review. The teacher sets the learning goal and takes the role of a guide, a partner and a facilitator, taking into consideration individual student's age, ability, existing knowledge and preference of learning styles so as to make appropriate adjustment.

Two surveys have been carried out to evaluate the effectiveness of the scheme in the primary and secondary sector. Iredale (1992) compared the attitude of 25 participant schools and 25 non-participants in the primary sector. Findings revealed the polarisation of opinion between the two groups. Participants shared positive views about enterprise education and were able to describe its contributions in behavioural details such as development of student ownership, confidence and problem solving, whereas the majority of non-participants gave more negative and disparaging comments. Cotton (1993) reported similar findings in the secondary sector. She also discovered that the DUBS's approach 'is not readily perceived by teachers to be an approach which has relevance for all subjects within the curriculum' (p.7) However, an overwhelming majority of students express enjoyment in learning through an enterprising way.

3.3.3. Implications for Future Development

The learning model directly addresses the importance of subject-based learning and personal development without other competing learning objectives which are inherent in the work experience model and the business simulation model. In theory, this direct emphasis on subject learning gives a more favourable ground for future development within the National Curriculum. However, there remains a lack of rigorous empirical research to evaluate its effect on knowledge acquisition and development of enterprising

behaviours. Again, with the pressure exerted on the timetable by the National Curriculum, the extent to which the learning model can be applied in everyday teaching is a question that needs to be urgently investigated. Hence, one of the aims of the current research is to find out teachers' perception of the feasibility of implementing the enterprising learning model in classroom teaching.

3.4. Summary

The three models highlight different approaches to enterprise education. While all claim to motivate subject-based learning, the work experience model also stresses the understanding of work; the business simulation model focuses on business activities; and the learning model emphasises its own learning parameter to enhance knowledge acquisition and personal development. Work experience tends to be perceived as a vocational tool for the academically less able. The business model tends to be trapped between the objectives of 'earning' and 'learning'. Neither the work experience model nor the business simulation model seem to have properly linked with subject learning which pushes them towards peripheral 'bolt-on' extra-curricular activities. The learning model is free from these problems because it directly approaches the mainstream of subject teaching and personal development. However, the effectiveness of the learning model is largely unknown due to the lack of empirical support. This is a major setback since amounting speculation on falling educational standards have been attributed to the adoption of progressive pedagogy such as this in schools (Phillips, 1996).

4. Evaluation of Enterprise Education

To evaluate the effectiveness of enterprise education as a whole is not an easy task for various reasons. First and foremost, as Harris (1993b) reasoned the concept of enterprise education is both contentious and loosely defined. The heavy involvement in politics as discussed before has left individual initiatives uncertain about the implication of their embarking on enterprise projects. Secondly, the complexity and diversity of the initiatives with different emphasis on their objectives makes a summative evaluation nearly impossible (Gibb, 1993; Jamieson *et. al.*, 1988).

Thirdly, as Harris (1993b), Jamieson *et. al.* (1988) and Fullan (1991) have pointed out that measuring educational gains (other than academic achievement which is relatively

customary graded) is highly complex and methods of assessment remain impressionistic in nature. Assessing enterprising qualities is inherently problematic in this respect. Confounding issues are difficult to control as students are exposed to multiple educational contexts and situations other than enterprise activities. This leads on to the fourth problem, that individual evaluations tend to fall back upon readily obtainable data such as statistics of participation, stay on rates and quantified opinion questionnaires rather than exploring more in-depth qualitative measurements. Finally, Harris (1993b) suggests that the political agenda exerted in the form of funding and accountability also steers evaluations away from the more objective in-depth analysis to the less threatening focus of quantitative statistics.

Nevertheless, the limited research available provides a glimpse of the effectiveness of enterprise education to date. This thesis adopts Hamblin's model (refer to Section 4.vii, p.27) together with the questions set out in Section 4.vii, to systematically evaluate the achievement of enterprise education in this section.

At the *Reaction* level, questionnaire survey, anecdotal experiences and annual reports from various enterprise initiatives occupy the main body of the research literature. The majority of these forms of evaluation suggest that various initiatives have considerable success in achieving aims and objectives. Jamieson *et. al.* (1988) claim that enterprise education is generally effective in motivating participation and learning. However, these researchers suggest that novelty effect confounds the result. Long term follow-up studies are required to investigate the effect.

At the *Learning* level, referring to the content being learnt, that is literacy, numeracy and subject-based knowledge, no quantitative research has been done. Tansey (1971 cited in Jamieson *et. al.*, 1988) suggests that work simulation is weak on content learning. Although Lyons and Breakwell (1993) found that enterprising attributes were positively correlated with academic achievement, there was no indication that these attributes were developed from any particular initiatives. Morevoer, the correlation was more a result of Lyon and Breakwell's construct of measurement, and no causal relationship between enterprising attributes and academic attainment could be drawn.

At the *Behavioural* level, case studies (e.g. Matthews, 1990) and questionnaires on self-assessment (e.g. Youngman, 1994) suggest that enterprising skills such as team-work and problem solving have been developed through enterprising activities. Students were said

to have become more confident and mature (e.g. Henderson & Knutton, 1991). However, as critics have pointed out that there have been no empirical evidence which suggests that these learnt skills and acquired attributes are transferable to other tasks inside or outside school (Bailey, 1991; Coffield, 1990; Jamieson *et. al.*, 1988).

At an *Organisational* level, the annual reports of various enterprise initiatives have given impressive quantitative statistics showing the scale of participation. Qualitative research showing the way in which these objectives might have been reached is rare. Harris *et. al.* (1997) is one of the few research efforts of this kind. The evaluation of the three models of enterprise education initiatives indicates only moderate success. The major problem seems to lie in the lack of evidence to demonstrate that these initiatives have a positive effect on subject-based learning. Nevertheless they have shown strength in enhancing social and personal development in a broad sense (Merson, 1996).

Finally, at an *Ultimate Achievement* level, the impact of enterprise education on society is largely unknown. Referring to the evaluative questions in Section 4.vii, only limited evidence can be drawn to answer these questions:

o *Has the understanding of industry been improved? To what extent?*

Studies and anecdotal evidence on TVEI and work-related curriculum (e.g. Bloomer, 1985; Harris *et. al.,* 1997; Henderson & Knutton, 1991) and teacher placements in industry (e.g. Abbot *et. al.*, 1996; Haworth, 1987) suggest that there is an improved understanding of industry. However, how these improvements have helped school organisation and teaching and learning has not been thoroughly studied. Harris *et. al.* (1997) reported teachers' change of attitude and showed them becoming more empathetic towards the work-related entitlement of learning for students. Schools that have the policy to send all their teaching staff to industrial placements have exhibited the best practice in work-related education.

o *Is there more involvement of industry in education? To what extent? In what way?*

There has been greater involvement of industry playing a more active role in education documented in the literature (e.g. Bloomer, 1985; Chitty, 1993; Harris *et. al.*, 1997; Heath, 1995; Henderson & Knutton, 1991; Rees, 1997; Shilling, 1989b; Sockett, 1987;

Youngman, 1992). However, the result of such involvement remains controversial. Good practices show how industrial involvement brings about good provisions of work placements, talks in schools, advisors in enterprise activities and financial support. These have improved motivation to learning due to the increased realism in learning and interaction with adults other than teachers (Bloomer, 1985; Harris *et. al.*, 1997; Henderson & Knutton, 1991). On the contrary, bad practices show that provisions of work placements are low-skill in nature, inadequate supervision is given and reinforce gender stereotype (Heath, 1995; Shilling, 1989b). Some researchers warn of limited choices in local industry and danger of conflicting interests and visions between industry and education (e.g. Chitty, 1993; Heath, 1995; Rees, 1997; Sockett, 1987; Youngman, 1992).

* *Is there a smoother transition to work, less anxiety about unemployment and more confidence about life after school?*

Henderson and Knutton (1991) have mentioned in their study that some students were able to secure temporary work or even full time employment through placements. They also reported an increase of confidence and maturity among students in general. Harris *et. al.* (1997) also reported such changes among some students. However, the proportion of students who manage to have a smooth transition to work and feel less anxious about unemployment is not known.

* *Have the attitudes and knowledge about self-employment been improved? Do more young people express the intention of being self-employed?*

Curran and Blackburn (1991) studied 828 sixth formers' attitudes towards 'self-employment' by questionnaires. They discovered that almost 25% of respondents thought that they might run their own business in future. Although compared with 13.4% of the self-employed in the work force, the figure implied the answer to the above question is positive. However, Curran and Blackburn argued that the result could be more to do with the fact that the majority of those positive answers came from students whose parent(s) were self-employed at that time. The involvement of their schools in Young Enterprise and Mini-Enterprise appeared to have no significant influence on their attitudes.

Nevertheless, Curran and Blackburn found that young people in their study had a balanced perception of self-employment showing an awareness of both its advantage and disadvantage.

Ashford and Bynner (1991) conducted a longitudinal questionnaire survey with 4,800 young people between the age of 15 to 18 between the years 1986 to 1988. They found that traditional job values such as good pay and job security were predominant whereas 'entrepreneurial values' which were defined as 'take responsibility', 'make decisions' and 'opportunity to use initiatives' gained much less support. More importantly, Ashford and Bynner (1991) discovered that young people who were involved in the Youth Training Scheme which emphasised enterprise were less committed to those entrepreneurial values then those in jobs and even those who were unemployed. Ashford and Bynner concluded that 'it seems more likely that enterprise builds on prosperity and opportunity, rather than stimulates their growth' (Ashford and Bynner, 1991, p.61).

The above two studies imply that the answer to the leading question is negative.

- *Have enterprising skills, attitudes and behaviours been fostered? In which aspects?*
- *Do the young people become more motivated and capable in learning? Are their academic achievements improved through enterprising learning?*

The above two questions reflect the central theme of enterprise education. However, as discussed above, evaluations in enterprise education lack empirical studies to show its effect despite short-term enthusiastic reports claiming the development of enterprising skills and behaviours. So far, no research has been undertaken to investigate the effect of enterprise education on academic achievements. On the other hand, escalating speculation claims that progressive learning ideologies embraced by enterprise education is the major reason for the fall of educational standards (Phillips, 1996).

To sum up, due to the difficulties in evaluating enterprise education and the subsequent lack of research evidence as discussed in the beginning of this section, the above evaluation is sketchy and inclusive. At times results are ambiguous and contradictory.

5. Conclusion

The structural framework based upon the ideological ground of liberal education demonstrates that enterprise education can be seen as a distinctive approach to teaching and learning (Bridges, 1992). However, due to the lack of empirical evidence, the effect of enterprise education in motivating learning, improving educational standards and developing personal qualities remains unclear. The problem with evaluations is mainly due to the *conceptual confusion* surrounding the notion of enterprise education and *the lack of appropriate methodology* for measuring its effectiveness. The current research therefore sets out to explore the concept and methodology for evaluating enterprise education.

Chapter 4

Enterprising Learning:

A Critique of the Durham University Business School's Model

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1. Introduction

In Chapter 2 and Chapter 3, enterprise education was broadly defined as a predominantly distinctive approach towards teaching and learning. This chapter seeks to investigate the distinctiveness and the theoretical soundness of this approach. The model of enterprising learning proposed by the Durham University Business School (DUBS) is chosen for this purpose. As discussed in Chapter 3, the DUBS' model is purposefully designated for achieving the ultimate aim of developing enterprising young people through formal education (Gibb, 1993)[1], unlike the work experience model characterised by TVEI and the business simulation model by MESP which have the problem of competing learning objectives. The DUBS' enterprise education model has been one most extensively used since 1982. The development of the DUBS' version of enterprise education has been embodied in 14 manuals (DUBS, 1999). Over 700 British schools have been involved and several thousands of teachers have been trained for this approach to teaching and learning (Gibb, 1993). More than 20 companies have participated in the development providing between £2-3 million in private monies matched by public money of £2 million. The DUBS' model is spread nationally and internationally to 14 countries including Finland, Russia, Latvia, Ukraine, Italy, Slovenia, Poland, Hungary, Romania, India, Bangledesh, Malaysia, China and Australia. In several of these countries, it has been the basis for nationally and internationally funded initiatives.

In Gibb's paper (1993), the model of enterprising learning is clearly defined. However, the mechanism of how this approach to learning may lead to the attainment of educational goals, namely the improvement in knowledge acquisition **and** personal development, requires theoretical underpinning. This chapter will firstly introduce and

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[1] The present writer observes that the DUBS model has undergone continuous modifications over time. Unless stated otherwise, the DUBS' model in this chapter and the current research refers to the one which is set out in Gibb's paper (1993).

critically analyse the DUBS model of enterprising learning in the light of the validity of model building (Keeves, 1988). Appropriate modifications will then be suggested. The distinctive features of the model will be recaptured by comparison with conventional progressive learning paradigms. Having identified the uniqueness of the enterprising learning model and its strengths and weaknesses, this leads on to the proposal for the current research which will be discussed in Chapter 5.

2. Analysing the Formulation of the Enterprising Learning Model (Gibb, 1993)

According to Keeves (1988), a good model is one that is valid and reliable. It identifies the important variables and provides a structural framework to explore and explain the interrelationships between these variables, in the closest to reality, with consistency. The concepts of face validity, content validity and construct validity offer the basis for an in-depth analysis of the theoretical soundness of the enterprising learning model to influence classroom learning. Due to the lack of empirical research, the investigation of reliability is pre-mature at this stage. The two questionnaire surveys conducted by Iredale (1992) and Cotton (1993) are seen only to be a 'crude indicator' of the reliability of Gibb's model (See Chapter 3, Section 3.3.2). The remainder of this Section examines more basically, the face, content and construct validity of the model.

2.1. Face Validity

Face validity requires the *label* of the model to represent the phenomenon studied. The following two extracts taken from Gibb's article (1993) offer a source for analysing the face validity of the enterprising learning model:

> Extract 1
> "The... discussion of enterprise within the small business context leads to a model for 'enterprising learning' which embraces the three influences upon enterprise identified in the context of the small business above, namely: the underlying 'essences of enterprise' in the organisation...; a task structure supporting decision making under uncertainty ...; and a learning mode focused upon 'self-discovery'... These are brought together below to form the basis for structuring a model of Enterprising Learning in education incorporating: the essences of enterprise into the classroom environment; a project management task structure for learning under conditions of uncertainty; and an enterprising 'teaching' mode. *The combination of these three will arguably stimulate enterprising behaviours and associated skills and attributes."* (*my italics*)
>
> (Gibb, 1993, p.20-21)

What in practice matters is that the essences of the 'enterprising' classroom environment are maintained, the project facilitates a variety of different tasks to be undertaken under uncertainty and the learning is by doing and discovery. *The model will therefore 'predict' that when these three major conditions are met, enterprising behaviours, skills and attributes will be enhanced. And, perhaps more importantly in the formal educational context, the student will arguably gain, via this process, greater insight into the knowledge being pursued.* The model is essentially contingent, however, upon the degree of uncertainty that the teacher or facilitator wishes to introduce in the learning situation. Thus the environment, project design and learning mode can be tempered in relation to student ability, age, existing understanding, preferred modes of learning and more importantly, content and learning objectives." (*my italics*).   (Gibb, 1993, p.23-24)

Although the accent of Gibb's model is placed on 'learning', the mechanisms of learning, that is the actual cognitive processes and the acquisition of skills, are left unexplained. A closer look into the two extracts above reveals that it is rather **a pedagogical model** addressed to a teaching environment with the intention of inducing 'enterprising learning' (refer to Gibb, 1993, p.21-25). The distinction between 'teaching' and 'learning' might seem fastidious at the outset. However, the two concepts give rise to two very different perspectives to the understanding of the subject matter. Thus, clarification at an early stage is a pre-requisite.

A learning model captures how the actual mechanisms of learning take place and how best to improve them, while a teaching model is idealistically derived from the understanding of such mechanisms so as to help learners acquire and utilise effective learning mechanisms. The focus is shifted from the learner to the teacher/facilitator although the expectation (i.e. maximising on the good learning process) remains the same. Most teaching models or theories often use the word 'learning' carelessly meaning 'teaching'. Ironically, this reveals the fundamental problem in education that much of teaching practice has little understanding of how learning actually takes place, if not because of the immense constraints teachers face (Stevenson and Palmer, 1994; Beveridge, 1997).

Gibb rightly names the model as 'enterprising learning' (Extract 1) as it is based upon a mapping of how a small business owner-manager actively learns within his/her specific environment. However, when this model is adopted into the formal educational environment, it becomes a teaching model since the 'enterprising' learning environment, according to Gibb, is largely arranged or manipulated by the teacher in the classroom with regard to other factors which might affect how s/he arranges his or her classes.

Given that the motivation for owner-managers as learners in their own chosen environment can be drastically different from the motivation for students as learners in the classroom, it is interesting to see whether arranging the classroom to resemble the learning environment of the owner-manager will result in the similar learning outcomes namely, enterprising skills, behaviours and attributes, as hypothesised by Gibb.

To sum up, Gibb's model of enterprising learning has not directly addressed the issue of learning. It is a pedagogical model of teaching with the aims of inducing enterprising learning which may lead to the development of enterprising qualities and greater insight into knowledge.

2.2. Content Validity

Content validity is a systematic examination of the model content to determine whether it covers a representative set of variables for the phenomenon. Gibb has identified three influences which are regarded in this thesis as major independent or explanatory variables as follows:

- the 'essences of enterprise' into the classroom environment
- a project management task structure for learning under conditions of uncertainty
- an enterprising 'teaching' mode

The two desired learning outcomes of this model serve as dependent variables in this chapter. They include:

- enterprising behaviours, skills and attributes will be enhanced
- greater insight into the knowledge being pursued

2.2.1. Essences of Enterprise in the Classroom Environment

Extract 3 illustrates what incorporating 'the essences of enterprise into the classroom environment' means.

> Extract 3
> "The learning environment in the classroom seeks to provide the essence of enterprise, including: ownership by students; as much control as possible by students; freedom and flexibility; responsibility - particularly for seeing things through; freedom to learn by mistakes; allowing informality; allowing for holistic experience in solving problems; and with a major focus on the customer (the beneficiary of the project – see Figure 4.1. below). The approach needs to be tempered by a consideration of the age and ability of

the students and the specific learning goals. It cannot be construed as a situation where there are no clear learning goals." (Gibb, 1993, p.21)

No descriptions or exemplars are given as to how the essence of the enterprise environment can be arranged or exhibited in the classroom environment. From the diagram provided by Gibb (Figure 4.1 below), the enterprise environment appears almost to be neutrally determined. In practice, the present author is aware that the classroom environment is subject to the teacher's organisation and management of the classroom. Arguably, some elements of this particular environment, such *as 'give responsibility'*, *'allow pupils to see thing through'*, *'allow mistake making'*, are treated as the common sense knowledge of teachers. Some are vague statements which require further elaboration. These include *'as much control as possible by students'*, *'introduce uncertainty elements'*, *'keep informal'*, *'provide flexible learning situations'* and *'give freedom'*. A more detailed illustration of the element *'provide holistic project management experience'*, which is another independent variable, is offered by Gibb (1993) and is discussed below.

Figure 4.1 The Enterprise Environment for Education (Gibb, 1993, p.22)

PROVIDE
OWNERSHIP

GIVE
FREEDOM

ALLOW
CONTROL

PROVIDE FLEXIBILE
LEARNING SITUATIONS

GIVE
RESPONSIBILITY

Student

ALLOW
MISTAKES
MAKING

PROVIDE HOLISTIC
PROJECT MANAGEMENT
EXPERIENCE

KEEP
INFORMAL

INTRODUCE
UNCERTAINTY
ELEMENTS

ALLOW PUPILS
TO SEE THINGS
THROUGH
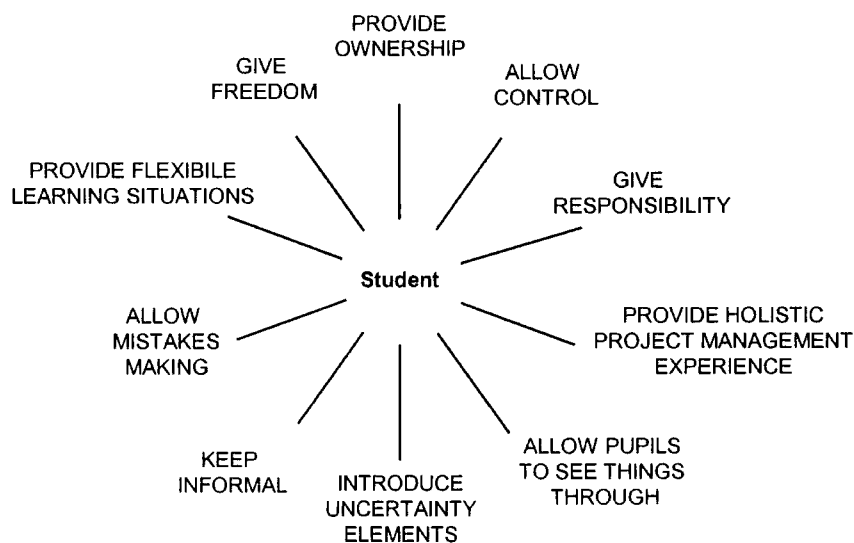
2.2.2. A Project Management Task Structure Under Conditions of Uncertainty

Gibb defines the second component, that is 'a project management task structure for learning under conditions of uncertainty', in Extract 4 as follows:

Extract 4
"The vehicle for learning in enterprise education is the project which simulates a task structure operating under uncertainty. The students...are asked to 'manage' all the project tasks, construct a frame of reference for the project and manage inter-relationships with a wide variety of people (including adults) under conditions of uncertainty. The 'project' model as shown in [Figure 4.2] is focused fundamentally upon a project management cycle of: getting started (self-review); ideas development and evaluation; planning and resourcing; and implementation, with feedback loops... a start can be made anywhere in the cycle dependent upon where it is easiest to start with a group. In [Figure 4.2.] the relationship is shown between the cycle of project management and the personal enterprise behaviours, skills and attributes to be developed. Thus for example, the project management tasks involved in generating and evaluating ideas are aimed at generating opportunity seeking behaviours developing investigative skills and enhancing creativity."   (Gibb, 1993, p.21-22)

Figure 4.2. The Cycle of Project Management and Links with Attribute Development
(Gibb, 1993, p.23)
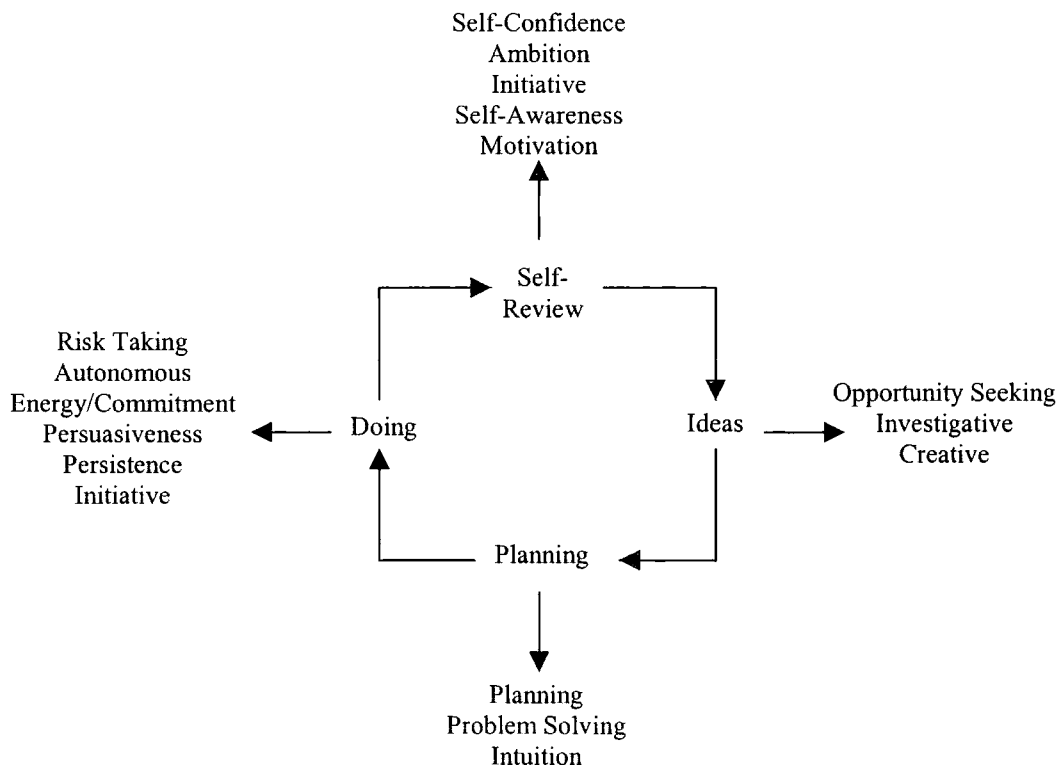
No further explanations are given as to what 'uncertainty' entails in a classroom learning situation as discussed in the above section dealing with classroom environment.

Referring to Figure 4.2, why and how certain attributes[2] are particularly chosen as learning objectives attached to each stage of the cycle, or why and how these attributes are best developed at that particular stage has not been demonstrated by Gibb. For instance, the attribute 'initiative' has been repeated at both the 'doing' stage and the 'self-review' stage, while the attribute 'problem solving' is only attached to the 'planning' stage and not the 'doing' stage. Generally, such speculation seems to be based on personal experience which requires theoretical and empirical support.

2.2.3. An Enterprising 'Teaching' Mode

Extract 5 reveals the important role of teachers as facilitators in an enterprising 'teaching' mode, that is the third component of the DUBS model of enterprise education:

> Extract 5
> "This places great emphasis upon an 'enterprise' style of *learning* as opposed to a more formal didactic *teaching* approach (although not at all to the exclusion of these where necessary), simulating the 'learning by doing' as within the small business (*my italics*). Essentially the teacher's role is that of guide and partner in the learning process and focuses substantially upon recognising the different ways in which people learn, understanding this learning process and facilitating it. The use of the project / simulation in itself involves the teacher moving away from the more 'traditional' stance (in secondary and further education) of being a subject based expert tightly in control of a learning process which is heavily programmed and where the emphasis is substantially on the delivery of knowledge and the examination of understanding." (*my italics*)
> (Gibb, 1993, p.23)

The facilitator's role is vaguely described. The concept of 'teaching' and 'learning' is confusing. Table 4.1 shows what learning modes a teacher should facilitate. This might point to what teaching methods are to be used. However, caution should be taken when dichotimising the two approaches since dichotomy invites distortions due to extremity and over-simplification, although Gibb (1993) acknowledged that 'where necessary', a great emphasis upon the enterprising approach means not at all to exclude the more formal didactic teaching approaches. Research shows that the majority of teachers tend to adopt a mixture of teaching approaches along the continuum (Bennett, 1976; Galton,

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[2] Notice that the term 'attribute development' is used to include 'behaviours', 'skills' and 'attributes' in the title of Figure 4.2.

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1980; 1999). Gibb and Cotton (1998) later suggest that an enterprising teacher is the one who 'appropriately mixes' the traditional and enterprising approaches to match with various learning objectives. *It is the intention of this thesis to investigate in what fashion the two approaches are to be mixed which can be recognised as 'enterprising'.*

Table 4.1. Didactic and Enterprising Learning Modes (Gibb, 1993, p.24)

Learning from teacher alone	Learning from each other
Passive role as listener	Learning by doing
Learning from written texts	Learning from personal exchange and debate
Learning from 'expert' frameworks of teacher	Learning by discovery (under guidance)
Learning from feedback from one key person (the teacher)	Learning from reactions of many people
Learning in well organised, timetabled environment	Learning in flexible, informal environment
Learning without pressure of immediate goals	Learning under pressure to achieve goals
Copying from others discouraged	Learning by borrowing from others
Mistakes feared	Mistakes learned from
Learning by notes	Learning by problem solving

The implication that teaching modes may have an impact on learning modes is supported by Bennett's (1976) and Galton *et. al.*'s findings (1980). These researchers discovered that different teachers' teaching styles have a significant impact on students' learning styles and learning outcomes. It is therefore interesting to investigate into whether an enterprising approach is likely to be more effective in activating and enhancing enterprising qualities and in lending greater insight into knowledge than a didactic

approach which is 'pursued simply as a process of structured knowledge provision' (Gibb, 1993, p.25).

2.2.4. Enhancing Enterprising Behaviours, Skills and Attributes

The first desired learning outcome this model hypothesised is the development of 'enterprising behaviours, skills and attributes'. Gibb has explained in detail his conceptualisation of these enterprising qualities in his paper. Extract 6 below shows Gibb's understanding with regard to formal education (see Figure 4.3):

Extract 6
"It is implicit to the proposed enterprise education model that every student has some degree of enterprise which can be developed. The underlying propositions are that (Gibb, 1987):
- the strength of enterprising skills, attributes and behaviours as well as the mix will vary between individuals. Some individuals will be more creative, some more analytical, and some more capable of independent behaviour etc. than others
- this mix... is influenced by innate potential
- the strength and mix of enterprising behaviours, skills and attributes will, in part, be a function of what has been acquired by experience and exposure...
- ...individuals might display [enterprising behaviours] in some circumstances and not in others
- if enterprise can be acquired by experience and exposure then it can be enhanced by means of education..."   (Gibb, 1993, p.15)

The proposition that 'the strength of enterprising skills, attributes and behaviours as well as the mix will vary between individuals' implies that individual enterprise qualities should not be measured as one single compound since it might not be incremental[3] in nature. Instead, profiling of the variation of components of the enterprising qualities among individuals may be needed. This proposition creates a problem in comparing these qualities among individuals. For instance, if Learner A is high in 'Actively seeking to achieve goals' but low in 'solving problems/conflicts creatively', and the reverse is true for Learner B, how do we compare the two learners? Who is more enterprising? To be able to establish a comparison between individuals' enterprising qualities is important since Gibb's hypothesis is that enterprising qualities are better enhanced through enterprising learning than through a didactic approach. This poses a challenge to the

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[3] In order words, individual enterprising qualities cannot be easily weighed or 'added up' to a total enterprise score as such for the purpose of comparing learners' enterprising competence

current research, that is: *how to measure and compare enterprising qualities among individuals?*

Figure 4.3 Enterprising Behaviours, Skills and Attributes (Gibb, 1993, p.14)

Acting Independently on Own Initiative

Persuading Others

Actively Seeking to Achieve Goals

Commitment to Make Things Happen

Flexibly Responding to Challenge

SKILLS

Problem Solving
Creativity
Persuasiveness
Planning
Negotiating
Decision Taking

ATTRIBUTES

Self Confident
Autonomous
Achievement Oriented
Versatile
Dynamic
Resourceful

Opportunity Seeking

Solving Problems/Conflicts Creatively

Taking Risky Actions in Uncertain Environments

Coping with and Enjoying Uncertainty

* *Words in italics belong to the category of* BEHAVIOURS

Gibb further suggests that individuals' enterprising qualities 'will be displayed in some circumstances and not in others' (p.15). Confounding situations might result when observing classroom behaviour and transfer outside school. This thesis suggests that when investigating and measuring enterprising qualities, researchers might need to extend the inquiry beyond the classroom to, at least, the domestic (home) environment.

Another problem lies in the complexity of the concept. Gibb reports that

> "Discussions, during programmes, with several hundred primary, secondary and tertiary teachers (in the UK) as part of 'enterprise workshops' inevitably produce a list of meanings of the 'enterprising young people'... indicating a number of characteristics some of which can be more strictly defined in behavioural terms and others as associated skills and personal attributes." (Gibb, 1993, p.14)

Referring to Figure 4.3 above, a certain amount of conceptual overlap exists among 'behaviours', 'skills' and 'attributes'. For instance, 'problem solving' simultaneously appears under the category of 'skills' and 'behaviours'. However, no explanation is available for such categorisation (*cf.* Coffield, 1992). Arguably, Gibb's categorisation is in line with the concept of attribution theory in Psychology (Aronson, 1984; Brown, 1986; Tajfel & Fraser, 1978).

"Attribution theory" explains that when an observer observes the behaviours of an actor, these behaviours tend to be inferred into the actor' abilities (skills) and personality dispositions (attributes). In this respect, overlaps are normal depending on the level of inference. In this case, enterprising behaviours observed by Gibb's teachers are inferred as an enterprising person possessing certain enterprising skills and attributes as illustrated in Figure 4.3. Implicit in the diagram, *'behaviours'* terms are mainly expressed in *verbal phrases*, indicating *observable actions*, surrounding the *inferred 'skills'* terms which are *noun phrases* and *inferred 'attribute'* terms which are *adjectives* describing personal qualities. Unlike enterprising behaviours which are directly observable, enterprising skills and enterprising attributes are inferred from these observable behaviours. ***The current research seeks to conceptually underpin the understanding of these enterprising 'behaviours', 'skills' and 'attributes' in the educational context.***

The final problem concerning the concept is its fluidity. The present author notices the inconsistent usage of terms and descriptions regarding the concept. For instance, the term 'attribute development' is used to encapsulate 'behaviours' and 'skills'. It is argued that within the understanding of the attribution theory, this change in terminology is justified since 'attributes' are inferred from 'behaviours' observed and the assumed possession of certain 'skills' and abilities (Tajfel & Fraser, 1978). However, some attributes, such as 'analytical' and 'intuition', are mentioned elsewhere in Gibb's paper but they are not included in the list. The problem seems to lie in the use of everyday language which is full of synonyms and homonyms to describe a social phenomenon such as behaviours (Chell *et. al.*, 1991). Therefore, ***clear operational definitions for enterprising behaviours, skills and attributes need to be drawn urgently.***

2.2.5. Greater Insight into Knowledge

Another desired outcome of the enterprising learning model proposed by Gibb is 'greater insight into knowledge'. Little elaboration has been given as to what constitutes this notion. Extract 7 contains statements which might be related to it:

> Extract 7
> "[Enterprise education] is concerned with helping students to learn to think (Bantock, 1968); and it recognises the importance of motivation, as a core concept in the learning process (Haywood, 1989). By encouraging imagination it is fundamentally concerned with developing the students' insight into phenomena (Chanan, 1977); and it encourages divergent and not just convergent thinking (Guildford, 1977)."
> (Gibb, 1993, p.24-25)

It seems that 'greater insight into knowledge' entails higher order cognitive learning such as 'learning to think', 'imagination', 'divergent and not just convergent thinking', as opposed to mere memorisation of facts and lower order technical and mechanical aspects of knowledge (Gibb, 1984; Levin, 1991). However, Gibb has not explained how higher order cognitive learning may take place. To investgate how 'greater insight into knowledge' may be achieved by this model, this thesis applies the theories of learning from the psychology literature. The model is examined in terms of motivation, social and cognitive process, maintenance and transfer.

Motivation

Firstly, the *enterprising environment* which is characterised by *ownership* creates a pleasant learning situation which may motivate students to engage in the learning activities (see Table 4.2). This is one of the most important conditions to be met by teachers who execute the enterprising teaching approach, according to Gibb.

Table 4.2. Comparison between Different Learning Environments (Vernon, 1972, p.9)

Type of Stimulus	Emotional Orientation	Typical Mental Experience
Pleasant and rewarding	Approach	Like
Unpleasant, but escapable	Avoidance	Dislike, possibly fear
Unpleasant and inescapable	Aggression	Hate, possibly fear

Once engagement is achieved, the *project management cycle* itself provides another source of motivation. Bandura (1976) found that *discovery* is a natural reinforcer to learning. The process of *self-review* in the project management cycle intends to create conscious awareness of one's learning and its consequences, which also aids *self-discovery*. *Confidence building* made contingent to the process of *self-review* is an additional potential motivational force to repeat the learning cycle (Shayer, 1997). Furthermore, *team-work* and *peer learning* within projects create a condition of social facilitation which enhance learning through group dynamics and modelling (Bandura, 1976; Sylva, 1997).

The strength of these motivational factors presented in the enterprising learning model remain to be tested by long-term follow up study. Gibb's model which stresses the intrinsic motivation to learning can find theoretical support in the literature of learning in psychology (Lister, 1999). Lister (1991) summarises that a substantial body of research on learning seems to support the idea that motivation and academic performance are inextricably linked.

However, research for evaluation of enterprise education (discussed in Chapter 3), shows that a progressive approach to learning is effective in inducing motivation but is weak in content learning in general (Jamieson, 1988; *c.f.* Bennett, 1976). While this might be due to the drop in motivation after the novelty effect has worn out and a weak link with the enterprise activity with subject learning, the question remains as to whether these weaknesses are also inherent in this particular model of enterprising learning.

Social and Cognitive Process
The enterprising learning model seems to support the social learning theory which posits that the social and the cognitive processes of learning are inseparable (Bandura, 1976; Gallimore and Tharp, 1990; Van de Veer and Valsiner, 1991; Stevenson and Palmer, 1994; Resnick and Nelson-Le Gall, 1997). As mentioned above, social approval provides powerful motivation to learning. According to Bandura (1976), modelling and imitation of more capable peers and adults are effective ways of learning (Thoresen & Mahoney, 1974).

The enterprising learning model requires the teacher to take the essential role of facilitating the *project management cycle* (refer to Figure 4.2). This learning cycle can potentially induce higher order learning from students since it provokes the generation of creative ideas, and requires the organising, investigating and evaluating of tasks which call upon memory and action (Gallimore & Tharp, 1990). It also has the potential for developing certain metacognitive skills, such as the ability to reflect on how one is thinking, knowledge on one's own cognitive process and self-regulation of one's learning strategies (Lister, 1999). In order to facilitate it well, the teacher will need to have clear learning objectives in mind, generate creative ideas, plan well ahead, instruct well and review his or her own teaching strategies. In other words, the teacher will need to go through the same higher order learning cycle *together* with students (Au, 1990; Gallimore & Tharp, 1990).

More importantly, Resnick and Nelson Le-Gall (1997) claim that the learners' beliefs about the nature of learning and their ability to learn is also socially transmitted. This belief can either enhance or hamper the learners' ability to learn in return. Van de Veer and Valsiner (1991) point out that before the learner becomes competent enough to be independent, s/he relies on the teacher/facilitator for providing feedback and encouragement in the learning process. These 'external messages' are then internalised and become implicit over time.

According to Bennett (1976), teachers' implicit theory about teaching and learning was consistent with the way they arranged their classes which in turn affected pupils' behaviours and performance. In Bennett's research, teachers fell into two groups of beliefs. The first group believed that teaching was for equipping children with skills and attitudes to become effective and competent citizens. Teachers who held this belief tended to adopt the traditional teacher-centred approach. The second group emphasised children's independence and individuality. This group of teachers tended to adopt informal teaching. Children were to acquire basic skills at their own pace. As a whole, children under the first group of teachers outperformed those in the second group in basic skills (Reading, Language and Maths) while expressing less enjoyment in formal classes.

Stevenson and Palmer (1994) point out that the teacher's implicit theory about teaching and learning might affect the learners' implicit theory about themselves as learners and hence might affect their motivation and performance towards learning. Ames and Archer's study (1988, cited in Stevenson and Palmer 1994, p.142) demonstrates such an

effect. Ames and Archer's findings reveal that teachers can be classified into two main groups. The first group tend to convey a predominantly performance orientation in the classroom and the second group tend to display a learning orientation. Students in the performance oriented classes are concerned about being able, outperforming others and achieving success with very little effort. Students in the learning oriented classes are concerned about acquiring new skills, learning and making effort. The performance oriented students reported using fewer learning strategies than the learning oriented students.

Whether teachers who are predisposed to enterprising learning will have certain implicit beliefs is not known. However, idealistically, the enterprising model stresses a learning orientation more than a performance orientation. Therefore, it is likely that students will develop an implicit theory which favours intrinsic learning.

A weakness is identified concerning the social and cognitive process in Gibbs' model. Gibb has not offered guidelines as to how the model may adapt to different ages and abilities. Research effort is needed to investigate this issue especially when learners' stages of cognitive development have been regarded as an important factor for designing teaching strategies (Van de Veer and Valsiner, 1991; Shayer, 1997)

Maintenance and Transfer

Maintenance and transfer of learnt outcomes are two indicators of the effectiveness of a learning programme. Prawat (1992) argues that before knowledge can be effectively transferred, it has to be well maintained. Vernon (1976) claims that learning outcomes which are properly reinforced have a higher chance of being maintained (Thoresen & Mahoney, 1974). Gallimore and Tharp (1990) observe that new knowledge or behaviour which is assimilated and integrated with learners' prior knowledge will become 'automatized and fossilized' and hence maintained (cf. Hayes *et. al.*, 1989a; 1989b). As discussed above, the enterprising learning model is likely to rehearse and reinforce learning outcomes through the intrinsic rewards embedded in the teaching style which builds upon students' *prior knowledge*. In other words, knowledge and skills acquired through enterprising learning are likely to be maintained.

Concerning transfer as an indicator, this model has several strengths in optimising on the effects of transfer in knowledge and behaviour. First of all, the inter-connectedness between the classroom and outside contexts is potentially enhanced by the introduction of *elements of uncertainty* in the classroom. Moll and Greenberg (1990) argue that transfer is the function of necessity. Hence, the reason for the failure of transfer from school learning to the outside world is mainly because what is being learnt in school is perceived as being 'unnecessary'. The progressive *'learning by doing'* attempts to link knowledge with its application so that the perceived necessity can be maximised.

Lunt (1993) suggests that transfer is a socially driven action. Laboratory testing of transfer, however, generally presents learning in an isolated manner, that is the learner learning on his/her own. S/He will then be alone in the laboratory being tested on the ability to transfer what s/he has learnt into a new related task. Lunt (1993) argues that the neglect of the social dimension of learning and transfer is the major setback in this kind of research. He concludes that successful transfer is observed to a greater extent when learners are allowed to learn in social interactions and perform the transfer task in the same manner. Thus, Gibb's model of learning which highlights *social interaction* and *peer learning* seems to have a higher chance of transfer of learning outcome beyond school.

In summary of this section, this thesis argues that Gibb's model of enterprising learning is fundamentally soundly constructed in terms of the psychology of learning. The model seems to have embraced the important components to potentially constitute an effective pedagogy which enhances the motivation to higher order cognitive learning and transfer. Using Keeves' classification (1988), Gibb's enterprising learning model is a semantic model which provides 'a conceptual analogue to the subject matter under consideration' (p.561). Keeves' analysis of semantic models best concludes Gibb's model:

> "A common deficiency of such models is their lack of precision which renders them not readily amenable to testing. However, because they are expressed in verbal form they provide a valuable explanation of the subject matter, in general, which is already understood. Semantic models are in common use in the field of educational research. Many are widely disseminated, but few have been subjected to rigorous testing, and hence have failed to serve the heuristic purpose which would justify their construction."
> (Keeves, 1988, p.561)

Arguably, Gibb's paper does not intend to construct a readily testable model as such, other than 'setting the scene'. The fluidity and ambiguity of concepts beg rigorous empirical exploration and hence that becomes the purpose of the current research.

2.3. Construct Validity

Construct validity requires a model to display the interrelationship among key variables based on adequate theoretical knowledge and empirical support (Keeves, 1988). The overall structure of the enterprising learning model is set forth in Extract 1 above (p.85) and in Figure 4.4 below. Inadequate descriptions are given as to how the three elements represented may 'combine' or 'interact'. In Figure 4.4, the concurrent circles imply that 'the essences of enterprise in the classroom' embrace or enable learning activities through the vehicle of 'project management task structure under uncertainty' which in turn enhances 'enterprising styles of teaching' and finally stimulates 'enterprising behaviours, skills and attributes'.

Problems are found in Gibb's diagrammatic representation. Firstly, it omits another dependent variable that the model 'predicts' which is pronounced in Extract 2, namely 'greater insight into knowledge'. Secondly, it does not reflect the heavy reliance on the teachers' role in:
1) arranging an 'uncertain', 'flexible' and 'informal' environment, that is the enterprise environment for learning to take place in the classroom;
2) facilitating the project cycle.

This is not to deny that teaching styles are affected by the wider environmental factors such as educational policy. Levin (1991) and Galton *et. al.* (1999) reported that the pressure of the National Curriculum and the publication of the Standards Assessment Tests (SAT) in the form of a national league table have affected teaching styles. An increase in 'formal whole class teaching' and a decrease in 'informal interactions with individual children' in the primary classroom are observed.

However, this thesis argues that such an 'unfavourable' environment creates a strong imperative for the teacher to arrange the learning environment into one in which enterprising learning can take place. Especially when research findings (e.g. Galton *et.*

al., 1999; Levin, 1991) have suggested that the whole class approach is characterised by transmission of facts rather than eliciting ideas or independent thinking from pupils.

Figure 4.4 The Model of Enterprising Learning (Gibb, 1993, p.21)
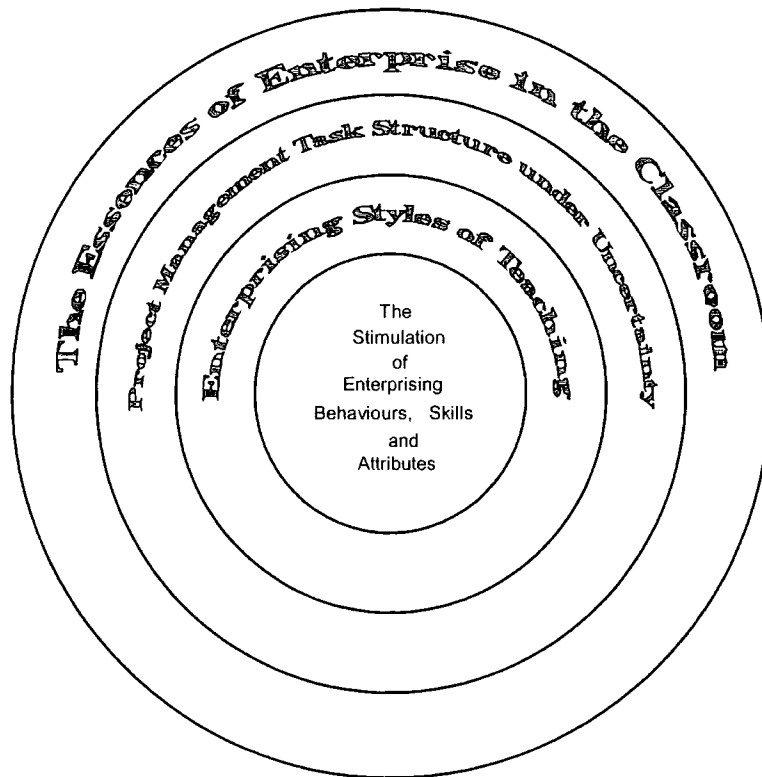
Bearing in mind that enterprising learning is predominantly a pedagogical model of teaching, the present author suggest a modification in the structure of the model as exhibited in Figure 4.5 below.

The modified model rearranges the three explanatory variables and groups them under 'enterprising teaching'. 'Enterprising teaching' is such that the teacher who teaches within 'enterprising teaching modes' will organise the classroom into an enterprising environment in which the 'project management cycle' will be facilitated. 'Enterprising teaching' may increase the probability of learners engaging in enterprising learning modes which enhance the development of enterprising behaviours and gives greater

insight into knowledge. This model portrays the idea that enterprising learning is fostered by enterprising teaching.

Figure 4.5 A Modified Hypothetical Construct for Enterprising Learning
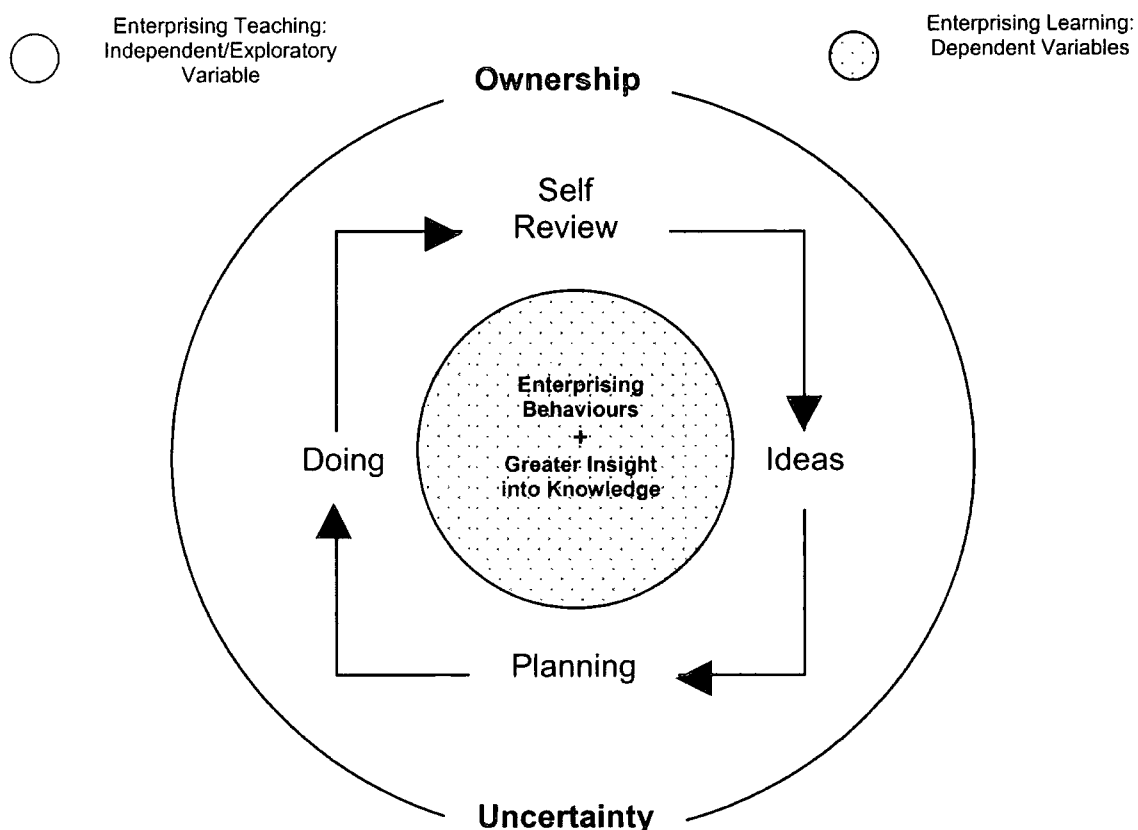
Notice that in the modified model, the essences of the enterprising environment are represented by 'ownership' and 'uncertainty'. It is argued that these are the two 'leading' essences to be highlighted. The notion of *'ownership'*, entails or shares the similar tacit properties with other essences mentioned by Gibb, namely *'allow control'*, *'give responsibility'*, *'allow pupils to see things through'* and *'give freedom'*. The notion of *'uncertainty'* is a feature unique to enterprising learning. It also encapsulates the essences of *'keep informal'* and 'provide flexible learning situations'. The essence, *'provide holistic project management experience'*, is captured in the project management while the essence *'allow mistake making'* is a replication from the enterprising teaching mode.

Another modification is made on the dependent variable, 'enterprising behaviours, skills and attributes'. It is re-labelled *'enterprising behaviours'* to encapsulate 'enterprising skills' and 'enterprising attributes'. The re-labelling is based on the attribution theory discussed in Section 2.2.4 (p.84). Enterprising behaviours are arguably more observable from which enterprising skills and enterprising attributes can be inferred. Enterprising behaviours are likely to be more easily operationalised for measurement, which is one of the purposes of the current research.

The major difference between Gibb's original model and the modified model is structural due to the different contexts of utilisation. Gibb derives enterprising learning from the context of small business in which the 'natural' environment is characterised as 'enterprise essences' while such essences, as postulated in the modified construct, are much subjected to the individual teacher's personal beliefs and attitudes towards teaching and learning in a classroom environment (Bennett, 1976). The restructuring of the model is attempted so as to give a stronger emphasis on teaching. Henceforth, the restructured model provides a simplified basis for the utlimate research inquiry: *Is 'enterprising teaching' more effective in developing 'enterprising behaviours' and 'greater insight into knowledge' than didactic teaching?*

Notice that the modification is only structural. The content of Gibb's model remains unchanged. The content of the three independent/exploratory variables and the two dependent variables are retained in the new structure. The emphasis on a 'learning environment' which is regarded as 'enterprising' and the 'ingredients' within such an environment remain dominant in both models. Subsequently, the modified model has inherited the imprecision of content, that is the lack of concrete and operational definitions for the key elements. Hence, a consolidation of conceptual and methodological underpinning is required before the ultimate research inquiry highlighted above can be carried out.

2.4. Summary

This thesis suggests that Gibb's model is best understood as a pedagogical model with the aims of inducing enterprising learning in students which will enhance the development of enterprising behaviours and greater insight into knowledge in them. Despite some imprecision and ambiguities existing in the model, Gibb has included the important

components for effective teaching. In this thesis, Gibb's model is restructured so as to highlight the teacher's role in organising the enterprise essences and facilitating the project management cycle as part of the enterprising teaching approach.

3. Distinctive Features of the Enterprising Learning Model

Gibb's enterprising learning model has always been associated with progressive teaching paradigms, student-centred learning and discovery/experiential learning in particular (Coffield, 1990; Iredale, 1992). A common problem with these models is the lack of precision which blurs their uniqueness and leads to being branded as mere repetitions of old wisdom. Gibb admits that,

> '...enterprise education borrows concepts from both the progressive and liberal 'schools' of educational philosophy (Skilbeck, 1982). It places emphasis upon the individual and upon starting from the initial knowledge, skills and understanding possessed by the individual (Haywood, 1989). It uses discovery methods of learning. Its goals are concerned with facilitating behaviours (Ryle, 1963) as an outcome of learning.'
> (Gibb, 1993, p.24)

Exactly how these concepts are borrowed and incorporated into the model of enterprising learning is not explained. This thesis argues that, having identified key variables and how they interact in Section 2, the unique characteristics of the enterprising learning model need to be distinguished from those of conventional progressive learning approaches.

In order to contrast the similarities and differences among related progressive learning paradigms, namely child/student-centred learning (Brandes & Gunnis, 1986) and discovery/experiential learning (Kolb, 1984), a sketch of these two models is introduced by Stevenson and Palmer (1994, p.30) below:

> "o *child-centred learning.* Emphasis in both teaching and learning is on the individual child. A teacher adopting this approach will follow an individual's natural curiosities, impulses, needs and interests. She or he will encourage free expression, and will provide opportunities for the development of experiences and awareness. Knowledge, therefore, may well be tentative or incomplete, as it is based on spontaneity.
>
> o *discovery or experiential learning.* The transmission and learning of knowledge is secondary to the process of discovery. Emphasis is on the learner 'doing' things.

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Learning is through active engagement with ideas or materials. The pupil does not passively receive knowledge, or engage in prescriptive tasks laid down by the teacher. There will be emphasis on originality and diversity in response to classroom experiences; and indeed on enjoyment of learning as a process."

(Stevenson and Palmer, 1994, p.30)

Stevenson and Palmer (1994) state that progressive teaching and learning methodologies such as student-centred learning and experiential learning are applied ends of Piaget's cognitive learning theory which portrays the individual as an 'active learner'.

The learning theories discussed above share a great deal of similar properties. They are learner-centred, emphasising learning through doing, discovery and teaching according to age, ability and prior knowledge. However, Gibb's model differentiates itself from the others in four distinct ways. Firstly, **the notion of 'uncertainty'**, as one of the essences of the learning environment, is novel in comparison to other progressive learning paradigms. Although the way that 'uncertainty' can be introduced into the classroom has not been elaborated by Gibb, this thesis maintains that it is a potentially important element of the learning model. Many commentators have described the post-industrial world where young people will face more and more uncertainty in life (Handy, 1984; Watts, 1884; Gibb & Cotton, 1998; Seltzer & Bentley, 1999). It is possible that if students are equipped with the ability to learn under conditions of uncertainty, they are more likely to develop the capability of *'coping with and enjoying uncertainty'* and *'taking action in uncertain environments'*, two of the enterprising behaviours in Gibb's list[4]. Since the learning context has become more similar/connected to the outside world, the chance of learning outcomes to be transferred beyond school is likely to be higher (Hedegaard, 1990; Moll & Greenberg, 1990; Prawat, 1992; Van de Veer & Valsiner, 1991).

On the other hand, 'uncertainty' may also increase the anxiety level experienced by learners with a disposition to anxiety which may have a negative effect on learning (Bennett, 1976; Stevenson and Palmer, 1994). However, Bennett (1976) reported that structured guidance moderated anxiety levels and improved performance of basic skills (reading, language and maths). This leads to the second distinctive feature of Gibb's enterprising learning model, that is the ability to capture the **balance between an**

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[4] Recalling that Gibb's list of enterprising behaviours, skills and attributes was generated in conferences organised for several hundreds of teachers from primary, secondary and tertiary levels.

informal learning environment which gives a sense of freedom, and a structured approach to guide learning and discovery.

The balance between informal learning and structured guidance finds support from the study of learning (e.g. Bennett, 1976; Van de Veer and Valsiner, 1991; Beveridge, 1997). Beveridge (1997), Van de Veer and Valsiner (1991) find that many teachers misinterpret the idea of progressivism by leaving students to learn and discover on their own. This generates a potential of lack of structured guidance or assistance. Bennett (1976) discovered that most of the informal/progressive primary classrooms, except one, in his study suffered from the lack of structured guidance. With the exception of this one class in which pupils performed as good as, if not better than pupils in formal classes in English, Maths and Reading, pupils in all the other informal classes lagged behind their formal counterparts.

The third characteristic inherent in Gibb's learning model is the **importance of peer learning**. In comparison with other progressive methods, enterprising learning accentuates relatively more *'learning from each other'*, *'learning form personal exchange and debate'*, *'learning from reactions of many people'* and *'learning by borrowing from others'* (refer to Table 2.1, p.85). The notion of 'borrowing' is related to the idea of learning through modelling and imitation which are regarded as particularly effective for younger children (Bandura, 1976; Van de Veer and Valsiner, 1991)

The fourth feature that is unique in Gibb's model of enterprising learning from conventional progressive learning theories is **the notion of enterprising behaviours, skills and attributes**. Arguably, some of the enterprising qualities such as *'self-confident'*, *'autonomous'*, *'problem solving'* and *'creativity'*, are commonly quoted as learning outcomes by progressive methods in general (Stevenson & Palmer, 1994). Others, such as *'flexibly responding to challenge'*, *'coping with and enjoying uncertainty'*, *'taking risky actions in uncertain environments'*, *'opportunity seeking and persuading others'*, seem to be inherent and more pronounced in the enterprising learning model.

Summary

Four salient features of the enterprising learning model are identified, namely, the notion of 'uncertainty' as an essence in the enterprising learning environment, the balance between informality and structured guidance, the importance of peer learning and the notion of 'enterprising behaviours, skills and attributes'. This thesis puts forward the proposition that these distinctive features add strength to the existing progressive learning paradigms. However, the lack of precision in explaining the features is a major weakness of the enterprising learning model.

4. Teachers' Perception of the Enterprising Learning Model

Whether teachers choose to employ the enterprising learning model in the classroom depends on two major factors: their attitudes and implicit belief in teaching and learning (*cf.* Bennett, 1976; Stevenson & Palmer, 1994); and whether this model meets the demands of their day to day teaching duty (Fullan, 1991).

Iredale (1992) and Cotton (1993) have found that both primary and secondary teachers have three main unfavourable perceptions of the model. The first unfavourable perception is that the DUBS' model of enterprising learning is located in the capitalistic culture and is associated with school and industry, rather than a distinctive approach to teaching and learning. Teachers have regarded such conceptual confusion as the major obstacle to promoting this model as a vehicle in learning at schools (Cotton, 1993).

Secondly, although the majority of teachers have observed the increased motivation towards learning from students engaged in enterprising learning (Iredale, 1992; Cotton, 1993), this does not seem to alter their perceptions regarding the use of the model in the core subject learning. Formal teaching is preferred for core subjects and the enterprising methods are confined to business and technology related subjects, and cross- or extra-curricular activities (Iredale, 1992; Cotton, 1993; *cf.* Harris, 1993a). A further implication of its perceived 'inferiority' is that enterprising learning is more suited for the academically less able students (Cotton, 1993). Arguably, this can be the result of a

strong false impression that enterprising learning is all about business rather than 'serious' learning. In other words, teachers do not seem to perceive that Gibb's model of enterprising learning can foster 'greater insight into knowledge' as Gibb has hypothesised and which has been theoretically examined in this thesis.

Thirdly, according to the teachers in Iredale's (1992) and Cotton's study (1993), enterprising learning has enhanced students' problem solving skills, social skills and leadership. Yet, despite such positive remarks, enterprising learning remains 'peripheral', since the development of enterprising skills, or personal development as a whole, has not been given as equal status as good examination results (Fullan, 1991).[5]

This thesis argues that unless such an implicit belief attached to the enterprising learning model is removed or changed, the enterprising learning model will remain a peripheral method of teaching, subordinated to the formal approach. It is also possible that this belief is a result of lack of time for exploration, lack of information about the actual learning mechanism of the model and lack of expertise and hence confidence in making it work for core subjects.

Bennett (1976) records that the majority of teachers believe that informal teaching methods make heavy demands upon teachers. Au (1990) demonstrates that to acquire the practical skills and knowledge to properly guide learning in a progressive manner is a complex and intellectually demanding process. Harris (1993a) argues that, very often, inadequate technical, collegial and emotional support is given to teachers who wish to employ the enterprising approach to teaching and learning.

Without the appropriate knowledge and technique, progressive methodologies tend to collapse into lack of guidance and waste of learning time as reported by Bennett (1976) and Galton et. al. (1980), the two influential observational studies in the 1970s.

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[5] In general, positive remarks of this kind are replicated in other enterprising learning approaches, e.g. TVEI and MESP (Jamieson et. al., 1988; Matthews, 1990; Henderson and Knutton, 1991; Harris, 1993a). These approaches are also given lower status due to similar perceived weaknesses in core subject learning and the relative neglect of personal development to academic performance.

Bennett (1976) revealed that among 88% of the 871 schools which returned a questionnaire survey, only 17% taught in the manner prescribed by Plowden while 25% taught formally. The majority adopted a mixed style of teaching (58%). The definition of progressive informal teaching was given as the following:

> "honest expressions of feeling... open to children's participation in significant decision-making... minimum of teaching to the class as a whole... provision is made for children to pursue individual interests and to be actively involved with materials... children are trusted to direct many aspects of their own learning."
>
> (Stephens, 1974, cited in Bennett, 1976, p.8)

Follow-up observations further revealed that all of the informal classrooms, except one, lacked structure and guidance in learning. Children in these classrooms were mostly left on their own to engage in casual chat with their peers instead of working on tasks or having meaningful discussion with peers. This thesis argues that Bennett's description of what was going on inside the so-called informal classrooms barely resembles the definition of progressive pedagogy quoted above. More importantly, the alarmingly inferior performance results by children in informal teaching has led to the implication that informal teaching was to be blamed for falling educational standards in the UK (as in Callaghan's speech, 1976; Phillips, 1996; mass media coverage recorded in Galton *et. al.*, 1999).

Similar observations of ineffectiveness in informal classrooms were reported by Galton *et. al.* (1980). These researchers discovered that when children were left to pursue their own interest and teacher's attention was given to individuals as opposed to the whole class, interactions between teacher and pupils were superficial, simply because of time constraints. It was impossible for one teacher to give quality guidance and to assess the prior knowledge of each individual child in a class of more than 30. Galton *et. al.* (1980) found that the demonstration of 'progressivism' in the real life situation was unsatisfactory,

> "...the surface appearance in these classrooms of activity, discovery and interaction – the Plowden ideal- was somewhat illusory. Pupils spent most of the time at their working base rather than moving around the class, and communicated only

infrequently either with their teacher or with others in their group. In this situation levels of distraction were relatively high, interaction between pupils was relatively low, and such communication as there was rarely had much to do with the task in hand. " (Galton *et. al.*, 1999)

The credibility of the progressive ideology has since been greatly challenged despite the seeming misinterpretation of progressive methodology evident from both studies. Progressive teaching has also been blamed for the poor performance of UK education in comparison to their European and Far Eastern counterparts in the growing body of international comparatives studies (examples can be found in Phillips, 1996 and Galton *et. al.*, 1999). Galton *et. al.* (1999) count these events as precursors to the return of traditional formal teaching fortified by the introduction of the National Curriculum and the Standards Assessment Tests (SATs). Subject timetables are prescribed for teachers so as to meet the National Attainment Targets. Students are also tested at every Key Stage and results are published in national newspapers in the form of league tables. These measures are adopted by the government to ensure standards but they may also curtail progressivism in classrooms (Saunders & Halpin, 1990; Henderson & Knutton, 1991; Miller et. al., 1991; Cotton, 1993; Harris, 1993a; Galton *et. al.,* 1999)

Contrary to what the government might have expected, research seems to show that the return to didactic whole class teaching and SATs has contributed to the falling of standards (Galton *et. al.*,1999) . Galton *et. al.* (1999) compare observations taken in 1996 with those in 1976. An increase in the formal approach of whole class teaching and a decrease in informal, individual interaction in the classroom are reported. Contradicting the published SATs results which suggest that standards have been rising in recent years, Galton *et. al.* (1999), using different test batteries, find a considerable decline in standards twenty years on (*cf.* Levin, 1991).

These researchers conclude that the National Currriculum and the SATs have imposed impossible time constraints on teachers to deliver an enormous amount of content and more time has to be allocated to coach students for the SATs (Levin, 1991). SATs have been further criticised for their focus upon measurable aspects of knowledge instead of more holistic and complicated aspects of learning. According to Galton *et. al.* (1999), in

measuring Language, SATs put more emphasis upon assessing the technical aspects of punctuation rather than comprehension, and in Maths, the emphasis is upon computation rather than problem solving. Levine (1991) and Galton *et. al.* (1999) comment that the teaching of lower-order memorisation of facts is being reinforced, replacing the higher-order cognitive processes. Instead of fostering quality learning and improving standards, the researchers observe that the National Curriculum and the SATs have pushed teachers to adopt formal whole class teaching for a seemingly efficient instruction in facts. Galton *et. al.* (1999) warn that:

> "It may be that as we advance up the league tables in terms of standardised test scores, we will fall behind on the creative thinking and problem solving...While not wishing to deny the importance of seeking to raise the standards of literacy and numeracy in our primary schools, it is also important not to give the impression, either to the public or to the teaching profession, that this is the sole aim of primary education" (Galton *et. al.*, 1999, p.197)

Galton *et. al.* (1999) also reported teachers' feelings of helplessness towards the pressure imposed upon them by the National Curriculum and the SATs. Teachers resent that they have to teach in ways which are against their beliefs and identities as educators. Such feeling is even stronger among older teachers.

So far, charting the apparent progressive tide enthused by the Plowden Report (1967), to the swing back to formal fact transmission in the 1990s, it seems that teachers are caught between the disillusionment of the 'failed' progressivism and the feelings of helplessness towards the 'forced' didactic teaching (Galton *et. al.*, 1999). Arguably, the enterprising learning model can potentially offer a synergistic 'middle ground' to resolve the problem since it combines the informal environment of learning with structured guidance. However, as shown in the evaluations done by Iredale (1992) and Cotton (1993), teachers need to be convinced of this potential (see also Harris, 1993a).

Embedded in the misperception is the belief that a progressive teaching approach such as enterprising learning may not meet the everyday demands of the teacher. Time constraints imposed by the National Curriculum and the pressure of performing in the league table leave them with little time to acquire or refresh their pedagogical technique and thinking. It is therefore understandable that teachers need to be reassured that

enterprising learning will not aggravate the constraints of time and will help improve performance before they embark on this approach of teaching. They also need to be convinced of the importance of nurturing enterprising qualities in young people while developing their academic abilities. Research evidence of the effectiveness of the model is urgently required.

4. Conclusion

It has been argued that the DUBS' model of enterprising learning which is derived from the learning of small business management can be viewed as a distinctive approach to teaching and learning in education. The model is potentially a useful pedagogy despite a great deal of imprecision and ambiguity. The model remains enshrouded in several conceptual confusions which result in unfavourable perceptions (Iredale, 1992; Cotton, 1993; Harris, 1993a). Research evidence is therefore urgently needed to evaluate the effectiveness of this model in enhancing enterprising qualities in young people and allowing greater insight into knowledge. This requires firstly, the understanding of how enterprising teaching modes can be identified from other learning approaches used in classroom practice; and secondly, an appropriate methodology for measuring the key concepts in this model. This will be the topic of discussion in the next chapter.

Chapter 5

The Current Study: Research Design and Methodology

1. Introduction

In Chapter 1, the literature review of enterprise education reveals that there is a lack of consensus about its definition. Chapter 2 further shows that the overwhelming association with business success (that, after all, is necessary in modern industrial societies) raises the issue of relevance and compatibility of enterprise in education. The political manipulation of enterprise to legislate radical change in education has further aggravated the problem. Some educationalists even suggested that enterprise was not compatible with education (e.g. Keep, 1992). Situated in this particular socio-political context, Gibb's model of enterprising learning (1993) has also been found to have inherited the conceptual confusion as discussed in Chapter 4. Such confusion is one of the reasons why some teachers hold unfavourable perception of the model which restricts its application across the curriculum. Henceforth, empirical research is needed to explore the effectiveness (or otherwise) of Gibb's model before teachers perception can be changed.

In order to empirically evaluate the model, operational definitions and appropriate measurement instruments need to be developed. This has become an additional focus of the current exploratory study. As discussed in Chapter 4, the two key concepts, 'enterprising teaching modes' and 'enterprising behaviours' remain ambiguous. To concretise the two concepts, a literature research into the measurement of enterprising teaching and enterprising behaviours was carried out.

Drawing from the literature review in the previous chapters, the central research questions for the current exploratory study are laid out as follows:

For enterprising teaching modes:

- What do 'enterprising teaching modes' mean to teachers?

  (Do teachers perceive a political/industry overtone in 'enterprising teaching modes'?)

- What are teachers' perceptions of the DUBS' definition of enterprising teaching modes?

  (Is it an adequate concept? What are the factors affecting its application?)

- To what extent can an enterprising teaching modes be identified from day to day teaching experience

  (Can an enterprising teaching approach be distinguished among mixed teaching styles)?

- How reliable is behavioural rating for measuring teaching tendency?

For enterprising behaviours:

- What do 'enterprising behaviours' mean to teachers?

  (Are 'enterprising behaviours 'desirable' and 'appropriate' in the context of education?)

- What are teachers' perceptions of the DUBS' definition of enterprising behaviours?

  (Is it an adequate concept? What are the factors affecting its development?)

- To what extent can enterprising behaviours be identified and observed from day-to-day teaching experience?

- How reliable is behavioural rating for measuring enterprising behaviours among students?

To answer these questions, this chapter discusses the process employed in the search for an appropriate research method. Since the teaching professionals are at the forefront of the subject matter, it is essential to know how 'enterprising teaching modes' and 'enterprising behaviours' are perceived and identified by them in day-to-day teaching and learning at educational institutions. The overriding need to explore fully the meanings associated with the above expressions dictated the research methodological focus. It demanded approaches that would facilitate the exploration of all aspects of ambiguity within, and relationship between the two concepts. Therefore, from the beginning, the current study was orientated towards a 'case-study' method and the notion of an exploratory rather than an explanatory or predictive approach. The rationale for choosing a qualitative discourse methodology is discussed in detail. This is followed by

the planning of the current research design and procedure. Finally, the structure and method of analysis is presented and discussed.

2. In Search of an Operational Definition for Measuring Enterprising Teaching

Harris' Ph.D. research (1993a), titled *Enterprising Education in Secondary Schools – An Investigation into Teaching Approaches,* is empirically well constructed. It has attempted to operationalise and then observe an enterprising teaching approach in secondary classrooms. Based on the research findings, useful suggestions and recommendations concerning concepts and methodology have been given to future research. Hence, her research effort is discussed in detail in this Section.

2.1. Harris' Study of Enterprising Teaching Approaches (1993a)

2.1.1. Research Design

Harris (1993a) has analysed five main teaching styles which are related to the enterprising approach. These teaching styles, labelled as progressive/participative/ teacher-centred, all appeared in dichotomy with the traditional/conventional/teacher-centred approaches as follows:

- 'Progressive' vs. 'Traditional' (from Bennett, 1976, p.38);
- 'Dependency Traditional' vs. 'Risky Progressive' (from Brandes & Gunnis, 1986, p.11);
- 'Teacher-Centred' Strategies vs. 'Student-Centred Strategies' (from Jamieson *et. al.* , 1988, p.180)
- 'Participative' vs. 'Traditional' (from Boydell, 1976, p.44);
- 'Conventional' vs. 'Enterprising' (from Johnston *et. al.*, 1987, p.3)

From these typologies, Harris distilled the components which constituted the 'Student-Centred/Enterprise Approach' which was dichotomised with the 'Didactic/Non-Enterprising Approach' as in Table 4.1 below (Harris, 1993, p. 151). These enterprising teaching components formed the basis for Harris' classroom observations. To empirically

observe these components, Harris designed the Enterprise Teaching Observation Schedule which was derived from the technique of the Science Teaching Observation Schedule (see Harris, 1993a). Four teachers were observed for over one year. For each teacher, 12 enterprise lessons and eight non-enterprise lessons with a total of 26 hours of teaching time were recorded in video. Behaviours were scored for three seconds at three-minute intervals. Data collected by classroom observations were then triangulated with the following:

- questionnaires completed by 100 teachers and 200 pupils who had previously been involved in running mini-enterprise activities

- interviews with the four teachers who were observed and 40 pupils from eight enterprise groups

Table 5.1. Student-Centred/Enterprise Approach - Didactic/Non-Enterprise Approach (Harris, 1993a, p.151)

Student-Centred/Enterprise Approach	Didactic/Non-Enterprise Approach
Control of learning with students	Control of learning with the teacher
Students determine questions	Teacher sets questions
Active student role	Passive student role
Learning predominantly by discovery techniques	Accent on memory and rote learning
Students identify and make use of available resources	Teacher conducts and demonstrates – students observe
Students explore alternative solutions to problems	Teacher assigns practical exercise and problems
Negotiated learning – students make choice	No negotiation – learning is imposed
Teacher acts as facilitator	Teacher as distributor of knowledge
Students work collaboratively in small groups	Students work independently and individually

2.1.2. Results

The triangulation of Harris' findings has shed important insight into the subject matter. In general, observational findings showed that teachers did not seem to teach differently

in enterprise lessons. These findings contradicted sharply with the questionnaire and interview results which suggested the opposite: both teachers and pupils perceived that the teaching approach in enterprise classes was distinctive from other non-enterprise classes.

In terms of 'pupil choice', both teachers and pupils recalled that pupils were given more choices in enterprise lessons than other lessons although choices were mainly 'framed' or 'guided' as opposed to free choices. Observation, however, showed that pupils were given fewer but higher order choices in enterprise lessons whereas more but lower order choices were offered in other lessons.[1] This thesis questions whether the difference in findings might be a result of different *perceptions* of 'choice' between the observer and the observed.

In terms of 'pupil autonomy', questionnaire results indicated that most of the decisions were jointly made. Interview findings confirmed that, in enterprise lessons, teachers intervened more in the process of organising and planning while pupils recalled having more freedom and responsibility to take charge, to learn for themselves, and they were allowed to make more errors. Observational data however showed that differences in 'pupil autonomy' between enterprise and non-enterprise lessons were minimal. Harris (1993a) suggested that the slight change recorded in observation seemed to have a large impact in reality due to the potential insensitivity of the measurement method to record subtle changes.

In terms of 'the nature and type of classroom communication', all three independent measurements yielded the same discovery that there was a higher incidence movement of teachers and pupils in and out of the classroom in enterprise lessons than non-enterprise lessons. Both teachers and pupils reported that the relationship was more informal in the sense that the teacher was more relaxed, easy going, friendly and approachable in enterprise activities. Pupils were given freedom to talk. They believed that teachers enjoyed enterprise lessons more than other lessons. However, observational findings only demonstrated marginal change in that more group and individual interactions were observed in enterprise lessons where teachers offered more suggestions, opinions and

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[1] According to Harris (1993a), an exemplar for low level choice is: 'Do you want a blue or a red pen?' This is to contrast with that of medium level choice: 'You decide on your logo. Here are some examples to help you.' High order choices are ones which have no teacher direction or framing, e.g. 'You decide how to organise yourselves for this work.'

advice, while whole class instructions and facts transmissions were more frequent in other classes.[2]

In terms of 'perception of change in teaching approaches', Harris (1993a) observed that teachers used mixed styles in both enterprise and non-enterprise lessons anyway and that the distinction was unclear. Questionnaire responses apparently supported this claim as *all* teachers reported using a variety of teaching approaches in different lessons. However, among the mix, both teachers and pupils clearly articulated the distinctive approach employed in enterprise lessons from other lessons. The pupils in Harris' research said that:

> 'Enterprise lessons are different from other lessons... It's a different format, we look up the answers and use different media for different problems, instead of copying out work from a book and learning it.'
> '...they let us put forward our points of views rather than making all the decisions and setting out exactly what we must do.'
> '...the teacher does less informing and leaves most of the thinking up to the children. A teacher may organise the equipment but the pupils will decide what and how to use it.'
> 'They treat you like an adult.'
>
> (Harris, 1993a, p.239-243)

Teachers also recalled that the enterprising teaching approach was distinctive:

> 'In enterprise lessons, I am aware that I teach in a different way... I do not teach from the front but work with groups in a more informal way. I'm much more of a facilitator...'
> 'I think I teach very differently in enterprise lessons... You have to adopt a different role. I'm there as a resource for the pupils. I spend the lesson just supervising and not teaching.'[3]
>
> (Harris, 1993a, p.239-243)

Harris believed that such perceived change in teaching approach was a 'misinterpretation' since no clear distinction between teaching approaches could be observed among different lessons. According to Harris, two major factors prompted such misinterpretation. The first factor was the change in classroom management and organisation which meant more group work, more free movement in and out of the

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[2] Similar observations were also found in Galton *et. al.*'s formal classes (1999) that whole class teaching tended to contain more transmission of facts.

[3] Note that teaching seemed to be associated solely with lecturing while 'supervising' was not considered as 'teaching'.

classroom, and pupils were allowed to talk more freely. The second factor was the difference in content. Enterprise/business courses as a subject was regarded as less important than other subjects such as Maths and Physics and, therefore, enterprise lessons could be taught more informally. The transfer of an enterprise approach to other subjects was thought to be very limited if not inappropriate in this respect, according to the pupils:

> '...lessons like Maths and Physics etc. couldn't all be taught exactly like this...'
> '...lessons like Physics cannot be taught like this but could involve some aspects of it like using computers and different media.'
> '...Even though enterprise lessons are more fun, we need lessons to learn properly... to learn the basics.' ·
> '...you can't really learn only from doing practical things. You couldn't learn enough facts to get you through the exam this way.'
>
> (Harris, 1993a, p.239-243)

Harris concluded that despite pupils' reported enjoyment of enterprise lessons and the increase in self-confidence, sense of responsibility, interpersonal skills and practical skills in running a business, both teachers and pupils had reservations as to its effectiveness in learning factual knowledge (*cf.* Tansey, 1971, cited in Jamieson *et. al.*, 1988; Bennett, 1976; Galton, 1980, 1999).

2.1.3. Implications and Suggestions

Enterprising Teaching Approaches

Similar to Harris (1993a), when describing what 'enterprising modes of teaching' (EMT) entail, Gibb (1993) compares *didactic modes of learning* with *enterprising modes of learning* in order to bring out the distinctive features of the latter (Gibb, 1993, p.24). However, unlike Harris (1993s) who seems to view that mixed styles are not enterprising, Gibb (1993) suggests that teachers' teaching styles lie along a continuum instead of being polarised into two extremes, and that teaching in an enterprising way does not necessarily exclude didactic measures (see also Gibb & Cotton, 1998). These assumptions pose an important question:

⊚   *To what extent does EMT constitute an adequate concept?*

Harris claimed that teachers' and pupils' perception of a distinctive enterprising approach was a misinterpretation due to confusion with the following:

1) the change in classroom organisation and management
2) the nature and content of enterprise work
3) the subsequent increased in informality in the teacher-pupil relationship

In other words, Harris seemed to treat 'teaching approach' as a separate entity to these three factors and thus she concluded that teachers' mixed style of teaching was not strictly speaking student-centred/enterprising since no clear distinctions were detected by empirical observations among these styles.

This thesis takes a different view from Harris in defining teaching approach. As argued in Chapter 4, Gibb's model of enterprising teaching stresses that teachers' organisation and management of the classroom in ways which introduces the 'essences of enterprise into the learning environment' is one of the three important elements of enterprising teaching. Such an environment purports that the nature of the learning activity is an intricate combination of social and cognitive processes. Therefore the change of teacher-pupil and pupil-pupil interaction, from formal to informal, is part and parcel of the enterprising teaching approach. In other words, this thesis suggests that the above three factors need to be treated as important elements of teachers' teaching approaches instead of separate entities.

In identifying enterprising teaching approaches, Harris contrasted the enterprise classes with the non-enterprise ones. The assumption which underlies Harris' approach seems to be that enterprise classes might inherently embrace the enterprising teaching approach more so than non-enterprise classes. While this assumption was supported by Harris' teachers and pupils, and the theoretical stance of Gibb's model of enterprising teaching (1993), Harris concluded that the difference in teaching approaches between the two types of classes was too small to sustain the claim of a distinctive approach.

This thesis takes a different perspective from Harris. The little difference in teaching approaches might indicate that some elements of the enterprising approach had been incorporated in other classes. The notion of a *mixed* style implies that teaching behaviours may not locate altogether on the extreme end in exclusion of the other along the continuum of student-centred/enterprise approach – didactic/non-enterprise approach (Gibb, 1993). As argued in Chapter 4, the question is not whether the teaching approach

is enterprising or not, but 'to what extent'. A more appropriate research question would be:

o *How to identify the extent of an enterprising teaching approach from the mixed teaching styles?*

Hence, the focus is not on whether enterprising teaching can be transferred from enterprise/business courses to other subjects, but *the extent to which enterprising teaching can be applied and identified from teachers' everyday practice.*

Arguably, by shifting the focus from transferability to everyday applicability, the confusion of the teaching approach with the content of enterprise/business learning may be reduced. Once an enterprising teaching approach is 'decontextualised' from its confounding content, teachers' 'true' perception of the teaching approach can then be examined more properly. It would be interesting to see whether the cynicism that 'enterprising learning was about fun but not real learning' would still persist among teachers and pupils.

Finally, Harris (1993a) raised an important issue that when studying teaching approach, it is a prerequisite to understand how teachers think about teaching, before their teaching behaviours would make sense to the observer/researcher. Harris' suggestion confirmed the argument set out in Chapter 4 that research needs to take into consideration teachers' beliefs, attitudes and perceptions in teaching approaches. Teachers' concerns are important since it is these concerns that influenced their preference in teaching behaviours (Fullan, 1991). Research methodology would need to allow teachers' reflection of the classroom reality to emerge, so that they could critically examine their own practice and that their implicit beliefs and attitudes be explored. Taking on board Harris' suggestion, the current research proposes the central research question:

o *How do teachers perceive 'enterprising teaching modes' in relation to their everyday teaching experience?*

Research Methodology

Harris (1993a) suggested that the discrepancy between observational findings and questionnaire and interview results was mainly due to the insensitivity of the observation schedule. It was weak in recording the sequence of events and it ignored the social and

temporal context in which teaching behaviours took place. Even though the observation schedule could potentially provide a relatively reliable means to observe and therefore measure and compare behaviours, the essential qualities of interactions would be lost since the 'culture of the class' might be incomprehensible to outside observers (Walker and Adelaan, 1975 cited in Harris, 1993a). The fact that slight behavioural change had generated great impact on perception apparently supported Walker and Adelaan's claim.

Furthermore, as discussed above, Harris maintained that the major weakness of empirical observation was its inability to access a teacher's beliefs and concerns about teaching. Harris, quoting Smith and Geoffrey (1968, p.96), explained the problem:

> "the way (the teacher) poses his problems, the kind of goals and sub-goals he is trying to reach, the alternative he weighs... are aspects of teaching which are frequently lost to the behavioural orientation empiricist who focuses on what the teachers does, to the exclusion of how he thinks about teaching."
>
> (Smith and Geoffrey, 1968, cited in Harris, 1993, p.281)

The method of interview compensated for the loss of important qualitative data in the empirical endeavour in Harris' research. Interview was demonstrated as an effective way of tapping into teachers' beliefs and perceptions. Therefore, it will be adopted as a major tool in the current research. The rationale for such a decision will be discussed further in this chapter.

3. In Search of Operational Definitions for Measuring Enterprising Behaviours

As discussed in Chapter 3, the notion of developing 'enterprising behaviours' in young people is one of the distinctive features of Gibb's model of enterprising learning. This also means that the concept as a whole does not exist in the educational research literature, although the term 'enterprising behaviours' has been used substantively by various initiatives promoting enterprise education. Gibb (1984; 1987) suggests that 'enterprising attributes' have been studied in the literature of enterpreneurship for a few decades. However, research findings remain highly contentious and inconsistent. In spite of integrative efforts at grouping several behaviours in a meaningful way for the purpose of predicting 'enterprising tendencies' (Caird, 1988), 'entrepreneurial success' (Chell *et. al.*, 1993) or 'entrepreneurial potential' (Johnson & Ma, 1995), the core concept of 'enterprising behaviours' is by no means established and recognised.

The overwhelming association with entrepreneurship and wealth generation raises the issue of relevance and adequacy of enterprising behaviours as one of the prime goals of education. In response to this challenge, Gibb has summarised a holistic list of enterprising behaviours, skills and attributes which are suggested by several hundreds of primary and secondary teachers at various workshops over the years (Gibb, 1993, p.14). Since no references are given as to how these behaviours were dealt with within these workshops, and that the distinction between 'skills', 'attributes' and 'behaviours' is unclear (refer to Chapter 4), the list requires further investigation. Since the focus of the current research is on teachers' perception, two research inquiries are thus derived:

- *How do teachers perceive 'enterprising behaviours' in pupils?*
- *Can these behaviours be measured and compared by teachers?*

4. In Search of a Research Methodology

In this Section, the present researcher critically reflects the processes of choosing an appropriate methodological strategy. Bryman (1988) states that reflexivity would embody a consideration of the epistemological and ontological prejudices of a researcher that influence choice. Coming from an experimental psychology tradition, the researcher was originally inclined to take a quantitative/positivist's thinking (Tajfel & Fraser, 1978) in investigating the subject matter, that is the effectiveness of the enterprising teaching approach in developing enterprising behaviours in young people. However, as the research went along, the nature and the process of discovery of knowledge prompted the researcher to reconsider her methodological stance. For a while, the researcher was caught in a dilemma which was caused by the shift from a quantitative/positivist disposition to the qualitative/interpretative perspective (Geertz, 1973; Bruner, 1990).

The researcher recalls the initial inclination to conduct two types of quantitative/positivist study. The first was a questionnaire survey involving a couple of hundred students. Their preferred styles of teaching and learning were to be compared against educational attainment, career development and enterprising tendency. The potential for generalising findings was 'tempting' (Cohen & Manion, 1994; Oppenheim, 1992). The second was a controlled experiment in classroom learning comparing the

effect of enterprising learning with that of didactic learning. The apparent 'objectivity' and 'causal' effect appeared to be convincing at the time (Skinner, 1974; Plutchik, 1983). That was how the first idea of operationalising the two key concepts came about: it was for the purpose of conducting a scientific empirical study of teaching approaches.

However, two fundamental problems in implementing the quantitative/positivist methodology confronted the researcher. The first problem was the substantial lack of conceptual clarity surrounding the key concepts of the phenomenon to be researched. An in-depth exploratory study was required to substantiate existing understanding rather than a simple process of operationalising them. Without more precisely constructed concepts in mind, positivistic experimentation or quantitative questionnaires would be doomed to be incomprehensible (Tajfel & Fraser, 1978; Plutchik, 1983; Oppenheim, 1992).

The need for an in-depth exploration of the phenomenon naturally discards the application of a *prescriptive* quantitative/positivist methodology as a main research tool. Prescriptive closed-ended questions or hypothetical constructs superimpose the researcher's conception of the phenomenon and engender 'framed' or 'conditioned' responses as opposed to 'natural' responses from the participants (Cleary, 1977; Bryman, 1988). Not only will the scope of the exploration be limited, it may also generate 'distorted' results (Chell *et. al.*, 1991). Considering that the central proposal of the current research is to study teachers' perception, and teachers might have a different conception of the phenomenon from that of the researcher (Young, 1965; Fullan, 1991), an appropriate research methodology would need to capture the perception *from the insider's point of view.* Furthermore, according to Chell *et. al.* (1991), questionnaires rely heavily upon language and yet provide no means to access potential polysemous interpretations. This may lead to another uncontrollable error variance. Researchers may find that contradictory results from questionnaire data cannot be 'logically' explained. In some cases findings are inconclusive (Shipman, 1981; Chell *et. al.*, 1991; Cohen & Manion, 1994; Oppenheim, 1992).

The second problem was more profound and striking to the researcher. Having reviewed a body of literature into learning theories and practices (e.g. Vernon, 1972; Bandura, 1977; Kolb, 1984; Brandis & Gunnis, 1986; Moll, 1990; Stevenson & Palmer, 1994; Smith *et. al.*, 1997), the researcher was puzzled at the chasm between theory and practice (Wubbels, 1992; Beveridge, 1997). Even sound learning theories which are well

researched seem to have been lost to practice. Young (1965) and Shipman (1981) believe that the over-abundance of jargon in research journals makes the advanced technology in teaching and learning inaccessible to practitioners. Beveridge (1997) thinks that pedagogical discoveries are frequently 'distorted' when it comes to classroom practice due the inclination of practitioners to seek simple and easily applied solutions. However, the problem, Fullan (1991) argues, is more because these sound theories and principles of teaching may not be translatable into practice, given the complexity of teachers' hard 'reality'.

It has been argued that the majority of the laboratory based research on teaching methods, such as Piaget's experiments, although being supposedly more 'objective', 'reliable' and 'believable', is conducted at the expense of a 'reality' where teaching and learning behaviours are complex and subtle (Young, 1965, Van de Veer and Valsiner, 1991). The concept of a 'control' or 'holding variables equal' is simply unrealistic. Furthermore, an experimenter or expectancy effect is not easily detectable and controllable (Brown, 1986; Shipman, 1981)[4]. In other words, being objective and reliable does not necessarily mean being valid and believable (Kratochwill, 1979).

Another problem with reductionistic empiricism is the breaking down of holistic behaviours into measurable units (Lowe, 1983; Van de Veer and Valsiner, 1991). Vygotskii's analogy (1965) elucidates this problem: when studying the effect of water (to extinguish fire), one would have a different result if 'the whole compound' of water (H_2O) was broken down into 'rudimentary units', hydrogen (H) and oxygen (O), as both unit-components ignite fire. In other words, the sum of the parts may not be equal to the whole (Jones & Moore, 1995). Lunt (1993) claims that the challenge is in identifying units that have properties of the central phenomena which a researcher wishes to explain.

The main problem of a positivistic research methodology is the neglect of the 'unobservable' such as cognitive rules, beliefs, attitudes and perceptions which are important for explaining human behaviours (Lowe, 1983). Bryman (1988) questions the appropriateness of the positivist ideology which stems from the natural science model as a basis for acquiring knowledge in the social sciences. The orthodoxy of 'proper science' which embraces the objective, observable and measurable aspects of knowledge to the

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[4] Expectancy/experimenter effect refers to a respondent responding or behaving in ways which s/he thinks is the experimenter's expected outcome. Brown (1986) suggests that this is caused by the unconscious 'leak' of non-verbal cues from the experimenter.

exclusion of the subjective, covert and holistic nature of the social world has been criticised for the past two decades. Lowe (1983) suggests that positivists should consider qualitative methods such as interviews as secondary evidence and verbal accounts should not be discounted because of potential reporting and recalling bias.

It is increasingly common for research to combine the two methodologies for their complementary advantage (Bryman, 1988; Kale, 1994; Tam, 1993). The triangulation of quantitative and qualitative research methods in Harris' study discussed in detail above shows that the two research approaches enrich the understanding of the phenomenon (Cohen & Manion, 1994; Tam, 1993). Harris' study (1993a), saliently points out that to investigate teaching modes, research would need to start from a good understanding of teachers' concerns and perceptions. In this respect, Harris has demonstrated that the interview is an effective tool to tap into the teachers' implicit beliefs, attitudes and perceptions, more so than empirical observations and questionnaires, although the three methods complement each other.

4.1. Qualitative Discourse as an Appropriate Research Methodology

Choosing an appropriate research methodology means finding systematic and logically coherent methods which will yield the best possible answers to the research inquiries, bearing in mind the strengths and the weaknesses of the chosen methods. The foundation of making such methodological choice is the underlying assumptions and the nature of the inquiry bearing in mind the researcher's contained subjectivity.

In this thesis, the focus of the current research is on teacher's perceptions of the two key concepts, namely enterprising teaching modes and enterprising behaviours drawing from their day to day experience. Teachers' experience, Harris (1993a) suggests, is socially constructed. Bruner (1991) states that to understand how one's experience and one's acts are shaped by one's beliefs, a researcher needs to explore the social dimension in which the actor's beliefs are formed (Greetz, 1971). In order to carry out an in-depth exploratory study, therefore, the social dimension from the teachers' point of view needs to be embraced by the ontological and epistemological foundation of the chosen research methodology (Geertz, 1973).

Research into teachers' beliefs, attitudes and perceptions of teaching approaches has employed a combination of research methodologies such as questionnaires, interviews

and observations (Bennett, 1976; Galton *et. al.*, 1980; 1999; Harris 1993a). As argued above, in exploratory terms, questionnaires and observations only allow indirect inference to be drawn from the researcher's superimposed knowledge of the actor's reality (Shipman, 1981), whereas discourse enables a more direct access to the actors' beliefs and perceptions from their own standpoint (Burman & Parker, 1993; Kvale, 1994; Burr, 1995). In this respect, the qualitative discourse methodology is regard as most appropriate for the current exploratory study.

A semi-structured discourse procedure is used for the current research. It is a kind of focused discourse in which the main themes of the research inquiry will guide the discussion and the information gathered will have a direct bearing on the research objectives. The open-ended questions give great freedom for informants to raise issues naturally which are central to their concerns which may have been left out by the researcher (Cohen & Manion, 1994). It is semi-structured so that the researcher can accommodate both the key issues set out beforehand and the important relevant issues raised by informants.

Burman and Parker (1993) identify the strengths and limitations of qualitative discourse as a research tool. They believe that discourses allow a researcher a privileged position for negotiating meaning with the subject in the social world. This makes the discourse a more objective research tool in a sense that it reflects the real nature of the object investigated by 'letting the object speak'. The problem of reporting and recalling biases, cognitive inconsistencies or even deception in a discourse can be checked by sufficient discursive procedures and techniques. Kvale (1994) and Yin (1994) argue that by making the procedures, techniques and data explicit, researchers and readers can examine these biases or deceptions. This adds strength to the qualitative research methodology as quantitative methods would just leave these problems unexplored (Kvale, 1994; Yin, 1994).

Another potential problem with discourse is leading questions which would mislead answers. Burr (1995) argues that so long as orienting questions, discourse procedures, techniques and responses are made explicit and are open to public scrutiny, deliberate leading questions can be a good technique for orientating respondents in important directions, yielding new discoveries and worthwhile knowledge (Yin, 1994).

A common attack on qualitative discourse relates to bias in interpretation of findings: different individuals might have different interpretations. Potter and Wetherell (1994) demonstrate how different organisations of the discursive materials may lead to diverse and contradictory findings. These researchers suggest that cross-referencing different versions of interpretation is a way of achieving objectivity. Kvale (1994) further suggests that the acquisition of different versions of interpretations is rather a richness and a strength of discourse research since the more alternative interpretations that have been presented and refuted, the stronger the remaining interpretations become, given that the diverse perspectives and questions are made explicit and transparent to the reader.[5]

The very strength of the qualitative discourse is its exploratory nature. Kvale (1994) maintains that this method allows a continual flow of new hypotheses and re-interpretations among informants. It substantiates an investigative concept of validation (Glaser and Strauss, 1967) whereby validation is incorporated into the research process with continual cross-references of the credibility and plausibility of findings (Potter & Wetherell, 1994). Such a communicative and interactive approach enables the social actors, the teachers in this case, to reflect upon and become aware of their implicit beliefs and knowledge which influence their teaching behaviours. It can bring out the affective and value-laden implications of the personal context in which idiosyncratic associations, beliefs and perceptions become explicit, enabling an in-depth analysis and a systematic reconstruction of phenomena.

There are three major shortcomings of the qualitative discourse research method: researcher bias, labour intensiveness, and inadequate quantitative data for generalisation (Burman & Parker, 1993; Bryman & Burgess, 1994; Kvale, 1994; Burr, 1995). Similar to experimenter bias, researcher/interpreter bias is largely unintentional which however, makes it more difficult to control. (Kvale, 1994). Kvale suggests that to minimise the effect, a researcher needs to formulate explicitly and reflect upon his/her own presuppositions, prejudices, procedures and questions asked in the discourses so as to allows readers to judge the perspectives from which findings were arrived (Bryman, 1988; Yin, 1994; Sherrard, 1997). Kvale (1994) however admits that the absence of the standardisation of procedures, techniques and treatment of data makes it hard for readers

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[5] The problem of subjective interpretation of findings is not exclusive to qualitative research. It also happens in quantitative/positivist research mostly dependent on individual researchers' background and assumptions (Shipman, 1981; Plutchik, 1983).

to judge, particularly so when the variation of the standards of discourse researchers may not be evident to readers.

Analysing qualitative data is considerably labour intensive (Bryman & Burgess, 1994; Cohen & Manion, 1994). Seldom will qualitative research go beyond a handful of informants. Quality is usually achieved at the expense of quantity. This also leads to the third problem, that is generalisability. Nevertheless, Kvale (1994) argues that qualitative data can enhance generalisability if the number of observations within a few intensive cases is statistically adequate, or where the assertions of generalisation stem from a strong theory, then a few intensive cases are enough to verify such assertions.

The present researcher maintains that generalisation and causation, in a positivist's sense, are important concepts in that they provide a means to indicate the magnitude to which findings are shared among this particular social group, that is the degree of 'universality' in teachers' perception towards an enterprising teaching approach and enterprising behaviours. However, this thesis argues that at this exploratory stage, the more urgent and important task is to ascertain an in-depth understanding of the key concepts which are prerequisites for a quantitative approach to become viable. The researcher also acknowledges the benefits of combining the two approaches (Harris, 1993a; Tam, 1993; Kvale, 1994; Stevenson & Cooper, 1997). As mentioned before, qualitative research is labour intensive and since the main thrust of the current research is qualitative, time constraints have restricted the application of a combined methodology. Henceforth, after a careful weighing up of alternatives, the adoption of a qualitative discourse methodology is a result of the researcher's rationality for the sake of achieving the central proposal of the current research.

4.2. Integrating Quantitative Techniques in Qualitative Research

To identify and measure enterprising teaching modes and enterprising behaviours among students involves the element of *comparison*. This brings in the idea of quantifying qualitative data by utilising the concept of *'ordinal scale'* for measurement (Plutchik, 1983; Tam, 1993). Plutchik (1983) explains that although the properties of events do not always match exactly, it is often possible to indicate the magnitude to which behaviours are differently exhibited between individuals. 'Since the *relative differences* between rankings are not specified, any set of numbers of increasing rank could be used', Plutchik

writes (1983, p.187). In psychology, rating of personality traits, ability and creativity apply the same concept for measurement.

Kvale (1994) claims that quantified qualitative data is made amenable for statistical treatment dependent on the type of phenomenon studied and the way in which qualitative material is quantified. Tam (1993) argues that the combination of qualitative and quantitative procedures is epistemologically desirable from a pragmatic philosophical perspective. Quantification of qualitative data, according to Tam (1993) helps to throw different light upon a phenomenon. Citing Campbell (1974, 1979), Tam (1993) posits that quantified data can provide a useful check on qualitative data and thus enriches the understanding of reality (Tam, 1993, p.25). Since different procedures can only capture 'a slice of reality', a combination of them is complementary.

A simple method of rating was eventually chosen for measuring enterprising teaching modes and enterprising behaviours to provide easy implementation and gain potential benefits as discussed above. The numeric representation enables the extrapolation of teachers' attitudes and practices towards teaching, and to compare enterprising behaviours among students. It also allowed measurement and comparison along behavioural dimensions. Teachers were asked to give behavioural examples before they embarked on the rating exercise. This made their reasoning for 'codifying' behaviours into numbers explicit. More importantly, teachers were asked to explain what the difference in coding represented in real behavioural terms. Hence, three research inquiries were set to examine the methodological soundness of using behavioural rating scales to measure teaching attitudes and behaviours and students' enterprising behaviours:

- *How do teachers rate their tendency towards 'enterprising modes of teaching'?*
- *How do teachers rate their students' 'enterprising behaviours'?*
- *How reliable are the ratings for reflecting actual behaviours?*

In the current research, quantified qualitative data was made secondary for the purpose of illuminating the qualitative findings (Tam, 1993; Kvale, 1994). The quantitative data is by no means substantial for generalising knowledge gain. By triangulating the qualitative and quantitative data, the researcher was able to grasp the richness and complexity of the phenomenon studied (Harris, 1993a; Tam, 1993; Kvale, 1994). This may then form a

solid foundation for quantitative methods to follow. Meanwhile the current exploratory study is discussed in detail in the following Section.

5. The Current Exploratory Study

5.1. Objectives
Three major objectives of the current study are summarised as follows:
1. to understand how the teaching profession perceives the two key concepts namely 'enterprising modes of teaching' and 'enterprising behaviours',
2. to seek operational definitions for the two concepts for measurement by means of concrete behavioural descriptions provided by teachers,
3. to test the reliability of a behavioural rating scale as a potential measurement instrument.

5.2. Sampling
Ten informants were selected with the following two variables in mind:
- 'existing/absence of prior knowledge of enterprise education'
- the combined effect of 'subject(s) taught' and 'level of teaching'

Table 5.2 below shows the profile of participants.

Table 5.2. Profile of Informants

Initials	Level of Teaching	Subject	EEE*	Years of Teaching	Class Size	Organisa-tional Climate	Syllabus
AG	University	Entrepreneurship	Yes	25+	varied	informal	No
JaG	University	Education	Yes	25+	varied	informal	No
FO	University	Chemistry	No	8	varied	traditional	Yes
WZ	University	Applied Maths	No	18	varied	traditional	Yes
JoG	Secondary	English & Drama	Yes	35	33	traditional	Yes
RW	Secondary	German/French	Yes	2	26	informal	Yes
NG	Secondary	Chemistry	No	35	28	traditional	Yes
PD	Secondary	Maths/Chemistry	No	20	26	informal	Yes
JR	Primary	RE co-ordinator	Yes	35	32	informal	Yes
SG	Primary	Science co-ordinator	Yes	2	28	informal	Yes

*EEE stands for exposure to enterprise education

A fundamental rationale for the sampling was to investigate whether informant's existing/absence of prior knowledge in enterprise education would have any impact on their perceptions and pedagogical preferences. Harris (1993a), for example, has suggested that training would have a positive effect on teachers' adoption of enterprising teaching approaches. Moreover, informants who have no prior knowledge of enterprise education may also serve as 'control group' to tap into spontaneous understanding of the concept of enterprise without the promoters' influence.

Six out of ten informants had come across 'enterprise education' in varying degrees through various means. Of these, two of the informants (AG & JaG) were from higher education. AG had been directly involved in organising and promoting activities which are associated with the 'enterprise education' concept as explored in Chapter 4. In contrast, JaG who had also been a co-director of one of the enterprise initiatives (Economic Awareness in Teacher Education) would not endorse the concept but was rather antagonistic towards it, despite his previous involvement in an enterprise initiative. Two (SG and JR) who taught at the same primary school encountered enterprise education through INSET and had experience in running the yearly 'enterprise week' at school. SG had also run enterprise projects in her teacher training course. Two (JoG and RW) had no involvement in enterprise activity but minimal knowledge. JoG heard about the concept through friendship with certain staff of DUBS. RW came to know about it through one lecture in her teacher training course (PGCE). The remaining four informants had no prior knowledge of enterprise education beforehand. Perceptions of the two groups were contrasted to examine the influences of the variable 'exposure to enterprise education'. Among the 'exposed group', the effect of the degree of exposure on attitudes and perceptions would be noted.

The second rationale for the sampling of informants was grounded in Bernstein's well established theory (1971) of 'framing', that is the pedagogical relationship between the teacher and the taught in which the transmission of knowledge occurs. Strong framing, according to Bernstein, reduces the students' power over what, when and how they receive knowledge. 'Framing' is largely influenced by individual teachers' 'subject identity' through the process of socialisation. Science subjects have a stronger subject identity than other subjects. Such identity is strongest at university level, then at secondary level, since teaching in secondary schools is controlled by university

requirement. At primary level, they would have less control over the transmission of knowledge.

Since enterprising modes of teaching seem to be located more in the progressive pedagogy characterised by weaker 'framing', it was of interest to explore whether the interaction between 'subjects' and 'level of teaching' would have an effect on teachers' pedagogical choice. Then ten teaching practitioners were matched according to their subjects and levels of teaching: two university lecturers from science, two from arts; two secondary school teachers of science, two of arts; and two primary school teachers (one science co-ordinator and one RE co-ordinator). [6]

In line with Bernstein (1971), it was hypothesised that primary teachers would be more willing to adopt an enterprising approach to teaching than their secondary and university counterparts, while teachers of science would tend to adopt a more didactic approach than teachers of arts and humanities.

Limitation of Sampling

It is obvious that the sample is too small to be systematically matched and randomly allocated. Due to the labour-intensive nature of the discourse research methodology and the constraint of time, this current research was limited to ten in-depth case studies. Findings obtained from such a small sample could only contribute to the gaining of insights into the phenomenon. Hence, results can by no means be quantitatively generalisable to a greater majority. A much broader sampling would be required to verify current findings and to test their generalisability. The objective was, however, to lay a sound basis for in-depth understanding of the phenomenon in order to prevent confusions and inconsistencies. This would lay down a more solid foundation for focussing future research in a meaningful manner by use of a broader and more generalisable sample size.

5.3. Research Design and Discourse Procedures: (Appendix 3)

The discourse was semi-structured so as to ensure that important issues were discussed while allowing flexibility for exploring other aspects which might have been overlooked at the time. Each discourse took place in an informal situation, and was tape-recorded. The length of each discourse lasted an average of approximately 2½ - 3 hours.

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[6] Teachers in primary schools teach all subjects.

The discourse comprised two main parts. The first part dealt with 'enterprising modes of teaching' and the second part concerned 'enterprising behaviours'. Within each part, the following structure was employed:

o   Open-ended questions
o   Comment on DUBS' model
e   Behavioural rating

5.3.1. Open-Ended Questions

Individuals' spontaneous expressions or understandings of the two concepts were explored prior to the discussion of the DUBS' definitions. This avoided undue influence from the DUBS' model. The verbal accounts allowed firstly, the comparison between the practitioners and the academic debate, and secondly, the comparison between the practitioners' view and that of DUBS'. Informants' spontaneous definition might also reflect whether the political consideration of enterprise existed naturally in their perception.

5.3.2. Comment on DUBS' Model

The DUBS' definition of the two concepts was presented to informants. Participants were asked to 'think aloud' on each dimension and comment on it based on their own teaching experience. Behavioural descriptions (exemplars) were probed to back up their views. The present author observes that when disseminating the model to schools, it has been adapted in a different presentation. Since the current research was to do with understanding teachers' perceptions, the model presented to teachers in schools was used for this purpose.

5.3.3. Rating of Enterprising Teaching Modes and Enterprising Behaviours

In the first part of the discourse, informants were required to rate their teaching styles and the teaching styles of one colleague of their choice with the modified DUBS' table comparing didactic teaching and enterprising teaching. The two teaching approaches were presented on a continuum with a scale of '0' to '5' on each side shown as follows (see Appendix 3):

Traditional Didactic Modes	Ratings	Enterprising Modes
Concept provided	5---4---3---2---1---0---1---2---3---4---5	Concept discovered

This was to see whether the 'enterprising teaching modes' could be identified as a tendency among the mix teaching styles adopted by teachers. In order to investigate whether teaching styles could be observed and recorded by means of numeric representations, informants were asked to explain the meaning of different ratings between themselves and their colleagues in actual behavioural terms.

In the second part of the discourse, participants were asked to rate two learners of their choice on the scale of '1' to '10', according to the list of enterprising behaviours collated by Gibb (1993). '1' represented low or non-existence and '10' meant extremely high or excellence. Again, this exercise helped investigate the feasibility of employing rating scales based on behavioural descriptions for the purpose of distinguishing the extent of enterprising qualities in learners. Teachers were asked to explain the way they 'codified' student's behaviours with behavioural exemplars. Teachers were also asked to explain how the difference in coding was actually exhibited in actual behaviours. This was to examine how 'accurate' the numeric representation was in reflecting actual behaviours.

6. Methods of Analysis

6.1. Analysing Qualitative Data

Discourse analytic procedures are notoriously labour-intensive (Burman & Parker, 1993; Burr, 1995). It involves sentence to sentence, word to word interpretation so as to discover the 'interpretive repertoire' as a form of 'symbolic action' of the informant (Burr, 1995). His/her position in the phenomenon and interaction with the social structure are revealed through the process of 'deconstruction' (breaking the whole text into small units) and then 'reconstruction' (re-building the whole from small meaning units) from different perspectives of analysis (Burr, 1995). The following procedures were adopted from Hycner to analyse the ten transcripts (in Cohen and Manion, 1994 p.293-6):

1. *Transcription:* having the discourse tape transcribed, noting not only the literal statements but also non-verbal and paralinguistic communications.
2. *Listening to the discourse for a sense of the whole:* listening to the entire tape several times and reading the transcription a number of times in order to provide a context for the emergence of specific units of meaning and themes later on.
3. *Delineating units of general meaning:* crystallising and condensing what the participant has said. This entails a thorough scrutiny of the text to elicit the participant's meaning.
4. *Delineating units of meaning relevant to the research question:* once the units of general meaning have been noted, they are then reduced to units of meaning relevant to the research question.
5. *Clustering units of relevant meaning:* determining if any of the units of relevant meaning naturally cluster together; whether there seems to be some common theme or essence that unites several discrete units of relevant meaning.
6. *Determining themes from clusters of meaning:* examining all the clusters of meaning to determine if there is one (or more) central theme(s) which expresses the essence of these clusters.
7. *Writing a profile of each individual discourse:* incorporating the themes that have been elicited from the data in each discourse.
8. *Identifying general and unique themes for all the discourses:* looking for the themes common to most or all of the discourses as well as the individual variations. Themes that are unique to a single discourse or a sub-group of the discourses.
9. *Contextualisation of themes:* placing these themes back within the overall contexts or horizons from which these themes emerged.
10. *The study of omission:* identifying themes which existed in the academic literature but were not mentioned or not regarded as important by informants

In order to present the data in ways which highlight the findings for the central inquiry while capturing new issues raised by teachers, research findings were analysed and discussed in two levels: *personal profiling* and *collective analysis*. The first level was the profiling of each individual's perception. The method of triangulation was employed for profiling individual participants with the view of a collective picture in mind. Within each individual profile, comparisons among informants' accounts were linked so as to create a 'continual discovery' of the phenomenon studied. This was made possible by the very nature of the qualitative discourse methodology. For instance, Participant A's view was found to be contradictory to the previous participant, B, during discourse. B's view

would be presented to A so as to clarify A's perspective in response to B's. In this way, a 'superficial' disagreement might be verified or rejected as consensus might appear as an individual clarified their thoughts.

The second level is the collective analysis in which the similarity and differences between individuals' perceptions are compared and contrasted based upon the in-depth individual profiling. Due to the bulk of the analysis, the collective analysis is presented in the next chapter while individuals' profiles are collated in Appendix 4 for reference. The method of analysis is made explicit in the following section.

Profiling (See Appendix 4)

Before a collective analysis could be reached, the profile of each of the 10 discourses was analysed. Individuals' personal understandings and distinctive contributions towards conceptual underpinning and methodological appropriateness were highlighted. In order to analysis such rich qualitative data, each profile contains the following structure of presentation:

- ***Personal Background:*** A participant's personal background was outlined i.e. his/her 'subject(s), level and years of teaching', 'perceived organisational climate for teaching' and ' exposure to enterprise education'. This was to show the experience from which his/her opinion towards the subject matter stemmed.

- ***Fundamental Understandings of Enterprise:*** An overall impression of enterprise was distilled from the whole discourse. This was to reflect the informant's overall understanding of the term 'enterprise' and how such understanding might interfere with the contextual meaning of 'enterprising modes of teaching' and 'enterprising behaviours' in the educational setting.

- ***Definition of 'Enterprising Teaching Modes':*** Three aspects of analysis were triangulated (see Figure 4.1):

1) Personal Definition

2) Comments on the DUBS' Model

3) Rating of Teaching Tendency of the participant and a chosen colleague

1) Personal Definition: Each informant's spontaneous definition revealed his/her interpretation of 'enterprising modes of teaching'. It was then placed within the academic debate in the literature in order to investigate the consistency between theory and practice.

2) Comments on the DUBS' Model: The DUBS' model divided the *global concept* into eleven *local dimensions* containing actual teaching attitudes and practices which were defined as 'enterprising learning modes' in comparison with 'traditional didactic modes' (see Appendix 3). Each of the local dimensions was scrutinised in order to examine the appropriateness of implementing these dimensions as operational definitions for 'enterprising modes of teaching' in future empirical studies. The individual informant was able to comment critically on these dimensions based on their *belief* and *preference* which helped considerably in grounding the concept and modifying the model.

3) Rating of Teaching Tendency: Every participant was asked to rate his/her own teaching tendency using the DUBS' table. S/he then was requested to choose a colleague and rate the colleague's teaching tendency with the same table. The rating along each dimension was originally designed to test the validity and the reliability of the rating methodology in reflecting actual teaching attitudes and behaviours. By rating a colleague, the aim was to test the feasibility of implementing the DUBS' table as a behavioural checklist (unit analysis) for the purpose of observation for future empirical studies. Most interestingly, the verbalisation of individuals' thoughts while they were doing the rating exercise unfolded different criteria used for self-rating and rating of their colleague. These verbalised thoughts have constituted a fascinating source of information which has illuminated the concept and the methodology thoroughly.

Figure 5.1. Analysis of 'Enterprising Learning Modes' by Triangulation
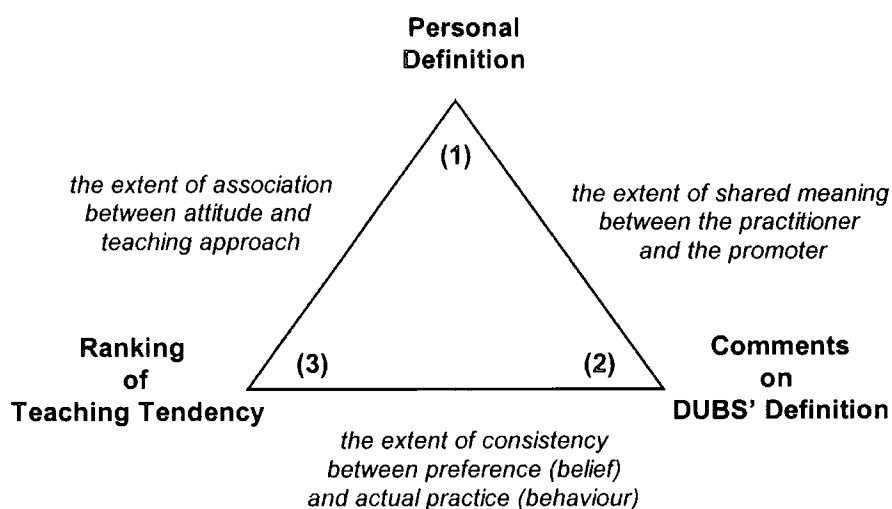
4) *Triangulation:* The triangulation of the three aspects gives a holistic picture of the concept as depicted in Figure 4.1 above. The comparison between 1) and 2) was to investigate the extent to which the meaning of the concept was shared among the *practitioner* and the *promoter* (DUBS). The contrast between 2) and 3) cross-examined the consistency between participants' *preference* in teaching style (belief) and their actual teaching *practice* (behaviour) in retrospect. It was when their actual classroom practice was called into investigation that deeper reflection of the value and practicality of the DUBS' definition was discerned. Finally, the comparison between 3) and 1) looked into the extent of association that existed in the individual's actual teaching *approach* (action) and his/her general *attitude* towards enterprise (attitude). In order words, it explored the possible conflict or consistency between one's conception of 'enterprise' and his/her teaching approach.

• *Definition of 'Enterprising Behaviours':* Using the same approach as above, three aspects of analysis were employed:

1) Personal Definition

2) Comments on the DUBS' definition

3) Rating of Two Learners (clients, students or pupils) taught by the participant

1) Personal Definition: Individuals' personal understanding of the global concept of 'enterprising behaviours' were explored in order to assess the degree of congruency or otherwise of the meaning as existed in the literature. Informants were asked to give detailed behavioural descriptions to explain their definition. The behavioural descriptions have provided a valuable source of comparison between the practitioners' and academics' views which shed some light upon the debate of the subject matter.

2) Comments on the DUBS' Definition: Gibb's list of enterprising behaviours (1993) which was comprised of thesaurus definitions and the definitions gathered in numerous workshops over a decade altogether constituted twenty-five categories of enterprising behaviours. These categories became rich topics for discussion. Participants' comments and behavioural descriptions for each of these categories were extremely useful for clarifying the concept. Links/overlaps/synonyms/similar behavioural descriptions were illustrated among categories using colour coding (refer to Appendix 5). A core constellation or a central theme of enterprising behaviours emerged. The relationship between enterprising behaviours, skills and attributes was explored. Methodologically, this also helped to simplify the laborious list into a neat set of operational checklists.

3) Rating of Two Learners: The rating of two students of the informant was carried out in order to test the strength of the methodology, that is the validity and the reliability of quantifying learners' enterprising behaviours which were predominately qualitative in nature. It also demonstrated how individual teachers could discriminate the 'amount' of each of these enterprising qualities demonstrated by students in terms of numeric expressions.

Figure 5.2. Analysis of 'Enterprising Behaviours' by Triangulation
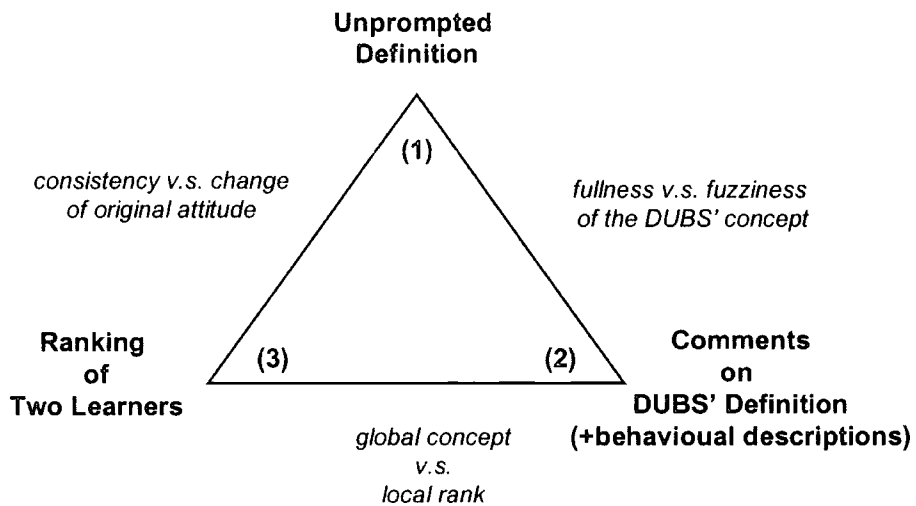
4) Triangulation: The triangulation of the three aspects of analysis elucidated the concept of enterprising behaviour (refer to Figure 4.2 below). The contrast between 1) and 2) examined the fullness *vis-à-vis* fuzziness of the concept. In other words, it revealed the extent to which the DUBS' definition embraced each individual's definition while bearing in mind the danger of the term 'enterprising behaviours' becoming tautological, meaning any desirable behaviours perceived by participants. The comparison between 2) and 3) was to show the extent to which their comments on DUBS' categories were consistent with their rating behaviours. The inconsistencies detected from the comparison provided important insights into the epistemological problem of the concept and the potential weakness of the rating methodology which will be discussed in later chapters. Finally, the contrast between 3) and 1) was to indicate how individuals' original attitude towards enterprising behaviours had been maintained or modified during the course of the discourse. The central theme of enterprising behaviours perceived by participants was thus re-captured.

● *Relationship between 'enterprising modes of learning' and 'enterprising behaviours':* Having thoroughly analysed the two concepts, the degree to which

they were associated was placed under scrutiny. No direct questions were asked as to whether individuals thought that enterprising modes of learning caused or enhanced enterprising behaviours. However, in most cases, sufficient inference was drawn by contrasting individuals' personal definitions for the two concepts. The contrast showed whether there was a sense of continuity between the two definitions.

The above structure of analysis systematically helped tease out many confounding issues surrounding the two concepts. The critical generic issues arising from individuals' contributions were highlighted in *italics* in a box and will be reviewed collectively. Note that the procedures in the structure are flexibly applied to tailor for individual differences. Collective results based upon these individual profiles of analysis are presented in the next chapter.

6.2 Analysing Quantitative Data[7]

The quantitative data were collected in the form of ordinal ranks from the three rating exercises (self-rating of teaching modes, rating of a colleague's teaching modes, and rating of two students' enterprising behaviours). Since the treatments of these ratings for analysing teaching modes and enterprising behaviours were different, they are discussed separately below.

Teaching Modes

Altogether, 17 sets of ratings of teaching styles were collected comprising ten sets for self-rating and seven for colleagues. For the purpose of statistical analysis, the ratings assigned to the 'traditional didactic' side were treated as negative values while the ratings assigned to the 'enterprising' side were treated as positive values (refer to Table 6.1 in Chapter 6, p.155). Horizontally, the total sum of the ratings became an individual's 'final score'. A negative final score represented a didactic tendency and a positive final score represented an enterprising tendency. The more positive the final score, the higher the tendency towards an enterprising teaching approach; and the more negative, the higher

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[7] The present researcher is aware that the sample size in this exploratory study is too small to sustain a reliable statistical analysis. Nevertheless, the number of observations was enough for simple correlation only (Plutchik, 1983; Kvale, 1994). As argued earlier in this chapter, the quantitative data was only secondary for the purpose of offering a different perspective to qualitative findings.

the tendency towards didactic teaching. The correlation between the final scores and individual scores in each dimension was then calculated using the Spearman correlation for non-parametric data. This is then followed by the Pearson Correlation Coefficient for verification and presentation. Together with correlations among dimensions, the possibility of a core cluster for enterprising modes of teaching will be discussed in the next chapter.

Vertically, the total sum of the ratings (Σn) showed the overall tendency of all participants on that particular mode of teaching. A negative rating signified that the didactic mode was dominant and a positive rating meant that the enterprising mode was dominant. The dominance of a particular mode was related to the magnitude of the ratings. Ratings were also classified into three levels. Ratings of '0', '-1' and '1' fell in the *neutral/minimal* level. Ratings of '-2', '2', '-3' and '3' fell in the *moderate* level; and ratings of '-4', '4', '-5' and '5' fell in the *extreme* level (refer to Table 6.2 in Chapter 6, p.155). Frequency of ratings was counted to indicate the degree of extremity in individuals' rating.[8]

Enterprising Behaviours

Nine informants' were able to rate two students of their choice. Hence 18 sets of ratings were collected. Students' total scores were correlated with the individual ratings using the Pearson Correlation Coefficient. Together with the correlation among individual enterprising categories, the possibility of a core cluster of enterprising behaviour is examined and discussed in the next chapter. A test of the internal reliability of the cluster is also analysed.

7. Limitations of the Current Research

The purpose of the current research was to gain insights into the two concepts of 'enterprising teaching modes' and 'enterprising behaviours'. By adopting the discourse research methodology, substantial progress has been made in this respect. However, the limitations of the discourse methodology also need to be acknowledged. The extremely laborious nature of discourse analysis together with the limited time frame of Ph.D.

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[8] Since both the positive and negative values coexisted along the same dimension, Σn itself would not be able to reflect the frequency of ranks as such (e.g. -1 + 1 = 0 = -4 + 4; while rating '-1'/ '1' is a low tendency in comparison with rating '-4' or '4').

research has restricted the scope of the current study to the ten intensive cases. Findings from such a small sample provide little basis for generalisation. A further methodological problem was the heavy reliance on informants' language which could only reflect informants' beliefs in their own teaching behaviours as opposed to actual behaviours. Similarly, their observations of their students' enterprising behaviours might be stereotyped and subject to recalling and reporting bias.

In order to minimise these biases and maximise the correspondence between beliefs and behaviours, a behaviourally based interview technique together with continual interpretative validation procedures (Kvale, 1994) were crucial. Informants were constantly probed for behavioural exemplars throughout the interview. In the first part of the discourse where informant's personal definitions of the two concepts were elicited, they were asked to give solid behavioural descriptions to back up their definitions. In the second part of the discourse, when the DUBS' model was presented and they were asked to comment on it, examples of concrete behaviours were requested from them to back up their claims. Informants, for example, were asked to give behavioural descriptions for each of the twenty-five enterprising categories in the list. Informants had to describe in behavioural terms what students do to show that they have demonstrated each of these behaviours' (e.g. 'actively seeking to achieve goals'). Substantial behavioural accounts and events were elicited in this way, with the exception of the occasional situational constraints in which some enterprising behaviours were not directly observable from their interactions with students. In the third part of the discourse, informants were also asked to 'think aloud' when they were rating their own teaching behaviours and when they were rating their students' enterprising behaviours, again, with emphasis upon clear illustrations of behavioural events given. Moreover, discussants were asked what had constituted differences in their ratings of their own teaching style and that of their colleagues, and their ratings of two students, when the verbalisation did not immediately indicate obvious differences in behaviours. Very often, more specific behavioural events were vividly described to qualify the rating.

This process of continuous probing enabled informants to deeply reflect on, and become aware of, their own behaviours and the legitimacy of their recall of their students' behaviours. When inconsistencies arose, informants were required to clarify them. Most often, what appeared to be inconsistent to the researcher was in fact consistent to the informants themselves since the researcher and the informants might be interpreting behaviours differently using different 'referent points'. Where true inconsistencies

existed, discussants were able to re-evaluate their recall and discover the likely shift of direction or association. Furthermore, the discourse procedures were made transparent for the scrutiny of the reader so as to ensure accountability.

It is acknowledged that however prudent the discourse procedure is, biases can only be minimised and not removed. This applies also to the seemingly objective measures such as participant observation and inter-observer reliability. Nevertheless, it is recognised that bringing in independent observers and use of methods of triangulation would give additional perspectives to examination of the phenomenon and would increase credibility in this sense. This could be the next step in research and development.

8. Summary

In this chapter, the central research questions proposed for the current exploratory study were critically reviewed. Harris' study (1993a) has provided important insights into guiding the conceptual and methodological investigation of the current thesis. A critical review of the researcher's rationality for choosing a qualitative discourse research methodology was then discussed. Qualitative discourse research methodology was found to be the most suitable for the exploratory nature of the research inquiry outlined and highlighted although the limitations of this methodology are also acknowledged. The techniques of quantifying qualitative material were also argued to have not only complemented the exploratory procedures, but also have provided a useful means of developing a potentially effective measurement and comparison of qualitative behaviours. Based on this epistemological ground, the current research design was constructed and the methods of analysis were discussed. While individual profiles are collated into Appendix 4, collective analysis and discussion of findings is presented in the next two chapters. Discussion on 'enterprising teaching modes' is presented in Chapter 6 and discussion on 'enterprising behaviours' in Chapter 7.

Chapter 6

Discourse Analytic Results:

A Collective Discussion on Enterprising Teaching Modes

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1. Introduction

In this chapter, the collective results of the ten discursive cases concerning 'enterprising teaching modes' are discussed. The research questions surrounding the concept are recapitulated as follows:

- What does 'enterprising teaching modes' mean to teachers?

  (Do teachers perceive a political/industry overtone in 'enterprising teaching modes'?)

- What are teachers' perceptions of the DUBS' definition of enterprising teaching modes?

  (Is it an adequate concept? What are the factors affecting its application?)

- To what extent can 'enterprising teaching modes' be identified from day to day teaching experience

  (Can an enterprising teaching approach be distinguished among mixed teaching styles)?

- How reliable is behavioural rating for measuring teaching tendency/orientation?

Both the qualitative and the secondary quantitative data contribute towards an in-depth understanding of the notion of an enterprising teaching approach. First of all, teachers' spontaneous definitions of enterprising modes of teaching are analysed. These spontaneous answers elicited some interesting implications for the social construction of the meaning of enterprise. This follows on to the discussion of teachers' perceptions of the DUBS' definition of enterprising teaching modes in comparison with traditional didactic teaching modes. How these approaches can be measured is investigated in terms of teaching tendencies. The limitations of the rating methodology in the measurement of these tendencies are identified. Overall, the intensive discourses generated a great deal of interesting thought and feedback on the DUBS' approach to enterprising teaching.

Contrary to existing research findings which treat enterprising teaching approaches as an independent concept, in dichotomy with didactic approaches, the current exploratory findings suggest that an enterprising teaching tendency is a relative construct in a continuum with a didactic teaching tendency. While existing research findings generally suggest that enterprising teaching modes are less effective in teaching factual knowledge, informants in this research believed that the enterprising method was more effective in enhancing deeper level of learning. Meanwhile, the didactic method was perceived as an important foundation for this higher-order of learning to take place. The two approaches were thus considered as complementary. However, different individuals were found to have different dispositional beliefs towards the two approaches. Factors affecting their beliefs and subsequent teaching styles are identified. The rating methodology can be used to chart teachers' teaching tendency in their day to day teaching experience (using the DUBS' concept of enterprising teaching).

2. The Meaning of 'Enterprising Teaching Modes': Personal Definitions

The open-ended question: 'What do you think enterprising modes of teaching mean?' probed for informants' spontaneous definition of enterprise without undue influence from the DUBS' or any other interpretations.

From the six informants who had prior knowledge of enterprise education, the definitions provided embraced a mixture of central themes concerning student development (responsibility, social skills and independent thinking), learning modes (learning from feedback, interactive learning, student-centred learning, etc.), learning activities (cross-curricular or project work, predominantly fund raising) and broader aims (transition to work and awareness of industry).

The question was about 'mode of teaching' but the answers generated from these 6 informants embraced the *aims of education* (referring to the central themes of student development and broader aims) more so than *the modes of teaching* (referring to the themes of learning modes and activities). This finding supported the findings of Bennett (1976) and Au (1991) that teachers' ideas of teaching and consequently their teaching styles are closely associated with teachers' general belief in the function of education. JoG's own definition best demonstrates this association:

> "I think it is putting the ball in the kids' court, and getting them to think for
> themselves and to develop ideas that are not spoon fed to them... to

encourage kids to use education as a kind of step up for what they are going to do when they leave school, and to encourage independent thinking and social skills and taking their main chance when it comes up." (JoG)

Among these six informants, only two (JR, SG) spontaneously related enterprising modes of teaching with learning through enterprise activities and industry. They happened to be the only ones from the sample who had received training in running enterprise activities.

For instance, SG's definition of enterprising teaching modes was embedded in the popular enterprising activities of the late 1980s and early 1990s:

> 'To me, it means making children aware of what it's going to be like in industry, preparing for when they are older, the whole progress of planning, producing, selling and buying, and getting finance together, if we take it to the extremes,... you've got to plan your thing and it's a good way to get them to think, so it's a good learning strategy.' (SG.)

Both SG and JR believed that children in primary school should be in touch with industry ('real life') and enterprise activities provided them with the opportunities to do so. Such belief was in line with that of the enterprise promoters'. Notice that these two teachers' came from the same primary school which had actively participated in enterprise activities. Hence, their understanding of enterprise could have been a result of their attendance at enterprise training and a supportive environment for this kind of approach from the school.

While these two informants thought that it was a good learning strategy and that it was important for children to learn about industry, two other informants (JaG, RW) had reservations about the association of enterprise with business. RW totally rejected the relevance of the business association of enterprise in education. JaG found that such an association was a source of conflict. Although he acknowledged the positive aspects of enterprise activities run in school, he claimed that these activities had existed previously before being 'usurped' or 're-defined' under the term 'enterprise'. Consequently, he questioned the legitimacy of such re-labelling. Moreover, he suggested that before the usurpation, those activities were purely a context for learning without the attached objective of understanding business/industry.

It happens that both RW and JaG were from the same School of Education at the same university. This particular school has been known for its critical views towards enterprise education as a whole. JaG was a lecturer and RW finished her PGCE

course a year before the interview. Nevertheless they still regarded enterprising teaching approaches as effective. RW mentioned the importance of being an enterprising teacher:

> 'Enterprising teachers take risks in teaching. They are adventurous, creative and innovative. They *give pupils independence, make the groups interact, create an atmosphere for them to come out of their shell, challenge their limit in order to push them further then they think they can reach.'* (RW)

Among the four informants who had not been exposed to enterprise education, only one (FO) associated enterprising modes of learning with interactive learning. The other three did not give a definition as such but vaguely associated it with 'new technology used in teaching', 'trying something new' or just 'a different way of teaching'.

Implications for the Concept of Enterprise

Three major implications concerning the concept of enterprise can be drawn from the above discussed as follows:

1. The association with political rhetoric promoting business/industry dimension of enterprise was largely absent.

It was argued earlier that the concept of enterprise has been criticised by some educationalists (e.g. Bailey, 1991; Coffield, 1991; Hyland, 1991) as being used as the currency for radical change of the educational system in order to cure Britain's economic ills through political rhetoric. They argue that enterprise values 'income generation' and 'input/output efficiency' are in contradiction with the concept of education which operates within the notion of social obligation (Keep, 1991).

In the informants' discourse, however, the political agenda assumingly closely attached to enterprise was largely missing at a *practical* level. Only one informant (JaG) directly associated the concept with the government's rhetoric which defined enterprise as 'wealth generation' to solve the nation's economic problems[1].

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[1] Note that JaG was a member of the academic community.

While the political rhetoric of enterprise was largely absent from the discourses, the industrial dimension of enterprise was seen in different ways. Of those who had come across enterprise education, two opposite views were offered reflecting the long-standing debate surrounding a utilitarian approach to education. Whether enterprise education is viewed as a result of political rhetoric subordinating industry needs, or a correct educational policy decision responding to the need felt by the teaching professions, seems to reflect personal philosophies.

The view of those who had been exposed to enterprise education before contrasts sharply with the others. None of the four informants (WZ, FO, NG and PD) who had no prior knowledge of enterprise, related the concept to industry/business. This finding suggests that a **business/ industry association was not inherent to basic meaning of enterprise.** This finding contradicts somewhat Iredale (1992) and Cotton's (1993) questionnaire survey results which discovered that the association of the DUBS' model of enterprising learning with business and the capitalistic culture hindered its development in schools.

It is possible that the absence of any pronounced political/industry perceptions was the result of a difference in research focus and method. The model presented here to the informants for steering the direction of the discourse was predominantly a pedagogical one. Arguably, if the political concern was a strong factor in teachers' perception, informants would have articulated it spontaneously. Yet, only one informant (a lecturer in education) mentioned his unease with the political imperative.

2. Enterprise does not readily inspire thinking about pedagogy.
The enterprise protagonists claim that enterprise enshrines an important and relevant context and content for learning emphasising the potential effect of re-instating the intrinsic motivation to learning which would lead to greater insight into knowledge and the development of enterprising behaviours (Bridges, 1991; Gibb, 1993; Jamieson, 1989).

Out of the ten spontaneous answers, only two university lecturers (AG, JaG) both of whom had directed nation-wide enterprise programmes could relate 'enterprising modes of teaching' with a student-centred approach and experiential learning. The

two primary teachers (JR, SG) who had attended enterprise workshops through INSET associated the concept tightly with the enterprise activities (fund raising projects) which they conducted at school. Although they were aware that these activities were a kind of learning strategy which differed from usual teaching activities, they left the actual strategy unexplained (They only described how those activities were run).

The two informants (JoG, RW) who had minimal contact with the subject matter requested clarification of the question. They were not sure what 'enterprising modes of teaching' were. However they had no difficulties in describing what they perceived as an 'enterprising teacher' with personal attributes frequently used in literature.

Out of the four informants (WZ, FO, NG and PD) who had not been exposed to enterprise education, only one (FO) was able to associate the term with 'interactive learning', one of the 'modes' of teaching regarded as enterprising by the promoters. The other three were unable to tell what it was about but vaguely assumed it as another innovation in teaching methods. Overall, it is clear that **the word 'enterprise' does not readily inspire a line of thought relating to pedagogy**.

3. The word 'enterprising' denotes behaviours and associated attributes.

Among the four teachers who had come across enterprise education, the word 'enterpris*ing*' was closely associated with certain actions, behaviours and the subsequent behavioural attributes. The two (JR, SG) who had participated in Enterprise workshops could not explain what 'teaching modes' were involved. Only in describing those *learning activities* were the enterprising teaching modes inferred. Moreover, when the interview proceeded to discuss 'enterprising modes of learning' presented by the DUBS' model, they both requested reassurance from the interviewer that they were not 'off track' due to the apparent unfamiliar interpretation of enterprise into 'learning modes' instead of 'activities' in which they had anchored the meaning.

JoG and RW who had minimal contact with enterprise education could not deduce the literal meaning of the term. However, they easily gave detailed account on how they perceived an *enterprising teacher* would teach using the approach identifiable in

'enterprising modes'. In other words, it requires an 'enterprising teacher' to implement those progressive teaching modes. Although the behaviours and behavioural attributes associated with the enterprising teacher seem to underpin the pedagogic approach termed 'enterprising', the meaning of the complete expression 'enterprising modes of teaching' appeared blurred to the teachers. No direct semantic association was made between 'enterprising' and 'modes of teaching'. This implies that the word 'enterprising' readily denotes *behaviours* and subsequent *behavioural attributes* to the person (enterprising teacher)[2], leading only a 'second-order' inference that teaching enterprisingly means adopting progressive teaching modes.

Summary

For those who had never previously come across 'enterprise education', the concept of enterprise seemed to be a neutral concept which did not readily provoke a connotation towards a pedagogical understanding, nor was it related to a political driven concern for business. Of those who had been exposed to it, *all* accepted the 'desirable' aspects of enterprise including the two informants who had reservations as to its association with business. Among all ten participants, only one (JaG), the lecturer in education, related enterprising teaching to the political debate.

The meaning of 'enterprising modes of teaching' as socially constructed among informants in this exploratory study showed that the political association of enterprise was largely absent (Gibb, 1993). For those who had come across enterprise education, political implication was not as important as how the meaning of 'enterprising teaching modes' could be utilised to achieve their ultimate belief in education or the aims of teaching that concerned them (Bennett, 1976; Au, 1991).

3. Teachers' Perceptions of the DUBS' Definition

In investigating how the DUBS' interpretation of enterprising teaching modes was perceived by teachers in terms of their day to day teaching experience, the dichotomy table used in the DUBS' teaching support materials was shown to the informants (see Table 1 in Appendix 3, p.273). It contrasted the traditional didactic teaching modes

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[2] This finding is coherent with the finding of 'enterprising behaviours' on which most of the informants were able to give their own definition without problems.

with enterprising teaching modes. Teachers were asked to comment on it. They tended to give short remarks on some dimensions and more precise statements of opinion on those with which that they agreed or disagreed strongly. It was when they were rating their teaching practices according to the modified table of continuum that they articulated deep reflections of their beliefs and practice in association with the social and cultural environment in which the meaning of teaching was shaped (see Table 2 in Appendix 3, p.274). Perceptual change was observed. When they were rating their colleague's teaching styles, a different perspective emerged, as they changed from the role of an 'actor' to that of an 'observer' (see Table 3 in Appendix 3, p.275).

To present such rich discourse, the method of triangulation was employed incorporating the three components discussed above, that is:

- informants' comments made upon the presentation of the DUBS' table;
- informants' reflective articulations made when rating their own teaching styles and their colleagues teaching styles along a continuum
- statistical analysis of ratings

The collective discussions on each dimension (D) can be interpreted as follows:

D1: 'learning from lectures' - 'learning from debates and discussions'

When presented with the two extremes in the DUBS' table of dichotomy, all informants agreed that 'learning from debates and discussions' was a better way of learning than 'learning from lectures'. JoG criticised that 'learning by lectures' required 'no participation' and SG thought that 'it doesn't work'. PD further complained that

> '...it's amazing the number of times I've been to hear somebody talking about practical work in the class, experimentation in the classroom, and they are standing up there talking rather than getting people involved, rather than "learning from debates and discussions".' (PD)

However, in practice, when the two sides were presented in a continuum, and participants were asked to reflect on their practice, *all* believed that both approaches served different purposes in teaching. When rating his own teaching style, PD changed his attitude slightly:

> '...I couldn't possibly say that there's nothing in the left hand column that isn't at a time appropriate.'   (PD)

JoG also admitted that pupils 'learn a little bit from lectures'. *All scientists* in this sample mentioned the importance of 'learning from lectures' for delivering basic, core information (WZ, FO, NG, PD) and 'to get started' (JoG, SG). Furthermore, FO suggested that lectures were essential in teaching Science, while debates and discussions suited Social Science more:

> '...a hard core science subject like Chemistry... does need a certain amount of straight forward lecturing because there are some core facts really which need to be delivered... whereas, I think, other subjects like... politics or theology or psychology could very well lend themselves to the type of teaching where there're open debates and discussions'[3]   (FO)

FO also stated that her actual teaching practice varied mainly according to the type of classes allocated in the time-table. Debates and discussions happened more in tutorials. NG, a science teacher at secondary level, also mentioned that debates and discussions could happen in a double lesson but were not possible in a single lesson due to lack of time.

Generally speaking, 'learning by debates and discussions' was given a higher value. For instance, FO and NG suggested that active participation as such could 'make [students] think'. As a result, students would remember better or learn more.

The above qualitative data can be contrasted with the quantitative ratings. Table 6.1 below shows informants ratings on teaching modes. '5' signifies an extreme of enterprising rating, '-5' signifies an extreme of didactic rating. A *total* final score is the sum of all the ratings of an individual. An *adjusted* final score is the sum of ratings excluding the dimensions shaded grey as they are identified as value-laden and have low internal consistency with other dimensions (detail discussion in Section 5.3, p.179). Σn is the sum of ratings from all informants in each dimension.

In Table 6.2 below, ratings are classified into 3 levels. A rating of '0', '1' or '-1' is regarded as a *neutral or low* level of rating since it indicates a *slight* preference towards either the enterprising or the didactic side. A rating of '2','-2', '3' or '-3' is regarded as a *moderate* level of rating since it indicates a *clear* preference towards one side. A rating of '4', '-4', '5' or '-5' is regarded as an *extreme* level of rating since it indicates a strong preference towards one side. The figure in each cell is the

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[3] This statement also implies that teaching approaches are subject specific. This proposition is further explored in Section 4.2, p.169.

frequency of ratings. In D1, within the *neutral/low* level, no rating of '0' and 1 rating of '1/-1' is recorded. Within the *moderate* level, 2 ratings of '2/-2' and 5 ratings of '3/-3' are recorded. Within the extreme level, 2 ratings of '4/-4' and no rating of '5/-5' are recorded. Altogether, the highest frequency of ratings is found within the moderate level with 7 ratings (n=7). Readings in **bold** indicate the level with the highest frequency in each dimension.

Table 6.1. Informants' Self-Rating of Teaching Styles

5 = extreme rating on enterprising modes; -5 = extreme rating on didactic modes, 0 = neutral
'Final scores – total' = total sum of ratings in all dimensions (D1-11).
'Final scores – adjusted' = total sum subtracted by ratings in D7, 8, 9, and 11

Self	D1	D2	D3	D4	D5	D6	D7	D8	D9	D10	D11	Final Scores Total	Adjusted
AG	3	2	4	5	2	4	2	2	4	3	4	35	23
JaG	4	4	5	4	4	3	4	4	5	4	-	41	28
WZ	-3	1	-5	-4	-4	-4	4	3	0	-4	5	-11	-23
FO	1	1	-2	-2	-1	-1	2	1	1	-3	2	-1	-7
JoG	3	3	2	4	0	-3	4	5	1	0	4	23	9
RW	3	4	-1	1	-1	1	-4	2	-3	-4	-4	10	3
NG	2	3	2	0	-2	-3	1	-4	0	-3	5	1	-1
PD	4	4	4	3	1	1	4	5	5	4	5	40	21
JR	-3	-3	-4	-4	-4	-5	5	5	5	-4	-4	-16	-27
SG	2	3	2	0	0	-3	5	5	5	-4	5	20	0
(Σn)	16	22	7	7	-5	-10	35	28	23	-11	30	142	26

Keys:
D1: 'learning from lectures' - 'learning from debates and discussions'
D2: 'passive role as listener' - ' learning by doing'
D3: 'concepts provided' - 'concepts discovered'
D4: 'learning by texts and notes' - 'interactive learning'
D5: 'feedback from the teacher' - 'feedback from each other'
D6: 'sessions programmed' - 'sessions flexible'
D7: 'mistakes feared' - 'mistakes learned from'
D8: 'teacher infallible' - 'teacher learns'
D9: 'teacher = expert' - 'teacher = facilitator'
D10: 'learning objectives imposed' - 'learning objectives negotiated'
D11: 'attention mainly on knowledge' - 'attention equally on knowledge and skills'

Table 6.2. Frequency of Ratings

Figures in cells are number of observations (frequency) against level of rating on each dimension

Levels	Rating	D1	D2	D3	D4	D5	D6	D7	D8	D9	D10	D11	Total
Neutral/	0				2	2				2	1	1	8
Low	1/-1	1	2	1	1	3	3	1	1	2			15
Moderate	2/-2	**2**	1	**4**	1	2		2	2			1	15
	3/-3	**5**	**4**	3	1		**4**		1	1	3		22
Extreme	4/-4	2	3	2	**4**	**3**	2	**5**	**2**	**1**	**6**	**4**	34
	5/-5				1		1	2	4	4		4	16

In Dimension 1: 'learning from lectures' - 'learning from debates and discussions', individuals' opinions are consistent with the statistical analysis. An analysis of their ratings confirms that 8 informants favour 'learning by debates and discussions' ($\Sigma n=16$). Table 6.2 shows that the majority of ratings fall within the 'moderate' level indicating a moderate tendency towards the enterprising side. Referring to Table 6.3 below, the Pearson Correlation Coefficient shows that ratings on D1 were significantly correlated (p=.001) to individuals' final scores. This indicates that Dimension 1 bears good discriminative value that distinguishes teachers' teaching tendency towards a didactic or an enterprising approach.

Table 6.3. Level of Significance from Pearson Correlation Coefficients between Dimensions and Total Final Scores

	D1	D2	D3	D4	D5	D6	D7	D8	D9	D10	D11
Final Scores (Total)	.001	.025	.000	.000	.000	.006	.970	.442	.213	.001	.443

Keys:
D1: 'learning from lectures' - 'learning from debates and discussions'
D2: 'passive role as listener' - ' learning by doing'
D3: 'concepts provided' - 'concepts discovered'
D4: 'learning by texts and notes' - 'interactive learning'
D5: 'feedback from the teacher' - 'feedback from each other'
D6: 'sessions programmed' - 'sessions flexible'
D7: 'mistakes feared' - 'mistakes learned from'
D8: 'teacher infallible' - 'teacher learns'
D9: 'teacher = expert' - 'teacher = facilitator'
D10: 'learning objectives imposed' - 'learning objectives negotiated'
D11: 'attention mainly on knowledge' - 'attention equally on knowledge and skills'

D2: 'passive role as listener' - ' learning by doing'

D2 shared a similar pattern of response with D1[3]. Six informants (FO, JoG, RW, NG, JR, SG), although agreeing that listening was important in learning, favoured more 'learning by doing'. FO thought that

> '...the passive role as a listener... it's very much dependent on the individual lecturer,... a lecturer may make it more stimulating than another.'   (FO)

JoG, having commented that being a passive listener was 'boring', changed her opinion when rating:

> '...it depends on who the 'passive listener' is.'   (JoG)

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[3]D1-4, tended to be collapsed into one single category by informants.

JR first responded that passive listening 'is not what I'm after for my children'. However, when rating her own teaching practice, she admitted that

> '...there is a time for listening, whether they are passive or not, I'm not too sure.'
> (JR)

RW recalled her own experience as a listener in lectures in which she learnt a great deal. She therefore contended that listening was not intrinsically passive. But her rating showed a clear tendency towards 'doing' ('4'). The reason, as NG explained,

> '...[pupils] are not very good listeners on the whole, a few are, but most of them aren't. They don't know how to listen and they certainly don't know how to take in what they are hearing.'   (NG)

FO suggested that 'learning by doing' applied frequently in practicals and workshops in Chemistry, while WZ also interpreted 'doing' as attempting numerous mathematical calculations in books or work sheets, 'lots of homework problems to solve', rather than 'doing' as 'applying'.

On the whole, the problem seemed to lie in the adjectival qualifier 'passive'. The position that teachers held was that to be able to 'listen' was desirable until it degenerated into passivity. RW, FO and NG believed that the two approaches, 'listening' and 'doing', were actually complementary in teaching.

Statistical analysis reflected the general scenario. Nine out of ten informants ranked in favour of 'learning by doing' ($\Sigma n=22$): the highest frequency of ratings fell within the 'moderate' level indicating a moderate tendency towards the enterprising side. The Pearson Correlation Coefficient showed that ratings in D2 were significantly correlated with final scores (p=.025). This meant that Dimension 2: 'passive role as listener' - 'learning by doing' differentiated individuals' teaching styles.

D3: 'concepts provided' - 'concepts discovered'

Informants' opinion on this dimension differed a great deal. RW believed that concepts had to be provided when teaching foreign languages whereas JoG who taught English and drama disagreed because it 'gives no stimulus'. Her strong attitude softened slightly into *sometimes, not wholly* when rating. PD, who had the highest enterprising score, also implied that concepts had to be provided as he believed that

'There are a few cases [in which] you would want to be given information.' (PD)

While NG thought that 'concepts discovered' worked well in Chemistry, FO believed that

> '...the problem is, some of these ideas are quite complicated and for the students to actually discover concepts within a lecture might be slightly unrealistic in terms of a science subject. Obviously if the student was in the position to feel that they were discovering something... they would learn that at a much deeper level than simply being given the information.... but they would have to have some basis for doing that which would have to be delivered ...in a very straightforward manner... But again perhaps more in a tutorial or workshop situation, [concepts would be discovered].'   (FO)

JR and SG, both primary teachers, pointed out that the two extremes were not necessarily opposites. The teacher would provide the original idea and pupils could take it further themselves under guidance. SG believed that,

> '..they've got to have the "concepts provided" and straight in their mind.' (SG)

However, whether these concepts could be further discovered or not depended on pupils' own ability:

> 'I provide the core, and the able ones can take it further. But the majority, at the minute, stick with what I'd provide'   (SG)

In general, statistical analysis showed the contrasting ratings among informants on D3. Four of them chose the didactic side and six chose the enterprising side and ratings fell mainly within the 'extreme' level (n=5, Σn=7). This revealed the highly diverse views held among individuals. The Pearson Correlation Coefficient between ratings in D3 and final scores is remarkably significant (p=.000), indicating that Dimension 3: 'concepts provided' - 'concepts discovered' distinguished the two teaching tendencies.

D4: 'learning by texts and notes' - 'interactive learning'

Division between informants with an enterprising tendency and those with a didactic tendency fell into extremes concerning this dimension. JoG critically argued that 'learning from texts and notes' gave no personal responsibility and she coherently rated highly on 'interactive learning'.

On the contrary, WZ rated highly on 'learning by texts and notes':

> 'In Mathematics or Theoretical Physics there is a lot of basic information that you have to acquire, various skills that you have to acquire. And therefore in some ways

you have to learn from text and notes, and not so much that (pointing to the enterprising side)...' (WZ)

FO grouped D1, D2 and D3 together and summarised that the didactic-enterprising dichotomy was complementary although enterprising modes were regarded as enabling higher level learning. However, she eventually rated slightly in favour of the didactic approach:

> '...any form of learning which involves discussion or direct interaction is bound to increase the efficiency of learning... you learn much more deeply by doing it yourself because you can actually see how the process works, what sort of problems you are likely to encounter. But again they are complementary because there's a certain amount of theoretical basis you need to learn in lectures. The actual experience of doing them yourself gels everything together. I think the worst situation is a passive one where you just go in and sit down. There probably needs to be an element of that, but definitely, it's the one which tends to close your mind off, and it's only probably later on when you go back over what you've written down that you tend to actually learn. ' (FO)

As she leaned towards the didactic side on this dimension (-2), she articulated that she could 'think of ways in which teaching can be improved with more interactive learning, although 'texts and notes' was the 'prime way' she taught with at the time when the interview took place.

NG rated equally on both pointing out the appropriateness of 'learning from texts and notes' and 'interactive learning' for different purposes:

> '...if they are learning skills, they wouldn't use text and notes to learn a skill, will they? This will be what they are doing in the classroom.' (NG) [4]

Statistical analysis showed that the total sum of final scores fell slightly towards 'interactive learning' ($\Sigma n=7$) while the majority of ratings fell mainly within the 'extreme' level (n=5) indicating diverse opinions and practices in this dimension. D4 was very significantly correlated with final scores (p=.000). This means that Dimension 4: 'learning from texts and notes' - 'interactive learning' gave good discriminative value which differentiated the two teaching approaches.

D5: 'feedback from the teacher' - 'feedback from each other'

The majority of informants were inclined to take the middle ground between the two approaches with a slight tendency towards the didactic mode. PD mentioned that the two approaches were 'not contradictory'. JoG believed that they were 'equally important':

'"Feedback from the teacher" nothing wrong with that, but if solely from the teacher, then it becomes restricted to one aspect of it and that can be wrong... you need the feedback to give them a perspective of what they have been doing... if you do a piece of work that needs to be marked, that's feedback from the teacher... a teacher is a leader of the group, and a teacher is somebody who learns over, in my case, many many years, and what you've learnt has got to have some value... you've got to have somebody to moderate progress to let the kids know if they are heading towards the right direction...[and that] you are supportive... that is very very important. "Feedback from each other" I equally... think they do learn a lot from each other...'   (JoG)

FO claimed that the two approaches were 'complementary' to one another. However, she rated slightly in favour 'feedback from the teacher' because students had 'more faith' from lecturers' feedback and felt more encouraged and assured in their work.

NG agreed with FO that 'feedback from the teacher' was more effective than feedback among pupils:

'sometimes it does work well when the feedback comes from other pupils, but I find mostly they benefit from the feedback that comes from the teacher...often the session disintegrates if somebody gives a silly unhelpful answer, so I tend to teach so that the feedback comes from the teacher, more than from the pupils. '   (NG)

Statistics showed that half of the sample (n=5) tended towards 'feedback from the teacher (μ=-2.4), two informants took the middle ground, and three tended towards 'feedback from each other' (μ=2.14). Ratings were mainly found within the 'neutral/minimal' level (n=5). As a whole, statistical analysis confirmed that individuals tended to value the two approaches as equally important with trivial preference to 'feedback from the teacher' (Σn=-5). The Pearson Correlation Coefficient recorded high level of significance (p=.000) indicating that informants' ratings on D5 correlated with final scores. This meant that Dimension 5: 'feedback from the teacher' - 'feedback from each other' had good discriminative value which differentiated teachers' approach to teaching.

D6: 'sessions programmed' - 'sessions flexible'

While commenting on this dimension, four informants (JoG, PD, JR and SG) simultaneously complained about the introduction of National Curriculum which took away the flexibility in teaching. Although they would prefer to have flexible sessions, in practice, they had to programme their sessions in order to cover the statutory teaching load.

SG postulated how the National Curriculum had affected flexibility as follows:

'session has got to be flexible and that's what causes the problem: flexibility that you haven't had because it's such a work load. You've got to get things done...your sessions have to fit into the time-table, you are structured. Especially now, we've got to do 4 hours of this a week, 4 hours of that a week and... you've got no hours left. You haven't got much time left to get through what you have to get through by law in the document'   (SG)

PD also suggested that

'...with the unfortunate introduction of the National Curriculum, now I hate it when you have to put up with... it would be nice to have everything flexible all the time (but) it would be very unfair to the kids not to include the sort of things that might have been included in the exams.' (PD)

JoG agreed with PD that sessions 'should be wholly flexible' had she not been 'tied by the examination system'. Nevertheless, she thought that

'you have to plan what you are going to do, but I don't think you should stick to it rigidly because things can crop out during discussion that may be actually more interesting or wholly relevant that gives a wider view of what you are talking about and resource for tomorrow... obviously, you've got the syllabus to follow but I think that you've got to be flexible within that...' (JoG)

NG on the other hand believed that it was better that a session was programmed than fragmented due to flexibility.

FO and RW suggested that whether sessions should be programmed or flexible depended on the kind of session and the activities involved. For instance, tutorials were extremely flexible while lectures would be structured in order to cover a great deal of essential topics and that flexibility might mean unhelpful digression.

Statistics show that six ratings fell on 'session programmed' within the 'moderate' level. This revealed the general practice tending towards the didactic side on D6 ($\Sigma n=$ -10). The correlation between ratings in D6 and final scores was highly significant (p=.006). This indicated that Dimension 6: 'sessions programmed' - 'sessions flexible' differentiated the two tendencies towards teaching practice.

D7: 'mistakes feared' - 'mistakes learned from'

This dimension provoked three different interpretations from informants due to the confusion of 'who' and 'why' mistakes were feared. The first interpretation refers to teachers' fear of making mistakes. The second refers to learners' self-imposed fear because of, for instance, lack of confidence. The third refers to teacher-imposed fear of students. Some informants used different interpretations for rating themselves and

rating their colleague. For instance, both FO and JR rated their own teaching practice in the way that stressed the encouragement they gave to enable learners learning from their mistakes, free from self- or teacher-imposed fear. However, when they rated their colleague, a different interpretation was applied meaning that their colleague feared making mistakes. This implied that D7 needed to be re-labelled to avoid ambiguity.

SG suggests that hardly any teachers nowadays would believe that mistakes should be feared and not learned from:

> '...teachers are beginning to appreciate that mistakes are something to learn from, not to tell them off...' (SG)

WZ criticised this dimension as value-laden:

> '...here, it's obviously some prejudices... you obviously want me to like this column because it sounds very good, 'mistakes learnt from' than 'mistakes feared'. But I don't think it really is quite like that.' (WZ)

NG agreed that this dimension implied 'criticism'. He thought that mistakes were mostly feared not because of the attitude of the teacher but rather because of the attitudes of students and their peers.

> '...sometimes I know pupils in my class won't risk an answer orally because they fear making a mistake, I know that, some pupils are quiet and will never offer anything in the class, largely because, not the comments of mine, but how they might be thought by the others.' (NG)

JoG, however, believed that a didactic learning situation would induce fear among students who made mistakes.

> 'I think that people do fear from mistakes if they are in a didactic situation, and I think they learn from mistakes if everybody is making it and there is not a feeling of angst about speaking out of turn.' (JoG)

Note that both WZ and NG were scientists with a clear didactic disposition while JoG was an English teacher with a clear enterprising disposition.

The contrast between the two colleagues, JR and SG, further revealed the problem with this dimension. SG speculated that JR's didactic disposition would make children fear making mistakes. On the contrary, JR showed strong intention (with subsequent behavioural account) to make children relax, accept and learn from their mistakes:

"it does the children good to see that you're not [infallible], and that they make mistakes and you make mistakes as well, so what, mistakes are not the beginning and end of anything.." (JR)

Statistical analysis revealed that *none* of the informants rated on 'mistakes feared' as their practice with most of the ratings fell within the 'extreme' level on 'mistakes learned from' (n=7). This dimension skewed heavily towards the enterprising side (Σn=35). The Pearson Correlation Coefficient showed no significance of this dimension with final scores (p=.970). This suggested that Dimension 7: 'mistakes feared' - 'mistakes learned from' did not differentiate individuals' teaching approaches. The fact that the informants with a didactic tendency would also skewed towards 'mistakes learnt from' showed that this dimension might be value-laden.[4]

D8: 'teacher infallible' - 'teacher learns'

D8 shared a very similar pattern with D7. WZ and NG, again, criticised this dimension as biased.

"Teacher infallible', I mean it's a bit silly... 'teacher learns', that's definitely true... I can imagine a didactic mode of teaching which would involve most of those points here but wouldn't necessarily 'teacher infallible'... in a sense there is no teacher learns or teacher doesn't learn... it's always true that teachers always learn something.'
(WZ)

WZ and NG's view was confirmed by the fact that the majority of informants instantly declared that they were definitely not infallible and that they learnt through teaching all the time.

Nevertheless, FO gives a very stimulating retrospective account of her own experience of 'infallibility' as a teacher:

'I think a lot of these depend on the experience of the teacher... when I started off teaching first, I was quite afraid of revealing my lack of knowledge, and because you don't have that much experience, you feel you are expected to know everything by the students. You feel slightly inadequate and therefore don't want to transmit this to the students because you think that they won't respect you... As you get more and more experience and as your confidence grows, you realise that students don't really expect you to know everything... you realise you can't possibly know everything... everyone has their own specialised area... But it's fear to carry it off, it's not having the confidence to carry it off...' (FO)

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[4] 'Mistake feared – mistakes learned from' is a common feature in most dichotic tables contrasting didactic and progressive teaching approaches. It is likely that these tables are also value-laden.

It is interesting to contrast FO's view and that of JoG. JoG observed that the lack of knowledge and experience, and consequently, confidence, was the reason for a new teacher to feel 'fallible'. FO, based on her own experience, thought completely the opposite. She acknowledged that infallibility was her defence mechanism. The different account between an actor (FO) and an observer (JoG) demonstrates the potential inaccuracy in making inference from beliefs to behaviours by means of observation (Brown, 1986).[4] On the other hand, JR was able to attribute that new teachers might display infallibility as a result of a need to prove that they could teach. In other words, infallibility was regarded as more a result of inadequate teaching experience and confidence rather than an inherent mode of, or belief in, didactic method of teaching.

Statistical data revealed that nine informants rate on 'teacher learns' ($\Sigma n=28$) with the majority of ratings fell within the 'extreme' level. This implied the strongly skewed tendency towards 'teacher learns' as opposed to 'teacher infallible'. The Pearson Correlation Coefficient showed no significance between ratings of this dimension and final scores (p=.442), indicating that Dimension 8 bore no discriminative value in distinguishing individuals' teaching approaches.

D9: 'teacher = expert' - 'teacher = facilitator'

The word 'expert' was given different interpretations by individuals. Those who interpreted it as 'know all' took a value-laden position in their comments and ratings. Those who interpreted it as 'knowledgeable in the subject area' took a more neutral position.

An example of a value-laden judgement was observed between the two colleagues, JR and SG. Both chose the highest rating ('5') on the enterprising mode of 'teacher = facilitator'. However, when they were rating each other, their ratings went to the didactic 'teacher = expert' ('-3' for both). SG's statement 'mimicked' JR:

'Yes! She (JR) *is* the expert... "This isn't a right answer!"... "No, that can't be right!" "There's definitely going to be a..." "This is the way it's got to work."' (SG)

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[4] This resembles a fundamental attribution error, i.e. an error made by an observer who tends to underestimate the situational factors and overestimate the actor's internal dispositional factors when attributing the cause of the actor's behaviours.

JR, on the other hand, guessed that SG would be didactic in this dimension because of lack of experience and 'anxiety to prove herself'. It is obvious that both JR and SG associated 'expert' with 'infallibility' or 'know all'.

The discrepancy between self-rating and rating a colleague, again, showed the actor-observer divide in attributing behaviours. Arguably, the value-laden nature of this dimension has aggravated the discrepancy.

The change of position was observed in PD who rated himself '5' on the enterprising side and '-2' on the didactic side for his colleague where he uttered that

> ' To some degree, it's important for the teacher to be an expert '   (PD)

FO initially explained the dual role of a teacher as being the expert **and** facilitator:

> '... to certain extent you're going to be an expert in certain fields in relation to them, but also I think you've got to make them aware that once they've got the basic tools they can apply that to solve their own problems... students must be encouraged to use the information'   (FO)

However, when it came to rating herself, she uttered that

> 'I wouldn't like to promote myself as being an expert.'   (FO)

JoG also recognised the dual role with slight preference towards being a facilitator.

> 'the teacher is an expert but that expertise shouldn't be the focal point of the lesson. All teachers should be experts in their subject but ...more than an expert, you need to be a facilitator. '   (JoG)

NG further suggested that the dual role was not conflicting to one another and consistently he rated '0' indicated a neutral position.

> ''teachers = experts' - 'teachers = facilitators', to my mind those two are not opposite. If you are an expert, it doesn't mean you can't be a facilitator. If your are a facilitator, it doesn't mean you can't be an expert... the teacher is the guy who knows all about his topics and also the guy who is making it easy for the pupils to find a way of finding it out for themselves.'   (NG)

Statistical analysis showed that seven informants rated on 'teacher = facilitator' and five of them were within the 'extreme' level (n=5) showing bias towards the enterprising side (Σn=23). The Pearson Correlation Coefficient showed that ratings of D9 did not correlate with final scores (p=.213). This implied that Dimension 9: 'teacher = expert' - 'teacher = facilitator' did not identify individual's teaching tendency and that it was likely to be value-laden.

D10: 'learning objectives imposed' - 'learning objectives negotiated'

The majority of informants tended towards the didactic side. They believed that learning objectives needed to be imposed for various reasons. FO stated that students might not have enough knowledge which was the pre-requisite for negotiating learning objectives.

> '... within Chemistry... there are very definite topics. The aims of the course is very much outlined prior to students coming on the course... From that point of view, learning objectives are definitely imposed as it stands in current chemistry curricula. To certain extent, these are not open to negotiation... As the students progress to elective topics - they don't form part of the core material - then there is a certain amount of negotiation possible... [However,] being able to negotiate what the learning objectives are relies on the students knowing what they would need to know. Therefore, this method of teaching is very much constrained by students ability to do that...'   (FO)

NG imposed learning objectives because Chemistry was a practical subject which involved particular preparation.

> '...the objectives are probably not really negotiated largely because it is a practical subject and nearly always for a double lesson I've got something ready, some piece of equipment, some chemicals, some apparatus for particular experiment often to be done in a particular way... [Therefore,] learning objectives often are discussed during the course or lesson. But really the pupils know that the objectives which are put into the lesson come from me most of the time.' (NG)

SG (primary level) however, took a different approach from that of FO (university level) and NG (secondary level). She negotiated learning objectives frequently with her children when teaching science because their curiosity would naturally lead them to decide what they wanted to learn next. She believed that:

> '...in a science subject, you can actually negotiate the objectives with them...because science is subject that has not a definite answer. You don't know whether you would get the same results...'   (SG)

However, she imposed learning objectives for teaching other subjects because she deemed this more suitable for the young age group she taught.

> '"Learning objectives negotiated", not particularly for my age...because they wouldn't stretch themselves. They would go for the very easy options. It should be structured, pointing them to the right direction and getting them to where you want to be discretely. But if you leave it up to them, they wouldn't stretch themselves. ' (SG)

The inconsistency detected from SG was likely to be her bias towards science (since she was the science co-ordinator at school).

Certain inconsistency was also observed in JoG's discourse:

> '...I think if I'm honest, I do impose certain objectives but that was because of examination demands, within that I negotiate which particular area of text they want to explore, so it is partly negotiated. *But it's got to have some kind of design imposed on it. You do need to impose learning objectives but also you need to negotiate as well. I don't think the two necessarily need be opposites.*'   (JoG)

The first half of her statement implied that she would prefer to negotiate objectives more with student had it not been examination demands. The second half (*in italics*) suggested that there needed a balance between imposing learning objectives and negotiating with students. JoG eventually rated neutral ('0') on this dimension. It was likely that JoG's first thought was 'framed' by the superficial 'democratic tone' of 'learning objectives *negotiated*' as worded in the enterprising mode as opposed to 'learning objectives *imposed*'. However, after deeper reflection, she could see the equal importance of both. JoG's discourse showed how the rating exercise might have helped her to discern her own perception in teaching.

Statistics show that six individuals rated on 'learning objectives imposed', two took middle ground and two rated on 'learning objectives negotiated'. The total of final scores read $\Sigma n=-11$ with the highest frequency of ratings within the 'extreme' level. This revealed a clear tendency towards the didactic side in this dimension. The correlation between ratings in D10 and final scores was highly significant (p=.001). Hence, Dimension 10: 'learning objectives imposed' - 'learning objectives negotiated' helped classifying teachers' teaching practices into the two categories.

D11: 'attention mainly on knowledge' - 'attention equally on knowledge and skills'

JaG criticised the label of this dimension as not 'proper':

> 'I actually think that it's an unhelpful distinction because you haven't offered me the same thing on [the enterprising] side.'   (JaG)

JaG expected the dichotomy to be 'attention mainly on *knowledge*' – 'attention mainly on *skills*'. The conceptual imbalance was presumably caused by the dichotic presentation. He subsequently omitted rating this dimension. NG had a similar query:

> ''Attention mainly on knowledge', 'attention equally on knowledge and skills'... yep... *equally* on knowledge and skills... if you say mainly on knowledge here and mainly on skills there... *equally* on knowledge and skills, um... equally.... I would say I'll go

along with that. That doesn't mean 'extremely skills', that means equally on knowledge and skills, yes?' (NG)

The perceptual imbalance was arguably the result of a dichotic presentation. Moreover, RW criticised that the distinction between knowledge and skills was arbitrary. These findings echoed the debate in the academic literature. Thompson's claim (1984) that dichotic presentation of this kind tends to conflate global concepts.

The rest of the informants, however, did not articulate any problems although their definition of knowledge and skills was simplistic. 'Knowledge' was predominantly associated with knowing through books, notes and lectures as JR puts it:

> '"attention mainly on knowledge", to me, that means reading through books or teaching... listening to me giving my impressions of knowledge.'   (JR)

On the other hand, 'skills' were broadly defined as 'knowledge applied in practical doing' (WZ, FO, NG) and 'life skills' (JoG, NG, JR, SG). NG implied that skills were acquired through 'doing'. This proposition was in line with Gibb's (1993) speculation that skills needed to be practised in situations which called upon their applications.

> '...if they are learning 'skills', they wouldn't use text and notes to learn a skill, will they? This will be what they are doing in the classroom. If they are learning 'knowledge, I *try* and make them learn the structure from notes.'   (NG)

Another aspect of skills which NG referred to was 'skills of learning':

> 'I recognise now much more than in the past, the emphasis is on skills, and much less on knowledge because...if pupils haven't got the knowledge, provided that they've got the skills to know where to look for it, then they can acquire the knowledge that they need in a reasonably quick time. '   (NG)

'The skills of learning' was also regarded as an important 'life skill' by RJ who called it 'knowledge of a different kind', that is,

> 'learning for themselves, finding out for themselves'   (JR)

Other life skills mentioned by informants include something that is 'going to help them when they leave school' (JoG). When probed, FO elaborated on her understanding of skills:

> '...industry is becoming so important, the job market is really tightened up, there is more emphasis on developing those skills (e.g. presentation skills, communication skills)... you're not just trying to give the students a lot of facts, you're trying to produce somebody who at the end of [their degree courses] can go out there and do a

job... So, they've learnt how to apply the knowledge that they've learnt, either in a theoretical way, or in a practical way, and also, be able to communicate whatever results they obtain. (FO)

Furthermore, the skills that SG would like to develop among her children were:

‘...discussion skills, communications skills, team work skills, learning off each other...’   (SG)

However, she strongly criticised the National Curriculum for causing tension between knowledge and skills and for inhibiting creativity among children:

‘...it should be 'equally on knowledge and skills'. But...teaching is mainly on knowledge because of the National Curriculum, the way it's written, it's 'know that', or 'understand that'. It's all knowledge based... not much room for creativity. ’
(SG)

Nine individuals rated favourably ‘attention equally on knowledge and skills’ with total ratings $\Sigma n= 30$ and most ratings were found in the ‘extreme’ level (n=8). This means that ratings were extremely skewed towards the enterprising side. The Pearson Correlation Coefficient revealed that ratings in this dimension do not correlate with final scores (p=.443). Hence, Dimension 11: ‘attention mainly on knowledge’ - ‘attention equally on knowledge and skills’ did not have discriminative value of individual's teaching styles.

In general, teachers favoured the enterprising mode in this dimension particularly due to the equal emphasis of skills and knowledge. The majority of teachers regarded ‘knowledge’ as more related to ‘book knowledge’ whereas ‘skills were more to do with the book knowledge being ‘applied’. Such a definition seemed to be in line with the ‘knowledge-skills’ dichotomy described by various enterprise initiatives (RSA, 1991). The presentation of skills and knowledge as dichotic ends has been widely criticised in the academic literature as being ‘false’ (Thompson, 1984; Coffield, 1991). The finding of the current research suggested that the promoters' definition was actually in tune with the *general* level of understanding with teachers. However, this does not mean that the dichotomy is justified at a *deeper* conceptual level of scrutiny.

Summary
In general, teachers were able to perceive the degree of relevance of enterprising teaching modes, in comparison with didactic modes, to their daily teaching experience. The method of triangulation captured the complexity of such perceptions. It facilitated on exploration beyond superficial prejudice and the apparent consistency

of individuals' attitudes or interpretations towards the two teaching approaches. It revealed considerable inconsistency and difference in interpretation. The next section looks closely at the key influences upon teachers' perceptions.

4. Factors Affecting Teachers' Adoption of Enterprising Teaching Modes

Structure and Guidance: Tension and Complementarity

All informants indicated that the two teaching approaches presented in the table, i.e. the didactic approach and the enterprising approach, were indeed complementary. They adopted mixed approaches for different purposes and teaching activities. The majority of informants believed that enterprising elements within a mixed style enabled higher order learning (AG, JaG, WZ, FO, JoG, PD, SG, JR) while the didactic elements was more efficient in transmission of core, basic knowledge (WZ, FO, JoG, NG, SG, JR). Both approaches were generally seen to be complementary in that the didactic method was fundamentally essential for laying down basic, core information while the enterprising method was for concretising theories learnt in lectures or books or notes and allowed deeper understanding of the subject matter. Some mentioned that before they could employ enterprising methods, the didactic approach had to be introduced first. In short, didactic modes provide the structure for guided learning to take place.

However, tension existed when certain factors would push informants towards being more didactic or enterprising. Some of these factors were shared among informants whereas some were found to be individualistic predilections.

4.1. Syllabus/National Curriculum

Eight informants believed that they taught more didactically as a result of the presssure and constraints to deliver the content set aside by a syllabus or the National Curriculum. JoG strongly detested the current examination system as it emphasised factual recall and speed. People who contemplated slowly but came up with good ideas were penalised. JoG believed that the examination system had turned the intrinsic interest in learning into the desire for the externalised reward of getting good grades.

Both JR and SG disliked the National Curriculum for inhibiting creativity and versatility among primary children. JR stated that

'I have to point straight to the National Curriculum. There isn't the time, there isn't the scope, there isn't the facility for allowing children to be creative, because you, as a teacher, are taking a risk if you allow things to go wrong. If things go wrong, you have to have the time to put them right. Quite often, it's quicker not to let them go wrong. So, you are sometimes preventing [children] from being creative, and you're solving their problem for them by not giving them the opportunity to solve their own problem.' (JR)

JR further expressed her dissonance in holding firm enterprising beliefs yet being forced to teach didactically due to the pressure for academic achievement which were refined in public assessments particularly related to the National Curriculum:

'...because of other people's expectations of me and my children... the government have expectations, the school has expectations, the parents have expectations and that it's often in conflict with me as a teacher, having had a lot of experience in teaching, and feeling I know a little bit how to teach, ... that's the way I approach teaching (enterprising modes), but that's not the way I'm being allowed to teach.'   (JR)

NG was the only exceptional case who mentioned the advantage of having a syllabus.

'... if there's no syllabus to follow... the teacher would have to find ideas all the time and if he actually runs out of ideas, it becomes really hard work. Also, having a syllabus provides people with some sort of a motivation to measure their progress...I do like students to have the syllabus so that they can check, in their mind, everything has been covered. So, I'm used to working with a syllabus, the students are used to working with the syllabus, that's probably why I tend to use didactic modes of teaching some of the time.' (NG)

If NG did not have to follow a syllabus, he predicted that,

'...there would be a lot less didactic teaching.'   (NG)

Nevertheless NG's general comment explained the overall picture,

' I think particularly in an advanced level where you've got quite a lot of knowledge and skills (to teach)... I find that in some lessons you really have to teach almost like that (didactic) just to cover the syllabus really.'   (NG)

In general, this finding confirmed Harris' (1993a) and Galton *et. al.*'s (1999) observations that the increase in didactic teaching was due to the pressure of the National Curriculum which emphasised more on factual recall than higher-order learning.

4.2. Subject/Content Specificity

Seven informants believed that the mode of teaching needed to be tailored for different subjects taught and skills to be developed. AG speculated that spelling might be better taught through didactic means. SG claimed that she was substantially more 'enterprising' in teaching science than she was in other subjects. In contrast, both WZ and FO (scientists at university) suggested that the enterprising approach was more readily appropriate to social science subjects than to traditional science subjects.

> 'in social science, it's much easier to go to that (enterprising mode)... because, to some extent, you can start almost straight away with a problem.'   (WZ)

FO also claimed that

> '...a hard core science subject like Chemistry... does need a certain amount of straight forward lecturing because there are some core facts which need to be delivered... whereas, other subjects like politics or theology or psychology could very well lend themselves to the type of teaching where there are open debates and discussions'   (FO)

JR tended to teach mainly didactically, while she reported using extremely enterprising measures when running enterprise activities. Although such activities were not a 'subject' as such, it implied that the content to be taught might influence teaching approaches. RW also believed that content influenced her approach to teaching.

Thus, the lack of consensus on the issue of subject specificity implied that, in the main, it was not the 'subject' *per se* that determined teaching approaches, rather, it was the individual attitudes or perception that account for such difference. Statistical analysis confirmed that the correlation between 'subject' and final scores was non-significant (p=.502). More interestingly, the combined effect of 'subject' and 'level' was shown in D2 (p=.015), D3 (p=.014) and D4 (p=.037): the lecturers in humanities at university level tended to be most enterprising emphasising 'learning by doing', 'concepts discovered' and 'interactive learning', while the scientists at university were consistently the most didactic respectively stressing 'passive role as listener', 'concepts provided' and 'learning from texts and notes'.

PD, a science teacher at secondary school with a strong enterprising disposition, admitted that it was rather unusual to adopt an enterprising approach in a science

subject. He suggested that the real reason for the didactic dominance was a result of strong tradition.

> '...the people in control are the people who have succeeded through the traditional didactic modes and they think that what is right for them is what works. And it *can* work, but I don't think it really works for most people.'   (PD-2)

PD's view echoed Bernstein's claim (1971) that science subjects, which had a strong traditional subject identity and technical language, favoured strong framing, i.e. didactic teaching with little active participation from students. Bernstein (1971) posited that university sciences had the strongest subject identity in comparison with humanity subjects and therefore would have the strongest 'framing' (didactic teaching).

4.3. Students' Learning Abilities

Six informants claimed that the two teaching approaches were suitable for different learning abilities or inclination. Both PD and NG implied that the didactic approach could only benefit the few academically able pupils, while the rest learned better through enterprising modes. JR held a similar view that the enterprising approach:

> '...is another way of interesting those children who may not be so interested in doing Maths or English in books, but they are quite prepared to do more practical activities. And quite often you'll find that those children who are specifically good at Maths or English are not necessarily those children who would shine when they are doing their project in enterprise... those children who might have been escaping your notice, maybe the middle band of children where they don't necessarily get the opportunity to shine, all of a sudden you can see... They might not be leaders in PE or...sitting around talking about science, but when it comes to the practicality of money, and organisation...our line of enterprise...'   (JR)

At a superficial level, it seemed that the three individuals above associated an enterprising approach with teaching learners of average ability. A closer scrutiny however showed that these informants clearly believed that the didactic approach benefited *mainly* the academically inclined while the majority of the average students would lose out. Enterprising approaches would actually benefit more the majority and yet not 'lose' the academically able. JR explained:

> "I wouldn't say that those children who are academically inclined are not motivated [by enterprising modes of teaching]. I'm not saying that, because they are interested in it as well."   (JR)

In other words, it seems that enterprising modes were regarded as suitable for most pupils including the academically able while didactic modes were more relevant to the higher ability group. This view contradicted with WZ, FO and SG's who believed that the enterprising teaching modes were more appropriate for the more competent learners. SG stated that

> 'I do feel that the enterprise modes of learning are definitely the ideal. But I still think the traditional modes... still need to be provided, not all of them but a lot of them, and more so at the younger age... be very structured, otherwise, some of them will never be on track. But as they get older and more confident... you'll need to put less of your own input into it because they have become confident learners, and hopefully, independent. But I think that's a long process to move them up to that,... you would only get those enterprising modes of learning present in your 5 or 6 top end, where that can work these kids the best' (SG)

It should be noted that SG had a clear enterprising teaching disposition while occupying a solid 'middle ground' along the continuum. She believed that the 'extreme' of enterprising modes were 'ideal' for only a few capable pupils while the majority of younger aged children would need structured guidance. Therefore, she would incorporate some didactic measures to meet the developmental needs of her children.

At university level, WZ also claimed that he adopted the more didactic modes for undergraduates and a more enterprising approach for postgraduates mainly because the former did not have adequate pre-requisite knowledge and skills to make the enterprising approach applicable.

> '... in science, we need more basic stuff that everybody has to learn first and only then you really start doing that (learning through enterprising modes). So, at a research level, this sounds pretty good. In fact, that's what we do. ' (WZ)

To summarise, whether certain teaching approach was more appropriate to a particular ability group was a matter of opinion to the individual rather than a shared common factor to the majority of informants.

4.4. School Climate

Five informants mentioned that the organisational climate of the school affected their choice of teaching approaches. JoG suggested that teachers tended to teach in the way that conformed to the ethos of the school. For instance, she perceived that her school was a traditional school which favoured didactic teaching, and that her colleague who was a new teacher has been pulled towards teaching didactically.

'... she was obviously nervous, and didn't like students asking questions, and was terrified about being challenged by anything. I think that's part of the make-up of somebody who is young and may be not a natural teacher. I think it's also the school where I teach has put great stress on discipline, and puts great stress on results... she's being judged upon on high...'   (JoG)

Notice that the same organisational climate did not have the same effect on JoG herself, or not to the extent that she observed in her colleague. However, simple statistical analysis showed that school climate might have an effect on teachers' teaching practices. Among the six participants (AG, JaG, RW, PD, JR, SG) who perceived their school as having an informal environment, their final scores (adjusted) read 23, 28, 3, 21, -27, 0 respectively. Only one had a clear didactic tendency, four of them had a clear tendency towards the enterprising approach. Among the four, WZ, FO, JoG, NG, whose teaching environment was said to be traditional, their final scores (adjusted) read -23, -7, 9, -1. Only one had a clear enterprising tendency. This result seemed to support the notion that the organisational climate or the ethos of the school might be related to teachers' teaching practice. Furthermore, school climate was significantly correlated with D6: 'sessions programmed' - 'session flexible' (p=.034). Teachers in a traditional environment tended to programme their sessions significantly more (μ=-2.29) then those whose school had an informal environment (μ=2.00).

4.5. Years of Teaching Experience

Five informants believed that teaching experience affected one's approach to teaching. SG suggested that her teaching style was influenced largely by her experience of teacher training at university. She also speculated that the different teaching styles between herself and her colleague (JR) were mainly due to the different training JR received long before hers.

'[The way JR teaches is] totally opposite to how I teach. But I'm obviously trained differently from when she was trained 18 to 10 years ago. We're totally different '
    (SG)

JoG, on the contrary, believed that her young and inexperienced colleague tended to teach more didactically since she was nervous of losing control of the class.

The two opinions somewhat contradicted each other. Due to the restriction of sampling, this study has not been able to examine this factor. Nevertheless, among the five participants, AG, JaG, JoG, NG, JR, who have taught more than 25 years, their final scores (adjusted) read 23, 28, 9, -1, -27 respectively. Except JR who shows a

clear didactic tendency, three of them show a strong tendency towards the enterprising approach. This finding challenges SG's speculation that a long history of teaching means more didactic teaching due to different training.

Statistical analysis (Spearman's non-parametric test) showed non-significant correlation between 'years of teaching' and final scores (p=.863). To sum up, years of teaching did not seem to affect teaching tendency.

4.6. Exposure to Enterprise Education

The discourse analysis showed that those who have not heard of the subject before did not have a 'shared' meaning of enterprise with the promoters[5]. Those (JoG, RW) who had minimal contact with enterprise shared the underlying attitude and understanding of the concept – resembling progressive teaching. Those (JR, SG) who have participated in enterprise workshops not only shared such an underlying attitude and understanding, they also concentrated on the actual activities that manifested this attitude and understanding. Interestingly, however, while their main focus was upon the enterprise activities, there was a lack of assimilation of the theoretical underpinning behind these activities.

While JR and SG (primary school teachers) were more concerned with *practical running* and *effect* of enterprise activities, AG and JaG who were involved in disseminating enterprise education, concentrated on the *theoretical soundness* of the concept. Thus, the extent to which the meaning of the concept was shared was dependent on the level of involvement and the degree of exposure in enterprise.

Among the six informants, AG, JaG, JoG, RW, JR, SG, who had been exposed to Enterprise education, five of them show a clear tendency towards enterprising modes with final scores of 35, 41, 23, 10, -16 and 20 respectively. Compared with the four, WZ, FO, NG, PD, who had not been exposed, their final scores read -11, -1, 1 and 40, only one of them showed a clear enterprising tendency to the extreme. PD, this

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[5] Out of the four participants who had no prior knowledge of enterprise education, FO was the only exception who associated the concept with 'interactive learning' and 'self-initiative which resembled the promoters' understanding. However, her spontaneous definition and the content of the whole interview lacked further elaboration which showed that she shared the promoters' knowledge and attitude.

exception, had actively taken part in a national maths project which advocated a progressive approach to maths teaching.

It seems that those enterprise or similar activities that participants experienced had affected teaching styles. Training was important for promoting the understanding of enterprise as an effective approach to teaching (Au, 1991; Harris, 1993a). Fullan (1991) further suggests that training should concentrate more on a deeper level of reflection upon the meaning rather than simply passing on the ideas and techniques. The making of meaning is deemed particularly important for long term commitment lest the concept become a superficial bandwagon, highly value-laden in a shifting ideological tide, which has arguably been a problem in promulgating enterprise education in the 1980s and the early 1990s.

3.7. Class Size

Four informants mentioned that class size determined their teaching approach. The enterprising approach was regarded as more appropriate for small groups whereas the didactic approach was more 'realistic' for big classes. Sylva (1991), Gallimore and Tharp (1990) supported the view that progressive teaching was very difficult to implement in big classes. Class size was more an obvious factor affecting teaching styles at university level. This is understandable since university lecturers have class sizes varying from 1 to 1 supervision and small group tutorials to 50+ students in lectures, while secondary and primary teachers have a constant class size of 26 to 33.

4.8. Summary

It seems that among the many possible factors that affect teachers' teaching style, as suggested by the teachers, the pressure of academic performance defined in terms of public exams and assessments, heavily ingrained in the existence of syllabuses or the National Curriculum, had the most profound influence on teachers' teaching style. Class size, organisational climates and exposure to enterprise education also seemed to potentially influence teachers' practices. Informants were found to have disparate perceptions about the influence of subject specificity, although the combination of 'subject' and 'level' showed that university scientists tended to be the most didactic while the university humanity lectures more enterprising. Learners' ability and years of teaching were also perceived by some as important factors but such a claim was not shared among the majority of informants.

5. Problems and Potentials of the Concept of 'Enterprising Teaching Modes'

Arguably, the problems and potentials identified from the DUBS' model are common to other models within enterprise education and progressive learning. These problems include the confusion of 'teaching' with 'learning', the lack of justification of re-labelling the progressive teaching approach into 'enterprising teaching approach', and the value-laden presentation in the form of a dichotomy table (*cf.* Thompson, 1984; Coffield, 1991; Harris, 1993a). Nevertheless, potentials of the concept of the enterprising teaching approach emerge when value-laden dimensions are removed and conceptual clarity is achieved. The modified concept is argued to potentially constitute a relative construct for distinguishing enterprising teaching approaches from didactic approaches in terms of *tendency of teaching*. Moreover, enterprising teaching modes as defined by the DUBS' model were generally perceived as effective in promoting a deeper level of learning. Finally, the notion of an 'enterprising teacher' elaborated by two teachers also enriched the concept of enterprise in education. Hence, the criticisms of and suggestions for the improvement of the DUBS' model are also applicable to the related fields of study and are discussed in detail in this section.

5.1. Confusion of 'Teaching' with 'Learning'

JaG pointed out that in the title of the DUBS' table: 'traditional didactic modes of *learning*' – 'enterprising modes of *learning*', the word '*learning*' was inaccurately used since the table was mainly used to describe *teaching*. Four participants found that the table confused teaching with learning. This was clearly indicated in FO's questions when requested to rate her own teaching tendency:

> 'Do you want me to rate these according to what I personally would do?... my tendency to teach in a lecturing mode or my own tendency to learn from a lecture? '
> (FO)

This implied that 'teaching' and 'learning', although related, are two separate concepts. Hence, to clarify the concept, the word 'learning' used in the title of the DUBS' table would need to be changed into 'teaching' so as to avoid confusion (also refer to Chapter 4, Section 2.1, p.85-87).

5.2. Justification for the Use of term 'Enterprising Modes'

Two informants questioned the justification of re-labelling the items that resembled student-centred learning as 'enterprising modes of learning'. RW stated that:

'The term 'enterprising' is weak. It doesn't seem to be different from student-centred learning. Why should you need a new invention? ' (RW)

JaG also claimed that:

'I'm not sure to what extent you might re-label the informal co-operative student-centred features as enterprising... one of my concerns about enterprise education, now it is promulgated as an official label as it were, is that it has taken ownership of a collection of aspects of learning and teaching which has existed for many many years before, probably can be traced to the late 19th century's writers like Dewey or James... Nevertheless, they do represent two distinct approaches to learning and teaching' (JaG)

JaG and RW's comments echoed some critics' claim that enterprise education makes no new departure from the educational tradition (Coffield, 1991; Francis, 1991). This thesis suggests, therefore, that the *emphases* which the model seeks to bring about be presented in the table (*cf.* Peters, 1978). These emphases are discussed as four distinctive features in Chapter 4 (p.104-107):

1) the notion of 'uncertainty' as one of the essences of the learning environment;
2) a balance between an informal learning environment and a structured approach to guide learning and discovery;
3) the importance of peer learning; and
4) the notion of enterprising behaviours, skills and attributes as learning outcomes.

5.3. Value-Laden Presentations

Theoretically, if a concept bears certain intrinsic desirable features that may bring about desirable changes, it would naturally attract support to the concept. However, when supporting the concept succumbs to exaggerating its merits, or being unable to detect / become aware of its disadvantages, the concept becomes value-laden. The enterprising learning modes, postulated by the DUBS' table, seem to have fallen into this trap.

Three participants directly criticised the dichotomy table as being value-laden. This was reflected in NG's overall comment on the table:

'...the way these titles expressed on the left here (didactic), one or two of these statements are made in such a way that makes a person who looks at this - the way it's set out - the didactic method might be something wrong with it. For example, 'passive role of listener', 'mistakes feared', 'teachers infallible' I don't think it has to be quite as - I mean there is an implied criticism there.' (NG)

WZ made a similar comment:

> 'I know pretty much what you mean by both methods. I mean obviously this - like this statement here, 'mistakes' (referring to 'mistakes learned from' being placed under didactic mode) here it's obviously some prejudice. My answer is, you obviously want me to like this column (enterprising modes) because it sounds very good, 'mistakes learnt from' rather than 'mistakes feared'. But I don't think it really is quite like that. 'Teacher learns', it's certainly true at a research level. 'Teacher infallible', I mean it's a bit silly, but nevertheless, teacher learns that's definitely true...' (WZ)

JaG directly addressed the issue:

> '...implicit in this approach is a valuing of this (the enterprising approach), this is somehow better than, more appropriate than, qualitatively superior to this (the tradition didactic approach)... these features are being valued more highly than these whether in the teacher or in the learner, and that's why we are seeking to exploit them... the base issue of enterprise being a value loaded concept.' (JaG)

The value-ladenness ingrained in the concept was prominent with discussants (JoG, PD, SG and JR) who had a distinctly favourable attitude towards enterprising modes. They readily dismissed the relevance of 'didactic' features and valued or identified their own practices to the 'enterprising' side. It was not until they had to rate their actual teaching tendency, that they reflected and appreciated more the didactic practices and questioned the feasibility of some of the enterprising ones as expressed in extremes in the table.

As shown in Tables 6.1, 6.2 and 6.3 (p.155-6), the overall rating of behaviours confirms the value-laden nature of the DUBS' concept. In Table 6.1, the sum (Σn) of Dimensions 7, 8, 9 and 11 read the highest positive scores (Σn=35, 28, 23, 30 respectively) with the frequency of ratings (see Table 6.2, p.155) falling mainly within the enterprising 'extreme'. Discourse analysis in Section 3 reveals that these dimensions tend to trigger prejudice among informants. These dimensions are openly criticised by WZ, NG and JaG above as being biased. In Table 6.3 (p.156), the Pearson Correlation Coefficients further verify that these dimensions do not correlate with final scores and bear no discriminative value for distinguishing individuals' teaching tendency. It is therefore obvious that the table presented in the DUBS' model is value laden and that modifications are necessary to reduce it.

The first modification suggested by this thesis is that the presentation of the concept of enterprising teaching modes in the form of a *dichotic* table be replaced by a *continuum* table. The current findings show that a continuum table reduces the polarisation of opinions into extremes. It also helps to illustrate how individuals may combine enterprising and didactic approaches differently.

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The second modification is the re-wording of D2: 'passive role as listener' – 'learning by doing'. It can be reworded instead into 'learning by listening' – 'learning by doing instead. In this way, the value-laden qualifier 'passive' is eliminated (see p.155 for detailed discussion).

The third modification is the removal of the value-laden dimensions identified by discourse analysis and confirmed by the quantitative data analysis. These include D7: 'mistakes feared'-'mistake learned from', D8: 'teacher infallible'-'teacher learns', D9: 'teacher=expert'-'teacher=facilitator' and D11: 'emphasis mainly on knowledge' – 'emphasis equally on knowledge and skills'.

Once these modifications are made, the DUBS' table can become a potentially useful construct to distinguish and measure teachers' teaching tendency. This is discussed in detail in the following sections.

5.4. Identifying an Enterprising Tendency from Everyday Teaching

As discussed above, the dichotomy table contrasting enterprising with didactic teaching modes was unhelpful in a sense that it conflated global concepts by polarising teaching approaches into two extremes (Coffield, 1991; Thompson; 1984). Such dichotomy failed to reflect that individual teachers could see the complementary value between the two approaches and combine the two in their own ways for different reasons and purposes (Bennett, 1976; Fullan, 1991).

Current findings demonstrated that when the two teaching approaches were presented in a continuum, undue prejudices were reduced and teachers were able to critically evaluate their own pedagogical stance accordingly. Most importantly, the way in which the two approaches were combined became clear through the numeric representations along the continuum. Agreeing with Harris (1993a), such mixed approaches varied among all informants as much as it varied within an individual. Harris (1993a) regarded that as evidence for the absence of enterprising teaching approaches in her sample.

Taking a different perspective from Harris, the current research found that teachers were able to recognise the mixture of the didactic and enterprising modes that they employed in everyday teaching in different contexts. In fact, as shown later in Section

6.4.2 (p.193), the variations in their teaching approaches made their pedagogical disposition more pronounced.

According to our informants, it was unrealistic to apply an extreme of enterprising methods due to environmental constraints, mainly exams or assessment pressure. In some ways, it was inappropriate to apply the enterprising extremes since didactic measures adopted in certain ways also have essential values in teaching. All informants claimed that they combined the two methods for different purposes. The question therefore was 'what kinds of mixed styles could be regarded as enterprising and what not.

The result of this exploratory study suggests that an enterprising teaching approach is not an *absolute* construct for measurement. Rather, it is a relative tendency in comparison to a didactic tendency which can be distinguished by the rating methodology. This is discussed in detail in Section 6.

5.5. Enterprising Teaching Modes as a Relative Construct

Table 6.4. shows the potential of using the DUBS' concept for measuring enterprising teaching modes.

Table 6.4. Level of Significance from Pearson Correlation Coefficients among Dimensions

	D1	D2	D3	D4	D5	D6	D7	D8	D9	D10	D11
D1	-										
D2	.002	-									
D3	.001	.023	-								
D4	.000	.025	.000	-							
D5	.002	.038	.000	.001	-						
D6	.019		.035	.012	.003	-					
D7							-				
D8							.001	-			
D9									-		
D10	.040		.006	.004	.003	.013				-	
D11		.029									-

Keys:
D1: 'learning from lectures' - 'learning from debates and discussions'
D2: 'passive role as listener' - ' learning by doing'
D3: 'concepts provided' - 'concepts discovered'
D4: 'learning by texts and notes' - 'interactive learning'
D5: 'feedback from the teacher' - 'feedback from each other'
D6: 'sessions programmed' - 'sessions flexible'
D7: 'mistakes feared' - 'mistakes learned from'
D8: 'teacher infallible' - 'teacher learns'
D9: 'teacher = expert' - 'teacher = facilitator'
D10: 'learning objectives imposed' - 'learning objectives negotiated'
D11: 'attention mainly on knowledge' - 'attention equally on knowledge and skills'

The secondary quantitative statistical analysis illuminated the rich and somewhat 'disorderly' qualitative data. According to the Pearson Correlation Coefficients, as shown in Table 6.4 above, Dimensions 1, 2, 3, 4, 5, 6 and 10 share a high internal consistency and are highly correlated with individuals' final scores (see Table 6.3, p.156). This finding was coherent with informants' verbal behaviours as they tended to collapse and discuss these dimensions together. This means that a constellation of these dimensions may constitute a core construct for measuring and distinguishing teachers' tendency between 'didactic modes' and 'enterprising modes'.

5.6. Enterprising Teaching Modes and a Deeper Level of Learning

An interesting discovery was that most of the informants actually believed that some of the enterprising teaching modes ('learning from debates and discussions', 'learning by doing', 'concepts discovered' and 'interactive learning') could facilitate a deeper level of cognitive learning. Such findings were inconsistent to that of Iredale (1992), Cotton (1993) and Harris (1993a) at a superficial level. These researchers discovered that an enterprising teaching approach was given a somewhat 'inferior' status since it was not deemed effective in facilitating learning of factual knowledge. Consequently, enterprising approaches would be applied to less important subjects such as business, other than the core and foundation subjects in the National Curriculum which demanded more 'serious' learning.

The difference in findings was arguably a result of *different level of understanding* of the meaning of an enterprising approach among teachers of the present study and teachers in other studies. In this research, the deeper level of understanding of enterprising teaching modes was achieved through a long process of discourse with informants whom were required to reflect upon their practice and concretise it into explaining the applicability of a theory. During the discourse, informants were provided with an opportunity to give meaning to their practice retrospectively. Without such a reflective process, the meaning which underpins the action might be lost when applying theory into practice (Kolb, 1984). Kvale (1994), Bryman and Burgess (1994) suggest that the discourse interview itself can be a powerful process to raise awareness which may bring about subsequent change.

Without a deliberate process of drawing out teachers' implicit beliefs, their rudimentary impression was likely to be biased and superficial, glossing over daily routines. An enterprising approach to learning would tend to be vaguely equated with

'enterprise activities'- that was precisely the definition offered by the two informants who had participated in enterprise workshops and run enterprise activities at school. When the DUBS' table was then presented to them, they hesitated and needed reassurance from the researcher that they were discussing the right subject. Their reaction indicated that the enterprising modes presented in the table were never part of their understanding of enterprising teaching approaches. This suggested that although they know 'what' an enterprising approach was about (activity), its meaning ('why') and its mechanism ('how') were not understood.

Nash (1992) and Hodkinson (1991) observed that many of these enterprise activities omitted a crucial element of debriefing in the experiential learning loop (see p.72). Consequently, the valuable knowledge and experiences gathered during the learning activities were not properly 'digested'. Harris students' said that enterprise activities were just 'doing practical work' and not proper learning (Harris, 1990a). Arguably, the activity was an important vehicle, but such a vehicle needed to be driven by carefully structured guidance to achieve its full potential for enhancing learning. If the teachers' experience of enterprise activity was 'loose' in its learning focus and 'inadequate' in its content, it is then not surprising that they would perceive the learning approach as inadequate. This research supported Harris' (1993a) suggestion that better training is required to improve teachers' understanding and use of the techniques of this particular form of teaching.

5.7. The Notion of the 'Enterprising Teacher'

The findings showed that the expression 'enterprising modes of teaching' does not naturally give rise to a pedagogical understanding among the majority of informants. Yet, no one in the sample failed to define 'enterprising behaviours'. This suggests that the term 'enterprising' is more readily applicable to 'behaviours'. When the word 'enterprising' was attached to describe a teacher, both JoG's and RW's understanding of an 'enterprising teacher' bore striking similarities with the general concept shared among enterprise promoters. RW's choice of the adjectives (e.g. 'adventurous', 'creative' and 'innovative') for an 'enterprising teacher' have, for example, been constantly used to describe entrepreneurs in the literature of entrepreneurship:

> 'Enterprising teachers take risks in teaching. They are adventurous, creative and innovative. They *give pupils independence, make the groups interact, create an atmosphere for them to come out of their shell, challenge their limit in order to push them further then they think they can reach.*'   (RW)

The text in *italics* above further revealed that her idea of the way enterprising teachers taught shared a similar vision with Gibb's (1993) model of enterprising learning. In other words, to RW's mind, the term 'enterprising' did not give new meaning to *how* one should teach, but rather, it was a personal attribute of a teacher *who* was characterised to be 'taking risks, adventurous, creative, innovative' and thus was able to adopt progressive teaching attitudes and methods. According to RW, teachers needed to be enterprising in order to carry through a progressive ideology against the many constraints in teaching.

Following this line of understanding, there may need to be a considerable effort made to empower teachers to be enterprising. Galton *et. al.* (1999) point out that the teaching profession has been put under enormous pressure in the context of heightened global competition emphasising economic success in the 1990s and education has been viewed as the vehicle to develop citizens for the Millennium. Ironically, as Fullen (1991) claimed, that instead of being more valued as an important stakeholder, the teaching profession has been held responsible for 'falling educational standards', a political imperative too often used to legislate educational change. This arguably has been the case in the UK since the Great Debate in 1976 (refer to Chapter 1). Chitty (1993) claims that there has been an innovation overload in educational policies (e.g. 18 Acts in 14 months in 1992-93) in the last ten years and teaching morale has been greatly undermined. *Teacher empowerment* should thus be given considerable attention.

5.8 Summary

The exploratory nature of the discourse approach has generated valuable thoughts and criticisms pertaining to the DUBS' definition of enterprising modes of learning. Some modifications are suggested with the aims of removing ambiguity and misunderstandings. The potential for constructing a table for measurement and comparison of teachers' teaching tendency was explored. This is discussed in detail in the next Section. Finally, the notion of an 'enterprising teacher' was seen as a potentially relevant mechanism for empowering teachers.

6. Charting Teaching Tendencies: Conceptual and Methodological Implications

In this research, Geertz's (1973) concept of 'thick description' was applied in an attempt to explore teachers' teaching tendency. 'Thick description' refers to 'meaningful structures' which allow systematic analysis of behaviours produced, perceived and interpreted (Geertz, 1973, p.7). Three patterns: 'didactic pattern', 'middle ground pattern' and 'enterprising pattern' were spotted. These patterns were charted based upon both self-rating and colleague's rating (see Figure 6.1 and 6.2). Further analysis showed that these three patterns can then be classified into two teaching tendencies, i.e. a didactic tendency and an enterprising tendency.

6.1. Self-Rating of Teaching Tendency
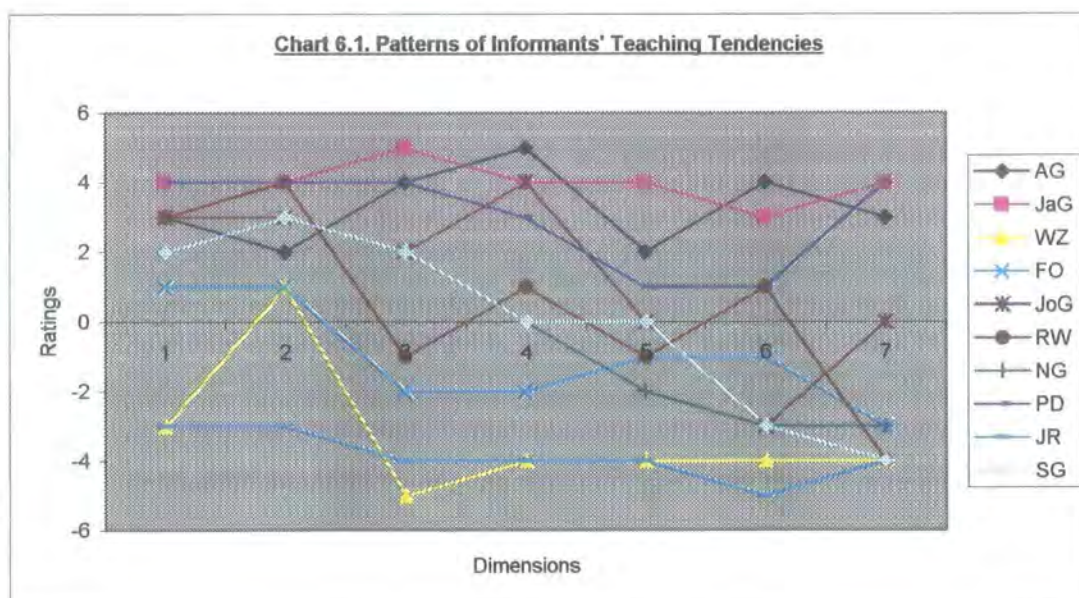
Chart 6.1. Patterns of Informants' Teaching Tendencies

Keys:
D1: 'learning from lectures' - 'learning from debates and discussions'
D2: 'passive role as listener' - ' learning by doing'
D3: 'concepts provided' - 'concepts discovered'
D4: 'learning by texts and notes' - 'interactive learning'
D5: 'feedback from the teacher' - 'feedback from each other'
D6: 'sessions programmed' - 'sessions flexible'
D7: 'learning objectives imposed' - 'learning objectives negotiated'
Negative ratings = didactic; positive ratings = enterprising

Chart 1 above shows that informants who fall on either extreme of teaching tendency have relatively narrower variations in ratings. Those who fall on the 'middle ground' have much wider variations in ratings cutting across the middle line (see also Chart 2). As 'crude' or 'thick' as these descriptions may be, they do represent individuals'

behavioural tendency as confirmed by the general beliefs and perceptions expressed during their discourse. Figure 6.1 below charting informants' teaching tendency demonstrates this proposition:

Figure 6.1. Informants' Teaching Tendency along the Continuum

```
    JR WZ              FO    SG       JoG        PD AG  JaG
                            NG   RW
    ——————————|———————————————|—————————————|——————————
    -27                        0                        28

          Didactic          Middle          Enterprising
          Tendency          Ground          Tendency
```

In Figure 6.1, JR and WZ clearly show a didactic tendency towards teaching while JaG, AG and PD have a prominently enterprising tendency. For those who occupy the right or the left of the 'middle ground' (FO, NG, SG, RW, Jog), their tendency towards either the didactic or the enterprising side was made obvious from the discourse. Although occupying the 'middle ground', NG claimed that he would teach more didactically in A-Level classes. FO also claimed that she would teach more didactically than she was at the time the interview took place since she usually had more lectures (than tutorial groups) in which she used more didactic modes. From the discourse, NG and FO identified themselves with the didactic tradition which was more akin to their practice. On the other hand, SG believed that she taught more enterprisingly in science classes. JoG also thought that she would teach more enterprisingly when the pressure of examinations was over. In other words, for informants who fell on the 'middle ground', their tendency in a particular direction became more pronounced according to their pedagogical dispositions and idiosyncratic variations in their practice.

In this case, the symbolic '0' which lies on the continuum, could neatly serve as a watershed for differentiating an enterprising teaching tendency from a didactic tendency. Nevertheless, the researcher speculates that there might be possibilities that 'middle ground' candidates in other cases would cross the artificial watershed dependent on their dispositional beliefs. Hence, individuals located in the 'middle ground' should be considered independently.

6.2. Rating Colleagues' Teaching Tendency

Problems were reported when rating colleagues' teaching tendency. Among the ten informants, JaG and RW had not rated a colleague due to lack of time during the discourse. WZ 'refused' to rate a colleague since he believed that all lecturers in Maths taught practically the same way:

> "...in Mathematics, you don't have much choice. Differences are pretty much insignificant." (WZ)

After several requests, WZ eventually suggested giving the same ratings for his colleague.

Among the seven informants who rated their colleagues, except JoG who actually observed a new colleague's lesson, others had never observed their colleagues' teaching.

PD's account best described the fundamental problem with rating a colleague's teaching approach in this respect:

> "...teaching has been a very isolated activity in that people don't often see other people teach... This feeling that you can't come into the staff room and say you had a good lesson, or you had a bad lesson, or what's happened. It's very negative."
> (PD)

As a result PD could only draw inference about how his colleague might approach teaching from the person's belief:

> "It's only a feeling that I've got that this is what the person likes... it's just from the odd occasions in which I've been in his lessons and overhearing what this person was talking about teaching." (PD)

Similar reasons were given by FO and JR. JR said that,

> "I have no opportunity of seeing [colleagues] teach. I've never observed SG teaching. I'm just guessing from a superficial knowledge of SG" (JR)

The 'superficial knowledge' referred to personal exchange in staff rooms (NG, AG, PD, WZ, SG, JR) and feedback informants heard from students about their colleagues (AG, FO, SG).

The result of the rating of colleague made an interesting contrast with the self-rating. Except JR and NG rated their colleagues as more enterprising than themselves, mainly because they were younger. The rest, except FO, tended to rate their colleague as more didactic than themselves in general (see Table 5.4). FO and her colleague were rated practically the same with a didactic disposition. The rest of the informants (AG, JoG, PD and SG) had a defined enterprising belief in their discourse. Therefore, it was likely that they would compare a colleague who had different perceptions from their own position.

Value judgement was likely to be a factor in such ratings as the adjusted final scores showed that when the value-laden ratings were removed, informants themselves appeared less enterprising while their colleagues mostly came out less didactic (*cf.* Table 6.5 below and Table 6.1 in p.155). The discursive evidence supported a certain degree of self-serving bias. Some informants were detected to have used different interpretations for the same dimensions for self-rating and rating their colleagues. The interpretations for colleagues tended to be more negative and thus located more on the didactic side (refer to Section 2.2).

Table 6.5. Rating of Colleague's Teaching Tendencies

5 = extreme rating on enterprising modes; -5 = extreme rating on didactic modes, 0 = neutral
'Final scores – total' = total sum of ratings in all dimensions (D1-11).
'Final scores – adjusted' = total sum subtracted by ratings in D7, 8, 9, and 11

	D1	D2	D3	D4	D5	D6	D7	D8	D9	D10	D11	Final Scores	
												Total	Adjusted
Colleague													
AG	0	-2	-3	-3	-4	-4	0	-1	-3	-3	0	-23	-19
FO	-2	1	-2	-1	-1	-2	-1	-2	1	-2	1	-10	-9
JoG	-3	-2	-5	-2	-1	-4	-3	-2	-2	-5	-4	-31	-20
NG	3	3	2	1	0	2	-1	-2	0	0	5	13	11
PD	1	-1	0	-2	-2	-4	3	2	-1	0	0	-4	0
JR	0	2	0	-3	-2	-2	0	-3	-2	0	0	-10	-5
SG	-4	-3	-4	-4	-3	-4	-4	-3	-3	-4	-4	-40	-26
(Σn)	-5	-2	-12	-14	-13	-18	-6	-11	-10	-14	-2	-105	-68

D1: 'learning from lectures' - 'learning from debates and discussions'
D2: 'passive role as listener' - ' learning by doing'
D3: 'concepts provided' - 'concepts discovered'
D4: 'learning by texts and notes' - 'interactive learning'
D5: 'feedback from the teacher' - 'feedback from each other'
D6: 'sessions programmed' - 'sessions flexible'
D7: 'mistakes feared' - 'mistakes learned from'
D8: 'teacher infallible' - 'teacher learns'
D9: 'teacher = expert' - 'teacher = facilitator'
D10: 'learning objectives imposed' - 'learning objectives negotiated'
D11: 'attention mainly on knowledge' - 'attention equally on knowledge and skills'

<u>**Figure 6.2. Colleagues' Teaching Tendency along the Continuum**</u>

```
SG'      JoG'        FO'   JR'  PD'        NG'
(JR)       AG'             (SG)
├──────────┼──────────────┼──────────────┼──────────┤
-27                       0                         28
```

| Didactic   Middle   Enterprising |
| Tendency   Ground   Tendency |
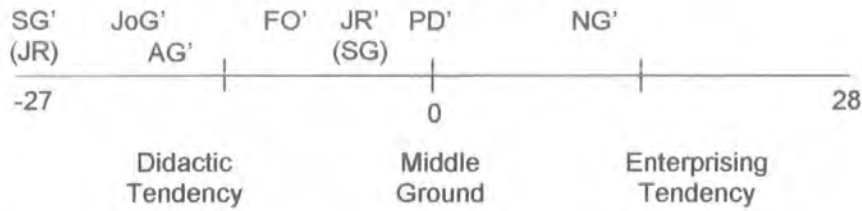
Similar to the patterns reported in self-rating, colleagues who fell clearly on one side showed individual rating on mainly the same side with narrower variations. Colleagues who fell into the 'middle ground' tended to have a wider range of ratings cutting across the two sides. Nevertheless, when comparing self-rating with rating colleagues, the latter were more consistent than the former. This implied the potential observer's bias in attributing actors' beliefs and behaviours as more consistent than they might be (Brown, 1986).

Chart 6.2. Patterns of Colleagues' Teaching Tendencies
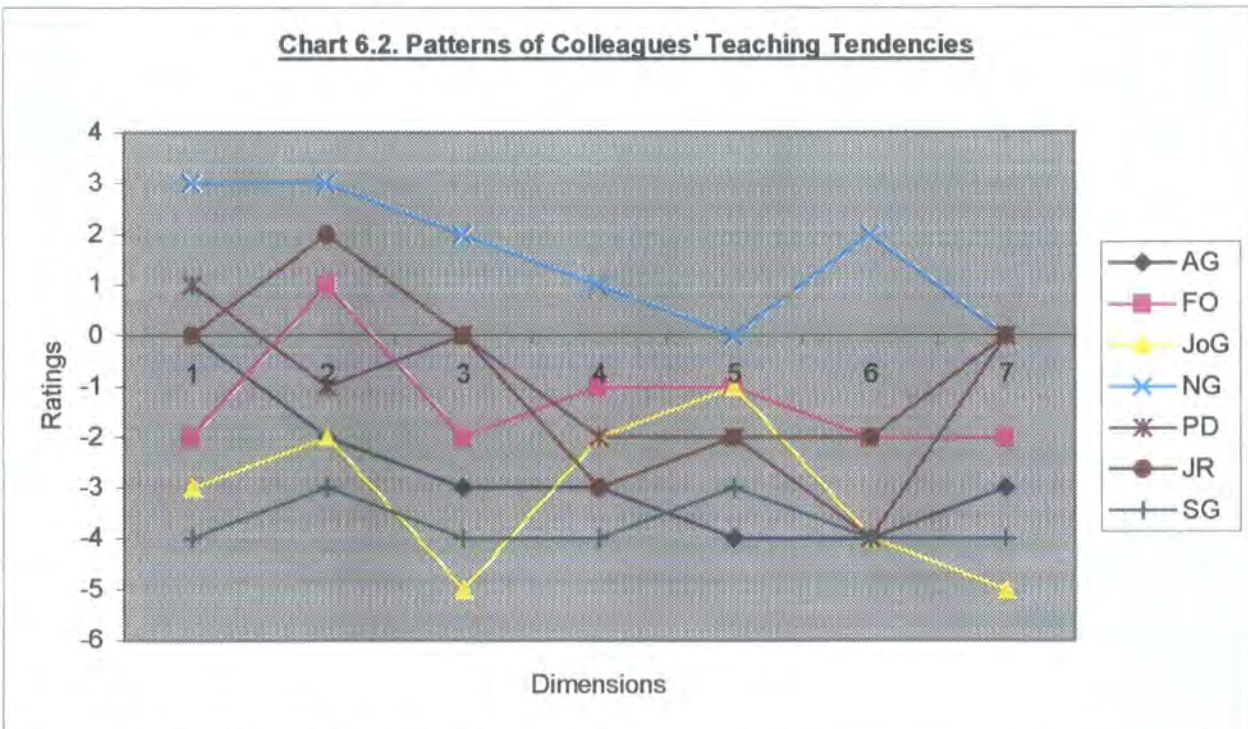
D1: 'learning from lectures' - 'learning from debates and discussions'
D2: 'passive role as listener' - ' learning by doing'
D3: 'concepts provided' - 'concepts discovered'
D4: 'learning by texts and notes' - 'interactive learning'
D5: 'feedback from the teacher' - 'feedback from each other'
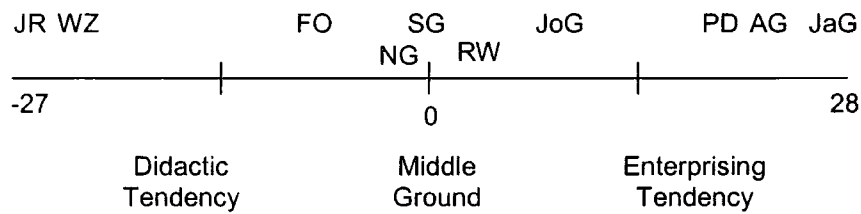*D6: 'sessions programmed' - 'sessions flexible'*
D7: 'learning objectives imposed' - 'learning objectives negotiated'
Negative ratings = didactic; positive ratings = enterprising

The question is therefore how (in)accurate these inferences were based on a superficial knowledge of a colleague's beliefs. The mutual rating between JR and SG shed some light on the reliability of the rating methodology.

6.3. The Reliability of the Rating Methodology – An Investigative Example

JR and SG taught in the same primary school where JR was a Religious Education co-ordinator and SG was a Science co-ordinator. JR had taught for over 25 years while SG was a new teacher of two years experience.

As JR mentioned that they had no opportunity for observing colleagues teach in her school, the mutual ratings between JR and SG were based on inferences drawn by superficial knowledge of each other. According to JR, she believed that SG was younger and as a new teacher might be slightly more enterprising than herself. SG also drew inferences about JR's teaching based on JR's old-fashioned teacher training and concluded that she would be more didactic in her approach as a result. Inferences were also drawn from hearing children's and their parents' remarks about the other teacher.

The result of their mutual ratings is compared with their self-ratings as shown in the following table:

	D1	D2	D3	D4	D5	D6	D7	D8	D9	D10	D11	Final Scores	
												Total	Adjusted
JR	-3	-3	-4	-4	-4	-5	5	5	5	-4	-4	-16	-27
JR by SG	-4	-3	-4	-4	-3	-4	-4	-3	-3	-4	-4	-40	-26
SG	2	3	2	0	0	-3	5	5	5	-4	5	20	0
SG by JR	0	2	0	-3	-2	-2	0	-3	-2	0	0	-10	-5

In the first instance when all the ratings are compared, a very large difference in total final scores is recorded. It is evident from the table, however, that the biggest contrasts in ratings are in Dimensions 7, 8, 9, and 11. As discussed earlier, these dimensions are found to be value-laden and do not correlate with final scores. When ratings in these value-laden dimension are removed, the adjusted final scores show that mutual ratings are strikingly close to self-ratings (–27 vs. –26 for JR and 0 and 5 for SG). Ratings in the remaining dimensions show that only two sets of ratings (squared) for SG are less accurate. In the main, JR's and SG's own teaching tendency

are 'guessed correctly' by one another. JR has a clear didactic tendency while SG has a clear middle ground tendency.

What is being demonstrated here is the possibility that teaching tendency can be reasonably correctly inferred by one's beliefs.

Arguably, it cannot be generalised from this one incident that the rating methodology is reliable for identifying teachers' teaching tendency. However, when this one instance is cross-referenced with the ten discursive reports, investigative validation (Glaser & Strauss, 1967)[6] is achieved in this case. The epistemological ground for such validation is the social constructivist's view that one's beliefs as expressed through the medium of language, is a symbolic form of social behaviour (Burr, 1995). In other words, a consistency between the expressed belief and the actual behaviour is assumed. In this case, when JR expressed that she taught mainly didactically, the behavioural exemplars that JR gave during the interview confirmed such a claim. When SG expressed that she taught mainly in the middle ground tending towards enterprising modes, the behavioural exemplars in her discourse supported her rating.

Henceforth, the current research has demonstrated the possibility that teachers' own perception of their teaching modes can be numerically expressed by means of rating, taking into consideration the constraints that have been identified. For the numerical representation to be more accurate, however, the *neutrality* of the teaching modes laid out in behavioural terms would need to be free from value-laden bias.

6.4. Limitations in Charting Teaching Tendencies

6.4.1. Attitudes/Beliefs vs. Actual Behaviours

It was evident from the above analysis that the rating in the DUBS' table was more a rating of teachers' beliefs than of their 'actual' behaviours. Murphy *et. al.* (1982) argue that behavioural scales do not measure behavioural observations but rather the observer's/rater's *impression* of the actor's behaviours. Even when rating a relatively objective behaviour checklist, the observer/rater tends to form a general personality schemata about the actor which influences the rating of individual behavioural items. Lahey and Saal (1981) find that the complexity of rating scales had a non-significant impact on the leniency or halo effect of the rating behaviours.

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[6] An investigative concept of validation (Glaser and Strauss, 1967) posits that validation is incorporated into the research process with continual cross-references of the credibility and plausibility of findings (Potter & Wetherell, 1994).

Hence, the question relevant to this current research is not whether rating the continua reflects *actual behaviour*. Rather, it is about whether or not such impressionistic rating based on inference helps distinguish the *tendency* of teachers' teaching behaviour. As the example of reliability discussed above demonstates, the ratings of the continua do enable a 'relatively' accurate comparison which shows that individuals with different beliefs and perceptions will teach differently. In this case, the difference was cross-examined by the two individuals' discourse analyses.

6.4.2. Ideal/General Situations vs. Specific Contexts

Another apparent problem with a 'thick description' of teachers' tendency was that it focussed upon a generalisation of the tendency of individuals' teaching, ignoring the specific context in which teaching modes would be altered. All informants mentioned that they taught differently for various occasions. AG and JaG claimed that their ratings were based on ideal situations of smaller classes and free from time constraints. They would teach less enterprisingly otherwise. JoG and JR both believed that their ratings had taken into consideration the general constraints that they were under. During times when exams/National Curriculum pressure was less intense, they would teach more enterprisingly. Both RW and SG thought that teaching modes varied according to the subjects/content. SG claimed that she taught science in a considerably more enterprising way. FO and NG believed that they would teach more didactically in lectures and less so in practicals (or double lessons for NG). FO would normally be more didactic had she not been assigned more tutorials and practicals than usual the year the interview took place. NG would teach more didactically in A-Level classes than the present ratings. Finally, WZ said that didactic teaching was for undergraduates to build up a knowledge base before the enterprising modes could be employed for postgraduates.

However, it seems that the specific contexts identified by all informants would not alter the general *tendency* informants already demonstrated in Figure 6.1. For instance, AG (a professor in entrepreneurship) might become less enterprising in a bigger class but would be likely to be located on the enterprising side, and be more enterprising than WZ (a traditional university mathematician).

In some cases, these specific conditions would, on the contrary, consolidate or intensify informants' position towards either side of the continuum. For instance, JoG and SG would skew towards the enterprising side while NG and FO would adopt a

more didactic tendency the external factors constraining their original dispositions were removed.

7. Conclusion

The current study aims to explore how teachers perceive and conceptualise the key concepts surrounding the notion of 'enterprising modes of teaching', the extent to which understanding was shared and the extent to which the concepts are seen to be relevant to day-to-day teaching experience. The discourse approach and the ranking methodology have facilitated a rich collection of data. The in-depth analysis of the ten case studies, combining qualitative and secondary quantitative approaches, has provided useful insights into the theoretical underpinning for future empirical investigation.

The rating methodology was used experimentally to elucidate the strengths and weaknesses of the concept. It seemed to be an appropriate measurement instrument for relativising teachers' teaching tendencies. A numeric representation seemed adequate in serving the purpose of reflecting teachers' perception of their teaching approach. There must, however, be caution as to the existence of an actor-observer bias. Concerning reliability, the mutual rating between JR and SG implies that rating is a reasonably reliable tool for quantitative comparison.

This chapter, so far, has discussed the findings surrounding the first key concept in Gibb's model of enterprising learning, i.e. 'enterprising teaching modes'. The following chapter will discuss findings surrounding the second key concept, i.e. 'enterprising behaviours'.

Chapter 7

Discourse Analytic Results:

A Collective Discussion on Enterprising Behaviours

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1. Introduction

The notion of developing 'enterprising behaviours' has been a salient feature of many enterprise initiatives. The review of the development of enterprise education in Chapters 1 and 2 revealed that the development of enterprising behaviours has been the ultimate objective. However, there have been few studies that have explored this issue in depth in the educational context. Coffield (1991) rightly argued that the growth of initiatives in this area had led to an 'overabundance' of lists of enterprising behaviours and that some of these lists are 'logically incompatible' (Coffield, 1991, p.64). He claimed that the lack of consensus in the definition of enterprising behaviours rendered the concept tautological. Bailey (1992) further questioned the educational relevance of the concept since enterprising behaviours were perceived to be associated with the free market economy which was not 'virtuous' (Bailey, 1992, p.100).

It was against this backcloth that the current exploratory study set out to investigate how enterprising behaviours are perceived among the teaching profession – the major agent in the education of young people. The research explored the following key questions:

- How do teachers perceive enterprising behaviours? Are they desirable or undesirable?
- Is the DUBS' definition of enterprising behaviours an adequate concept?
- How do teachers observe enterprising behaviours among students? What are the constraints?
- Can enterprising behaviours be measured and compared by behavioural rating scales?

The discourse method was structured in such a way that open-ended discussion with teachers enabled an exploration of their spontaneous understanding of the concept without undue influence. The DUBS' list of enterprising behaviours was presented to informants' who were asked to comment and define. Finally, the teachers were asked to rate two students of their choice. Throughout the process of the discourse, informants were probed for behavioural incidents from their day to day teaching experience to support their views.

The current research findings suggest that Gibb's (1993) definition of enterprising behaviours has educational validity among informants. However, modifications are necessary to further refine the concept to reduce ambiguity and reduce error variance. The behavioural incidents and descriptions provided by informants support a view that the DUBS' definition constitutes a core construct of enterprising behaviours. Informants confirmed that the majority of these behaviours were observable and to some degree measurable although certain situational constraints were identified.

These research findings are discussed in detail in this chapter. The limitations of the rating methodology are also discussed. Recommendations are also made to further strengthen the methodology.

2. The Meaning of Enterprising Behaviours: Personal Definitions

The open-ended question: 'What do you think *enterprising behaviours* are?' elicited diverse interpretations among interviewees. The majority of participants defined 'enterprising behaviours' without difficulty with the exception of JaG and WZ.

JaG was unwilling to adopt the terminology 'enterprise' to conceptualise the behaviours which have been categorised as 'enterprising' due to a perceived intimate association with business and politics:

> 'I still have difficulty using the term 'enterprising' ......I don't see it as enterprising, I
> see it in pedagogical terms.... and still find it difficult to disentangle from the other

meanings, enterprise in education, meaning businesses and stuff like that, some of which I actually employ, but that was for a child-driven purpose, a community-driven purpose, rather than, having in addition to that now, a political and economic society intention, but I don't object to that, I have some political concerns about it... but they do leave me uneasy about the claim from the nineties' enterprise that enterprising behaviours are something to do [with business] rather than a longer established tradition of looking at how people learn, which they have, if not usurped, they have redefined, and that, I think, is my unease. *Many of the other definitions of enterprise I see as having educational validity, but I don't see them as connected to that pedagogy necessarily...* enterprise has moved into education and has claimed certain territories, and to my mind, without necessarily having an established, a proper claim to do that.'
(JaG)

The above extract indicates that JaG was caught up in the academic debate and was in such confusion with the terminology that he was unable to define what enterprising behaviours meant to him. This contrasted with the detailed behavioural descriptions he gave earlier in the discourse relating to students who had benefited from student-centred, co-operative learning. Interesting, JaG believed that enterprising learning was a mere usurpation of the much appreciated student-centred, co-operative learning, yet somewhat paradoxically enterprising learning did not have the same desirable learning outcomes as student-centred pedagogy. The researcher thus was led to speculate that JaG's rejection of the 'enterprise' language was a result of a perceived difference in objectives between the two pedagogues. Student-centred learning was for a child-driven purpose and a community driven purpose, rather than a political concern of enterprising behaviours which was for a business/industrial purpose.

JaG questioned the legitimacy of the use of the term 'enterprising' to encapsulate behaviours and learning approaches which have long existed in the literature of education. JaG's doubt, however, was not shared among other practitioners. All other informants' gave their own understanding of enterprising behaviours in line with Gibb's list of enterprising behaviours (1993, see Appendix 3, p.276).

WZ refused to define enterprising behaviours in the first instance:

'I have no idea. My guess is it's something to do with what you've been talking about before.' (WZ)

However, he automatically gave his definition without solicitation shortly afterwards:

> "an enterprising student for me, a good student for me, is somebody who understands his opportunity to learn, rather than regarding [learning] as an extra chore that he has to go through. So, a student who thinks, 'I don't understand that', or who stirs a conversation with his tutor on something that is useful for him so that he can learn, I would call that very enterprising. Unfortunately, most of our students are not enterprising. Some are, and they benefit greatly..." (WZ)

WZ later admitted that 'enterprise' was not his natural language to describe students' behaviours. However, he showed no objection towards absorbing the repertoire in describing behaviours as the interview proceeded. His initial rejection was more likely a reactionary attitude towards the conflated 'value' of enterprising teaching modes and the implied criticisms of didactic teaching modes with which he strongly identified himself.

Apart from JaG and WZ, informants spontaneously gave substantial behavioural descriptions when defining 'enterprising behaviours'. The construction of meaning, from informants' definitions, fell on two main categories, one was a cognitive learning orientation, the other was a whole-person orientation. A cognitive learning orientation emphasised knowledge acquisition and cognitive development such as critical and independent thinking. A whole person orientation integrated the cognitive aspect of students' development with their social and personal development, such as developing 'life skills', co-operation and practical problem solving abilities.

2.1. Enterprising Behaviours from a Cognitive Learning Perspective

Five discussants (WZ, FO, RW, NG and PD) defined enterprising behaviours from a cognitive learning perspective emphasising knowledge acquisition and subject learning. For instance, when asked 'what do you think enterprising behaviours mean?', FO responded:

> 'I suppose, let's say, a mature student. Mature in the sense of students who are on the course because they want to learn... so I think enterprising students will try and maximise their learning potential... You probably see this more so when students have to pay for

their course themselves, and therefore they feel that they are being provided with a service and that they can command more of that service... So *enterprising behaviours would go along the lines of, perhaps, students getting together and... discussing potential problems within the course and then organising to see a lecturer and discuss that, or doing that and bringing it forth for discussion at tutorials... voicing any complaints that they might have with the terms' teaching arrangements... any behaviour which would tend to increase the learning potential of student or any sort of self-initiated behaviour to try and learn more from the course...* a more active role rather than a completely passive one.'[1]   (FO)

FO's understanding of enterprising behaviours pointed directly to subject learning.

NG reacted to the initial question in the same way as FO. He had, first of all, to come up with an analogy:

'...if one of my colleagues came to me and said, "I think my pupil's behaviour is enterprising", I would think that he meant that the pupil showed more than usual interest, initiative, gave plenty of ideas, generally more constructive in their approach to work.'
(NG)

NG's definition of enterprising behaviour is clearly focussed upon 'work', meaning subject learning.

RW offered the following definition of enterprising behaviours among students:

'They ask questions, challenge things, for examples, concepts that you're teaching, or your teaching styles. They suggest different alternatives playfully, and they experiment with certain roles, like, being a leader. In general, they are pupils with the power of critical thinking.'   (RW)

Similarly, PD equated enterprising behaviours with the power of 'questioning':

'Questioning. "Why something is like this?"... do a lot of mini investigations. Everything is a positive learning experience... because life is like that... It's about choosing your own materials, choosing the way in which you investigate - a very free and open approach, to say 'I wonder what would happen if so and so happened', or 'I wonder what happens if I try this.' So, rather than thinking, 'Oh, that's interesting. Why's that happened?' but actually go and look at them and to say, 'I'd better use this cube', 'I would use this kind of

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[1] Interestingly, she related enterprising behaviours (showing self-initiative in learning) with 'mature students' who genuinely wanted to learn and such motivation was shown somewhat by their willingness to pay for the course. On the contrary those who treated tertiary education as a 'take-for-granted' entitlement would only do what was required and thus showed less self-initiative. FO's comment ties in with the current market driven education policy as a means to improve effectiveness (Keep, 1993) which has been the focal point of debate within Enterprise Education, i.e. the association with business and politics.

paper', 'I'm going to make a model of them', a very free and easy approach... I think learning is what's in them... it's the process, it's what's going in your head that is so important.' (PD)

Although PD associated 'questioning' with a total philosophy of 'life', his core concern was intellectual development.

With the exception of RW, the informants who defined enterprising behaviours as cognitive learning were those who had no prior knowledge about enterprise education. Their definition focused mainly upon the cognitive learning aspects, probably due to a carry-over effect from the previous discussion on enterprising modes of learning. This was apparent in WZ's case: there was a refusal to define the notion initially and a tendency to simply associate it with 'something to do with what you've been talking before'. FO's immediate response to the open-ended question also showed that carry-over effect had affected her initial definition of enterprising behaviours:

'...*within a teaching situation*, I'd imagine something that differs slightly from the traditional teaching mode... into what the most effective way in which people actually learn, rather than relying on the old traditional methods some of which, obviously - because they've evolved over a long period of time - must be effective, but just trying to look a little bit beyond that and maybe evaluate the best possible means for people to learn..' (FO)

Furthermore, her initial comment referred to the enterprising behaviours of the *teacher* instead of the *learner*. Consequently she was probed with a more precise question, 'What do you think enterprising behaviours mean among students'. RW and PD also needed clarification as whether the question was addressed to the behaviours of students.

In summary, self-initiated learning seemed to be the central view shared among those informants who took a cognitive perspective in defining enterprising behaviours. Table 7.1. below collects individuals' definitions employing a colour coding system in which the same colour is used to highlight the similarities in informants' articulations. The central themes of this group are clearly shown in three colour

codes. Those coloured red bring together articulation relating to the theme of self-initiated learning by actively participating in learning. Those coloured blue bring together the theme of asking questions from teachers. Those coloured violet bring together the theme relating to suggesting means to discover knowledge.

Table 7.1. Similar Articulations in the 'Cognitive Learning' Perspective

Central Theme	Elaboration	Behavioural Descriptions
WZ **Initiative in learning**	'understands his opportunity to learn, rather than regarding [learning] as an extra chore that he has to go through.'	'a student who thinks, "I don't understand that", or who stirs a conversation with his tutor on something that is useful for him so that he can learn…'
FO **'self-initiated behaviour'**	'behaviours which would tend to increase the learning potential of student or any sort of self-initiated behaviour to try and learn more from the course'	'students discussing potential problems within the course and then organising to see a lecturer and discuss that, or bringing it forth for discussion at tutorials… voicing any complaints that they might have with the terms' teaching arrangement'
NG **'initiative'**	'showed more than usual interest, initiative, gave plenty of ideas, generally more constructive in their approach to work'	'the first ones who get started on anything… energising… "What will we get if we try this", "Could you try that?" or "Why don't we do it this way?"… who is using his own ideas…
RW **Initiative in learning**	'ask questions, challenge things, …suggest different alternatives, …experiment with certain roles… pupils with the power of critical thinking	'challenge the concepts you teach, or your teaching style… experiment with certain roles, for instance, being a leader.'
PD **Initiative in 'questioning'**	'Questioning… do a lot of mini investigations…. a very free, open and easy approach,… learning is what's in them… it's the process, it's what's going in your head that is so important.'	'students who asks, "Why something is like this"… It's about choosing your own materials… the way you investigate… to say "I wonder what would happen if so and so happened", …rather than thinking, "Oh, that's interesting. Why's that happened?" but actually go and look at them and to say… "I would use this kind of paper", "I'm going to make a model of them"

2.2. Enterprising Behaviours from a 'Whole Person' Perspective

A whole person oriented definition emphasised cognitive development as much as personal growth. Five participants (AG, JaG, JoG, JR and SG) defined 'enterprising behaviours' from such a perspective.

JoG gave the following definition for 'enterprising behaviours':

> '...it means... thinking for themselves... helping each other to come to understanding... thinking of ways in which whatever knowledge is gained can be applied... the enterprising kids will look at the world today and say, 'Oh, yeah, I understand what that means', because they have learnt about it... You must know that you are not a hermit, you are acting in relationship with other people and you get the best out of other people if you motivate them, ... the enterprising person is a motivator... by listening, by suggesting, by encouraging, by supporting, and keep doing things instinctively... to maximise whatever *enterprising skills* they have.'   (JoG)

In JoG's definition, the combination of the cognitive aspects and the social and personal aspects of development was salient. When asked how she observed those behaviours, she gave vivid behavioural exemplars of recent events in the classroom to support her idea of enterprising behaviours. She gave the following instance of pupils 'thinking for themselves':

> 'Recently, I've been studying Arthur Miller's 'The Crucible' with a group of 6th formers, and we were talking about McCarthyism. I said, 'Right, into groups, think about where that is happening today, think about television news, think about the newspapers, think about your school, think about your homes...' They were in random groups. All I'd do was to walk down and join in from time to time. They were talking about so many different things... One group was talking about the way it was done in school. Another group was talking about Sadam Hussein... After a certain amount of time, I said, 'We've got to discuss some of the ideas here.' That was done in a very democratic manner. We ended up in a full class debate, and it all came from a play that they were subsequently studying, and I think it's absolutely fantastic.'
> (JoG-9)

Moreover, when asked what enterprising skills were, she claimed that,

> 'it's difficult to talk generally... it depends on what the objective is''

Instead of naming or labelling the skills as an adjective (e.g. creative) or an adjectival phrase (e.g. solving problems creatively) she illustrated them, again, in a rich behavioural description taken from something she observed in her English class:

> 'we were looking at a passage written by a parent to a kid who had what's called 'Edward's Syndrome'... One of the tasks, at the end of the time, was to imagine that you are a parent who's got a kid who is suffering this way. What you need to do is to provide a help-line to this kind of facility... The enterprising kids... produced some excellent ideas. They used the media... produced incredible leaflets and they were eye-catching, informative... gave addresses to the people that you could go to... telephone numbers to phone for equipment. They gave a help service line for people who suffer from the same situation... arranged people who have the same problem to meet... They realised

somebody who was in such a situation needed specific encouragement and they thought up slogans like 'You are not the only one'. They drew a map of the hospital and pinpointed the places that you have to go and the person you have to ask for. That came from them understanding that enterprise is quite often common sense ideas that are cut into a form that most people would understand... One group decided that they were going to set up a series of fund-raising events so that research could be done into this particular kind of child malady. They drew up a programme of things... They have been up to another local hospital and got the information about 'Edwards Syndrome' so that they could actually pinpoint this sort of machine... work out the cost... how much they had to raise. One of them was going to do door to door collections with a kind of information leaflet to people...and other people were going to appear on television and run a television raffle. That's a new enterprise and that all came from reading about somebody who has suffered, and passed on the information... In doing so, they have thought about communication and about helping, and they have understood a condition that they have never thought existed before. That was from reading somebody's autobiography.'
(JoG)

In the above narrative, JoG did not directly label the behaviours that were involved in those activities. Yet these behaviours can be inferred as being 'creative', 'versatile' and 'resourceful', etc., terms that resembled the enterprising list provided by the DUBS' model (Gibb, 1993; see Appendix 3, p.276). The narrative precisely reflected her own definition of enterprising behaviours which fully demonstrated the 'whole person' perspective of understanding enterprising behaviours. It started from learning 'a little bit of a subject' (English), to 'thinking of ways in which whatever knowledge is gained can be applied' (produced leaflets... drew up programme), to 'helping each other to come to understanding' ('arranged people who have the same problem to meet... passed on the information'), to eventually developing skills ('thought about communication...').

She concluded that,

'enterprise is quite often common sense ideas that are put into a form that most people would understand'.   (JoG)

She also related the manifestation of enterprise to her role as an English teacher in her closing remark:

'So, that to me is what English can do, it is something which is a little bit of a subject, and spreads ideas around.' (JoG)

Based upon JoG's account and the inference to be drawn from the rest of the discourse, the researcher strongly believes that JoG has projected her own philosophy of education, i.e. personal and intellectual empowerment in a co-operative manner, to her students. To express her views, she had adopted the concept of 'being enterprising', which she perceived as sharing her implicit belief in education and teaching.

Another example of a whole person oriented definition was given by JR. She believed that 'enterprising behaviours' entailed the following:

> '...co-operation, acquiring skills that actually relate to life. It's strange that schools don't relate to life.'   (JR)

Similar to JoG, JR mentioned 'life skills' which she defined as

> '...an awareness of how you actually live in a real world. For example, we were dealing with money, dealing with everyday problems...'   (JR)

JR instantly illustrated what she meant by 'everyday problems' with the experience she had in an enterprise activity ('a book fair') she recently ran with her class:

> '...the problems that we came up against were the first class of children that came in, they made such a mess of the books that the following lot of children following hard on their heels, couldn't see the books properly, so then we decided we had to have a little safe, and we had to have a group of children ready to keep tidying the books before the next lot of clients came in and that was suggested by them, 'We can't have people coming in and just throwing them all over. We have to have somebody tidying up the room', and it comes mainly from the children who don't shine in ordinary lessons. They seem to be the children who are more aware of the world you're in.'   (JR)

She seemed to be aware of the difference between 'enterprising' and 'academically able'. Although the importance of subject learning was not articulated in her definition, the discourse with JR showed that she cared a great deal about knowledge acquisition and that was why she had a didactic teaching tendency as discussed in the last chapter.

The third 'whole person' oriented definition of 'enterprising behaviours' was given by SG in the following:

'... the ability to listen to others, the ability to work as a team member, and be able to share your skills because some people are definitely more able to be an expert at a particular aspect of their work than others. But that means that they should be a good team worker,... be able to plan carefully, be able to be a divergent thinker exploring different avenues.' (SG)

Both the social and cognitive aspects of learning were succinctly embedded in the above quote.

Although JaG did not offer a definition of enterprising behaviours and saw enterprise as being politically driven (as noted above), he nevertheless identified learning activities which took place when he was teaching in a special school which he regarded as 'being enterprising':

> "One example will be from my secondary school days... One boy who was a severe stamerer asked if he could build a boat... something he was interested in...a plan for a full size 14ft boat!... We put it to the classes as group project...18 months later, with a bottle of champagne donated by the headteacher, this boy launched his boat alongside all the other children. The work that went into that covered a whole range of issues of raising money to buy sails, the actual carpentry and techniques of which I knew nothing about... That was... from a small beginning, from a child just asking to build a boat. We had a really impressive end...impressive co-operative activity... this kind of activity requires a climate in which other colleagues who will undertake those initiatives and enjoy them. With a team of 6 or 7 colleagues we did a whole range of things which I now recognise were to do with enterprise. They weren't enterprise in terms of small business. They were designs to give children opportunities to fully explore their talents, even children who, in the school system, were seen as failures."
> (JaG)

JaG's narrative demonstrates the principles of what JaG defined as learner-centred co-operative learning which were said to 'fully explore students' talents'.

AG defined enterprising behaviours mainly in a theoretical way. He believed that enterprising behaviours could be listed into 'actively seeking to achieve goals, flexibly responding to challenge, coping with and enjoying uncertainty, taking actions in uncertain environments, solving problems or conflicts creatively, opportunity seeking, committing to make things happen and persuading others. He posited that enterprising behaviours, alongside greater insight into knowledge, were

the results of enterprising learning. An equal emphasis upon social and cognitive development through this model of learning was clear in AG's discourse.

It was obvious that AG, JaG, JoG, JR and SG had an idiosyncratic understanding of 'enterprising behaviours' which was expressed in very different 'language' when describing these behaviours. For instance, JoG believed that 'an enterprising person is a motivator' and 'an independent thinker'. JR emphasised the 'awareness of how you actually live in a real world' whereas SG mentioned 'divergent thinking'.

When the definitions are closely examined, with the aid of the rich behavioural descriptions provided, it is clear that behind the different wordings, salient homogeneous behaviours are perceived. The similarities among the teachers at the practical level (JoG, JR and SG) were particularly striking. For instance, JR talked about 'co-operation', SG talked about 'team-working', and JoG 'helping each other' (refer to Table 7.2 below).

More significantly, they all mentioned 'skills', 'creative ideas' and 'knowledge application in a real life situation'. JoG uttered the notion of 'enterprising skills' and supported it with a detailed narrative (the 'Edward's Syndrome' project) which revealed how pupils could come up with creative ideas and 'apply anything from the text (in an English lesson) to a real life situation'. JR emphasised the importance of 'acquiring skills that actually relate to life' and the exemplar she gave was 'dealing with money, dealing with everyday problems' with children's own ideas in the enterprise week (a 'book fair'). SG touched upon sharing 'skills because some people are definitely more able to be an expert at a particular aspect of their work than others... they should be a good team member'. The behavioural descriptions of team work skills were given in an analogy of how good team members creatively solved the daily problem of 'the birds taking the tops off milk bottles.'

In Table 7.2 below, colour coding shows that all three informants gave behavioural exemplars which highlighted the themes of social dimension of learning (coded in blue) through which skills (coded in red), creative ideas and knowledge applications (coded in green) were identified.

Table 7.2. Similar Articulations in the 'Whole-Person' Perspective

Central Articulation	Elaboration	Behavioural Descriptions	Narrative
JR 'co-operation'	'*acquiring skills* that actually relate to life... an awareness of how you actually live in a real world'	'[the enterprising children] decided to have a little safe... to have a group ready to tidy the books... these practical solutions come mainly from the children who don't shine in ordinary lessons', but they are more 'aware of the world that you're in'	'book fair' for Enterprising Week
SG ' good team-worker'	*sharing 'skills* because some people are definitely more able to be an expert at a particular aspect of their work than other, that means that they should be a good team-worker'	'[the good team-workers] came up with fantastic ideas [in solving daily problems] such as the birds taking the lids of milk bottles... they decided to make an electrical circuits....the ones who were just seeing along and being lead... thought of just a box'	'Scarecrow project' for Science classes
JoG 'helping each other'	'...you are not a hermit, you are acting in relationship with other people and you get the best out of other people if you motivate them... to maximise the *enterprising skills* they have.'	'enterprising kids produced excellent ideas... used the media... produced leaflets, help lines... thought up slogans, fund-raising events... for research... special machines for treatment... All that came from reading about somebody's auto-biography'	'Edward's Syndrome project' for English classes

To summarise, individual participants defined enterprising behaviours in their idiosyncratic ways. Some aspects of these definitions were unique to the individual while some were synonyms for similar behaviours. Table 7.2 above reveals how these synonyms were elaborated in different wordings while expressing similar views. Generally speaking, the participants who defined enterprising behaviours from a whole-person perspective tended to perceive learning as consisting of social activities which highlight personal growth and skill developments through group dynamics in real life application. Interestingly, participants who took the whole person perspective were the ones who had been exposed to enterprise education.

2.3. Comparing the Cognitive Perspective and the Whole Person Perspective

Different Emphasis

The cognitive learning perspective emphasises learning as a *mental process,* including *thinking* and *subject knowledge acquisition.* The whole-person approach seems to embrace wider views of *integrating the cognitive perspective and social and personal development* in terms of *skills development* and *knowledge application in daily life.* When the discourses are compared, the whole-person oriented group tended to give *detailed narratives* characterised by group learning activities. The cognitive learning oriented group tended to give behavioural descriptions which mapped out an individual's covert processes (in the mind) in the form of *interrogative questions.* The language used in the cognitive perspective focussed on *self-initiative* in learning by means of *asking questions* and *suggesting ways to experiment in knowledge discovery,* while the language of *'co-operation', 'team-working'* and *'helping each other'* was more pronounced in the whole person group.

Exposure to Enterprise Education

The difference in emphasis between informants who had a whole person orientation and those who had a cognitive orientation can possibly be explained by their degree of exposure to enterprise education. Informants with a whole person orientation had some degree of exposure to enterprise education. Both AG and JaG had experience in disseminating enterprise in national projects. JR and SG had attended enterprise workshops and had run enterprise activities at school. JoG was likely to have shared some thoughts with the DUBS' staff working with the enterprise education initiative. Thus, it is likely that their shared perception was the result of previous exposure to enterprise activities.

Apart from RW who had minimal knowledge of enterprise education (one lecture in her teacher training course), all informants who had a cognitive learning orientation had never been exposed to any enterprise activities. Hence, they were more likely to

'build' from the previous discussion on 'enterprising modes of learning' which seemed to focus on cognitive learning.

The differences between the two groups could also, however, be the result of different implicit teaching beliefs. The discourse (Appendix 4) showed that informants with a whole person orientation demonstrated more concern and took on more 'caring' attitudes towards their students than the informants with a cognitive orientation. This finding confirmed that of Bennett (1976) who showed that teachers who were more inclined towards progressive teaching methods also placed greater emphasis upon the affective aspects of teaching (caring for pupils personal growth).

Positive Valuing of Enterprising Behaviours

Despite the difference in emphasis between the two groups of informants, their understanding of the notion of enterprising behaviours was all positive, with the exception of JaG. In other words, the problem justifying the term 'enterprising behaviours' mentioned by JaG, and as in the academic literature (Thompson, 1984; Coffield, 1991), was not shared by all other informants.

There was a possibility of carry-over effect from the previous discussion on enterprising teaching modes. Since some of the enterprising modes of teaching were considered to be value-laden, it was likely that such value-laden presentation would affect informants' positive valuing of enterprising behaviours as JaG suggested. However, the ability of informants to criticise aspects of the DUBS' model seemed to minimise the carry-over effect. This will be discussed in detail later in the chapter.

2.4 Summary

The great majority (nine out of ten participants) had no hesitation in defining the term 'enterprising behaviours'. This implied that the concern for legitimacy of the term 'enterprising behaviours' in the academic debate was largely absent among practitioners. Practitioners' own definitions were classified into two approaches, the

whole person development perspective and the cognitive learning perspective. Conceptually, the former embraced the latter. In terms of articulation, however, different emphases in learning were observed. More interestingly, individuals' personal understanding of 'enterprising behaviours' overlapped a great deal with their perceptions of the DUBS' definition (Gibb, 1993). This implied that enterprising behaviours contained a core construct which was shared among teachers.

To capture these rich findings, in the next section, teachers' perceptions of the DUBS' definition of enterprising behaviours are discussed. The extent to which these perceptions embraced individuals' definitions is then analysed. Finally, implications for furthering the understanding of the concept of enterprising behaviours are summarised.

3. Teachers' Perceptions of the DUBS' Definition of Enterprising Behaviours

Informants' discourse on the list of enterprising behaviours (see Appendix 3, p.276) generated some insight into how enterprising behaviours were perceived by teachers. Some categories in the list were regarded as inappropriate for describing students' behaviour. For those categories regarded as relevant and important, teachers were asked to give behavioural descriptions to illuminate their understandings (see Table 7.3, p.232).

3.1. Thesaurus Definitions

Thesaurus definitions quoted by Gibb (1993) included the adjectives: *pioneering, adventurous, daring, progressive, opportunistic* and *ambitious*. All informants thought that these adjectives were not particularly appropriate in describing students' enterprising behaviours mainly because some of these words (e.g. 'pioneering', 'progressive') were regarded as 'big/strong words' (WZ, FO, RW, NG, PD) and some (e.g. 'daring', 'opportunistic', 'go ahead' and 'adventurous') readily provoked negative connotations.

AG and RW consequently did not rate students' behaviours against these adjectives. JaG concluded that these were highly inferential terms which might not be as appropriate as the other categories discussed in the following section (those were definitions suggested by teachers themselves during the workshops organised by DUBS during the years 1985-91). Research findings hence suggest that the thesaurus definitions might not be suitable for understanding or measurement of students' enterprising behaviours.

3.2. The DUBS' List

The DUBS' list of enterprising qualities was collated from discussion with several hundreds of primary and secondary teachers during numerous workshops between 1985-91 (Gibb, 1993). Gibb (1993) classified these qualities into 'enterprising behaviours', 'enterprising skills' and enterprising attributes' (Gibb, 1993). While the majority of these categories were regarded as desirable behaviours among students, some categories were considered to contain conflicting values. Occasional idiosyncratic interpretations were also noted.

3.2.1. Enterprising Behaviours

The enterprising behaviours given in the DUBS' list are each taken in turn as follows:

'Actively seeking to achieve goals'

Generally speaking, all informants thought that this category was very relevant to learning. RW pointed out that the word 'actively' was particularly important since the majority of students preferred to be 'spoon-fed'. Six informants (WZ, FO, RW, NG, JR and SG) naturally accepted that 'goals' were learning goals set by teachers. Their behavioural description for this category therefore mainly focused upon finishing the tasks which were set by teachers. For instance, NG described how he observed students as 'actively seeking to achieve goals':

> "They would be paying attention during the course or lesson. They'll concentrate on their tasks that they are doing, making sure they'll fill up the work sheets, answer all the questions. They'd make sure that they've completed any homework tasks and hand them in on time." (NG)

FO shared a similar way of observing students as NG:

> "you can easily see that in students who are completing their dissertation or project... they've got to set an agenda of something they want to do and so they are asking your help so that they can speed up the process or achieve that goal. Or... revising for exams. They approach you for help. They are active in trying to get a certain grade in their exam."   (FO)

Interestingly JoG articulated her concern at students' 'extrinsic goal' which might be in conflict with her 'intrinsic goal' as a teacher:

> "[My] goal is to stimulate kids to appreciate literature and to see its wider application. ...Their goal is to get good results...the 'goal syndrome'...'we've got to get good results before we go to the 6th form.' And when they are in the 6th form, 'we've got to get good results before we get to university'... I don't think they are aware of other goals...'to understand the wide application of Jane Austen,' or 'to appreciate that Shakespeare is as relevant today as it was and in recent times,' or 'in order to improve my communication skills'. It's something that we talk about. You never get a kid to, or very few, to actually pinpoint goals other than results and finishing his course.
>   (JoG)

Finally, PD said that only occasionally would he observe students 'actively seeking to achieve goals' because:

> "this school is a very low achieving school. Perhaps goals are not even defined... an area like this which has had massive unemployment for 30, 40, 50 years. I think any goals have been knocked out of people." (PD)

PD's concern was shared by JR:

> "They don't know what their goal is. I mean you can say to them if you don't work hard, you don't get a job when you leave school. That's not true because they can work very very hard in school and not get a job when they leave school."(JR)

JoG, PD and JR's claim implied that the individuals' goal might be contingent to the environment they were in. Hence, in order to enhance students to 'actively seek to achieve goals', as JoG believed:

> "it's up to the teacher to make that happen."   (JoG)

'Flexibly responding to challenge'

Common descriptions for this behavioural category were 'to seek various ways of solving problems' (WZ), or 'look at the problem from different angles' (PD), and not to be

deterred by difficulties nor rigidly adhesive to standard methods in tackling a task (WZ, FO, RW, NG, PD, SG, JR).

While WZ would wish to see his students be more 'flexible', the same word was regarded as having both positive and negative connotations by JoG and NG. JoG regarded 'flexibility' as a sign of 'weakness' meaning 'backing down' and 'conceding' although she acknowledged that a positive meaning of being 'flexible' was to 'get the best out of people' who were different. Interestingly, NG equated 'flexibily responding' as 'avoiding challenge' and yet, he acknowledged the positive side of the phrase as 'attacking the problem in different ways'.

The discordance between WZ and both JoG and NG lay in the different referents attached to the word 'challenge'. WZ assumed that 'challenge' referred to *tasks* while JoG and NG inferred that 'challenge' referred to the 'person' and the adverb 'flexibly' signified the person 'conceding' or 'avoiding' challenge. To avoid ambiguity, the wording in this category might be better changed into 'flexibly tackling challenging tasks'.

'Coping and enjoying uncertainty' and 'Taking action in uncertain environments'

The two categories were combined during discourse by most informants due to the shared element of 'uncertainty' and 'uncertain environment'. These two categories were the most problematic since the elements of 'uncertainty' and 'uncertain environment' were regarded as alien concepts in schools as schools were organised in such a way that pupils knew how things are operated (NG, JR, SG). JR and SG, at primary level, claimed that it was a teacher's responsibility to make children feel secure in their environment.

The category 'coping and enjoying uncertainty' generated extreme responses. While AG believed that the accent of the category was upon 'enjoying', four informants (JoG, NG, PD, JR) believed that people did not naturally enjoy uncertainty. JoG claimed that 'uncertainty' implied 'wobbling', inability to take action whereas PD accepted that 'uncertainty' was part of life and he would wish to develop the ability to cope with

uncertainty among students. FO and NG finally associated *'enjoying'* uncertainty with *'being laid back and open'* about it when rating students' behaviour.

RW was the only discussant, other than AG, who considered this category as relevant and desirable. She suggested that being able to cope with and enjoy uncertainty was very important for learning a foreign language since the target language would always be full of elements of which that learner would feel unsure. She observed that students who were good at 'coping and enjoying uncertainty' in her subject would:

> "listen carefully and find bridges between their first and target language. They *take action and actively seek opportunities to 'produce' the language*. They are the one who can express a lot with very limited vocabulary and make fun of it. They make 'jokes' out of it by, for example, exaggerating the pronunciation..."   (RW)

RW's response in *italics* showed that *'taking action* in uncertain environments' (the latter category) was indeed a way to 'cope with uncertainty (the former category). JoG also shared the idea that to 'take appropriate action' meant 'to have things under control' so that uncertainty became certainty:

> "the pressure is in deciding what to do... a positive goal...actively pursuing this for your life... directing which course of action to pursue... [Goals] might be changed, it' not restrictive, it's directive..."   (JoG)

Interestingly, when 'uncertainty' or 'uncertain environment' meant 'novel' places or unexpected outcomes from a scientific experiment, it was welcomed and was enjoyed by pupils (NG, JR, SG). NG observed that good students would be able to *take appropriate action* and try something else. Interestingly, SG also thought that unknown results in a science would excite and enthuse children's curiosity to learn.

FO believed that uncertainty and competition within future prospects had increased. This claim echoed the observation made by various researchers in the literature (Gibb and Cotton, 1998; Seltzer and Bently, 1999) who argue that the ability to 'cope with uncertainty' and to 'take action in uncertain environments' was increasingly important in a post-industrial society. One of the distinctive features of Gibb's model of enterprising learning (1993) was the notion of introducing uncertainty in the learning environment. Yet the current finding suggests that teachers generally disagree with the notion. This

implies that further investigation into the aspect of uncertainty is needed. It might be appropriate that the first category be removed since 'taking action in uncertain environments' was considered the way to 'cope with uncertainty'.

'Solving problems/conflicts creatively'

All informants gave good behavioural examplars to demonstrate how they observed students who were good at 'solving problems/conflicts creatively'. For instance, FO and WZ refer to students in this category as those who would use their imagination to solve problems or conflicts, instead of using simple or standard methods. NG and PD thought that these were the students who were creative and would think about problems and tackle them instead of looking around and copying others' work.

AG suggested that students who were able to solve problems or conflicts creatively would show it in their report writing. JoG recognised students' ability in this respect through role play in her English class.

JR pointed out that although she could see children solving problems/conflicts creatively, the scope of developing this behaviour among children was being restricted by the National Curriculum which left limited time and scope for creativity. SG, her colleague shared this view. This view was echoed in the literature (Levin, 1991; Saunders & Halpin, 1990). The Dearing Report (1993) has assessed the impact and suggested that more flexible time be allocated for teachers to cater for individual needs (Dearing, 1996).

'Opportunity Seeking'

The general understanding of students' opportunity seeking behaviour was summarised by AG's definition:

> "those who actively interact to get things they are interested in... getting involved to take part in doing things." (AG)

WZ and FO particularly emphasised students who would utilise their university study to develop further opportunities for future careers. NG and PD thought that students who

were motivated and took initiative in learning would seek opportunity to accomplish their tasks. Certain overlap with 'actively seeking to achieve goals' was observed.

JR and SG, at primary level, tended to interpret 'opportunity seeking' as children seeking attention from teachers by being enthusiastic about things and doing well so as to get praise from the teacher. JR was an exception in that she also saw a negative side of this attention seeking behaviour as 'self-promotion', 'working to their own advantage', Nevertheless, when rating children's 'opportunity seeking' behaviour, she claimed that she rated them based on the positive definition.

'Commitment to make things happen'

Five informants related this category to 'actively seeking to achieve goals'. The general understanding of this behaviour was someone who had a goal in view and persevered, enjoying the overall process of seeing things through. Both AG and WZ thought that such behaviour also happened outside the classroom at a social level.

'Persuading Others' and 'Persuasiveness'

The two categories were treated as the same by most informants except WZ and FO. Both WZ and FO distinguished between students' persuading the lecturer and students' persuading their peers. Five informants (WZ, FO, NG, JR, SG) found it difficult to describe this behaviour. They thought that the existing learning environment did not present much opportunity for students to persuade others. In the end, they all managed to find situations in which such behaviour would be exercised. For instance, WZ recalled the staff-student assembly where students could make suggestions and persuade lecturers that their suggestions were good.

Informants generally observed this behaviour among students in group dynamics. Students who were good at persuading others would not be aggressive, over-forceful or confrontational. They would be able to explain their idea or argument in a clear manner and suggest alternatives. JoG's utterance neatly summarised this behavioural category:

> "by eliciting thoughts and supporting ideas, offering alternatives... give group pressure... to know when to intervene and not make others feel little."   (JoG)

At primary level, however, JR and SG, thought that 'persuading others' could only describe young children in a minimal way since they tended to team up with peers whom they could get along with. 'Persuading others' would be expressed by means of 'peer bluffing' (JR):

"'You would do this because you are my friend...' " (JR)

Findings in this research suggested that this category might need to split into two and be reworded into 'persuading the teacher' and 'persuading peers'.

3.2.2. Enterprising Skills

The items on the DUBS' list of enterprising skills are taken each in turn:

'Planning'

All scientists (WZ, FO, NG, PD, SG) in the sample placed planning skills high on the agenda. Behavioural descriptions given mainly focussed upon how students could plan an experiment, utilise time to the best advantage, fit various tasks into a schedule and finish them on time.

JoG, an English teacher, observed planning skills in students' creative writing. JoG, PD and SG also observed good planners were usually the ones who would actually draw up their plans in writing, so that their plan provided a structure - a plan of action - and they would constantly go back to the drawing board and revise their plan.

Planning was also referred to as 'future plans' in terms of career development by three informants (FO, PD, RW). In this case, both PD and RW mentioned that there was a lack of situations for students to conceive a future plan as such in their school since their school was located in an economically deprived area. PD explained that:

"one of the problems is that often by the time kids get to a secondary school, a lot of the enterprise has been kicked out of them by lack of success and environment."
(PD)

To avoid different interpretations which would affect overall measurement for comparison, this category might need to be changed into 'planning skills for accomplishing tasks'.

'Negotiating'

Five informants (AG, WZ, FO, JoG, NG) found that in their teaching environment, 'negotiating skills' were seldom utilised. Nevertheless, all of them were able to eventually think of situations where negotiation took place. They tended to recall students negotiating for extra time to finish work, more material or resources, etc. FO recalled good negotiators were the ones who

> "put forward very sensible arguments… to convince you that their reasons…were legitimate."   (FO)

Again, JR and SG believed that negotiating skills in primary children were minimal and were related to age. The older and more mature children were able to negotiate better in a sense that they would listen to others' point of view and explain why they did or did not take it up. However, the majority of children were not able to do that.

Four informants (WZ, FO, NG, JR) associated 'negotiating skills' with 'persuading others'. Overlapping descriptions were also given to the two categories implying some shared behavioural criteria for the two.

One unusual association with 'negotiating skills' was recorded. NG initially associated 'negotiating skills' with buying and selling and could not see the connection with his teaching. However, when he was rating pupils' behaviours, he was able to adopt the common definitions (i.e. negotiating for more time and resources to finish work) instead.

'Decision taking'

Both AG and RW thought that the learning environment did not provide much chance for students to exercise their ability in making decisions. JR believed that only very few children in her class could demonstrate that they could make decisions because of their age.

Nevertheless, all informants could think of situations in which they would be able to observe students' decision taking skills. WZ and PD recalled how students decided which courses or projects to take among a variety of choices. FO and NG found that students in a chemistry laboratory would need to constantly take decisions. Generally, informants believed that students who were good at taking decisions could decide a course of action promptly with little affirmation and without delay.

3.2.3. Enterprising Attributes

The items on the DUBS' list of enterprising attributes are taken each in turn:

'Self-confident'

The word 'confident' or 'confidence' was the most frequently used adjective in all of the discussions with informants. Four informants (FO, NG, PD, JR) believed that confidence was the most important and fundamental attribute which underlined a great deal of students' development. Informants generally found this category the easiest to observe among students. Self-confidence was observed in the way students approached problems, answering questions and addressing others (without being arrogant). This category was naturally linked with other categories such as 'coping with and enjoying uncertainty', 'taking actions in uncertain environments', 'persuading others', 'negotiating' and decision taking' (WZ, FO, JoG, NG, PD, JR, SG).

'Autonomous'

Seven informants (WZ, JoG, RW, NG, PD, JR, SG) found that the word 'autonomous' contained both negative and positive values. It was not a word they would use to describe students' behaviours. Some even claimed that they would not deliberately promote this quality in students (WZ, PD, JR). These informants tended to associate being autonomous as being 'self-governing', having an inability to cooperate or share with others, working alone and not being willing to listen to advice. Nevertheless, the positive

value of being autonomous was mainly associated with acting on one's own initiatives, operating on one's own without waiting to be led or relying on others.

However, WZ and PD emphasised that despite the positive value of autonomy, they preferred students to cooperate and be interdependent since, in their own words, 'everything in life is always done in co-operation' (WZ), 'life is about sharing things and working with others' (PD).

Interestingly, when rating their students' on this category, all discussants referred to the positive aspects of being 'autonomous' and did not report any difficulties in rating this behaviour. This finding suggests that 'autonomous' can be replaced by 'self-initiative' on the list.

'Responsible'

With the exception of RW who thought that her school did not provide enough opportunities for pupils to show that they could be responsible, all other informants could observe how responsible their students were. The general criteria for judging responsible students were the ability to see things through on time for themselves and others, with a healthy respect for rules, tasks, materials or resources assigned to them and consideration of other people's needs.

'Versatile'

RW was the only informant who found it difficult to observe versatile behaviours among pupils. Other informants were able to identify them and seven of them (AG, WZ, FO, JoG, NG, PD, SG) linked this category with 'flexibly responding to challenge' and 'solving problems/conflicts creatively'. Versatile students were the ones who could 'make do with what they have', adapt or respond flexibly to change and come up with solutions to problems in many different ways.

Interestingly, both primary school teachers, JR and SG, pointed to the limited scope for versatility in children due to the constraints of the present curriculum. JR explained the

dilemma she experienced. She believed that teachers tended to want children to be quiet most of the time, to listen and learn, instead of letting them be free to pursue their individuality.

'Dynamic'

Five informants (JoG, RW, NG, JR, SG) thought that being dynamic was not totally desirable. The positive side of being dynamic was an enthusiasm for learning and making things happen. The negative side of it was 'physical hyperactivity' (RW), 'self-promotion' and 'making lots of noise' (JR, NG). Three informants (NG, PD, JR) believed that there should be a 'happy equilibrium' between being 'static' and being 'dynamic'. Hence, this category might need to be reworded into 'enthusiastic' or 'showing enthusiasm in learning'.

'Resourceful'

All informants regarded being resourceful as a desirable enterprising attribute. A resourceful person is someone who can find things out for themselves through many different means. They can adapt to different situations, make do with what they have and think laterally. Behavioural descriptions given to students who were resourceful were very similar to those descriptions attributed to categories such as 'flexibly responding to challenge', 'solving problems/conflicts creatively', 'versatile' and 'self-initiative'. In fact, most informants would naturally link up or refer back to those categories. For instance, when discussing this category. NG said:

> "Again, somebody who will 'solve problems and conflicts creatively', the one who will 'make things happen' and 'take action in uncertain environments'. Those are the people who are 'resourceful'." (NG)

3.3. Summary

The DUBS' definition of enterprising behaviours which was generated from teachers in workshops found a large degree of consensus among informants in the current exploratory study. Other than the occasional idiosyncratic interpretation of these

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categories, shared meanings could be established in the majority of the categories. Categories which were polysemous were pinpointed. Re-wording was suggested.

4. Overall Discussion on the Concept of 'Enterprising Behaviours'

So far in this chapter, the discussion on enterprising behaviours has been confined to individual categories. In this section, the concept as a whole will be examined. The current exploratory research findings suggest that the concept of 'enterprising behaviours' offered by DUBS is a valid one with a distinctive constellation of behaviours. It is full enough to embrace individuals' shared understanding. All the behavioural categories, except two, were considered to be desirable. However, some problems concerning the concept need to be carefully addressed.

4.1. Conceptual Adequacy

In Appendix 5, colours are used to highlight the utterances or behavioural descriptions which fall within similar categories. Informants' behavioural descriptions in their personal definition are compared with those given in the DUBS' categories. Analysis showed that the DUBS' definition was adequate in embracing all personal definitions. Using JoG's discourse as an example (adopted from Appendix 5, p.354), JoG's personal definition of enterprising behaviours has a central utterance of 'helping/motivating each other' (highlighted in 'blue').

Enterprising Category	Behavioural Description	Learner A	Learner B
JoG's personal definition:	thinking for themselves... helping each other to come to understanding... thinking of ways in which knowledge is applied... acting in relationship with other people and you get the best out of other people if you motivate them, ...the enterprising person is a motivator... by listening, by suggesting, by encouraging, by supporting, and keep doing things instinctively... to maximise whatever enterprising skills they have		
'commitment to make things happen'	Cooperate with each other to achieve common goals	3	10
'persuading others'	a motivated group persuades each other by eliciting thoughts and supporting ideas, give group pressure, offering alternatives, to know when to intervene, not to make others feel little.	0	10
'self-confident'	[kids] fear being ridiculed or contradicted. But if the others are wrong, the confident ones can point it out in a suggestive way....	1	10
'dynamic'	make things going, the positive side of it is to initiate enthusiasm, the negative side of it is to blow things up	1	9

In the table above, the same blue colour also appears in the categories 'commitment to make things happen', 'persuading others', 'self-confident', 'versatile' and 'dynamic' indicating semantic similarities among those utterances. This shows that the DUBS' definition has contained JoG's definition.

In the table below (adopted from Appendix 5, p.352), WZ's definition of enterprising behaviours is mainly coded in red indicating the central theme of 'self-initiative in learning'. Similar utterances are found in the behavioural descriptions as given in DUBS' categories 'commitment to make things happen', 'opportunity seeking' and 'dynamic'. This finding confirms that DUBS' definition of enterprising behaviours is an adequate concept which embraces individuals' understanding.

Enterprising Category	Behavioural Description	Learner A	Learner B
WZ's personal definition: Self-iniative in learning	"understands his opportunity to learn, rather than regarding [learning] as an extra chore... a student who thinks, 'I don't understand that', or who stirs a conversation with his tutor on something that is useful for him so that he can learn		
'commitment to make things happen'	...takes initiative to [persuade others to work/solve problems together].	10	8
'opportunity seeking'	...comes and asks you questions... tries to find you because he doesn't understand something... plan their courses... looking for good opportunities to actually use their studies here to develop something they want to do afterwards [in their career].	7	6
'dynamic'	...comes to see you all the time... uses tutorials sufficiently... [initiates discussions] in tutorials [as opposed to] not to say anything...	9	6
'planning'	...plans his time-table... what to attend and how to do his work ... always hand their work on time...	8	7
'flexibly responding to challenge'	...seek various ways of solving the problem...think independently what is taught and solve the problem in his or her own way [instead of] just taking out their notes and trying to copy the method...	9	4
'solving problems / conflicts creatively'	... go to the library, [look for different and extra materials to solve the problems] [instead of] open the notes taken from lectures and try to solve them...	9	4
'resourceful'	...goes to the library a lot... finds things through the computer network [to access some information that is not easily available]... knowledgeable [instead of] just follow their nose and do nothing else...	10	5

4.2. Towards a Core Construct of 'Enterprising Behaviours'

The fact that all informants linked up certain categories implied that there is a core construct of enterprising behaviours. Informants realised that they were repeating themselves when the same behavioural incidents were recalled for certain categories that shared similar properties. PD and SG thought that all categories were connected. SG claimed that:

> "you've got nearly totally the same category and I could go through my class now and tell you who is [enterprising] because it's so obvious. It just jumps to me." (SG)

The colour coding system also revealed that similar behavioural criteria were shared among different categories. In the table above, for example, WZ's behavioural exemplars for 'flexibly responding to challenge', 'solving problems/conflicts creatively' and 'resourceful' were coded in blue showing that these categories shared similar properties.

It is likely that enterprising *skills* and *attributes* were indeed inferred from the observable enterprising *behaviours* as attributional theory suggests (Brown, 1986; Tajfel and Fraser, 1978). Drawing from the discursive profiles (Appendix 4), the category *'actively seeking to achieve goals'* was usually associated with *'commitment to make things happen'*, *'planning'* and *'dynamic'*. *'Taking actions in uncertain environments'* was mostly associated with *'decision taking'* and *'versatile'*. *'Flexibly responding to challenge'* and *'solving problems/conflicts creatively'* were associated with *'versatile'* and *'resourceful'*. *'Persuading others'* was linked with *'persuasiveness'* and *'negotiating'*. Finally *'self-confident'* was connected with the majority of the categories presented. The internal consistency in rating among associated categories was high, with less than ±1.5 units in variation on average. This provides support for the notion of a core construct of enterprising behaviours as in the DUBS' definition.

4.3. Problems of Ambiguity and Conflicting Values

Coffield (1991) has argued that some definitions of enterprising behaviours offered by some enterprise initiatives were tautological. From the above examination of the definition offered by DUBS', the notion of it being tautological cannot be sustained in this case: discussants in general claimed that the DUBS' list seemed to be measuring a unique set of behaviours that could only reflect students in that light. The problem with the DUBS' definition of enterprising behaviours, therefore, is not one of tautology, but one of the holistic nature of personal development. As Bridges (1992) has commented, enterprising behaviours are not the only behaviours that an educator would wish to develop in students, although, arguably, as mentioned by informants in this exploratory study, most of these behaviours are regarded as very important.

The major problem of the DUBS' definition of enterprising behaviours lies in the conflicting values which exist in two categories (i.e. 'autonomous' and 'dynamic'). This problem implied that Bailey's criticism (1992) of enterprising behaviours as not being totally virtuous was valid to a certain extent. However, it should be noted that Bailey's argument (1992) of enterprising behaviours being 'attendant virtues' was closely connected with his association of these behaviours with a free market economy. In this study, the conflicting values of the categories had nothing to do with a free market economy, but rather the polysemous interpretations that the words triggered.

Brunner (1990) and Fullan (1991) suggest that polysemous meaning can be negotiated in a social arena. The present study demonstrated that despite the initial negative connotations these categories triggered, informants tended to rate their students with positive values in mind. This finding however was facilitated by the discourse methodology used in that it provided an opportunity for negotiation. Such an opportunity would have been impossible with, for instance, a quantitative questionnaire in which multiple meanings in language are not addressed. After the discourse, it was possible to

suggest a re-wording of controversial categories into words which informants perceived as more readily agreeable so as to minimise uncontrollable variations in meaning.

Furthermore, The concept of 'uncertainty' which exists in the two categories 'coping with and enjoying uncertainty' and 'taking actions in uncertain environments' was problematic. Gibb (1993) posited that 'uncertainty' is one of the essences of an enterprising learning environment while some informants considered this essence as alien to a secure learning environment and that people did not naturally enjoy uncertainty. Again, the problem seems to lie in the different interpretation of uncertainty. Gibb (AG) during discourse, defined 'coping with and enjoying uncertainty' as follows:

> "people doing things without exactly the outcome being clear. The accent is on 'enjoying'." (AG)

Interestingly, when uncertainty was interpreted as a novel place or an 'uncertain' outcome from learning, for example, a scientific experiment, it was generally accepted and enjoyed by students. SG suggested that:

> "If they don't know how something is going to work out, they'll love it. They know the excitement they are going to see - the end result... In the Science Corner...they enjoy not knowing what's going to happen next..." (SG)

This finding suggests that when introducing the notion of 'uncertainty' in a learning environment, its meaning needs to be carefully tempered with teachers' perception to avoid misunderstandings.

4.4. Situational Constraints in Observing Enterprising Behaviours

Drawing from their everyday teaching experience, informants acknowledged that some of the enterprising behaviours were not easily observable due to situational constraints. For instance, since 'uncertainty' was treated as an alien concept in a school environment, some informants found it difficult to think of students who were in uncertain environments. 'Persuading others' and 'negotiating' were also rare themes in teaching. The learning environments did not give enough opportunity for these behaviours to be practised. Specific tasks would be required in order to enhance the development of these

behaviours. JR and SG, at primary level, thought that some of these behaviours might not be fully developed in young children. This suggests that to measure children in primary school, some of the categories would need to be re-worded and re-considered as to their appropriateness for the stage of children's development.

Finally, several of the discussants noted that the broader economic environment in the region where the school operated also affected the development of enterprising behaviours in students. For instance teachers found it hard to encourage pupils to pursue future goals when the general regional economic atmosphere was depressed. Dooley and Prause (1995) studied the effect of unemployment upon young people's self-esteem. They found that unemployment adversely affected the development of self-esteem among young people. Since self-esteem is an important mediator of self-confidence (Aronson, 1984; Tajfel & Fraser, 1978), it is likely that in economic and socially deprived regions, teachers' perceptions of their capability for developing enterprising behaviours in pupils will be affected.

4.5. Enterprising Behaviours as a Consequence of Enterprising Teaching Modes

Seven of the ten informants (AG, FO, JoG, RW, PD, JR, SG) connected enterprising behaviours with enterprising teaching modes. AG directly linked enterprising teaching with the development of enterprising behaviours in students (Gibb, 1993). FO regarded enterprising teaching modes as fostering interactive learning and self-initiative in learning which corresponded with her perceived central theme of enterprising behaviours in students:

> "...probably the most enterprising methods of teaching might be the ones in which you get students to interact more, to actually do things themselves... in small groups...rather than just getting up in front of a bunch of students and talking to them."
> (FO)

> "...enterprising students... maximise their learning potential... any sort of self-initiated behaviour to try and learn more ... as opposed to a passive [role]..."
> (FO)

JoG's spontaneous definition for enterprising behaviours mirrored her own definition of enterprising modes of teaching. Recalling her definition of enterprising teaching modes:

> '...it is putting the ball in the kids' court , and *getting them to think for themselves* and to develop ideas that are not spoon fed to them;... it is to encourage kids to use education as a kind of step up for what they are going to do when they leave school; and to encourage independent thought and social skills and take their main chance when it comes up.'

Compare the above with her definition of enterprising behaviours:

> '...it means *thinking for themselves*... it means helping each other to come to understanding, it means thinking of ways in which whatever knowledge is gained can be applied.'

The corresponding *italics* and underlined text showed that JoG had a clear, refined view on enterprise resembling the mainstream protagonist's proposition. Based on her own teaching experience, JoG prominently suggested that enterprising teaching modes foster the development of enterprising behaviours. The distinctively enterprising learning activities which she naturally called upon to demonstrate these behaviours, confirmed this proposition.

RW's descriptions of *enterprising teachers* and *enterprising pupils* also implied the causal effect of the former on the latter:

> 'Enterprising teachers take risks in teaching. They are adventurous, creative and innovative. They *give pupils independence, make the groups interact, create an atmosphere for them to come out of their shell, challenge their limit to push them further then they think they can reach.'* (RW)

> '[Enterprising pupils] ask questions, challenge things such as the concepts you taught them and your teaching styles. They suggest different alternatives to things in a pleasant, playful way. They experiment with certain roles such as being leaders of the group. They are pupils with the power of critical thinking.' (RW)

The two definitions depict two different role behaviours under the same fundamental attributes for being enterprising. Enterprising pupils would learn or behave in ways which mirror the teaching approach adopted by enterprising teachers. Such coherence indicates a possible *causal* relationship between enterprising teachers who adopt a learner-centred pedagogy (enterprising modes of teaching) and the fostering of enterprising behaviours among pupils.

PD has totally projected his philosophy in teaching and life as a whole onto the concept of enterprising teaching and enterprising behaviours. He claimed that:

"... the enterprising modes of teaching... seems to be everything that I agree with."
(PD)

When discussing enterprising behaviours, he agreed that, except the category 'autonomous', enterprising behaviours were 'definitely what learning was about', 'what life was about':

"I think all forms of learning are about 'confidence'... I mean life is about being 'versatile'... You have to be 'dynamic'... [Resourceful] has to be linked up with 'versatility'...[Coping with and enjoying uncertainty] and [opportunity seeking] is something I want to develop in students... [Commitment to make things happen] is summing up all the things I've said before..."(PD)

JR's interpretation of 'enterprising modes of learning' also corresponded with that of 'enterprising behaviours' (Appendix 5, p.358). A causal relationship was implied in that the enterprising teaching mode stressed 'practical activities', 'team work' and 'helping others'. A similar theme of 'co-operation and helping each other in groups' and developing 'practical skills that relate to life... dealing with money, every day problems' emerged from her understanding of enterprising behaviours.

SG's conception of enterprising modes of teaching was confined to the mini-enterprise activities, another popular model in enterprise education (see discussion on MESP, Chapter 3, p.71-75). She had difficulties in relating the DUBS' definition to enterprise education. Nevertheless, her understanding of the learning strategy of those enterprise activities was coherent with her understanding of enterprising behaviours in the very limited sense that enterprise activities could help develop 'planning' skills and thinking which were, to her, central themes of enterprising behaviours:

'To me, [enterprising modes of teaching] means making children aware of what it's going to be like in industry, preparing for when they are older, the whole progress of *planning, producing, selling and buying, and getting finance together*, if we take it to the extremes,... *you've got to plan your thing* and *it's a good way to get them to think, so it's a good learning strategy.*' (SG)

'... the ability to listen to others, the ability to work as a team member, and be able to share your skills because some people are definitely more able to be an expert at a particular aspect of their work than others. But that means that they should be a good

team worker,... *be able to plan carefully, be able to be a divergent thinker* exploring different avenues.' (SG)

For WZ and NG, there was no indication that they perceived that enterprising teaching modes were related to the development of enterprising behaviours. JaG believed that the relationship between the two was a result of the carry-over effect of the author's research focus which he believed had a hidden political intention to exploit the positive valuing of enterprising teaching modes for developing enterprising behaviours.

The author was constantly aware of the potential for bias. The current result findings do not rule out the possibility of a carry-over effect. Informants' perceptions that enterprising behaviours were related to enterprising teaching modes could be a result of the previous discussion on teaching. However, it is argued that the positive valuing of enterprising teaching modes and enterprising behaviours was more to do with the intrinsic value within which the concept of 'being enterprising' is denoted. As discussed before, 'being enterpris*ing*' did not readily provoke an association with business, politics or pedagogy. 'Being enterpris*ing*' naturally connotes certain behaviours in teachers and in pupils within the context of education. The current research findings reveal that the concept of enterprising teaching modes is value laden. However, such value-ladenness does not cancel out the positive intrinsic values the two concepts have.

4.6. Summary

The DUBS' definition of enterprising behaviours seems to provide a sound concept for exploring the phenomenon in the educational context. However, there remains a problem of ambiguity. Conflicting values and situational constraints in some of the categories are identified. Although some informants might believe that enterprising teaching modes were causally related to the development of enterprising behaviours, further empirical research is needed to investigate this proposition. Meanwhile, it is noted that the value-laden presentation of enterprising modes of teaching is likely to provoke reactionary attitudes which are counter-productive to the promotion of the concepts (see Chapter 6).

5. Rating Students' Enterprising Behaviours: Methodological Implications

Five informants (WZ, JoG, RW, PD, JR) chose to rate students of two extremes and four (AG, FO, NG, SG) rated students of similar abilities. Altogether 18 sets of ratings were collected (see Table 7.3 below). Informants were requested to 'think aloud' and explain why different ratings were allocated to the two students. The incidents they recalled when weighing up and comparing the ratings showed how impressionistic inferences are drawn in order to rate students' enterprising behaviours. Other than occasional hesitations, the rating was achieved with relative ease. Although certain items/categories showed internal consistency as discussed above, some rating errors were observed. The strengths and the weaknesses of an impressionistic rating methodology were thus identified.

The first type of rating error was detected from the inconsistency between informants' comments and ratings. Categories which informants considered as ambiguous, irrelevant or inappropriate were still rated. This was particularly obvious with the thesaurus definitions. Only AG and RW consistently left those categories blank. Arguably, inferences were drawn from other related behaviours.

This led on to the second type of error which appeared in categories which lacked observation due to situational constraints or because they were perceived to be irrelevant in teaching, or because of the inability to draw 'second-order' inference. These categories tended to be allocated with lower than average ratings or neutral ratings of 5. For instance, from WZ's verbalisation during his rating, it was detected that he tended to give '5' or below to those categories in which he uttered 'I don't know... '5'... neutral'. When his rating behaviour was discussed, he admitted that was his way of rating.

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Table 7.3. Rating of Two Students' Enterprising Behaviours

1 = extremely low; 10 = excellent

Students	AG A	AG B	WZ A	WZ B	FO A	FO B	JoG A	JoG B	RW A	RW B	NG A	NG B	PD A	PD B	JR A	JR B	SG A	SG B
Pioneering	-	-	7"	5"	8"	6"	1'	9'	-	-	2"	5"	7"	2"	8±	2±	10	9
Adventurous	-	-	6"	3"	7"	7"	2	8	-	-	2±	6±	7"	3"	8	1	10	7
Daring	-	-	5"	4"	7~	7~	1±	7±	-	-	1±	8±	6"	3"	8±	2±	9	7
Go ahead	-	-	8"	3"	8	6	1	9	-	-	4±	3±	6'	3'	8±	2±	10	7
Progressive	-	-	5"	4"	6"	6"	2°	9°	-	-	3"	3"	7'	3'	8	2	10	8
Opportunist	-	-	7±	7±	8±	6±	1–	5–	-	-	2–	8–	8	3	8±	2±	10	10
Ambitious	-	-	9±	9±	7	6	4±	9±	-	-	5±	5±	9±	2±	8"	1"	10	8
Actively seeking to achieve goals	3	4	10	9	7	7	4'	9'	5°	1°	5	2	8'	4'	9'	2'	10	10
Flexibly responding to challenge	4	6	9°	4°	7	6	2±	7±	6	1	2±	8±	7°	3°	9	2	9	9
Coping with and enjoying uncertainty	5°	5°	8~	4~	5~	8~	1"	5"	7°	1°	5'	6'	8'	2'	7"	2"	10	10
Taking actions in uncertain environments	4°	7°	6~	6~	6	8	1"	6"	7°	1°	2	6	8	2	7	2	5~	5~
Solving problems/ conflicts creatively	5	7	9	4	6	7	2	9	7	1	3	4	7	4	9'	2'	10	10
Opportunity seeking	5	7	7	6	8	6	1	8	5	1	1	7	8	3	9±	7±	10	8
Commitment to make things happen	6	6	10	8	8	7	3	10	2	1	2	6	7	2	9	4	9	7
Persuading others	5	5	3'	3'	6'	7'	1	10	7	1	1*	9*	5°	2°	5'	3'	10	7
Persuasiveness	4	6	8'	3'	6	7	1	10	7	1	1*	9*	5°	2°	5'	2'	10	7
Planning	5	4	8	7	8	6	3	8	-	-	5°	3°	8±	5±	9	2	9°	7°
Negotiating	5	5	5*	5*	8	8	1	7	7	1	2*	6*	6	3	5'	2'	9	6
Decision taking	6	5	7	5	8	6	1	9	7'	1'	3	8	8	3	9	1	10	8
Self confident	6	6	10	8	7°	7°	1	10	10	1	5°	8°	7°	2°	9	1	10	9
Autonomous	6	6	8±	5±	7	6	4'	9'	7±	1±	6±	5±	8±	2±	9-	1-	9±	9±
Responsible	7	6	10	9	7	7	5	8	2	1	6	5	9	3	9	2	10	10
Versatile	4	7	8	4	7	8	2	9	7	1	5	6	8°	3°	8'	1'	9'	7'
Dynamic	4	6	9	6	8	7	1±	9±	5±	1±	2±	9±	7°	2°	9-	1-	9±	8±
Resourceful	5	5	10	5	7	6	2°	9°	6	1	2	7	7°	3°	8	2	10	9

Key: ° particularly important   ' situational constraints   * irrelevant to learning
        " inappropriate wordings   ~unsure of its mearning   – negative connotation
        ± conflicting values   *ratings in bold and italic contain problematic interpretations*

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The same error was detected in FO's rating on Student A in 'coping with and enjoying uncertainty' and 'persuading others', and Student B in 'pioneering'. These were the categories where she lacked information for drawing inference. According to her verbal account, it was a rating indicating 'neutrality'. SG also committed this type of error when rating the two children 'taking action in uncertain environment'. However, she was able to explain that the 'sudden' low scores were a result of the children's young age in handling uncertain environments.

The third type of error occurred in categories which were thought to have contained conflicting values. When a rating was assigned, it was difficult to tell whether a high rating means that both the positive and negative values were equally high in the student, or low ratings means low in both positive and negative values. For instance, while FO regarded being 'opportunist' had both positive and negative connotations, she rated it highly on Student A and emphasised that it referred *only* to the *positive* aspects of it. This phenomenon was contrasted with NG's ratings on Pupil B's 'adventurous', 'daring' and 'opportunist' which *only* signified *negative* aspects.

JR referred to her ratings on controversial categories as indicating *both* the *positive* and the *negative* aspect (with the exception of the unusually high score for Child B on 'opportunity seeking' which referred *only* to the *negative* aspect). For categories which she identified as negative, such as 'autonomous' and 'dynamic', the polarisation of the ratings for Child A and Child B persisted. During the discourse, she was questioned for her inconsistencies in rating. She replied:

> "When [I] look at these words, I see [Child A]... Whether it's negative or positive, I would still give her [high ratings]"   (JR)

This finding imply that the potential 'halo effect' has affected informants' rating behaviours, that is the desirable global concept of 'enterprising behaviours' has overridden the undesirable local concept. In other words, there was a tendency for informants to allow an overall impression of a student's enterprising 'traits' to influence

the total rating of that student. Such bias is common on personality rating scales (Brown, 1986; Reber, 1985).

The important question is, therefore: how reliable is such a rating methodology in measuring enterprising behaviours?

Ironically, the confusion in rating might reflect the very nature of enterprising behaviours. JaG suggested that enterprising behaviours could contain undesirable aspects *vis-à-vis* desirable aspects. In other words, a student could simultaneously have high scores indicating desirable enterprising behaviours and high scores indicating undesirable enterprising behaviours. In this case, it was also at the informants' discretion to decide which aspect(s) they saw as appropriate for their students.

Furthermore, in observing informants' rating, it was obvious that inferences were drawn and comparisons were made in a prudent manner. Some difference in behaviours between the two students was as minor as one unit and informants could justify such a difference with behavioural exemplars. This suggested that although their rating was impressionistic, it was not done at random, nor was it a perfunctory act at the researchers' request. Moreover, as discussed before, categories which shared similar properties (same colour codes) yielded good internal reliability. This again suggested that the rating results were reliable. For instance, PD was asked how he inferred the two ratings for which he uttered 'I'm not sure'. For Pupil A in 'dynamic' and ' resourceful', he answered:

> "I don't have any direct evidence although I do feel that probably knowing him fairly well, those words must apply."   (PD)

The ratings given to these two categories had high internal consistency (same ratings or variation by one unit) with the categories which he believed to have shared properties ('pioneering', 'flexibly responding to challenge', 'solving problems/conflicts creatively' and 'versatile').

Finally, the results from informants who rated students of similar qualities demonstrated that the DUBS' list was substantial in enabling discrimination between individuals'

enterprising behaviours. NG was somewhat surprised that the two pupils whom he thought to be similar would turn out to have rather distinct profiles. FO also acknowledged that the DUBS' list measured a certain unique set of behaviours.

Hence, it was not the rating methodology *per se* which was problematic, but the nature of the concept and the control of variance. To tackle the problems in rating, suggestions are made below to minimise conceptual confusion and maximise accuracy in rating. Firstly, most of the controversial categories were found in the thesaurus definitions. This thesis recommends that the thesaurus definitions be removed, especially when the majority of informants considered these definitions as irrelevant and inappropriate to the context of teaching and learning. Secondly, controversial categories in the DUBS' definitions should either be removed or reworded with more precise behavioural descriptions to guide rating. These categories can also be separated into a positive- and a negative sub-division, each with clear behavioural descriptions, so as to further investigate the degree of conflicts surrounding these controversial terms.

Finally, a better rating scale needs to be employed. This thesis suggests that a nominal scale be drawn as follows:

'1'   very poor
'2'   poor
'3'   fair/average
'4'   good
'5'   excellent
'DK' don't know
'NA' not applicable

A 5-point ordinal scale, which offers the option of 'don't know' and 'not applicable', can stop informants' from assigning an average score to indicate 'neutrality'. It may also reduce the magnitude of polarisation of the scores relative to the present rating scale[2].

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[2] The present ordinal scale deliberately allows for rating within a fairly large range (1-10) in order to test the sensitivity of the numeric representation. Given that ratings were only used as a crude means for comparison, instead of a true value, the current research has demonstrated that a 5-point ordinal scale is adequate for measuring enterprising behaviours.

5.1. Limitations

Although the rating methodology was considered to be reliable, it had two major limitations. Firstly, teachers' rating of students' behaviours may be shrouded by stereotypical impressions of students (Cohen & Manion, 1994). Secondly, the simplistic single measurement method, although easy to administer, is vulnerable to error.

Arguably, the triangulation of personal definition, with comments on the DUBS' definition and the rating has helped to control the error variance. The principles of the 'multitrait-multimethod matrix' further provide an epistemological sound grounding for increasing reliability and validity (Campbell and Fiske, 1959, cited in Anastasi, 1976; Gultiford & Fruchter, 1978). The idea is that through adopting two or more methods which maximise *similarity* for measuring the same phenomenon, reliability is achieved. Simultaneously, by using two or more methods with maximised *difference* for measuring the same phenomenon, validity is optimised. In this case, the combination of several relevant and reliable psychometric inventories with control experimentation can be used to cross-examine students enterprising behaviours so as to maximise reliability and validity.

7. Conclusion

The current exploratory findings suggest that the DUBS' definition of enterprising behaviours is generally perceived as a 'desirable' concept by teachers. The discourse with informants' together with the quantitative rating methodology supports the view that the DUBS' definition of enterprising behaviours constitutes a sound construct although some further refinements are needed. The crude and simplistic rating methodology is adequate for measuring and comparing students' enterprising behaviours. However, a much more rigorous 'multitrait-multimethod matrix' is recommended to optimise the validity and reliability of measurement.

Most importantly, the implication that enterprising teaching modes are potentially related to the development of enterprising behaviours among students needs to be thoroughly examined. It is argued that the current exploratory study has laid a solid foundation for rigorous empirical investigation in future.

Chapter 8

Summary and Conclusion

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1. Summary

The objective of this thesis is to explore the meaning of 'enterprising teaching modes' and 'enterprising behaviours' among the teaching practitioners with the main focus on seeking firstly, operational definitions of the two key concepts; and secondly, an appropriate methodology to measure these concepts.

This thesis identifies the sources of contention surrounding the notion of enterprise education. The three phases of development have been charted showing that the emergence of enterprise education stemmed from the long-standing debate concerning education and industry interface. Such debate has always been entangled with the political rhetoric of the nation's economic performance and with the arguments concerning utilitarianism and vocationalism. Inherently, some critics strongly associate the notion of 'enterprise education' with a 'free market' economy ideology. It has been progressively become an umbrella term as a result of the proliferation of 'enterprise' initiatives in the 1980s. These have encapsulated diverse objectives and activities, such as understanding industry/business, improving the relationship between education and industry, improving transitions from school to work, encouraging and training for self-employment, and developing enterprising behaviours among people, etc.

Adopting the principle of discourse in the light of the social construction of meaning (Faucault, 1971; Potter & Wetherell, 1994), this thesis clarifies the nature of conceptual confusion in the academic debate. It is interesting to discover that the 'original' lexical semantics of 'enterprise' has a connotation of predominantly desirable personal

attributes. This is arguably the basis for the notion of 'enterprise education' as a distinctive approach in teaching and learning with the aim of developing enterprising attributes, skills and behaviours among young people. When the concept is de-politicised, the 'original' meaning is largely shared among other social groups such as the teachers and students.

A structural framework of enterprise education is then set out to illustrate this distinctive approach to teaching and learning. Three models are classified to further scrutinise the legitimacy of the approach. Despite numerous enthusiastic anecdotal reports showing that it is effective in improving motivation in learning and in enhancing the development of enterprising behaviours, there remains a lack of empirical support to verify these short-term findings. This is mainly due to conceptual confusion and the lack of an appropriate methodology to examine the complex and holistic nature of the key concepts.

A conceptual underpinning and the search for an appropriate methodology were thus the central concerns of the current research. The Durham University Business School model of enterprising learning was chosen for this purpose since it is particularly designed to foster enterprising behaviours while, at the same time, striving to achieve greater insight into knowledge through subject learning (Gibb, 1993). Moreover, the model has been widely applied both nationally and internationally. Theoretically, it was found to be an 'ideal type' (Martindale, 1963) which was soundly constructed with well grounded theories despite the existence of some ambiguities and imprecisions. In practice, however, the effectiveness of enterprising teaching in achieving its purposes begs rigorous empirical testing.

Previous research efforts (Fullan, 1991; Iredale, 1992; Cotton, 1993; Harris, 1993a) reveal the crucial role of teachers since they are the ones who choose to adopt various teaching styles and are at the forefront of developing enterprising behaviours in students. This implies that *conceptual underpinning and methodological appropriateness, need to be sought within teachers' beliefs and their perceptions of 'enterprising teaching modes' and 'enterprising behaviours' in everyday teaching.* Bearing this point in mind, the central research inquiry of the current exploratory study is constructed as follows:

o   What do 'enterprising teaching modes' and 'enterprising behaviours' mean to teachers?

Is there a shared intrinsic meaning of the concepts among teachers?

Are the concepts confused with political rhetoric?

o   How do teachers perceive the DUBS' definitions of 'enterprising teaching modes' and 'enterprising behaviours'?

Are they conceptually adequate?

Do they constitute a valid construct for measurement?

o   How can 'enterprising teaching modes' and 'enterprising behaviours' be measured in everyday teaching and learning?

How can the two concepts be observed and operationalised?

Is the rating methodology an appropriate measurement instrument?

Having considered various research methodologies, the intensive discourse interview research method was chosen for its strength in exploring the two key concepts in great depth. Referring to the above questions, the summary of findings are presented respectively as follows:

For Enterprising Teaching Modes: The current research findings suggest that the 'original' meaning of enterprising teaching modes was rather neutral. It did not seem to be associated with the political rhetoric of business/industry imperative, nor did it readily provoke a line of thinking in pedagogy. Interestingly, the word 'enterpris*ing*' was perceived as denoting behaviours and the associated attributes of a teacher. Naturally, the notion of an enterprising teacher was attributed to be one who would adopt progressive teaching modes which, according to the promoters' definitions, were indeed 'enterprising teaching modes'. This implies the potentially useful notion of empowering teachers to be enterprising.

The DUBS' definition of 'enterprising teaching modes' was found to have confused the meaning of 'learning' with 'teaching'. The distinctive features that would justify the

nomenclature of teaching modes as 'enterprising' were absent. The dichotomous presentation of 'enterprising teaching modes' and 'didactic modes' was considered as inappropriate since teachers did not see the two as 'opposites'. Rather, the two modes were mixed in different ways by individual teachers for complementary purposes. Some dimensions in the dichotomy table were also found to be value-laden.

Nevertheless, when the value-laden dimensions were removed, and the two extremes presented as one continuum, the remaining dimensions constituted an adequate construct for differentiating the mixed styles of teaching in terms of 'tendency'. In this way, an 'enterprising teaching tendency' can be distinguished from a 'didactic teaching tendency'. An important implication is that a comparison of the two teaching tendencies in terms of their impact in developing enterprising behaviours in students is made possible by the current finding.

It is discovered that teachers' teaching tendencies can be identified using a simple rating methodology. Qualitative behavioural exemplars, which were gathered through discourse, verified quantitative ratings. Teachers were able to reflect upon their own teaching behaviours in terms of the numeric representation along the continua provided in the modified DUBS' table. Teachers were able to infer and rate their colleague's teaching behaviours through knowledge of their colleague's beliefs and attitudes towards teaching. An initial investigation of the rating methodology ascertained its potential as a valid and reliable instrument for the measurement of teaching tendency.

For Enterprising Behaviours among Students: The association with political rhetoric was not found in teachers' understanding of 'enterprising behaviours. Instead, the intrinsic meaning described as 'self-initiated learning', 'actively seeking the opportunity to learn' and 'creative approach to tasks/problem solving' was shared among teachers. Furthermore, some teachers emphasised the importance of enterprising behaviours in terms of students' social/personal development and acquisition of skills through group learning dynamics and real life applications.

Among the DUBS' list of enterprising categories, a few were found to contain ambiguous meanings and conflicting values. Discourses with teachers revealed that within the context of education, the polysemous meaning of some categories can be refined to

minimise ambiguity and to dissolve conflicting values. Overall, the DUBS' list (which was collated in various workshops with teachers) comprises an adequate concept with a core construct which can be operationalised for measuring students' enterprising behaviours.

Other than occasional situational constraints, teachers reported the ease of observing students' enterprising behaviours with rich behavioural descriptions. The simplistic rating methodology is adequate in contrasting students' enterprising behaviours, although a much more rigorous 'multitrait-multimethod matrix' is needed to optimise the validity and reliability of the measurements.

For the Relationship between Enterprising Teaching Modes and Enterprising Behaviours: Based on substantial inference, the current research findings strongly support the possibility of a causal relationship between enterprising teaching modes and the development of enterprising behaviours among students and greater insights into subject knowledge. However, a much more rigorous empirical investigation is needed to establish such a claim. This is discussed in the next section.

2. Limitations and Implications for Future Research

The researcher was privileged to experience both the qualitative and the quantitative methods. The qualitative discourse methodology has enabled the study of the multiple layers of perception in a systematic manner, yet retaining the subtlety and complexity of the phenomenon. It was fascinating to see how the discourse evolved. The superficial layer of perception was vulnerable to prejudice with its apparent consistency and the usual dichotic ('black and white') polarisation. Rationality gradually became 'deconstructed' when deeper discernment was called upon to re-evaluate one's own practice.

The researcher observed how individuals' implicit belief intermingled with their conscious awareness with different 'layers' of perception became dominant for different purposes. For instance, JoG and SG changed from an 'extreme' appreciation of enterprising modes and the deprecation of didactic modes to a more balanced 'middle ground'. JR's swing from the extreme of an enterprising tendency to the other extreme of the didactic tendency revealed the cognitive dissonance as a result of her identity as a teacher being challenged by the enterprise ideology. Another example was how some enterprising behaviours which were initially regarded as irrelevant by WZ became very important once ambiguity was removed and common ground was established through the discursive process. These are just some examples of the richness of the discourse. This richness would have been lost if the researcher did not have access to the reflexive thinking process of the informants through discourse. In retrospect, the researcher is aware what errors an inaccurate account a premature quantitative survey would have given when superficial consistencies and ambiguities were glossed over as a result of the researcher's superimposed perceptions and rationality.

The quantitative rating methodology is demonstrated to be reliable and can be easily administered for the measurement of complex behaviours. However, on its own, it is vulnerable to a halo effect and an actor-observer bias. In this thesis, the combination of the discourse methodology with the rating methodology illuminates these biases and inconsistencies. Suggestions have been made to minimise these effects.

However, several limitations are identified in the current research. Firstly, due to the small sample size, findings are not generalisable. Arguably, however, the focus of this thesis is not on generalisability, it is on in-depth understanding of the phenomenon. The discourse case studies have achieved a wealth of knowledge in terms of understanding the complex teaching behaviours and enterprising behaviours in students.

The second limitation is that the richness of an individual discourse has not been totally revealed when collated into a collective analysis. To compensate for such a loss, readers are recommended to read the individual cases in Appendix 4.

Thirdly, the skills of discourse analysis are complex, 'inter-subjective' and notoriously labour-intensive (Bryman & Burgess, 1994; Burr, 1995). There were days the researcher looked back on the interpretations made previously and disagreed with her own judgement as more insights and depth were gained from the texts, notwithstanding the struggle of 'conversion' from an experimental tradition to a qualitative method. To ensure accountability, the interpretation of these texts are open to readers' scrutiny (refer to Appendix 4).

All in all, it is argued that through the current exploratory study, important insights and understandings of the key concepts of 'enterprising teaching modes' and 'enterprising behaviours' have been gained. The conceptual underpinning and rating methodology have laid a solid foundation for a more rigorous empirical investigation to follow.

The issues noted above point to the necessary directions for carrying this research forward. Further research efforts might focus upon verifying the existing findings by broadening the sample size to a generalisable number. Alternatively, methods of triangulation can be used by introducing mutual rating of behaviours between teachers and students, or adopting the method of participant observation as demonstrated by Harris (1993a). The ultimate challenge for further research may concentrate on a comparative study, contrasting the impact of an enterprising teaching tendency with that of a didactic approach on knowledge acquisition and the development of enterprising behaviours in students. The current research has shown that the modified continuum table presented in the DUBS' model can be used to identify two groups of teachers with two distinctive teaching tendencies. The two groups can then be observed in real life settings to verify their tendency. Their students can also be rated along the modified DUBS' list of enterprising behaviours. It is possible that by applying the method of controlled experimentation using the 'multitrait-multimethod matrix' discussed in Chapter 7, the causal relationship between teaching styles, knowledge acquisition and enterprising behaviours can be empirically investigated.

3. Implications and Recommendations

Important insights were also gained from the rich discourses with teachers concerning progressive pedagogy, the focus of teachers' professional training and educational policy making. All of these implications and recommendations will hopefully point the direction for future developments in education.

3.1. Implications for Progressive Pedagogy: Structured Guidance

Situated in the tradition of progressive pedagogy, this discourse in enterprising teaching modes gives new insights into progressive ideology. The use of enterprising teaching modes *dichotomously* as an absolute approach to didactic modes was regarded as inappropriate since the two approaches were perceived as complementary, serving different purposes. The didactic approach was essential for providing structure for the enterprising approach to follow, so as to achieve a deeper level of learning. This finding implies that the rhetoric of progressivism as an extreme/absolute approach for teaching and learning was perceived as impractical and inappropriate.

The above finding also gains support from recent research in progressive ideology in GNVQ classes (Bloomer, 1998; Bates, 1998; bates *et. al.*, 1998). These research studies all point to the danger of the misapplied 'progressivism' which ignores students' developmental needs of structured guidance (Bates, 1998). The humanistic belief of total 'student autonomy' and 'self-responsiblise learning' ignoring such developmental needs has resulted in 'anarchy' and therefore little learning (Bates, 1998, p.202). The impact is worrying:

> "These were 17-year-olds with far more testing and/or exciting issues in their lives than school work as any glance at youth research, or our own offspring, will tell us. Once in school they were with their 'mates' and time which was not tightly supervised tended to become social time... they enjoyed themselves but they were frustrated by the accumulating work... In these situations we observed an almost complete absence of GNVQ work, much laughter and enjoyment – but also racism, outcasting and other forms of social discomfort."   (Bates, 1998, p.199)

The above observation echoes the same experience of the 'progressivism' in the mid 1970s. One can recall Bennetts' (1976) and Galton *et. al.*'s (1980) progressive

classrooms in some primary schools. Learning was replaced by chit-chatting, fidgeting and increased anxiety among children, and hardly any learning had taken place (see Chapter 4, p.109-110). The common outcome of the failed progressivism in the mid 1970s primary classroom and the mid 1990s GNVQ classroom was the swing back to the didactic extreme.

However, didactic teaching is not a remedy. Teachers in this current research believed that an extreme of didactic teaching had a limited scope for learning at a deeper level despite its apparent effectiveness in delivering factual knowledge. Their views echo Galton *et. al.*'s (1999) argument that didactic teaching emphasises factual recall and stifles higher-order learning. Up to this point, the problem of teaching seems to be one which switches between the two extremes. The solution implied by the current research is the notion of 'structured guidance' which requires a sensible mix of the two approaches.

This thesis speculates that the mixed approach which compartmentalises the extreme: didactic approach (taking notes) for lessons/lectures and the extreme progressive approach (self-discovery) for projects/practicals (Bloomer, 1998), does not indicate 'structured guidance'. Bloomer (1998) illustrates that the compartmentalised mix has inherited the problem of students' mind being 'switched off' during lessons and 'they tell you what to do and then they let you get on with it' type of self-discovery during practicals (Bloomer, 1998, p.167). This kind of mix was polarised into total structure in one end and lack of guidance in the other.

'Structured guidance' requires practices which involve providing the initial ideas and concepts by a sensible combination of reading texts and notes at lessons but where pupils are also guided to learn in activities involving small group and/or whole class debates and discussions. Where hands-on doing, peer collaboration and project work is undertaken by students, *constant* follow-up, feedback and debriefing from teachers are necessary.

3.2. Implications for Professional Training: Developing Enterprising Teachers

The need for training into a deeper understanding of enterprising teaching modes is reiterated by the current research findings. Teachers need to be provided with the opportunity to constantly reflect on their teaching practice. This thesis further suggests that the focus of training should be on the *cognitive, personal and social development of*

teachers – the very development that enterprise education aims to achieve in young people. This brings in the notion of developing enterprising teachers.

Training which concentrates on technique is a prerequisite, but not enough on its own. Opportunities for teachers to explore the *meanings of these techniques* to their teaching activities *and* their role as a teacher is necessary for a clear, coherent sense of these meanings to be shared. Fullan (1991) claims that,

> "Change in teaching approach or style in using new materials presents greater difficulty if new skills must be acquired and new ways of conducting instructional activities established. *Change in beliefs are even more difficult*: they challenge the core values held by individuals regarding the purposes of education; moreover, beliefs are often not explicit, discussed, or understood, but rather buried at the level *of unstated assumptions.*"   (Fullan, 1991, p.42, *my italics*)

> "...change can be very deep, striking at the core of learned skills and beliefs and conceptions of education, and creating doubts about purposes, sense of competence, and *self concept*. If these problems are ignored or glossed over, *superficial change* will occur at best; at worst, people will retreat into a self-protective cocoon, unreflectively rejecting all proposed change..." (Fullan, 1991, p.45, *my italics*)

Behavioural change in teaching modes requires the concomitant change in attitudes and understanding of these modes.

Furthermore, the current research reveals that enterprising teachers were those who were able to practise the principle of 'structured guidance' within the perceived environmental constraints imposed by schools' organisational climate/culture and educational policies, such as the National Curriculum and Standard Aptitude Tests (SATs). Reynolds and Packer (1992) point out that:

> "On the causes of school effects, it seems that early beliefs that school influences were distinct from teacher or classroom influences were misplaced, since a large number of studies utilizing multi-level modelling show that the great majority of variation between schools is in fact due to *classroom variation* and the unique variance due to the influence of the school, and not the classroom, shrinks to very small levels (Scheerens *et. al.*, 1989)."
> (Cited in Reynolds & Packer, 1992, p.173, *my italics*)

Reynolds and Packer (1992) hence believe that the agency of individual teachers was more important for school effectiveness in future, more so than the traditional

sociological perspectives of school organisational structure and educational policy. Teachers' *personal development* in terms of psychological efficacy and their *interpersonal relationships* with other teachers within the school culture should be given more research attention.

Reynolds and Packer's claim (1992) blends in well with the idea of developing enterprising teachers. Training may need to focus on constantly reviving teachers' enjoyment and enthusiasm for teaching, creating a social and emotional support network for personal and professional development, and raising awareness of the situational constraints they are in. Teachers need to be empowered to see the importance of their role in developing young people's enterprising behaviours while gaining insight to learning. Training can provide a source of social and emotional support so as to break down the concept of the traditional isolated teacher in favour of an ethos of 'interactive professionism' in which collegial support and team-work is enabled (Fullan, 1991, p.349).

3.3. Implications for Promoters: Intrinsic Value vs. Rhetorical Fashion

The notion of ' being enterprising' in signifying a teaching approach and behaviours is found to have an intrinsic value which is close at the heart of teaching and learning. Teachers generally believe that enterprising teaching modes enhance deeper levels of learning and enterprising behaviours in both teachers and students are found wanting. This is where the idea of enterprise education as a distinctive approach in teaching and learning gains its ground.

However, when the focus is shifted from social and personal development to the functional and instrumental dominance of wealth generation and the nation's economic performance, the intrinsic value can be lost in fashionable political rhetoric. Enterprise education proliferated in the 1980s and went silent in the early 1990s. With the New Labour government re-vitalising the rhetoric of 'enterprise, enterprise, enterprise' – conveyed by the media after the party conference at the turn of the Millennium – it will not be surprising that the connotation of 'enterprise' in education be instrumentalised once again and become conceptually confused in another shifting political tide.

It is argued that promoters have the responsibility for creating awareness among teachers of the political argument so as to avoid conceptual confusion. To enhance a 'true' understanding of the meaning of being 'enterprising', a consistent and interactive professional support network is needed, as opposed to a material-led, one-off training workshop in which the concept of being enterprising can only be glossed over (Harris, 1993a). An 'enterprise education' website can be a valuable means for the sharing of ideas, success stories, bad experiences, useful information and teaching materials, professional discussions, laughs and jokes, etc.

4. Conclusion: Enterprise Education in the New Millennium

As a closing remark, the researcher believes that the concept of enterprise education could contribute to education in two main strands. First, the concept of an enterprising teacher and the subsequent cognitive, personal and social development of interactive teaching professionalism may gradually create an awareness for the need of changing the institutionalised culture of teaching and learning. Agreeing with Reynolds and Packer (1991), teaching empowerment needs to be high in the agenda of teacher training and re-training in the Millennium.

The second strand of development is the notion of an enterprising teaching approach in the form of 'structured guidance'. The promotion of an enterprising teaching approach as an absolute practice of progressive pedagogy is argued to be inappropriate. An enterprising teacher is one who has a progressive 'disposition', which embraces the importance of the social and affective aspects of teaching and learning, while complementing didactic and progressive teaching modes to address the developmental need of 'structured guidance' in students.

The illusory 'progressivism' of the 1970s meaning the absolutism of 'total pupil autonomy', 'self-discovery' and 'self-responsibilise learning' (Bates, 1998) is arguably out of phase with recent developments in the psychology of learning which stress the

importance of 'assisted learning' and 'structured guidance' (Moll, 1990; Smith *et. al.*, 1997). What is puzzling is the gap between theory and practice. Research has shown that the rhetoric of progressivism and the enterprise activities which permeate enterprise education are distant from reality. This thesis is probably another book on the shelf. What seems to be urgently needed is the *ardent personal and social sharing* of good practice and successful stories from a critical mass of teachers who have succeeded in being enterprising, against all odds. They seem to have mastered the simplicity of common sense and the complexity of personal and political forces which intermingle in the world of education (Fullan, 1991). Thus, this thesis will end with a simple quote from an enterprising teacher in this research:

> "the enterprising person is a motivator... by listening, by suggesting, by encouraging, by supporting... it is a natural thing to do... enterprise is quite often common sense ideas that are cut into a form that most people would understand...it can happen in any subject... So, that to me is what English can do. It is something which is a little bit of a subject, and spreads ideas around." (JoG)

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Appendix 1: Matrix of Major Enterprise Education Initiatives

Name of Initiatives	Young Enterprise (YE)	Teacher Placement Service (TPS)	CREST (Creativity in Science and Technology) Awards
Period	since 1963	Since 1989	since 1986
Income and Funding Sources	£981,000 total income for 1989-90 made up of donations (73%) from over 1,000 industries and government departments (esp. TECs); area boards (14%) and fees charged to YE companies (£55) total 13%.	Funded by Employment Department, Scottish Office and Welsh Office	Financial support is provided by BP, Esso, DTI, Ford, British Gas, IBM, ICI, Philips, Unilever and the Wellcome Foundation.
Aims and Objectives	To provide young people with practical business experience; To develop their personal skills, knowledge and understanding of business objectives and the wealth creation process; To develop initiative and self confidence among young people widen their knowledge of team-work and improve powers of leadership; To assist them in forming positive relationships with adults; To enhance their ability to give and receive advice and criticism, encouragement and support; To promote the choice of career and further education.	To enable teachers to better prepare school students for employment, training and lifelong learning; To provide experiences that enable teachers to develop new and relevant learning opportunities for young people; To extend the professional and personal development of teachers through observing and participating in a different environment; To give teachers the opportunity to update their skills and develop ways of achieving a more participatory approach in the classroom; To increase a secondee's industrial and economic awareness and alert them to some of the needs of the future, for both education and the world of business, industry and commerce; To encourage partnerships to be formed with local companies and the development of joint projects; To acquire an overview of management techniques which may be useful in school management; To update information, advice and support for pupil's career decisions.	TTo stimulate and encourage industry linked science and technology project work for young people; To develop young people's practical understanding of industry; To create problem-solving teams that generate enthusiasm, motivation and practical competence in young people; To encourage and recognise their creativity and perseverance; To improve their personal range of skills.
Target Groups	Students aged 15-19	Primary and secondary school teachers	Year 7 upwards
Scale of Participation	Over 32,000 students who form over 2,200 companies per year (10% are special needs students)	From 1989-93, 100,000 teachers have been on placement. The target is 10% per year	

Name of Initiatives	Young Enterprise (cont'd)	Teacher Placement Service (cont'd)	CREST (cont'd)
Programmes / Activities organised	Business simulation projects	Visit to industries Work placements Talks in schools	Visit to industry
Subject teaching	"Into Business" project, lessons on economic and environmental awareness	Dependent on individual teachers to assimilate their experience into their subject area	Classroom teaching surrounding the project or as part of students course work mainly within Science and Technology
∘ remarks		The European programme offers teachers with overseas placement experience. 3/4 of participants of overseas placements come from secondary schools	Project work such as designing and making educational toys, environmental audits, produce items for people with disabilities; a week long summer school linked to "Creativity in Industry" in order to gain CREST Awards.
Teacher's Involvement	A nominated Link Teacher facilitates the programme	An average of 5 days' placement in industry during holiday/term time	Delivering, monitoring and assessing project work
INSET/ Training Workshops / Conferences	No	Yes	No
Support Materials	1. "Introductory Guide" and "Business Kit" for YE projects 2. "Into Business" package for taught course	Curriculum resources from business, careers education & guidance, enterprise education and European dimension	CREST database of projects
Awards & Accredited Qualifications	Achievers can choose to sit for the national exam. Those who pass will get an official certificate awarded by the University of Oxford Delegacy of Local Examinations (compatible with NVQ) Each year, the best YE company is also awarded.	Based on the placement, £100 is awarded to the school for the submission of case study, £200 for the model primary school for best curriculum activity in science and technology. Accreditation is offered for their experience through the RSA and the Open University.	Student who display the ability to produce workable ideas, design fair tests, predict results, record and evaluate results and has devoted an average 10 hrs to the project will be given a Bronze Award; 40 for Silver and 100 for Gold. The Gold Award level must be industry linked
Role of Industry	Provision of over 5,000 volunteer as business advisers	Some industry send their staff to be involved in the classroom as part of the staff development	advise on projects; help with assessments and encourage wider industrial recognition
● financial support	Yes	Yes (for the monetary awards)	Yes
● provide work placement	No	Yes	No
Learning Approach	'learning by doing'	'through experience'	'to develop transferable skills by undertaking practical activities linked to the world of work'
Evaluations[1]	Informal	Formal	Informal
Network	YE Europe and world-wide Junior Achievement Movement	TPS is an activity of local EBPs and is managed nationally by UBI	Occasional joint projects with TVEI

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[1] Formal evaluation involves surveys and case-studies. Informal evaluation is based on impressions from parties involved.

Name of Initiatives	Trident Trust	Technical & Vocational Education Initiative (TVEI)	School Curriculum Industry Partnership (SCIP)
Period	since 1972	1983-1990 (TVEI Extensions 1990-1994/5)	since 1978 (amalgamated with Centre for Education and Industry since 1993)
Income and Funding Sources		A government initiative with an average of £90m a year over the ten years of the programme	£4,141,700 gross income for 1992-93 mainly from government grant[2] (60%); publication, training and research (31%); also sponsored by industry (5%); and affiliation fees (1%).
Aims and Objectives	To help young people develop *skills for life* through practical, personal, community and vocational experiences; To build core skills central to life after classroom.	To help produce a more highly skilled, competent, effective and enterprising workforce... equipping them for working life in a rapidly changing highly technological society; To relate what is learnt in schools and colleges to the world of work. To improve the skills and qualifications for all; in particular in science, technology, information technology and modern languages. To provide direct experience of the world of work through real work experience. To enable young people to be effective, enterprising and capable at work. To provide counselling, guidance, individual action plans, records of achievement and opportunities to progress to higher levels of achievement.	To promote the work-related curriculum; To enable young people... to participate... in a ...changing industrial society; To enable young people to develop qualities of personal initiative and enterprise; To develop and sustain quality partnerships between education, industry and the wider economic community; To promote an active work-related dimension to the whole curriculum 5-19; To promote economic and industrial understanding within the National Curriculum and post-16 education.
Target Groups	students aged 14-18	students aged 14-19	students aged 5-19
Scale of Participation	over 182,600 students in the academic year 1993	about 1 million students in the academic year 1992	
Programmes / Activities organised	Work placements; "Personal Challenge" emphasising learning through new challenging leisure, stretching of mind and muscle (e.g. mountaineering); "Community Involvement (e.g. conservation, caring for the elderly) emphasising the sense of belong and achievement, etc.	Visits to industries; Work placements combined with school courses; Talks at school	Visits to industries; Work placements combined with school courses; Talks at school; Business simulation projects

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[2]SCIP is going private in the financial year 1992-93. Information in this table is based on the Annual Report 1993. Substantial financial changes are expected.

Name of Initiatives	Trident Trust	Technical & Vocational Education Initiative (TVEI)	School Curriculum Industry Partnership (SCIP)
INSET/ Training Workshops / Conferences	No	Yes	Yes
Teaching Support Materials	No	No	A full coverage of the curriculum and also publication for industrial partnership and business staff development manual
Curriculum Coverage (Remarks)	Extra-curriular activities	General subjects; Cross-curricular activities	General subjects; Cross-curricular activities; Extra-curricular activities
Awards & Accredited Qualifications	A Trident Gold Certificate is offered to those who take part in personal challenge; or undertake as least 15 hrs community involvement; or complete 2 or 3 wks work experience. The qualification is recognised by the NVQs.	GCSEs	Work-Related Curriculum Change Certificate/ Diploma course offered to over 20 professionals accredited by the University of Bath)
Role of Industry	Provide work placements	Provide work placements Presentations at schools	Financial support Presentations at schools Work placements
Learning Approach	learning by various experience outside classroom	'active and practical experiential learning'	'learning through active and experiential approaches'
Evaluations	Informal	Formal	Informal
Network	A member of the Education Business Link		Support other initiatives e.g. TPS, Compacts and EBP

Name of Initiatives	**Education in Higher Education Initiative (EHEI)**
Period	Since 1987-1995/6
Income and Funding Sources	Government
Total Expenditures	a commitment of £58m over the period of 1988-1994
Aims and Objectives	To assist Higher Education Institutions, in partnership with industry, to develop graduates with enterprise skills for the future workforce; To encourage students to become more involved in, and take increased reponsibility for, their own learning; To develop a greater understanding of the range of skills through the processes of academic study; To make students more aware of the relevance o their degree to future employment.
Target Groups	Students in higher education
Scale of Participation	More than 20,000 students over the years
Programmes / Activities includes	Visits to industries; Work placements; In-curriculum subject teaching; Talks/lectures at schools; Staff development
INSET/ Training Workshops / Conferences	Yes
Support Materials	No
Curriculum Coverage (Remarks)	Subejct based
Awards & Accredited Qualifications	As part of the degree courses or assignments
Role of Industry	Provide work placement and expertise
Learning Approach	'active approaches... to learning and teaching.'
Evaluations	Formal

Appendix 2: Structural Analysis of Enterprise Education

Aims and Objectives:	○ To improve the economic awareness and understanding of business and industry. ○ To encourage industry to share the responsibility in education ○ To enable a smooth transition of work. ○ To enhance a relevant work-related curriculum. ○ To inculcate a proper attitude, knowledge and orientation towards self-employment and wealth creation. ○ To develop enterprising skills, attitudes and behaviours in young people. ○ To improve learning experience through an enterprising way
Curriculum:	○ Core and foundation subjects in the National Curriculum ○ The five cross-curricular themes with emphasis on Economic and Industrial Understanding ● Personal development (particularly enterprising behaviours)
Methods and Activities of Learning:	○ Learning through work experience such as work placement, visit to industry and shadowing. Students will recieve briefing and de-briefing before and after their experience. They are encouraged to keep records during the activity. ○ Learning through business simulation or project management cycle which emphasise active participation in team work. The learning activity involves the exercise and development of creativity, planning, doing, problem-solving, interpersonal and teamwork skills. Teachers play the role of facilitators.
Pedagogy:	○ The enterprising learning theory emphasises the importance of an active learning environment in which the student takes ownership of learning and is free to learn from mistakes ○ Experiential learning that stress hands-on experience and student-centred learning
Assessment:	● Assessement on project work or tasks assignment ● Methods of assessment varied from marking written project work, criterion-reference with observation to paper-and-pencil tests to a varying degree. ● Self-assessment is encouraged
Evaluation: (Criteria with reference to Aims and Objectives):	● Has the understanding of industry been improved? To what extent? ● Is there more involvement of industry in education? To what extent? In what way? ● Is there a smoother transition to work, less anxiety about unemployment? ● Have enterprising skills, attitudes and behaviours been fostered? In which aspects? ○ Have the attitudes and knowledge about self-employment been improved? Do more young people express the intention of being self-employed? ● Do young people become more capable in learning? Do they improve their academic achievement through enterprising methods and activities?

Investigating Teachers' Perceptions of Enterprising Modes of Teaching (EMT) and Enterprising Behaviours (EB):

A Semi-Structured Interview

The following questions are only guidelines for the development of a discourse aimed at exploring the following issues:
- Teachers' perceptions/ attitudes towards EMT and EB
- The ability of teachers' to observe EMT and EB
- The reliability of behavioural rating for measuring EMT and EB

Part One: Enterprising Modes of Teaching (EMT)

1. Have you ever come across EMT?

2. What do you think EMT means?

3. This is how some people define EMT in comparison with the didactic modes of teaching (show Table 1, p.3). What is your opinion on this?

4. It is acknowledged that most teachers tend to combine different approaches to teaching according to different situations. Do you think you can rate your own *tendency* in most teaching situations along these dimensions (show Table 2)?

3. Imagine that you are observing other teachers teaching, do you think you can rate their style of teaching using this table? Why / Why not? What will the problems be? (probe for behavioural descriptions)
4. (Teachers might have some questions or doubts or remarks in that rating. These should be carefully explored)

5. How do you feel about doing the rating?

6. Any comments or suggestions concerning EMT?

Part Two: Enterprising Behaviours (EB)

1. What do you think 'enterprising behaviours' means?

2. These are the adjectives some people use to describe an enterprising person (Show List, p.5). Do you think you can observe these behaviours among pupils?

3. For example, at school, how do you identify some pupils as more [category e.g. 'versatile'] than the others? (Probe for behavioural descriptions.)

4. How desirable are these behaviours to be acquired by pupils?

5. Any general comments on EB?

6. Can you think of two students of yours and rate their enteprising behaviours along this list?

7. What makes the two students differ in scores?

8. How do you feel about the rating exercise?

9. Any comments or suggestions?

Table 1. A Comparision Between Traditional Didactic Modes Of Teaching and The Enterprising Modes Of Teaching

Traditional Didactic Modes of Teaching	Enterprising Modes of Teaching
learning from lectures	learning from debates and discussions
passive role as listener	learning by doing
concepts provided	concepts discovered
learning from texts and notes	interactive learning
feedback from the teacher	feedback from each other
sessions programmed	sessions flexible
mistakes feared	mistakes learned from
teacher infallible	teacher learns
teacher = expert	teacher = facilitator
learning objectives imposed	learning objectives negotiated
attention mainly on knowledge	attention equally on knowledge and skills

Table 2. Teaching Style – Self Rating

<u>Traditional Didactic Modes of Learning</u>	<u>Ratings</u>	<u>Enterprising Modes of Learning</u>
learning from lectures	5--4--3--2--1--0--1--2--3--4--5	learning from debates and discussions
passive role as listener	5--4--3--2--1--0--1--2--3--4--5	learning by doing
concepts provided	5--4--3--2--1--0--1--2--3--4--5	concepts discovered
learning from texts and notes	5--4--3--2--1--0--1--2--3--4--5	interactive learning
feedback from the teacher	5--4--3--2--1--0--1--2--3--4--5	feedback from each other
sessions programmed	5--4--3--2--1--0--1--2--3--4--5	sessions flexible
mistakes feared	5--4--3--2--1--0--1--2--3--4--5	mistakes learned from
teacher infallible	5--4--3--2--1--0--1--2--3--4--5	teacher learns
teacher = expert	5--4--3--2--1--0--1--2--3--4--5	teacher = facilitator
learning objectives imposed	5--4--3--2--1--0--1--2--3--4--5	learning objectives negotiated
attention mainly on knowledge	5--4--3--2--1--0--1--2--3--4--5	attention equally on knowledge and skills

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Table 3. Teaching Style – Rating a Fellow Teacher

Traditional Didactic Modes of Learning	Ratings	Enterprising Modes of Learning
learning from lectures	5--4--3--2--1--0--1--2--3--4--5	learning from debates and discussions
passive role as listener	5--4--3--2--1--0--1--2--3--4--5	learning by doing
concepts provided	5--4--3--2--1--0--1--2--3--4--5	concepts discovered
learning from texts and notes	5--4--3--2--1--0--1--2--3--4--5	interactive learning
feedback from the teacher	5--4--3--2--1--0--1--2--3--4--5	feedback from each other
sessions programmed	5--4--3--2--1--0--1--2--3--4--5	sessions flexible
mistakes feared	5--4--3--2--1--0--1--2--3--4--5	mistakes learned from
teacher infallible	5--4--3--2--1--0--1--2--3--4--5	teacher learns
teacher = expert	5--4--3--2--1--0--1--2--3--4--5	teacher = facilitator
learning objectives imposed	5--4--3--2--1--0--1--2--3--4--5	learning objectives negotiated
attention mainly on knowledge	5--4--3--2--1--0--1--2--3--4--5	attention equally on knowledge and skills

A List of Enterprising Behaviours

Q: How will the following behaviours be exhibited by pupils at school/ in classroom?

The 'conventional dictionary/thesaurus definitions of the "enterprising people" include:

o pioneering

o adventurous

o daring

o go ahead

o progressive

o opportunist

o ambitious

Enterprising acts:

o actively seeking to achieve goals

o flexibly responding to challenge

o coping with and enjoying uncertainty

o taking actions in uncertain environments

o solving problems/conflicts creatively

o opportunity seeking

o commitment to make things happen

o persuading others

Enterprising skills:

o persuasiveness

o planning

o negotiating

o decision taking

Enterprising attributes

o self confident

o autonomous

o responsible

o versatile

o dynamic

o resourceful

Can you think of two pupils in your class and try to rate them, from 1 to 10, along these dimensions? ('1' means extremely low or non-existent; '10' means extremely high or excellent.)

The conventional dictionary/thesaurus definitions of the "enterprising people" include:

- pioneering
- adventurous
- daring
- go ahead
- progressive
- opportunist
- ambitious

Enterprising acts:

- actively seeking to achieve goals
- flexibly responding to challenge
- coping with and enjoying uncertainty
- taking actions in uncertain environments
- solving problems/conflicts creatively
- opportunity seeking
- commitment to make things happen
- persuading others

Enterprising skills:

- persuasiveness
- planning
- negotiating
- decision taking

Enterprising attributes

- self confident
- autonomous
- responsible
- versatile
- dynamic
- resourceful

1. Profiling AG

Personal Background
AG is the professor of entrepreneurship. He is also one of the writers of a particular approach of Enterprise Education. He has a broad research and teaching experience in entrepreneurship and small businesses for over twenty years. The teaching environment is geared into a wide range of different learning groups which is largely problem- and opportunity-centred without a standard syllabus for all courses.

Fundamental Understanding of Enterprise
AG perceives the value of enterprise as one which promotes an intrinsic motivation to learning and personal development, the two important goals of education. He acknowledges that enterprise has been interpreted differently among various sectors of society. However, he contends that, like any other social phenomenon, the multiple realities surrounding enterprise should not be generalised by one single reality, especially the prevailing political rhetoric of enterprise. Despite the overlapping interests or similarities among these sectors, the intention and the underlying assumptions are very often not shared (Gibb, 1993). In this profile, AG's definitions of the role of enterprise in education are further explored.

Definition of 'Enterprising Modes of Teaching' (EMT)
1) Personal Definition: Conceptually, AG believes that the model combines three elements namely the cultural context in the classroom such as ownership and responsibility; the holistic task structure entailed in project management learning cycle; and enterprising teaching modes which have been explained through the comparison with the more didactic teaching modes. The combination of the three elements was posited to be the most effective way of motivating learning and developing enterprising behaviours among learners.

2) Comment on the DUBS' model: AG raised six issues concerning the table comparing the 'traditional didactic learning modes' and the 'enterprising learning modes'. He suggested, firstly, that the dichotomy between the two extremes was theoretical, most teaching took place somewhere between the two. In other words, teaching in an enterprising way does not necessarily exclude didactic measures. These assumptions pose two important questions to the DUBS' model:

> * *To what extent does EMT constitute an adequate concept on its own?*
> * *How can EMT be identified from other modes of teaching?*

Secondly, AG believed that teachers' attitudes were the most important determinant as to how they adjusted their actual teaching practices. The subsequent question was:

> * *What are the factors that shape or affect their attitude?*
> * *Are these factors personal to an individual teacher and to what extent are they shared within the teaching profession?*

Thirdly, AG referred to Kolb (1984) who explained that different teaching methods might suit different individuals' learning style. According to Kolb (1984), there were four major learning styles that individual learners are predisposed to. This suggestion posed a serious challenge to the DUBS' model:

> * *Is enterprising learning more suitable to a particular 'type' of learner with certain characteristics?*
> * *Would some learners find enterprising modes of teaching a 'mismatch' to their original disposition?*
> * *To what proportion are the two groups (predisposed to and predisposed against)?*
> * *How to identify these groups?*
> * *Consequently, to what extent does enterprising learning, as predicted by the model, foster the development of enterprising behaviours and motivation to learning among learners regarding their different learning styles?*

Fourthly, subject specificity could dominate the teaching approach. For instance, AG thought that the teaching of English spelling might be better taught by a didactic approach. The questions are:

> * *Is it possible and plausible to identify which subjects or which topics within a subject are best taught by a specific approach?*

Fifthly, concerning the wording in the table presented, he suggested that the word 'traditional' was misleading since it was the 'didactic' approach rather than the 'traditional' one that was represented in the table (although the two tend to be cited together in literature). Finally, the interviewer presented an argument extracted from the interview with RW (see RW's profile) concerning the dimension **'teacher = expert'** - **'teacher = facilitator'**. RW believed that being a facilitator in learning did not mean that the teacher should not then be an expert in his/her subject area. AG responded by suggesting the change of wording into **'teacher = expert who hands down knowledge'** - **'teacher = facilitator who draws out and builds'**. Notice that in Gibb's paper (1993) several changes were found regarding the modification of wording within the table from its earlier forms. In these cases, the wordings in the 1993 paper had been changed into **'learning from "expert" frameworks of teacher'** - **'Learning by discovering (under guidance)'**, and the word 'traditional' had been removed from the column title.

3) The Rating of Teaching Tendency: When AG was asked to rate his teaching tendency, he expressed difficulties in doing so since his teaching behaviours tended to vary according to the constraints in the classroom, such as teaching load and class size, etc. He also thought that a highly prescriptive syllabus would affect teaching approaches. AG was then probed to rate the teaching situation to which he was most exposed. In response to this request, he paused and stated,
> 'I can only rate it based on an ideal situation in which I'm not forced to deliver knowledge, to a class of 20 people.' (AG)

However, AG showed no difficulties in rating his colleague's teaching style using the same table. The result of the rating exercise showed that AG scored his own teaching tendency the third highest on the enterprising side at 35, in contrast with his colleague's didactic tendency at -23. A difference in teaching approaches between the two was seemingly distinguishable using the table with numeric expression on the two tendencies. One problem needs addressing, that is how appropriate it is to compare the two scores given that AG's score was based on an 'ideal situation' while presumably, his colleague's was based upon AG's speculation into the colleague's preferred modes of teaching which was not done by objective observation. The question is: 'to what extent would AG's tendency slip further towards the didactic side in reality?' Ultimately, as the teaching profession is one that is under enormous pressure and constraints, the question is more profound:

4) Triangulation: It is not necessary to triangulate AG's definition with that of the DUBS' model since he was the developer of the latter. Nevertheless, it was interesting to detect that through the interview, he was able to raise the important issues which were central to teachers' concern with their teaching, as if he had exchanged the role of the promoter to that of the solid practitioner (Those issues are explored collectively in Chapter 6). His comments on the DUBS' model were consistent to his rating. Situational constraints in teaching were considered, bearing in mind that his self-rating was said to be in an ideal situation rather than the situation he was most exposed to. Finally, his self-rating which placed his teaching preferences predominantly on the enterprising side reflected his totally positive attitude towards enterprise. Enterprise has been treated by AG as a progressing and an evolving concept that requires modification, particularly a practical re-tuning from a theoretical stance from time to time.

Definition of 'Enterprising Behaviours'
1) Personal Definition: According to AG, enterprising behaviours contained three main concepts: *enterprising attributes, enterprising skills* and *enterprising acts. Enterprising attributes* referred to personal qualities while *enterprising skills* referred to abilities. Both enterprising skills and attributes were contextual behaviours and therefore were not exhibited in all situations. A specific task or situation was required for these skills and attributes to be manifested and became the actual overt and observable *enterprising acts.* In other words, the enterprising qualities of a person might not be recognised if his or her environment did not call upon the demonstration of the skills and attributes s/he possessed. Therefore, the enterprising learning model was designed such that the practice of

these skills and the exhibition of attributes were elicited through progressive learning activities so as to reinforce enterprising behaviours (refer to Chapter 2).

2) Comments on the DUBS' list: When presented with the list of enterprising behaviours, AG believed that none of the conventional dictionary or thesaurus definitions of 'enterprising people' was applicable to the educational context. Consistently, he preferred not to use these behavioural categories when rating learners' enterprising behaviours.

Concerning the DUBS' list of enterprising behaviours, he expressed no difficulties in giving behavioural descriptions for the behavioural categories except **'flexibly responding to challenge'**, **'negotiating'** and **'decision taking'**. They were difficult to describe due to situational constraints in learning settings where these behaviours were rarely required. For instance, **'decision taking'** could only be assessable when learners were involved in group work. For **'coping with and enjoying uncertainty'** and **'solving problems / conflicts creatively'**, he suggested that the accent should be on 'enjoying' and 'creativity' respectively. He claimed that some behaviours such as **'commitment to make things happen'** and **'dynamic'** happened also (if not more so) outside the classroom. Subsequently, this posed another important challenge for research design:

> ⊙ *Should enterprising behaviours outside school be included in order to encapsulate the holistic nature?*

Bearing in mind that the ultimate research inquiry is 'To what extent does enterprising learning enhance enterprising behaviours?', the subsequent question is:

> ⊙ *To what extent are pupils' enterprising behaviours outside the classroom a result of learning at school?*
> ⊙ *How to measure these behaviours outside school?*

Links / Overlaps / Synonyms Among Descriptions
The table below uses corresponding colour coding to detect semantic similarities among AG's description for the following categories:

Enterprising Category	Behavioural Description
'actively seeking to achieve goals'	somebody who knows what they want and pursues it...
'opportunity seeking'	those who actively interact to get things they are interested in, getting involved to take part in doing things...
'commitment to make things happen'	to see things through inside or outside classrooms...
'planning'	set targets or schedules to finish the task...
'responsible'	do things on time, see things through for themselves and for others...
'dynamic'	make things happen, get up and do things, not just tied in classroom learning but also activities outside school...

According to AG, the act which was perceived as **'actively seeking to achieve goals'** would very likely contained the act of **'opportunity seeking'** and **'commitment to make things happen'**. A person who showed the combination of these acts could be attributed with being **'dynamic'**.

Following the same line of analysis, the act of **'coping with and enjoying uncertainty'** and **'solving problems / conflicts creatively'** could be attributed with being **'autonomous'** and **'versatile'** (see table below).

Enterprising Category	Behavioural Description
'coping with and enjoying uncertainties'	a negative example is the ones who always want to be told everything...
'autonomous'	get on with what one's doing without the need to collaborate; act according to one's own thought instead of repeating what is being taught...
'versatile'	try to do things in many different ways, not just follow teachers' or classmates' way...

'solving problems/ conflicts creatively'	show different ways of solving the same problem...

The phenomenon of semantic similarities, which happened across all interviews, supports AG's claim to some extent that enterprising *acts* are indeed enterprising *attributes* exhibited and thus they become observable, although this did not apply universally, possibly because behavioural descriptions provided by interviewees were *exemplars* rather than absolute definitions for the categories. Conceptually, the great deal of overlap suggests an existence of a core construct encapsulating enterprising behaviours. Hence, two important points contributed towards the concept of enterprising behaviours:

> ○ *enterprising acts are skills and attributes exhibited;*
> ● *overlapping behavioural descriptions suggest the existence of a core construct encapsulating enterprising behaviours.*

Methodologically, a useful message is gained:

> ● *overlaps in behavioural descriptions can be synthesised into more coherent and widely acceptable generalisations which in turn improves internal reliability in rating exercises.*

3) Rating of Two Learners: AG was asked to rate two learners of his choice ranging from '1' indicating extremely low or non-existence to '10' indicating extremely high or excellence along each enterprising category. Except the thesaurus categories which he did not rate as they were regarded as inappropriate in the educational setting, he rated the rest with ease. The rating result suggested that the two learners were fairly similar in their enterprising make-up. Learner A scored 92 with $\mu=4.84$.[1] Learner B scored 108 with $\mu=5.68$. Interestingly, Learner B tended to share the same rate or have a slightly higher rate than Learner A except the category **'planning'** where A was rated '5' and B was given '4'; **'decision taking'** where A scored '6' and B '5'; **'responsible'** where A scored '7' and B '6'. All in all, the numeric representation suggested that the rating methodology was sensitive enough to distinguish individuals' enterprising behaviours even though the difference might be delicate.

4) *Triangulation:* When his comments on the list are compared with his paper (1993), it seems that AG was suggesting that the list generated through various conferences with teachers was more appropriate for judging learners' enterprising behaviours than the conventional/ thesaurus definition. The triangulation between AG's behavioural descriptions with the corresponding rating showed a reasonable consistency of the rating methodology to reflect actual behaviours. To demonstrate such consistency, the tabulation above was incorporated with the rates as shown below:

Enterprising Category	Behavioural Description	Learner A	Learner B
'actively seeking to achieve goals'	somebody who knows what they want and pursues it...	3	4
'opportunity seeking'	those who actively interact to get things they are interested in, getting involved to take part in doing things...	5	7
'commitment to make things happen'	to see things through inside or outside classrooms...	5/6	6
'planning'	set targets or schedules to finish the task...	5	4
'responsible'	do things on time, see things through for themselves and for others...	7	6
'dynamic'	make things happen, get up and do things, not just tied in classroom learning but also activities outside school...	4	6

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[1] Strictly speaking, the rates are ordinal rather than parametric. However, by manipulating them in a semi-parametric manner, these numbers reflect an 'impressionistic' presentation which highlights the phenomenon.

Applying the analysis established earlier that being **'dynamic'** is attributed to a person who shows a combination of the enterprising categories shown in red and blue, then adding up the scores for these categories for the two learners, Learner A scores 1/2 point less than Learner B. This is consistent with the scores recorded in **'dynamic'** where A scores 2 points less than B. Again, the scores appearing in the table are ordinal scales rather than interval numbers. The mathematical operation here is only used to highlight the consistency in rating which can be treated as internal reliability of the rating methodology. Moreover, the internal consistency supports the notion that 'enterprising attributes' are given to people who display certain 'enterprising acts'. The same scenario is found for **'responsible'** in the table above, **'versatile'** and **'autonomous'** in the table below:

Enterprising Category	Behavioural Description	Learner A	Learner B
'coping with and enjoying uncertainties'	a negative example is the ones who always want to be told everything...	5	5
'autonomous'	get on with what one's doing without the need to collaborate; act according to one's own thought instead of repeating what is being taught...	6	6
'versatile'	try to do things in many different ways, not just follow teachers' or classmates' way...	4	7
'solving problems/ conflicts creatively'	show different ways of solving the same problem...	5	7

Referring to the categories for which AG struggled to find behavioural examples, i.e. **'flexibly responding to challenge', 'negotiating'** and **'decision taking', despite this** he had no problem in rating them. It is likely that when rating these seemingly less exhibited behaviours among learners, inference was drawn from other enterprising qualities which were well displayed. The question is:

- *How accurate were these inferences?*
- *Should those categories which were difficult to observe be removed altogether or should inference (the accuracy of which we have no means of confirming) be tolerated?*

Again, his attitude towards enterprising behaviours became more refined throughout the interview. Other than the definitions given by a conventional dictionary which he rejected or their inappropriateness in the educational setting, he was totally positive towards the definitions which he collated from teachers' workshops. Overall, the triangulation demonstrates that AG's concept of enterprising behaviours has been consistent.

Relationship between 'Enterprising Modes of Teaching' and 'Enterprising Behaviours'
In AG's case, the relationship was clearly stated in the interview. He strongly believed that enterprising modes of teaching is an effective approach to fostering the development of enterprising behaviours among learners. His comments (in bullet points) concerning the two concepts have provided a useful starting point for further investigations among other profiles and collective discussions in the later chapters.

2. Profiling JaG

Personal Background
In total, JaG has taught for over 25 years. He had taught pupils with special needs in secondary before he became a lecturer in Education at university. Hence, he had experience of both formal and informal teaching environments, with a class of constant size at secondary and from that to a one-to-one tutorial/supervision to a full lecture theatre at University. JaG was the Co-Director of the national programme 'Enterprise Awareness in Teacher Education'.

Definition of 'Enterprising Modes of Teaching'
1) Personal Definition: JaG did not define EMT as such, but rather, he perceived that Enterprise Education resembled his attitude towards teaching and learning which emphasised

> 'a more flexible and a more inventive approach to the curriculum even dividing up, cutting across conventional curriculum values... the main features come from what is now called a student-centred or a learner focused approach, trying to determine what the individual's needs are and also recognise that the individuals are in groups - an emphasis upon shared experiences and co-operation to meet an end rather than concentrating on individuals' performance in a competitive climate.' (JaG-1)

2) Comments on the DUBS' model: Despite the resemblance, JaG was reluctant to adopt the enterprise language to describe his experience in facilitating the similar learning activities endorsed by the DUBS' model,

> 'I'm not sure to what extent you might re-label the informal co-operative student-centred features as enterprising... one of my concerns about enterprise education - now it is promulgated as an official label as it were - is that it has taken ownership of a collection of aspects of learning and teaching which have existed for many many years before, and probably can be traced to the late 19th century's writers, like Dewey or James.'
> (JaG-2)

In other words, JaG perceived that 'enterprise' was conceptually problematic and that the label 'enterprising learning modes' as a pedagogical innovation was epistemologically unsound. Such a claim raised a fundamental conceptual question:

> • *To what extent is the re-labelling of student-centred learning into enterprising learning justified?*

Having refuted the legitimacy of 'enterprise' in terms of pedagogical innovation, JaG implied that 'enterprise activities' had a different agenda from that of student-centred learning:

> 'this kind of activity... requires a climate in which other colleagues will undertake those initiatives and enjoy them. With a team of six or seven colleagues, we did a whole range of things which I now recognise were to do with enterprise. *They weren't enterprise in terms of small business.* They were designs to give children opportunities to fully explore their talents, even children whom, in the school system, were seen as failures.' (JaG-3)

Implicit to JaG's claim was his perception that 'enterprise' was readily associated with 'small business' more so than developing the full range of human capacity in children. His remark was that enterprise in education entangled 'means' with 'end':

> '[My] teaching and learning strategies locate me on what you called the enterprising side, I don't see it as enterprising, I see it in pedagogical terms. But when I became more familiar with enterprise in education, and understood it to mean more than that pedagogical stance.... I've found, and still find it difficult, myself, to disentangle from the other meanings of enterprise, enterprise in education, meaning businesses and stuff like that, some of which I actually employ, you see, that paradox... but that was for a child-driven purpose, a community-driven purpose, rather than, having in addition to that, now a political and economic society intention...' (JaG-4)

Business-like activities, according to JaG, were no more than a 'means' to learning so as to achieve an 'end' which was 'child-driven', 'community-driven'. Hence, he had reservations towards the

prevalent view which treated enterprise in education as much as a 'means' as well as an 'end' in terms of 'business'. Arguably, most of the enterprise initiatives exploited the 'business' or 'mini-enterprise' context for cross-curricular learning, personal development, skills development while promoting better understanding of business (c.f. Chapter 1). Unfortunately, given the heightened political rhetoric of enterprise placing the prime concern in improvement of knowledge and skills related to business overshadowing the importance of personal development, JaG's understandings towards enterprise reflected the reactionary attitudes among those educationalists who believe that education is for the development of a whole person instead of one specific aspect (i.e. economic function) of a person (Hyland, 1991).

3) Rating of Teaching Tendencies: Initially, JaG rated the whole table by zapping the extreme rates, i.e. '4's and '5's on the enterprising side. He stated that,

'In terms of personal disposition, I am predisposed to enterprise modes.'   (JaG-5)

However, when probed to rate individual dimensions in the table, he then raised the question,

'...are you asking me to do this as a learner?'   (JaG-6)

This implies that the table may have confused the issue of 'teaching modes' from the teacher's point of view and the teacher's own 'learning modes' when s/he is a learner due to loose terminology treating teaching as a synonym for learning (the same incident happened with WZ, FO and RW). Another modification of the model is thus necessary:

○   *to avoid using the word 'learning' to substitute 'teaching'.*

Like AG, JaG also found that time constraints in teaching affected his preference. He rated the table assuming a situation of teaching 'without any constraint of time'. When probed for the situation in which he was most exposed to teaching (so as to investigate the degree of variation between preference and actual practice) he recalled a scenario in which he adopted mainly didactic approaches while another colleague in the same situation continued employing enterprising modes. Clearly, his self-rating mainly represented his preference in teaching rather than actual practice. A profound methodological question was thus raised:

●   *How valid or to what extent can the actual teaching behaviours be generalised and represented by preferences if teachers adopt mixed styles which involve fluctuation between the two extremes?*

Due to the lack of time, JaG did not rate a colleague. However, he commented on the general implementation of the table for the purpose of observing others' teaching:
> 'I don't think you would necessarily be able to rate their *behaviour*, but you could identify their *preferred mode of teaching*. If it (JaG's own self-rating) was elicited from them (other colleagues), there would be some people who would read it in a different pattern, a different profile to that which I have given. Whether these dimensions would provide a framework for observational situations, I'm not quite so sure. I don't think these are as yet framed in sufficiently clear behavioural terms. But... they are the framework from which behavioural objectives might be derived.' (JaG-7)

Furthermore, he highlighted the importance for the author to acknowledge the degree of subjective inferences and interpretations made from the table by observers since subjectivity could only be minimised but not eliminated.

4) Triangulation: JaG's view on enterprise echoed the antagonists' criticisms towards enterprise in the academic literature. The proposition of enterprising teaching modes projected by the DUBS' model was seen as 'usurping' the student-centred learning pedagogy which long existed in the education discipline. Consequently, the enterprise language was rejected on epistemological grounds. Moreover, he seemed to perceive the 'business nature' of enterprise separately from developing a full range of human capacity, whereas promoters of enterprise see the two objectives as being in unison with one another.

When contrasting his comments on the DUBS' model and his rating behaviour, JaG moved from a theoretical stance to the applied side. He seemed to have difficulties in drawing upon the teaching modes that he mostly adopted. He recalled the swing between the two 'extremes' due to situational

constraints but stuck to his preference towards EMT in rating. Again, this echoed the problem identified with AG before, i.e. the validity and feasibility of generalising actual teaching tendency within individual teachers.

Finally, JaG's rating behaviour and his original attitude towards enterprising modes of teaching has been consistent. Practically, according to the DUBS' table, JaG's teaching style was predominantly enterprising although, theoretically and pedagogically, the repertoire of enterprise was constantly renounced throughout the interview which was mainly due to the conflated association of enterprise with, first and foremost, business functions which has overshadowed the more important issue, namely personal development.

Definition of 'Enterprising Behaviours'
By the same token, he doubted if the concept of enterprising behaviours was valid in educational terms:

> 'I still have difficulty using the term 'enterprising' because my vocabulary, in the context of education... leaves me uneasy about the claim from writers on enterprise that enterprising behaviours are something to do with enterprise [business] rather than a longer established tradition of looking at how people learn, which they have, if not usurped, they have redefined... So, the debate, for me, is located in schooling - knowing, rather than enterprise - and 'enterprise' has moved into education and has claimed certain territories, to my mind, without necessarily having an established, a proper claim to do that.'   (JaG-8)

However, JaG's attitude towards enterprise was not as clear-cut as it appeared. He admitted that his 'unease' came from the paradox that enterprise had the above conceptual problems while it also possessed certain 'educational validity' which has been undervalued by the conventional education system:

> '...But when I become more familiar with enterprise in education, and understood it to mean more than that pedagogical stance which I think has considerable validity and it's under-valued very often in schools and in universities as well - they are very iffy about it - there still remains for me a side to enterprise which was politically rooted. And I'm not disputing the need for a community to try to ensure it's schools, and its generations to be better prepared for the world of work, that they are more entrepreneurial, that they do need to make a living for themselves, all of that stuff, I see them as part of a baggage under the label enterprise in education... but I've found, and still find it difficult, myself, to disentangle from the other meanings of enterprise, enterprise in education, meaning businesses and stuff like that, some of which I actually employ, you see, that paradox [that fund raising activities, which JaG employed at school, were usually identified as enterprise activities,] which was for a child-driven purpose, a community-driven purpose, rather than, having in addition to that, now, a political and economic society intention. I don't object to that, I have some political concerns about it, but they don't play a part in my reaction to this question, they do leave me uneasy about the claim from writers on enterprise that enterprising behaviours are something to do with enterprise [meaning business] rather than a longer established tradition of looking at how people learn, which they have, if not usurped, they have redefined, and that, I think, is my unease. *And many of the other definitions of enterprise I see as having educational validity, but I don't see them as connected to that pedagogy necessarily.* Didactically, you could teach someone to run a mini-business. Didactically, you can do many things which enterprise education is trying to develop. So, the debate, for me, is located elsewhere, it's located in schooling - knowing, rather than enterprise, and enterprise is moved into education and has claimed certain territories, and to my mind, without necessarily having an established, a proper claim to do that.'   (JaG-9)

The above discussion with deliberate overlapped quoting, accurately disclosed JaG's, in his own words, 'disentangled' and 'uneasy' attitude towards enterprise. The 'paradox' lies in his rejection of enterprise as pedagogical innovation and its overwhelming association with business aggravated by political rhetoric on one hand, while on the other, he accepted the importance of the 'other definitions' of enterprise which re-emphasised the need for a closer link between school and the wider community, the improvement in education provision to better equip young people for work and to become 'more entrepreneurial,[2] so that they do need to make a living for themselves'. Most

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[2] It would be interesting to re-interview JaG on what he meant by 'entrepreneurial'.

importantly, these other definitions, although valid, were not seen as connected to the pedagogy promoted by enterprise. JaG's opinion was thus opposed (and brought him into the antagonists' camp) to that of the protagonist's central assumption that student-centred learning is the most appropriate for achieving these aims (Gibb, 1993; Harris, 1993). Neither opinion was supported by empirical evidence. Nevertheless, JaG's proposition presented the paramount doubt to the DUBS' model which is central to the inquiry of this thesis:

> o *To what extent do enterprising learning modes (pedagogy) develop enterprising behaviours more effectively than didactic modes?*

Having accepted JaG's challenge, his proposition above was not coherent. Recalling JaG's claim concerning student-centred learning activities in the following,

> 'this kind of activity... requires a climate in which other colleagues will undertake those initiatives and enjoy them. With a team of six or seven colleagues, we did a whole range of things which I now recognise were to do with enterprise. *They weren't enterprise in terms of small business.* They were designs to give children opportunities to fully explore their talents, even children whom, in the school system, were seen as failures.' (JaG-3)

It is obvious that he recognised the student-centred learning activities as 'designs to give children opportunities to fully explore their talents'. Paradoxical to this claim is that while he regarded enterprising pedagogy as usurping the student-centred learning tradition (refer back to Quote 'JaG-2' and 'JaG-8'), yet he did not identify that the enterprising pedagogy would then bear the similar effect that student-centred learning pertains. Instead, he concluded that,

> '...many of the other definitions of enterprise I see as having educational validity, but I don't see them as connected to that pedagogy necessarily.'   (JaG-9)

It is speculated that JaG's discordant position was a result of the perceived difference in objectives the two pedagogues uphold and the watershed lay in the conceived 'conflicting values' within enterprise.

Regarding the 'true' meaning of enterprise, JaG warned that the value-laden nature of enterprise, especially its association with progressive teaching and learning methods, would mislead research focus and findings:

> 'The other thing that concerns me about the debate... which is now translated into a piece of research such as this, is the fact that, ...this [enterprising] approach is somehow better than, more appropriate than, qualitatively superior to this [didactic approach]... whether in the teacher or in the learner, and that's why we are seeking to exploit them, to bring into the school programmes of enterprise education, project work of a certain kind because we value these [enterprising] forms of learning more highly than these [traditional didactic]. Politically, it's because we see these as the salvation of the nation. To put it crudely, the wealth creation will lie more with the enterprisers, the people who will take initiatives, the people who will go ahead, the people who will work hard, the people who will be individual. So there is a valuing which, as a researcher, you have to control and manage. You can't eliminate it... I suspect that there is an implicit valuing of this side of the equation [enterprising] above this side [didactic], so that when you translate this down to enterprising behaviours, there will be a tendency to look for certain behaviours, or the absence of certain behaviours. So your eyes, as it were, are screwed to one side of the continuum, and it could well be that enterprising learners have certain weaknesses in learning. How you can produce a neutral frame, neutral in a value sense, which would allow you to describe enterprising pupils and to see what handicaps they have in learning, or what interference effect there is in learning, is the basic issue of enterprise being a value loaded concept.   (JaG-10)

An immediate conceptual inquiry is:

> * *Is the concept of enterprise value-laden?*
> * *If so, what effect has it on the whole subject matter?*

Methodologically, JaG stressed that in order to conduct an unbiased evaluation of enterprise work to-date, the crucial point is,

> * to re-construct a neutral framework of 'enterprising learning modes'

JaG's advice on the importance of establishing 'a neutral frame' of valuing enterprise is also a prerequisite for future progress. Ideally, any educational change would only be initiated and supported because of its desirable benefit which is valued positively to improve the existing system. However, if the merit of change is overstated or exaggerated and its setbacks and shortcomings are not recognised nor rectified, it has become value-laden, which would only be a hindrance to improvement in the change programme (Fullan, 1995). Admittedly, the concept of 'enterprise' is value-laden according to the findings in this study which will be discussed further in the collective analysis in the two chapters to follow. In brief, the predominant assumption that enterprising learning was superior or better than didactic learning intrigued expectancy effect among participants, the enthusiasts in particular, that is participants giving views which conform to what they think is the expectation of the researcher, or the purpose of the study. Very often, terse comments were given towards didactic teaching modes *vis-à-vis* absolute credits towards the enterprising counterparts. It was not until they were asked to rate their teaching tendency that they began to appreciate that didactic modes serve certain purposes (refer to Chapter 5, Section 2.2.7.).

Subsequently, JaG suggested that the prejudice against enterprising learning modes would be carried over to the concept of enterprising behaviours. This claim was also evident through participants' spontaneous definitions for enterprising behaviours. Participants (WZ, PD, NG) who were originally unfamiliar with enterprise started to define enterprising behaviours in such a way that their definition corresponded to the manifestation of enterprising learning modes. Furthermore, participants' rating behaviour revealed the carry-over effect conspicuously. Individual behavioural categories which were originally regarded as undesirable (e.g. opportunistic) were allocated a high rate for the enterprising learners and a low rate for the less enterprising learners showing the same pattern of rating for desirable categories. Take for example, JoG, who rated Learner A consistently low and Learner B consistently high including the categories which she considered as unappealing. This unexpected discovery not only discloses one weakness of the rating methodology for this particular study, it also indicates that the value-laden global conception of being 'enterprising' has been overshadowed by the locally individual perceptions of undesirable enterprising behaviours.

The above evidence explained the 'expectancy effect' and the 'desirability effect' that enterprise triggered. Contrary to the probability of over-valuing enterprise is the reactionary attitude which under-values it. For instance, while identifying the features of 'enterprising learning' as equivalent to student-centred learning, JaG's criticisms against enterprising learning as being value-laden, overlooking potential disadvantages in learning, was not shared by the much appreciated student-centred learning. His antagonistic position implied an over-reaction towards a value-laden viewpoint although the precaution is still valid and applicable also to student-centred learning. Another example of his under-valuing enterprise was that the merit of student-centred learning was dissociated from that of the enterprising pedagogy as discussed above. Seemingly, thus, the suggestibility towards the value of enterprise which implies the presence of its intrinsic value might have been overlooked by JaG owing to his reactionary attitude towards its value-laden presentation.

Another important point is that the political part of the value judgement made by JaG was not detected among the practitioners. This will be further explored in Chapter 5 and 6.

Up to this point, it is interesting to contrast JaG's view with AG's. JaG, who comes from an educational background, perceived that enterprise has *'usurped'* the educational tradition by re-labelling the features of student-centred learning with enterprising learning and thus 'bandwagoning' them for the 'salvation of the nation', while AG, who comes from a multi-disciplinary background of education, (economics, business and management) claimed that enterprise learning *'borrowed'* its concept from student-centred learning, progressive teaching and liberal education. Enterprise, from AG's perspective, continued the education tradition, adopting student-centred learning which has been assumed to be the most appropriate pedagogy for developing enterprising skills and reinstating intrinsic motivation for knowledge acquisition. The re-labelling was thus warranted for the purpose of re-emphasising these two issues which have been neglected by the contemporary educational system (c.f. Chapter 1).

The dialectical difference between AG and JaG begs three different levels of clarification:
1. the ontological understanding of the term enterprise education (How is enterprise interpreted by stakeholders?);
2. the implementation / presentation of enterprise into (What is enterprise in view of the related action established under the label?)
3. the effect of enterprise (What has been achieved, if anything?)

The collective understanding and interpretation of the concept among the interviewees sheds some light on the first and the second level, which is crucial for building a conceptual framework and establishing appropriate methodology for the investigation of the third. Arguably, JaG's concern over a biased research focus and findings and the subsequent call for 'a neutral framework' have been dealt with by the present exploratory methodology which allows the two concepts to emerge and the prejudices to be detected. Modifications for the DUBS' table contrasting the two teaching styles and the list of enterprising behaviours were essential for reducing the labelling effect on future work. Details are laid out in the later 'Research Implications' section.

3) Rating of Two Learners: Due to inadequate interviewing time, JaG was not able to comment on individual enterprising behaviours in the DUBS' list. Generally, he questioned the validity of these behavioural categories although he accepted that the present methodology could generate a reliable behavioural checklist for the purpose of rating pupils' behaviours. To increase reliability for inferential interpretations from the observer, he agreed with the writer that these categories needed to be further refined in behavioural terms,

> 'these labels need some modifications [and] would allow you to interpret behaviour reasonably reliably. I don't know whether it would be valid, but it could be used as a basis for a self-rating scale.'   (JaG-10)

Unfortunately, JaG's doubts on validity were not further explored. Nevertheless, this gives rise to another central issue:

o   *To what extent are the behavioural categories provided by DUBS' valid to be encapsulated into the concept of 'enterprising behaviours'?*

To address the issue concerning validity, he reiterated (in various places during the interview) the importance of designing a research methodology which would elicit teachers' spontaneous discrimination between enterprising and less enterprising learners before introducing the prescribed DUBS' list. Furthermore, he strongly emphasised the importance of striking a balance between discovering the strengths and weaknesses of being enterprising and non-enterprising.

Recalling AG's suggestion that the conventional dictionary/thesaurus definitions of the "enterprising person" (i.e. **'pioneering'**, **'adventurous'**, **'daring'**, **'go ahead'**, **'progressive'**, **'opportunist'** and **'ambitious'**) were inappropriate to the educational setting. This might partly support JaG's doubts about the validity of these behavioural categories to be termed 'enterprising'. Apart from the dictionary definitions, it is argued that which Gibb's complied categories (1993) have achieved face validity in a sense that they were generated from 'several hundred primary, secondary and tertiary teachers (in the UK) as part of the enterprise workshops' over the period 1985-91 (Gibb, 1993, p.14). The present exploratory methodology, which used open-ended questions (What do you think enterprising behaviours are among pupils?) to elicit interviewees' spontaneous definitions *preceding* their comments on the DUBS' list, together with the detailed behavioural descriptions for all three sources[3] of definitions in this study, is arguably sound and sufficient for investigating content validity and differential validity in this respect. (Detailed discussion in Chapter 6). JaG's suggestion was another alternative which sought to achieve similar aims to the present chosen methodology.

Concerning reliability, JaG agreed with the author about the plausible benefit of inter-observer reliability between teachers' rating their pupils and an independent observer in the classroom,

> 'the problem is that an observer moving into the new setting becomes a research issue... you can construct a valid, reliable, behavioural list which might be usable in that unknown situation... If you are observing, the inferential or the interpretative element in this study is very important... you as an observer should be able to go into a classroom with a list and after observation, pick out the [behavioural rating of the pupils observed]... then go to the teacher and [ask for confirmation.]... confirmation will be the test of reliability and validity.... the teacher's construction could be inappropriate... - teacher's don't always see children as they are, or as the children see themselves, or as other children see one another. Teachers have got their own stereotype, as it were, which is restricting their vision.'   (JaG-11)

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[3] The three sources are: interviewee's personal definition, conventional dictionary/thesaurus definitions and the DUBS' list (generated from teachers' workshops).

The balancing effect is vital since the teachers' knowledge of their pupils can compensate for an independent observer's lack of information, whereas the teachers' biased stereotyping of pupils can be brought to their attention.

4) Triangulation: It is inappropriate to triangulate JaG's account since he did not offer his own definition of enterprising behaviours owing to his controversial theoretical stance, nor did he rate two of his students due to lack of time. Nevertheless, he persistently concentrated on the conceptual and methodological aspects in great depth, which is extremely valuable for addressing the fundamental confounding issues surrounding the whole concept of enterprise, its associated pedagogy and the relationship with enterprising behaviours.

Relationship between 'Enterprising Modes of Teaching' and 'Enterprising Behaviours'
Although not directly addressed, JaG stated that in general, he did not perceive the enterprise pedagogy as being connected to what it meant to achieve which, concerning the DUBS' model, included enterprising behaviours in this respect (refer to Quote 9). However, a paradox was detected as JaG acknowledged the worth of student-centred learning in exploring fully learners' talents[4] but not of enterprising modes of teaching when the enterprising pedagogy was regarded as student-centred learning features re-labelled (Quote 2 and 3). As discussed above, the problem stemmed from the lack of shared meaning towards the enterprise language due to its value-laden presentation and conflated association with business. Notwithstanding this, in practice, whether 'enterprising learning modes' (or student-centred learning) are effective in cultivating 'enterprising behaviours' remains to be evaluated.

Fundamental Understanding of Enterprise
To summarise, JaG's overall interpretation of enterprise is one which is not totally positive in the educational context due to the existence of 'conflicting values' within the concept. Although enterprise in education re-addressed important issues, such as transition from school to work, the ultimate concept was value-laden for the purpose of a political and economic interest. Subsequently, the re-labelling of student-centred learning with 'enterprising learning modes' for the purpose of developing 'enterprising behaviours' was associated with the political rhetoric and was considered as illegitimate. Henceforth, he found himself in a paradoxical position whereby he was sympathetic towards enterprise activities on the one hand, while on the other, the repertoire of enterprise was blatantly rejected. Simultaneously, such a position leads to his reactionary attitude and biases towards the concepts while enabling him to make constructive criticisms towards them. His valuable suggestions for the methodology have already been taken on board in the current study and will be discussed further in the following profiles.

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[4] To fully explore learners' talent should have logically included the qualities of being 'more entrepreneurial' (JaG's own word - Quote 9) which were regarded by JaG himself as a disputable need.

3. Profiling WZ

Personal Background
WZ is a lecturer in Applied Mathematics / Theoretical Physics at university. He has been teaching for over 18 years in an organisational climate which he sees as formal and traditional. For undergraduates, he has to teach according to certain pre-set topics (syllabus). Prior to the interview, WZ had never come across Enterprise Education.

Definition of 'Enterprising Modes of Teaching'
1) Personal Definition: WZ did not offer a definition since he had no idea what it might mean,

> 'It could mean a different way of teaching. You can teach through lectures or seminars or combine teaching with some visual programmes or various subjects together. But I'm not sure precisely what ['enterprising modes of teaching'] means.'   (WZ-1)

Note that from the quote above, no association of 'enterprise' with business was recorded as appeared in the academic debate. Enterprise connoted neither positive nor negative interpretations towards teaching. Hence, WZ's spontaneous response implied the neutrality of 'enterprise' instead of a valueladen concept as JaG claimed at this stage.

2) Comments on the DUBS' Model: WZ's immediate reaction to the DUBS' table contrasting didactic and enterprising learning modes was that,

> 'My teaching is something in-between the two but somehow nearer to the old fashion style. In Mathematics or Theoretical Physics, there is a lot of basic information, various skills that you have to acquire... Therefore in some ways you have to learn from text and notes, and not so much ['**interactive learning**']... you also have to do lots of [exercises]....and once you've done those, then you have certain knowledge at the tip of your fingers. So, when a new problem comes up, you are able to solve it... If you're going to start '**learning by debate and discussions**', this is all very good but that's once you've reached a certain level... In Science, we need more basic stuff that everybody has to learn first and only then can you really start doing that [learning in an enterprising way]. At research level, [the enterprising modes] sound pretty good. In fact, that's what we do.' (WZ-2)

According to WZ, subject (Mathematics/Science in this case) and level were the two main factors which determined his teaching approach. Thus, in addition to AG's suggestion that the subject one teaches would affect teaching preference, WZ believed that the level, which was to do with a prerequisite basic knowledge of learners, predominated in teaching practices. Other interesting points concerning the enterprising pedagogy were raised:

> - *To what extent does the level (basic knowledge) of learners affect teachers' teaching practice?*
> - *To what extent does the subject-level interaction determine teaching approaches?*

WZ's underlying assumption was that the didactic method was more appropriate for teaching basic information and skills which were essential at undergraduate level before they could proceed onto learning in an enterprising way at postgraduate level. However, when questioned why basic knowledge was better acquired through didactic modes than enterprising modes, he gave no further explanation but claimed that,

> 'There are certain skills that you have to learn [through didactic means] first before you can even start attacking the first problem [and] applying it realistically... In Social Science, it's much easier [to apply enterprising modes] because to some extent you can start almost straight away with a problem.'   (WZ-2)

Fundamentally, WZ was more inclined towards the didactic style of learning although he suggested that enterprising modes were more effective in generating interest in learning Mathematics at an elementary level,

> '[Enterprising modes are] a very good idea if you try to interest children or young people in Mathematics, but ultimately, you've got to memorise lots and lots of things... I personally would like something in between the two methods. I mean, there's something to be said for

just having a very old fashioned way of learning, by memorising, by doing [exercises], by rote...'   (WZ-3)

Finally, he criticised the 'prejudices' which existed in the table against didactic modes,

'There're obviously some prejudices [referring to **'mistakes learned from'** being placed under didactic mode]. You obviously want me to like this [enterprising] column because it sounds very good. But I don't think it really is quite like that. **'Teacher learns'**, it's certainly true at research level. I do research with my research students, I learn at the same time... in a sense there is no teacher learns or teacher doesn't learn - [if the same] method of teaching applies to a more elementary level, a teacher is not going to learn very much. But it's always true that teachers always learn something.... I can imagine didactic modes of teaching would involve most of those points but wouldn't necessarily have **'teachers infallible'**. I never believe that you should not challenge teachers because obviously that would be very silly.'
    (WZ-4)

WZ's claim was similar to JaG's view that the DUBS' dichotomy was value-laden. WZ pinpointed the two dimensions: **'mistake feared' - 'mistake learned from'** (D7); **'teacher infallible' - 'teacher learns'** (D8) as having an underlying prejudice against a didactic teaching approach. According to WZ, regardless of whatever teaching modes one is inclined to, it is universally true that 'teacher learns' one way or the other; and that no teacher would prefer learners to become afraid of making mistakes instead of learning from them. Very often, in literature that compares traditional didactic teaching with progressive teaching, the dichotomy presumes that didactic modes create an atmosphere in which learners are induced to fear making mistakes and have an impression that the teacher is infallible - the very aspects that are supposed to be rectified by the informal interactive teaching method (Harris, 1993). Such an assumption was demonstrated to be arbitrary in this study. Supporting WZ's claim, the collective analysis found no correlation between teachers' tendencies with these dimensions, i.e. almost all teachers, from both tendencies, rated highly on **'mistakes learned from'** and **'teacher learns'** on the enterprising side. This means that these two attitudes were not exclusive aspects of a didactic teaching tendency[5].

3) Rating of Teaching Tendency: Like JaG, WZ was not sure whether the table was to signify his teaching modes or his students' learning modes. This again indicates that the DUBS' table confuses teaching with learning although the two are seemingly closely related. Re-wording is thus required to avoid confusion. Moreover, WZ re-emphasised the different teaching approach he used for undergraduates and postgraduates,

'Is this undergraduate teaching or postgraduate teaching? If it is undergraduate teaching, then clearly didactic teaching would apply more than enterprising modes... But for teaching research students, to some extent, the enterprising modes of learning are more applicable. So, in some way, I would be putting higher numbers on [the enterprising] column than I have done for the undergraduates.' (WZ-5)

The reason for such a difference, as mentioned above, was due to the different level of knowledge and skills possessed.

When requested to rate his colleague, WZ refused (earnestly) since he believed that the difference in teaching approach among colleagues in Mathematics would be trivial,

'...in Mathematics, you really don't have much choice... I would say in Social Sciences or in Humanities, [variation in teaching approaches among staff] is more possible - but within Mathematics, it's probably a waste of time if I really try to [rate the difference]... basically, it's very very similar... Most of the work happens in lectures... I can remember what I have put in the last thing, I would suggest we put the same [rates] in. I really think it's very difficult to differentiate.'   (WZ-6)

4) Triangulation: When contrasting the lack of initial knowledge (personal definition) with his critical comments on the DUBS' presentation of enterprising teaching modes, WZ's attitude towards

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[5] Same incidence is found in D9: **'teacher = expert' - 'teacher = facilitator'**; and D11: **'attention mainly on knowledge' - 'attention equally on knowledge and skills'**.

enterprise seemed to have changed from neutral to critical. He pointed out that 'prejudice' existed within the table on D7 and D8. Consistently, these two dimensions (together with D11) were the only ones which had been allocated with enterprising rates. Implicit to such criticism was that these prejudices deflated the value of didactic teaching modes and simultaneously inflated the value of enterprising modes. According to WZ, the purpose of such value-laden presentation was that,

'You obviously want me to like the [enterprising] column.' (WZ-4)

Although he believed that different teaching styles were to be employed for appropriate levels, and that more enterprising modes were applied at research level, he acknowledged his inclination towards didactic teaching especially for undergraduate teaching. His rating which was predominantly didactic (-23a[6]) confirmed his position. Moreover, in his final comment, he gave the criticism that progressive teaching, under whatever paradigms, tended to undermine the importance of traditional teaching practices and became tautological and 'pretty pointless'.

'...I can say something which is somewhat critical... You probably wouldn't like it... It's not about these enterprising modes of teaching as such, it's just the general education problems. When I came to the University in 1973, we were invited to... a series of lectures and talks on how we should teach. And I found that pretty pointless. The reason being..., in Mathematics, you pretty much know how to teach and there is very little choice. But what these people did...was...arguing for different styles of teaching. Somebody said tutorials were the most important, the other said lectures were the most important, the didactic method was better, or this interactive method was better, whatever you call it. And it was all these discussions... Somebody later... produced the model of learning... on the big blackboard, he produced lots of boxes and one box labelled 'books', and the other 'students', 'blackboard', 'teacher' and all that, and then connecting them all by lines and arrows... in the end, every box was connected to every other one. That seemed to me pretty useless.' (WZ-7)

WZ's remarks may be conducive towards furthering progress in enterprise in education. Conceptually and methodologically, the following points are salient:

- *The heightened debate which leads the antagonists' rejection over enterprise is possibly a result of the value-laden presentation, rather than the original 'entity' which enterprise enshrines.*
- *Value-laden dichotomies are strongly recommended for removal.*

Definition of 'Enterprising Behaviours'
1) Personal Definition: Again, WZ did not define 'enterprising behaviours',

'I have no idea. My guess is it's something to do with what you've been talking about before.' (WZ-8)

2) Comments on the DUBS' model: WZ's antagonistic position continued into the beginning of the second part of the interview dealing with 'enterprising behaviours'. During the course of the interview, however, his initial abrupt disposition gradually became more amenable. The following laborious quoting from the interview illustrates the formulation of WZ's conception of 'enterprising behaviours' from a psycholinguistic perspective during the course of interview.

Responding to the second behavioural category (by rotation), **'flexibly responding to challenge'**, he gave terse comments at the beginning and then changed his interpretation into a positive one.

'*...this is not really applicable to what we are talking about... this is more written in a sense for a business man running a company, rather than a student learning at university. But still...* **'flexibly responding to challenge'**... in a sense, a really good student would have a challenge of solving a problem and he might seek various ways of solving the problem. Now, the really good student will think independently about what is taught to him and will try to solve the problem in his or her own way. Unfortunately, most of our students don't act that way. They just take out their notes and see whether there are some similar problems already solved and they try to copy the method. In a sense, that's **'flexibly responding to challenge'** as well, but

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[6]The letter 'a' denotes that the score has been 'adjusted' by removing rates from dimensions (D7, 8, 9 and 11) which have been identified as biased and without discriminative value (refer to Chapter 5).

it's not as flexible as I would like to see it. *I would like them to be more flexible.* But I suppose that's what I can envisage.' (WZ-9)

The immediate association of the above category with 'a businessman running a company' was changed into 'I would like them (students) to be more flexible'. WZ's change of attitude indicates that with discernment, he actually found such enterprising behaviour wanting among students.

More interestingly, having gone through the first two behavioural categories, he started adopting the language 'enterprising'. When discussing the third one: **'coping and enjoying uncertainty'**, again, he was dismissive at the beginning:

WZ: I'm not so sure what that means. What 'uncertainty'?
RM: 'Uncertainty' means that you're not so sure of the consequence of the learning, for example.
WZ: I'm not so sure really what that means. Now, the next [category] - because I don't really know what it is - **'taking action in an uncertain envir...'**
RM: No, no, no...
WZ: Because I'm not so sure what you really mean...
RM: Well, how would you define 'uncertainty' yourself? I mean in an uncertain situation, you don't feel secure about something probably.
WZ: ...perhaps it means a student who hasn't actually solved problems, or doesn't follow the course and he has now come to tutorial where the tutor would sit there and would start asking him questions. So, in that sense, he has an uncertainty - how he is going to cope with that, will he be able, or will he show to the tutor and other students that he's not very intelligent and he hasn't learn that. Obviously, *an enterprising student will cope with that, and a good student, or not a good student, but a student who is enterprising will come and use his intelligence to cope with that. Another student might pretend to be ill.*
RM: Why would you term the student who is able to cope 'enterprising'? Is it because that's the word that we have been using that frames it for you to use the same term, or do you genuinely believe that an enterprising student is a student who can cope with uncertainty?
WZ: I would actually say something else here... When a student comes to a tutorial...where he can ask any questions he wants that are unclear from lectures, *an enterprising student for me, a good student for me, is somebody who understands this is actually his opportunity to learn, rather than regarding it as an extra chore that he has to go through. So, a student who thinks, 'I don't understand that', or who stirs a conversation with his tutor on something that is useful for him so that he can learn, I would call that very enterprising. Unfortunately, most of our students are not enterprising. Some are, and they benefit greatly...*
RM: What I'm more interested in is whether you use the term 'enterprise' because you are trying to absorb my term that I've been using here, or is it your genuine term that you would normally...
WZ: No, I would not normally use the word 'enterprise'... I'm trying to fit it into this thing.
RM: Please don't use my language, use your own language.
WZ: No, I don't actually try to... No.' (WZ-10)

From the above discourse, in the first incident (in *italics*), WZ distinguished between 'being a good student' and 'being enterprising'. This distinction became blurred in the second incident. Although he claimed that 'enterprise' was not the word he normally used, he had since then used the word 'enterprise' or 'enterprising' equating it to 'desirable qualities' twelve times. For instance, when responding to **'taking action in uncertain environment'**, the similar pattern happened again and the adoption of the 'enterprising' repertoire was salient:

'WZ: Again, I'm not so sure precisely what that means.
RM: Among students, can you observe some of them being able to **'take actions in an uncertain environment'** where others do not?
WZ: ...I can see that more at a social level rather than at an academic level... *Clearly there are students who have shown lots of skills and enterprise...*
RM: What do they do to convince you that they can take action in an uncertain environment?
WZ: ...a student who does something imaginative during vacations... organises his time properly... knows how to get certain things through computer and access some information that is not easily available, a student who knows that he can get a book before anybody else. *He's obviously an enterprising character.*
RM: How does this tie in with 'uncertain environment' - the examples you've just given me?

WZ:... they are not really uncertain... An uncertain environment would perhaps - that's much harder in some ways - I don't think we really give students lots of opportunities to look at that... I suppose...when you set exam questions, they might not know which way to follow. They might get into *more enterprising* and try to solve that problem in an unconventional way, not knowing whether what they do would actually lead to the solution. That will be 'taking action in an [uncertain environment]'... very broadly, in this light.' (WZ-11)

WZ's understanding of 'uncertain' environment was somewhat contrived probably due to over-probing from the interviewer as he had already stated that such behaviours were rare at an academic level and were more likely to happen at students' social level in which he was remotely involved. What is noteworthy is that, WZ's abrupt attitude towards the subject matter seemed to have softened as he increasingly adopted the 'enterprise' language.

When responding to **'solving problems / conflicts creatively'**, it was clear that being 'enterprising' was associated with being 'clever'.

'...Imagine that a student wants to find out how to solve something... one way to do that will be to open the notes that they have taken from lectures and try to solve them. Another way - *a clever way* - is to go to the library and realise that this lecturer has probably used some books. "Now, he's mentioned some but there might be some other ones, so let's look through those books, may be we'll find similar problems there." - That would probably not be what you might have in mind - 'creative', *but it shows that the student actually is quite clever...* He might ask students from the year above for the questions they have from last year... that would be a creative way - not that we encourage that - but it shows *an enterprising skill* of the student.' (WZ-12))

When discussing **'commitment to make things happen'**, WZ's 'conversion' towards the 'enterprising' language is obvious.

'[That's] something I would encourage the students to do... I actually share out some problems so that they can work as a team. So if a student takes initiatives and says, "Let's all do this problem together. Let's share the problem out..." That would be a **'commitment to make things happen'** and I would call that *a very enterprising act.* Our students don't do that unfortunately. But some do things like that at a social level, organising boat cruise... they get involved in various activities that shows commitment in that domain, much more than in standard studies.' (WZ-13)

When discussing **'persuasiveness'**, WZ used the word 'enterprising' to substitute the individual behavioural category i.e. instead of saying 'more persuasive', he termed it as 'more enterprising':
'WZ:... [**'persuasiveness'**] is more true for graduate students... some students would be knowledgeable enough to suggest to us what we should teach and some of them are very determined in what they want to learn... because they think that would be useful for them. They are often wrong. Nevertheless, they do have the skills to persuade us... We have staff-student meetings when we discuss with students. Some who come to these meetings do represent the students' view. Students who are elected by the others obviously are *more enterprising than the rest.*
RM: So, you can actually distinguish between them.
WZ: The distinction is much harder to make because we don't see our students that much. If you interact with the students much more, you would see it more. But when you have a class of a hundred students coming, it's very hard to see whether this one or that one is *enterprising* or not. It's really when you meet them socially or in a small tutorial group, you can actually say that.' (WZ-14)

When discussing **'self-confidence'**, WZ even invented a new phrase -'anti-enterprising':

'...It's the way he answers questions, the way he formulates his thoughts, the way he addresses you... but this can verge into arrogance and that's not an enterprising attribute. That obviously is *an anti-enterprising attribute* because you immediately put somebody off. So, you have to be careful because you can easily confuse the two.' (WZ-15)

To sum up, WZ has adopted the language of 'enterprise' which made an interesting contrast to his originally antagonistic approach. Despite the fact that 'enterprise' was not his spontaneous

expression, he showed no objections towards absorbing the repertoire in describing behaviours. This suggested that for WZ, it was not the inherent meaning of the term 'enterprise' or 'enterprising' that caused disparity. It is the implied criticisms unduly levied on the didactic teaching approach (in contrast with the enterprising approach) that he detested. WZ's criticism echoes JaG's view that the DUBS' framework of 'enterprising learning modes' is value-laden. However, JaG's suggestion that the value judgement would be carried over to the concept of enterprising behaviours did not seem to be the case in WZ's responses.

Concerning the thesaurus definitions for enterprising people, i.e. **'pioneering'**, **'adventurous'**, **'daring'**, **'go-ahead'**, **'progressive'**, **'opportunist'** and **'ambitious'** WZ shared similar attitudes to that of AG that,

> '...these are very big words.' (WZ-16)

WZ claimed that these attributes did not apply in university learning situations. To WZ, the word **'opportunist'** and **'ambitious'** could be either positive or negative traits depending on the amount and the context these behaviours were exhibited.

For the DUBS' definition, an idiosyncratic definition was given to the category **'actively seeking to achieve goals'**,

> '...there are various goals that we give to students... every week they get some questions and problems that they have to solve and hand them in. We believe that by solving these problems, they learn, they acquire some skills that later will be useful for developing their knowledge and acquiring further skills. So, they have to actively seek to learn how to solve these problems...students who hand in their homework obviously have achieved their goals, because at least they've done that... this is a kind of a minimalist approach.... I actually encourage our students to do more... to co-operate with each other... and discuss things first before bothering me. But if they can't..., I encourage them to come and talk to me... So, if I see students coming to me and then they understand something, I know at least they are trying to learn. Whether they have some other goals, I don't know, but at least these are the goals I would actually set for them to learn the stuff and acquire the skills.' (WZ-17)

Unlike AG who referred 'goals' which were set by learners themselves ('somebody who knows what they want and pursues it'), WZ referred to those goals which were set weekly by lecturers since students' own goals were beyond his knowledge. Future study therefore should consider the following questions:

- *Which interpretation, goals set for learners or by learners (or both), is more valid for incorporating into enterprising behaviours among learners?*
- *To what extent do the two agendas converge, diverge or overlap?*
- *Which did the majority of interviewees interpret in this category?*

An answer to these questions is crucial for determining the right behaviours to be observed and measured.

Recalling AG's suggestion that **'dynamic'** behaviour occurred also outside the classroom, WZ added to this claim behaviours including **'commitment to make things happen'** which required the behaviour of **'persuading others'**. **'Taking action in uncertain environment'**, happened even more so at students' social life rather than academic endeavour.

> As discussed above, he initially found that the behavioural category ' **flexibly responding to challenge'** was, 'not really applicable to what we are talking about... is more written in a sense for a business man actually running a company, rather than a student learning at the University what he wants to do...' (WZ-18)

Interestingly, this was the only connection with 'business' ever mentioned by WZ. As discussed above, his interpretation changed abruptly and eventually he saw this category as highly desirable among students.

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For 'coping and taking action in uncertainty', 'taking action in uncertain environment', he found them vague since 'uncertainty' and 'uncertain environment' were not characteristics of learning at university. These behaviours happened

'...more at a social level rather than at an academic level... we don't really give students lots of opportunities to look at that [in learning].'   (WZ-19)

Similar responses were found among other interviewees (FO, JoG and SG) who had difficulties relating the two categories with classroom learning.

Concerning **'autonomous'**, WZ disliked the label and interpreted it as 'independence' to which he related 'competitions among students':

'WZ: Well, I don't like students being autonomous...it's kind of independent, is it right? [RM: Yes...] This is exactly what I try to fight against with students. I want them to co-operate with each other, not to be independent, but to be inter-dependent on each other... work as a team...
RM: I don't think **'autonomous'** implies competitiveness. It means students self-initiate themselves to do things without...
WZ: Well, then the answer is yes. The students can come to the tutorials and ask obvious questions. *It's in some way versatile, it's also autonomous in the sense that he knows what to ask rather than wait for the questions to be given to him.* But I wouldn't necessarily use the word 'autonomous', I would use more 'independent'.
RM: But you said you don't like students to be independent.
WZ: I don't like students to be completely independent. I like students to be interdependent... I personally always try to encourage students to work together because on the whole everything in life is always done in co-operation not competing with each other... Too many students competing with each other think that they are using the right strategy. I think it's wrong, you should compete within the subject...
RM: That's how you first associate the word 'autonomous' which is not quite desirable.
WZ: If I mean that by autonomous, I wouldn't call that desirable.' (WZ-20)

WZ's perception of this category was similar to that of other interviewees' (JoG, RW, PD, JR and SG). Being 'autonomous' was associated with an inability to co-operate in team work.
In general, WZ admitted the difficulty in distinguishing enterprising behaviours among students because of a large class size which limited his contact with students,

'I don't really observe them that much to be honest... because we don't see our students that much. If you interact with the students much more, of course you would see it more, but... when you have a class of a hundred students, it's very hard to see whether this one or that one is enterprising or not. It's really when you meet them socially or in a small tutorial group, you can actually observe that.'   (WZ-21)

Links / Overlaps / Synonyms Among Descriptions
Throughout the interview, WZ made connections and uttered similar behavioural descriptions among certain categories as shown in the following tables:

Enterprising Category	Behavioural Description
'flexibly responding to challenge'	...seek various ways of solving the problem...think independently what is taught and solve the problem in his or her own way [as opposed to] just take out their notes and try to copy the method...
'solving problems / conflicts creatively'	...go to the library and [look for extra materials about the problems] [as opposed to] open the notes taken from lectures and try to solve them...
'resourceful'	...goes to the library a lot... finds things through the computer network [to access some information that is not easily available]... knowledgeable [as opposed to] just follow their nose and do nothing else...

From the above table, following Gibb's attributional theory (i.e. 'enterprising acts' and 'enterprising skills' are the exhibition of 'enterprising attributes'), a **'resourceful'** person is likely to be capable of **'flexibly responding to challenge'** and **'solving problems / conflicts creatively'**.

The table below shows another set of semantic links existing in WZ's discourse:

Enterprising Category	Behavioural Description
'commitment to make things happen'	...takes initiative to [persuade others to work / solve problems together].
'persuading others' / 'persuasiveness'	...very similar to 'commitment to make things happen' because it normally involve other students and you persuade them to do something for/with you... they work together, to exchange information, to discuss courses... be very determined and knowledgeable enough to suggest/persuade the others what they want to do.
'negotiating'	coming back to this 'persuading others'...
'opportunity seeking'	...comes and asks you questions... tries to find you because he doesn't understand something... plan their courses... looking for good opportunities to actually use their studies here to develop something they want to do afterwards [in their career].
'dynamic'	...comes to see you all the time... uses tutorials sufficiently... [initiates discussions] in tutorials [as opposed to] not to say anything...
'planning'	...plans his time-table... what to attend and how to do his work ... always hand their work on time...

According to WZ, a person who shows **'commitment to make things happen'** would be involved in **'persuading others'** and **'negotiating'**. S/He is likely to be **'opportunity seeking'** in pursuing his/her studies to develop their future. This in turn requires the good **'planning'** skills. Such a person is attributed with being a **'responsible'** person.

The table above bears a surprising similarity to that of AG's (p.12) in that the set of categories tabulated were nearly identical. However, the descriptions given to these categories varied from substantially alike to different. Take **'commitment to make things happen'** for a comparison:
> AG: to see things through inside or outside classrooms
> WZ: takes initiative to [persuade others to work / solve problems together]

Dissimilar interpretation is salient. This is to contrast with the similar description for **'planning'**:
> AG: set targets or schedules to finish the task...
> WZ: plans his time-table... what to attend and how to do his work ... always hand their work on time...

This phenomenon intrigues an ultimate conceptual challenge:

- To what extent is 'enterprising behaviours' an integrated concept (content validity)?

A reasonable degree of shared properties within these categories signifies the existence of a concretised concept. Otherwise, the danger of lack of shared meaning might lead to conceptual disintegration. Methodologically, the question is straightforward:

- *To what extent can a behavioural checklist be drawn up for categories which have elicited diverse idiosyncratic interpretations among interviewees?*

Other links which involved the conventional dictionary/thesaurus definitions are listed separately below since WZ considered these definitions irrelevant at an academic level:

Enterprising Category	Behavioural Description
'pioneering'	...a student who is resourceful is often the same one who has some pioneering ideas and will dream up something first.... but because 'pioneering' [is a] bigger word applied more to an exceptional circumstances than resourceful. Pioneering students will always be resourceful...
'daring'	...don't see much difference between 'daring' and 'adventurous'...
'go ahead'	'Go ahead' and 'progressive' go together... comes and asks you questions... uses Mathematics in an unconventional way... doing some interesting research topic... chooses some imaginative and perceived goals to follow... has certain ideas what to do... who has already thought about planning their future...

'opportunist'	... [positively] seeking an opportunity that might arise... having a go-ahead, being progressive in their thinking... [negatively] exploit the situation for little cost... choose easy subjects to get a better grade, they would have learnt less...
'ambitious'	...have some ideas about what they want to do with their life... plan something and have an interest in career... exploit the skills they have... desire to achieve something...

3) Rating of Two Learners: WZ chose two distinctively different postgraduates[7]. Learner A scored 192 in total with $\mu=7.68$. Learner B scored 136 in total with $\mu=5.44$. Learner A was thoroughly more enterprising than Learner B except **'negotiating'** in which both were rated '5', which was far from meaning that they had equal negotiating skills, but rather WZ' way of saying,

'I don't think that [negotiating skill] really applies [to university learning]... Never do they negotiate, '5' [means] neutral'(WZ-22)

Same rating behaviour was found with categories **'Pioneering'**, **'Daring'**, **'Progressive'**, **'Taking actions in uncertain environments'**, and **'resourceful'** where there was lack of information, he quickly made an inference without much hesitation by giving a rate close to '5' which means 'neutral'. Since behavioural rating is mainly an impressionistic representation (not accuracy), it is argued that such inference is acceptable. In general, WZ did not have much problem rating the rest.

4) Triangulation: Initially, no personal definition was given to enterprising behaviours. However, WZ offered one spontaneously later on (refer to Quote-10). He defined an enterprising student as the following,

'An enterprising student for me, a good student for me, is somebody who understands this is actually his opportunity to learn... who stirs a conversation with his tutor on something that is useful for him so that he can learn...' (WZ-10)

Furthermore, based on the repeated utterances, WZ's central theme for an enterprising student is obvious: making the most of one's learning opportunities by utilising tutorials, initiating meaningful discussion with lecturers, and accessing useful and unusual information through computers. S/He is flexible and imaginative in generating ideas to solve problems. Finally, s/he is the one who develops one's study towards what one wants in future. WZ also strongly emphasised and re-emphasised in various places the importance of team-working or co-operation towards learning. This theme is precisely captured in his description for DUBS' 'enterprising attributes' namely, **'responsible'** and **'dynamic'**, together with the 'enterprising acts' and 'enterprising skills' these attributes embrace, i.e. **'commitment to make things happen'**, **'opportunity seeking'**, **'persuading others'**, **'negotiating'** and **'planning'**. Hence, the DUBS' definition of 'enterprising behaviours' seemed to be adequate enough to encapsulate WZ's personal definition. In other words, WZ's account concretised the face validity of the DUBS' definition (refer to discussions on face validity, content validity and differential validity from the collective analysis in Chapter 6).

Salient from WZ's definition is how the 'enterprise' repertoire was adopted to express his own idea of a good student. This might suggest a positive valuing (or intrinsic value) towards the concept of enterprise developed during the process of the discourse or it may simply be the result of expectancy effect. In WZ's case, the former proposition is more likely since he did not express unease in voicing opposite opinions.

Comparing WZ's rating behaviour with his comments for the provided list, a high degree of consistency was shown. He rated those thesaurus definitions which he considered inappropriate with rates which indicated 'neutral inference'. The only contradictory rate was found in Learner A under 'persuading others' and 'persuasiveness'. WZ regarded the two as the same. However, different rates were given due to the shift in criterion which he later explained,

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[7] Note that this is when the rating of teaching tendency was focused on undergraduate teaching. However, he chose to rate postgraduates' behaviours because he had not been teaching undergraduates in that year.

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'I put them differently because when I was thinking of **'persuading others'**... I was thinking of him persuading other students. But he is actually quite good in discussing things with me (**'persuasiveness'** for WZ himself). So, I give him a higher mark [for **'persuasiveness'** ('9') than **'persuading others'** ('3')]' (WZ-24)

The following tabulations demonstrate the consistency WZ had between his comments for the DUBS' list and his rating:

Enterprising Category	Behavioural Description	Learner A	Learner B
'flexibly responding to challenge'	...seek various ways of solving the problem...think independently what is taught and solve the problem in his or her own way [as opposed to] just take out their notes and try to copy the method...	9	4
'solving problems / conflicts creatively'	...go to the library and [look for extra materials about the problems] [as opposed to] open the notes taken from lectures and try to solve them...	9	4
'resourceful'	...goes to the library a lot... finds things through the computer network [to access some information that is not easily available]... knowledgeable [as opposed to] just follow their nose and do nothing else...	10	5

It is obvious that the related categories constantly differed at 5 points showing high a degree of internal reliability.

Enterprising Category	Behavioural Description	Learner A	Learner B
'commitment to make things happen'	...takes initiative to [persuade others to work / solve problems together].	10	8
'persuading others' / 'persuasiveness'	...very similar to 'commitment to make things happen' because it normally involves other students and you persuade them to do something for/with you... they work together, to exchange information, to discuss courses... be very determined and knowledgeable enough to suggest/persuade the others what they want to do.	3	3
'negotiating'	coming back to this 'persuading others'...	5	5
'opportunity seeking'	...comes and asks you questions... tries to find you because he doesn't understand something... plan their courses... looking for good opportunities to actually use their studies here to develop something they want to do afterwards [in their career].	7	6
'dynamic'	...comes to see you all the time... uses tutorials sufficiently... [initiates discussions] in tutorials [as opposed to] not saying anything...	9	6
'planning'	...plans his time-table... what to attend and how to do his work ... always hands his work in on time...	8	7
'responsible'	...knows what he wants... knows what is expected of him... comes to tutorials... appreciates what education is about... comes on time... brings homework on time... [works as planned]...	10	9

Again, high internal reliability was obvious as the categories in blue constantly differed at 1 point while the red at 2/3 points. The discriminative value in terms of numeric differences demonstrated in both AG's and WZ's rating also suggests differential validity of the categories in assessing individual's enterprising behaviours.

Finally, when WZ's rating behaviour and his initial understanding of enterprising behaviours were compared, an unexpected change of attitude was recorded. The carry-over effect of value-laden

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'enterprising modes of teaching' set off a reactionary attitude towards 'enterprising behaviours' at the beginning. However, such an attitude gradually became softened and, except **'autonomous'** and the thesaurus definitions, he accepted all enterprising behaviours as desirable. In fact, the excessive use of the enterprise repertoire presupposes the face validity of these categories being termed 'enterprising'. This assumption contradicts JaG's query concerning the validity of the DUBS' definition.

Relationship between Enterprising Modes of Teaching' and 'Enterprising Behaviours'
In WZ's case, the relationship was not explored and no inference could be drawn from the interview due to inadequate connections made between the two variables. Fundamentally, he was more inclined to didactic teaching modes while valuing highly some of the enterprising behaviours listed (e.g. **'flexibly responding to challenge'** and **'commitment to make things happen'**). Admittedly, according to WZ, students failed to exhibit most of these desirable behaviours at an academic level although they took place more often at a social level.

To summarise, coming from a background which had no preconception of enterprise education, WZ's profile has contributed a great deal towards investigating the original concept, how value judgement entered into the presentation and implementation stage. His sharp criticisms have helped to direct modification to neutralise the concept.

4. Profiling FO

Personal Background
FO was a lecturer in Organic Chemistry at university. Altogether she had taught for 8 years (including the 4 years part-time teaching during her course of PhD research). She perceived the university teaching environment in Chemistry as formal and traditional. Similar to a syllabus, there were some core courses with definite topics needed to be delivered within current curricula. Prior to the interview, she had not come across Enterprise Education.

Definition of 'Enterprising Modes of Teaching'
1) Personal Definition
Initially, FO associated 'enterprising modes of teaching' vaguely with 'something different from the traditional classic ways of chalk or whiteboard type of teaching', which might involve

> 'using new technology... for example, using a computer which is linked up to an overhead projector to demonstrate certain programmes in chemistry.' (FO-1)

This response resembled that of WZ's who also had no preconception towards the subject matter. However, as FO continued, she was able to relate fairly correctly some features which were regarded as 'enterprising modes of teaching' in literature:
> *'...probably the most enterprising methods of teaching might be the ones in which you get students to interact more, to actually do things themselves in small groups... rather than just getting up in front of a bunch of students and talking to them.'* (FO-2)

FO's definition made no connection with either the political or the economic interpretation of enterprise as suggested in the academic debate.

2) Comment on the DUBS' model:
Resembling WZ's immediate reaction to the DUBS' table, FO believed enterprising modes were more readily applicable to Social Sciences while didactic modes were necessary for Science subjects. The key element, again, was the amount of core, basic information which had to be delivered mainly through didactic means in lectures before the enterprising method could take place in tutorials and workshops.

> 'I definitely believe that if [students] become actively involved in a discussion rather than just passive listeners... it will get them thinking and they would remember that much more easily. On the other hand, I do think certain subjects lend themselves much more to a [didactic] type of teaching. A hard core science subject like Chemistry does need a certain amount of straight forward lecturing because there are some core facts which need to be delivered, then, you can have workshops at which students can have an opportunity to work through problems and discuss with fellow students or lecturers. Other subjects like Politics, Theology or Psychology could very well lend themselves to [enterprising] types of teaching where there are open debates and discussions revolving around lectures.' (FO-3)

With a Different view to that of WZ, who claimed that didactic modes were for undergraduate learning and enterprising modes for postgraduates, FO thought that the different modes happened in different learning settings, i.e. didactic modes were for lecturing and enterprising modes for workshops and tutorials. Consequently, the two methods were complementary. Didactic modes (lectures), which deliver basic concepts and information, precede enterprising modes (workshops/tutorials) which reinforce theories learnt in lectures.
> 'In scientific subjects there are a lot of theories which will be presented to the students almost as factual... some of these ideas are quite complicated and for the students to discover concepts within a lecture might be unrealistic. But if the student was in the position to feel that they were discovering something rather than having it straightforwardly presented to them, they would learn that at a much deeper level... but they would have to have some basic information that again would have been presented to them in a lecture format, and then ['**discovering concepts**'] can be developed further in a tutorial session, or in a workshop... Any form of learning which involves discussion or direct interaction with whatever you are learning about is bound to increase the efficiency of learning... If you are learning practical methods in Chemistry, there is such a vast difference between learning about it from the textbook and actually doing it yourself... by doing it yourself you can actually see how the process works, what sort of problems your are likely to encounter. But again [the two

methods] are complementary because there's a certain amount of theoretical basis you need to learn in lectures, [then] the actual experience of doing them yourself really gels everything together... certain experiments tend to focus on parts of lectured courses [students have] had... In a science subject, practical work has been used to reinforce theory. The worst situation for learning is a passive one where you just go in and sit down... there probably needs to be an element of that, but it tends to close your mind off, and it's only when you go back over what you've written down that you actually learn.'   (FO-4)

In the above quote, FO articulated the advantages and the disadvantages of the two teaching methods by integrating the first four dimensions in the DUBS' table, namely, **'learning from lectures'** - **'learning from debates and discussions'**; **'passive role as listener'** - **'learning by doing'**; **'concepts provided'** - **'concepts discovered'** and **'learning from texts and notes'** - **'interactive learning'**. Essentially, according to FO, the combination of both approaches was very much the nature of teaching and learning in science subjects.

Similarly, **'session programmed'** was more the case for didactic lecturing since there was pressure of time for covering the planned curricula whereas **'session flexible'** was the case for tutorials in which students' individual needs were catered for. Concerning **'learning objectives imposed'** - **'learning objectives negotiated'**, FO shared the same view with WZ that for a science subject, students might not have enough knowledge to actually know what learning objectives to negotiate.

'Science subjects [are] a little bit more defined... Within Chemistry, there are very definite topics... learning objectives are definitely imposed as it stands in current Chemistry curricula. To a certain extent, these are not open to negotiation... Being able to negotiate what the learning objectives are relies on the students knowing what they would need to know [which] is very much constrained by students' ability to do that.' (FO-5)

Concerning **'feedback from the teacher'** - **'feedback from each other'**, FO commented on the merits of both which served different purposes in learning.

'You need a combination of both... it is good if students can discuss things themselves, they'd find out from each other where their problems lie... [But] you can't eliminate **'feedback from the teacher'** because some students have more faith in that, or would be more encouraged by praise from a teacher than from a fellow student.'   (FO-6)

Drawing from her own experience, FO gave an unusual interpretation of **'teacher infallible'**. For FO, infallibility was a 'defence mechanism' of feeling inadequate about lacking knowledge and hence the fear of loosing respect from students.

'When I first started teaching, I was quite afraid of revealing my lack of knowledge in certain areas, and because you don't have that much experience, you feel you are expected to know everything by students, you feel slightly inadequate and therefore don't want to transmit this to the students because you think that they won't respect you. As you get more experience and your confidence grows, you realise that students don't really expect you to know everything, you can't possibly know everything... As long as you admit when you don't know something - rather than trying to bluff your way through [or] look embarrassed about not knowing, then the student will perceive it as something bad - whereas if you are completely open and relaxed about things, they won't think anything badly or disrespect you for it. __But it's fear to carry it off, it's haven't the confidence to carry it off...'___   (FO-7)

Commenting on **'teacher = expert'** - **'teacher = facilitator'**, FO acknowledged that the teacher should be an expert in the subject although his/her expertise should not lead to the provision of all answers, but rather 'tools' for students to solve their own problems:

'You supply [student] with the means [and] the basis for solving problems, rather than giving them the solutions to every problem. It's quite important [that] you're an expert in relation to [students], but you've got to make them aware that once they've got the basic tools, they can apply those to solve their own problems. In other words, you're giving them the power to solve problems themselves... Students must be encouraged to use the information... [in contrast to] putting yourself forward as the person who knows all the answers.'   (FO-9)

Concerning the contrast between **'attention mainly on knowledge'** - **'attention equally on knowledge and skills'**, FO commented that in Chemistry, in theory, the latter was true. However, in reality, more emphasis was put on knowledge:

> 'In practical subjects such as Chemistry, there is an equal weighting on both, although I wouldn't say it stands. Knowledge is applied in practical classes, but because Chemistry graduates are regarded as presenting the technical knowledge, to be able to direct certain practical operations, the actual doing of these things would often be done by technicians who have been trained very specifically in these practical skills. Therefore, the emphasis is on knowledge. We used to be always told, 'Don't worry so much about the practical end because you are going to be directing people -in what to do...'   (FO-8)

In general, FO reflected on how the didactic and enterprising teaching approaches have been complementarily implemented in the discipline of Chemistry.the Didactic method was regarded as fundamentally essential for laying down basic, core information while the enterprising method made theories which were learnt in lectures more concrete and allowed deeper understanding of the subject matter.

3) Rating of Teaching Tendency:
FO was not sure whether rating the table signified her teaching or her own learning[8]:

> 'Do you want me to rate according to my tendency to teach... or my own tendency to learn...?'
> (FO-10)

Although presented as a continuum, FO preferred to rate the two columns separately, i.e. putting two rates on each dimension. She explained,

> 'The way I've done it... one of them tends to be high, then the other low. Some [of the dichotomies] are not mutually exclusive. Both can have quite an influence...'   (FO-11)

FO's way of rating both columns was also found among other participants (JoG & JR). Admittedly, although the dimensions were presented as continuums, rating on one side might 'visually' exclude the other which might not represent most interviewees' teaching styles which combined the two in varying degrees. Arguably, the majority showed no difficulty in rating the way it was originally designed to show 'tendency'. For the purpose of statistic analysis, FO's rating was modified by subtracting the two rates in order to show 'tendency'.

Moreover, she was aware that her rating of actual teaching tendency was possibly biased by her own beliefs.
> 'My rating is what I would believe, or what I would hope for. If you ask my students their views about my modes of teaching, it would be interesting to see what way it would come out. You tend to be biased towards what you would like and the reality may be slightly different.'
> (FO-12)

Henceforth, the rates were more the reflection of beliefs and preferences rather than the actual behaviours per se due to personal bias. Originally, the dimensions of teaching modes were not intended to be used for measuring teaching behaviours as such. They have not been purposely refined into behavioural descriptions. Instead, they were statements of beliefs and attitudes towards teaching. Arguably, it has been adequate for indicating teaching *tendency*.

FO's total score was -7[a] placing her the third highest on the didactic teaching tendency. She claimed that her teaching style had much to do with the distribution of her teaching load. Since she was usually given tutorials more than anything then, her rating was thus influenced towards the enterprising side. In other words, her teaching style could have been even more didactic then already shown.

Rating a Colleague
When asked to rate a colleague's teaching tendency, FO replied,

> 'A lot of my fellow teachers in the department... I don't have direct experience of them as teachers... I know from feedback from students which ones are regarded as good and which

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[8] Same enquiry was made previously by JoG and WZ.

ones as bad... I'll pick one person that I think is good though I have never been into one of his tutorials... I do find it a little bit difficult [to rate a colleague]... I could have said something about [him] in the labs. He's a very committed teacher... quite old fashioned... he believes in working the students hard. He's quite straight with them. He tends to give out to them. But I would think he has quite a lot of respect from students, and he himself is prepared to put in the work. I could try and [rate] him, but I think I'd say no more about him...'   (FO-13)

This revealed the problem of rating a colleague due to lack of observation. Nevertheless, the limited information on which inference was drawn was noted. FO's statement clearly pointed out that her colleague's teaching tendency (which she had not seen) were inferred from his beliefs and attitude. Together with the remarks given for self-rating, the soundness of the methodology was questioned:

> ○ How accurate was tendency (behaviours) inferred from beliefs and attitudes?
> ○ To what extent was external reliability and inter-observer reliability in the rating exercise maintained?

Behaviourally refined descriptions for the dimensions and opportunities for observation are necessary to sustain the methodology.

Unique to FO's rating was that she interpreted **'mistakes feared'** as the teacher being afraid of making mistakes instead of students. She was then requested to rate according to the majority's understanding, i.e. students fearing mistakes. Subsequently, she raised the similar concern about **'teacher = infallible'**:

> '...**'teacher = infallible'** - are you saying whether he puts himself forward as being infallible, or the pupils perceive him as being infallible?'   (FO-15)

Although such interpretation was unique to FO, it might still be worth recommending a clarification of the dimension by re-wording the above two dimensions if they are to be kept for further investigation[9].

Comparison between Self Rating and Rating a Colleague
FO's colleague scored -9[a] totally, slightly more didactic than her own (-7). Only trivial variations in rating were found among individual dimensions. Out of eleven dimensions, five were rated exactly the same while the rest varied between one to two points. This again seemed to suggest that the numeric impressionistic representation was sensitive enough to identify minor differences which were important for the purpose of comparison.

4) Triangulation: Interestingly, without prior knowledge of enterprise modes of teaching, FO's personal definition matched with the DUBS's model (Quote FO-2). Her rating behaviours corresponded with her comments on the model. She scored -7 placing her third highest on the didactic side moderately. As she remarked that her teaching style had already been less didactic due to the allocation of more tutorials on her teaching workload, it was possible that her teaching tendency would have been more didactic generally.

An interesting expression of her thoughts during the exercise was recorded,

> 'I could think of ways in which teaching can be improved with more interactive learning, but as it stands the prime way that I teach [is mainly didactic].'   (FO-14)

This seems to show the effect of the interview as a stimulus to participants' heightened self-awareness of their teaching behaviour, which may bear an influence on their change of attitude towards teaching (Kvale, 1994).

It was obvious that FO perceived that teaching in Chemistry at university was traditional which has conditioned her teaching practice. During the course of the interview, however, FO's favouring of

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[9] These two dimension have been identified as value-laden and their removal from the table is suggested .

enterprising modes seems to have developed although she acknowledged the importance of didactic methods for a perceived traditional Science subject.[10]

Definition for Enterprising Behaviours
1) Personal Definition: FO connected enterprising behaviours firstly to cognitive learning behaviours which implied a direct carry-over effect from the previous discussion of enterprising modes of teaching.

> 'Within a teaching situation, I'd imagine [enterprising behaviour is] something which tries to look into what is the most effective way in which people learn...' (FO-15)

FO was then probed with a more precise question: What do you think enterprising behaviours mean among students? She responded,

> 'Enterprising students will try and maximise their learning potential... enterprising behaviours would go along the lines of students getting together and discussing potential problems within the course and then bringing it forth for discussion at tutorials... voicing any complaints that they might have with the terms' teaching arrangements... or any sort of *self-initiated behaviour* to try and learn more from the course... *[taking a] more active role* rather than a completely passive one.'   (FO-16)

The accent of FO's answer was still tightly associated with enterprising teaching (refer to Quote FO-2) and cognitive learning. Interestingly, in her closing remark, FO generalised enterprising behaviours into 'self-initiated behaviours' which was much in tune with the protagonists' position in the academic literature.

2) Comments on the DUBS' model: Concerning the thesaurus category **'pioneering'**, she thought that it was difficult for students to be so because 'most things are laid out for them'. The similar problem applied to the category **'progressive'**. Being **'adventurous'** and **'daring'**, for FO, had both a positive connotation when relating to students choosing risky and unusual topics for research and a negative connotation especially when relating to potential danger in the Chemistry laboratory.

Concerning the DUBS' list, FO was able to identify most of the enterprising categories and gave precise behavioural descriptions at ease except **'negotiating'** and **'persuasiveness'** due to the lack of occasions for these skills to be used. She also felt unsure of the meaning of **'coping with and enjoying uncertainty'**.

Links / Overlaps / Synonyms Among Descriptions
Table 4.4 discloses how FO linked various enterprising categories together. For instance, **'autonomous'** was linked with taking the **'initiative'**, being **'dynamic'** and **'decision taking'**. She also realised that she had been using the same situation, i.e. students doing their final year project and dissertation, to illustrate several enterprising categories including **'pioneering'**, **'go ahead'**, **'ambitious'**, **'flexibly responding to challenge'**, **'opportunity seeking'**, **'planning'** and **'autonomous'**. This explained why some categories were given similar behavioural descriptions. Emerging from these rich and overlapping behavioural descriptions was the central theme of enterprising behaviours surrounding **'self-initiative'** and **'self-confidence'**.

The emergence of a central theme of enterprising behaviours was also found previously in AG's and WZ's profile. A collective analysis of these themes will have fundamental importance in investigating the concept:

● What are the implications of the similarities and/or differences among individuals' perceptions in the central constellation of enterprising behaviours?

Table 4.4. Analysis of FO's Descriptions of Perceived Overlapping Enterprising Categories

Enterprising Category	Behavioural Description	Learner A	Learner B
FO's personal definition:	'maximise their learning potential... enterprising behaviours go along the lines of students discussing potential problems		

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[10] It would have been interesting to re-interview FO to see whether there was any change of tendency in teaching after the interview. Unfortunately, she has already left teaching al together.

'acting independently on own initiative'	within the course and bringing it forth for discussion at tutorials about terms' teaching arrangements... any sort of self-initiated behaviour to learn more from the course... [taking a] more active role... (FO-16)		
'pioneering'	going forward a bit more, trying something new... going out on their own by initiating certain things, going to the library trying to research what they are going to do next...	8	6
'go ahead'	showing their own initiatives... *planning out their own work*, deciding what topics they want to do for electives, for projects or dissertations, initiating research themselves, looking up material on their own initiatives...	8	6
'opportunist'	willingly or very easily come up to ask for help... take advantage of the fact that they're seeing you... and will try and get whatever they can from you.	8	6
'ambitious'	work hard to achieve certain things they are aiming at... with some ambition to succeed in some career or to get on the first ladder going somewhere.	7	6
'actively seeking to achieve goals'	set an agenda of something they want to do... asking your help so that they can speed up the process or achieve that goal.	7	7
'flexibly responding to challenge'	[find many ways to tackle a task]...being able to prepare to search for information in unorthodox places, be prepared to visit other libraries so that they can get the information they are looking for... ask around people in the department who know about the subject. ...not just [doing what is] convenient.	7	6
'Taking action in an uncertain environment'	[the ability to take action in an uncertain environment is associated with self-confidence]	6	8
'solving problems / conflicts creatively'	... approach [problems] in a [non-]standard methodical way... deal with them more literally and come up with solutions using their own imagination.	6	7
'commitment to make things happen'	know what they want from their degree and they're prepared to put in the work to achieve that.	8	7
'persuading others'	they are quite assertive or sufficiently self-confident in their own ability that they will stand their own ground and reason with you and defend themselves...	6	7
'planning'	*[handling several tasks at the same time] by organising time to the best advantage... planning ahead to maximise time... [show a lot of initiative]... very actively planning out time schedule for completing [work]...*	8	6
'decision taking'	**without having to double check with you first... be prepared to make decisions about what is the best way to do [things] without needing confirmation... when things go wrong... they would rectify it [without needing] reassurance...** largely dependent on self-confidence	8	6
'confidence'	[actively taking learning opportunities], not embarrassed of making mistakes...	7	7
'autonomous'	work on their own initiatives... **don't [need] double checking on things.**	7	6
'versatile'	come up with their own solutions to problems... to be able to improvise a little rather than either automatically asking for help or [simply giving up]... being able to apply themselves to different things... have skills which cross different disciplines...	7	8
'dynamic'	...links in with self-confidence... choosing their own dissertation titles, being proactive in searching for information or looking up references themselves, not just going to your supervisor and asking for research topics or reference lists...	8	7
'resourceful'	...*use their own resources to solve [problems]...* make do with what's available... using different techniques... getting	7	6

	ideas from different sources... looking for the best way to deal with them...		

3) Rating of Two Learners: FO rated two students of her choice easily. Learner A scored 177 with μ= 7.08 while Learner B scored 168 with μ=6.72. The total scores might suggest that the learners were as enterprising as one another while in fact individual clusters indicated by colour coding seemed to show different strengths within the profile. According to FO, the two students were very different:

> '...[Learner A] is an excellent student... she uses her own initiative quite a lot. I'll rate her quite highly... She knows what she wants and actively seeks it. She is in control of her own future and she is going to be successful... [Learner B] is quite a laid-back person, he doesn't have a clear idea of what he wants next. He has got very very positive characteristics. He is extremely friendly and good with people. But he's not very single-minded and probably not terribly ambitious... I've given him lower scores... It's just that *the emphasis within the questions* tends to make him come out less favourably.' (FO-17)

Consequently, Learner A consistently scored one or two points higher than Learner B on categories which indicated 'self-initiative' (refer to the table above). When facing inadequate information for drawing inferences of Learner A's behaviour, a relatively 'neutral' or 'conservative' rate (i.e. '5' or '6') was given[11],

> 'I don't know how she copes with or takes action in [uncertainty] ('5' and '6')... I don't know about her ability to solve conflicts ('6')... I don't know about her ability to persuade others ('6')...' (FO-18)

Compared with the scores allocated to Learner B along the same categories:

> **''Coping and enjoying uncertainty'**: he's very uncertain about his future but he's quite easy-going about it. He's enjoying it in a sense that things are very open at the moment ('8')... **'Taking action in an uncertain environment'**: he's decided what he's going to do for the summer to clear his mind ('8')... **'Solving problems/ conflicts creatively'**: he's quite good with people...for resolving conflict ('7')... **'Persuading others'**: he could be quite persuasive [because] he's good with people ('7')...' (FO-19)

The scores which seemed to reflect that Learner B was better coping with uncertainty than Learner A could be misleading since lower scores were given to Learner A due to lack of information. In other words, the rates might not have 'true value' in terms of drawing inference. FO admitted that she personally knew Learner B better as personal tutee for three years while she only knew Learner A mainly academically through supervising her second year dissertation. Presumably, her rating would have been based on different situations and different aspects and thus different interaction and opinions of the two students. An important methodological consideration is clear:

- To what extent are the rates a reliable index for comparison?
- Categories which tend to be less observable or exhibited should be clearly identified, or be scrapped from the list.

Arguably, however, a reasonable *overall consistency* of the rating methodology is maintained as illustrated in the table above. Furthermore, choosing two students from different encounters was unique to FO.

4) Triangulation: When comparing FO's own unprompted definition of enterprising behaviours (FO-16) with that of the DUBS', a shared component, namely self-initiative behaviours, was recorded. Significant in FO's definition (FO-17) was the overt identification of enterprising behaviours as a distinctive *emphasis* or a unique set of characteristics of an individual which was inclusively associated with 'self-initiative'. Such a claim was much in tune with Gibb's model (1993) where 'self-reliance' (p.13) or 'acting independently on own initiative' (p.14) has been regarded as one of the important enterprising behaviours.

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[11] WZ also used the same rating strategy for categories where he had not enough knowledge of his students.

Bearing in mind that FO had no prior knowledge of Enterprise Education, it implies that for FO, the concept of 'enterprise' naturally connotes 'taking the initiative'. Henceforth, the DUBS' concept was thorough enough to embrace that of FO's.

When comparing FO's comments on the DUBS' model with her rating, a reasonable level of consistency was maintained as discussed above. Rates allocated to overlapped categories highlighted in different colours yield high internal reliability.

Finally, FO's rating of her two students was concomitant with her original understanding of enterprising behaviours. All in all, FO had a consistent attitude towards the subject matter.

Relationship between 'Enterprising Learning Modes' and 'Enterprising Behaviours'
FO has made an apparent connection between 'Enterprising Learning Modes' and 'enterprising behaviours'. Her comments (FO-15. FO-16) clearly indicated her belief that 'Enterprising Learning Modes' cause the development of 'enterprising behaviours'. Although the possible carry-over effect and the expectancy effect might have counted for a superficial high agreement between FO's attitude and the DUBS' proposition, FO's detailed behavioural descriptions suggested otherwise, i.e. her fundamental attitude towards the subject matter was most probably based on her interpretation of the semantic connotation of 'enterprise'.

Summary
To summarise, FO saw that both the didactic method and the enterprising method of teaching were complementary to one another. Didactic teaching was preferred for delivering important core and basic knowledge within time limits while enterprising teaching for concretising in-depth understanding. Within the discipline of Chemistry, in theory, the two methods were properly applied in different learning situations i.e. didactic approach for lectures and enterprising approach for workshops and practical. In practice, however, FO acknowledged that the academic tradition was in favour of didactic teaching. During the course of the interview, she was actively reviewing her own teaching style and would like to adopt more enterprising elements in future. She also identified the causal relationship between 'enterprising modes of teaching' and 'enterprising behaviours' in such a way that her attitude was in agreement with the DUBS' proposition.

5. Profiling JoG

Personal Background
JoG teaches English and English Drama to Year 4 to Year 7 i.e. the GCSE to the A-Level classes (age 14 to 18) in a comprehensive school. She has been teaching for 35 years. She perceived her school as formal and traditional and extremely concerned about public exam results. She has to teach according to the examination syllabus and the National Curriculum which she regarded as obstacles for pupils to truly appreciate knowledge as they were much absorbed in performing well in exams instead. She had vaguely heard about Enterprise Education before the interview.

Definition of 'Enterprising Modes of Teaching'
1) Personal Definition
JoG defined 'enterprising modes of teaching' as

> '...putting the ball in the kids' court... getting them to think for themselves and to develop ideas that are not spoon fed to them. It can happen in English, it can happen in any subject. Basically, it is to encourage kids to use education as a kind of step up for what they are going to do when they leave school, to encourage independent thought, social skills and taking their main chance when it comes up.' (JoG-1)

Interestingly, JoG did not define the *modes* of teaching as such, but rather, she had clearly defined the *aims* of enterprise teaching. When probed to define the methods of teaching, JoG answered,

> '...an enterprising teacher does not gives handouts. [S/He] waits to hear what the kids have got to say about [the topic]... puts them in twos or groups [for discussion], then they come back together... s/he can guide the feedback from the kids and have good input *without being didactic* about it.' (JoG-2)

JoG's idea of enterprising teaching modes matched with that of the DUBS' model along the dimensions **'learning from debates and discussions'**, **'concepts discovered'**, **'interactive learning'** and **'teacher = facilitator'**. She clearly differentiated this teaching approach with the didactic approach.

2) Comments on the DUBS' model
JoG gave very precise comments on the DUBS' table comparing didactic and enterprising teaching modes':

> ''**Learning from lectures'** means no participation. **'Passive role as listener'** is boring. **'Concept provided'** gives no stimulus. **'Learning from texts and notes'** gives no personal responsibility. **'Feedback from the teacher'** has nothing wrong with it, but if it's solely from the teacher, then it becomes restricted to one aspect of it and that can be wrong. **'Sessions programmed'**: you have to plan what you are going to do, but I don't think you should stick to it rigidly because things can crop up during discussion that may be actually more interesting or wholly relevant that gives a wider view of what you are talking about and helps you to resource for tomorrow. You don't have to cover a subject in a lesson or five lessons or ten lessons, obviously, you've got the syllabus to follow but I think that you've got to be flexible within that... [**'Teacher infallible'**:] the teacher is certainly not infallible, I'm, still learning all the time. [**'Teacher=expert'**:] the teacher is an expert but that expertise shouldn't be the focal point of the lesson. We should be there as a facilitator. All teachers should be experts in their subject but they should not impose their expertise... **'Learning objectives imposed'**: I do impose certain objectives but that was because of examination demands, within that I negotiate which particular area of text they want to explore, so it is partly negotiated, but it's got to have some kind of design imposed on it... **'Attention mainly on knowledge'**, I think that the attention should be mainly on fun. If you get kids enjoying themselves, they are going to learn...' (JoG-3)

JoG gave short and dismissive criticisms to the didactic column on the dimensions **'learning from lectures'**, **'passive role as listener'**, **'concept provided'**, **'learning from texts and notes'**, **'teacher infallible'**. However, JoG saw the importance of the dimensions **'feedback from the teacher'**, **'sessions programmed'**, **'teacher=expert'** and **'learning objectives imposed'** which were located in the didactic column. They would only become inappropriate if their emphasis was not well combined with their enterprising counterparts i.e. **'feedback from each other'**, **'sessions flexible'**, **'Teacher=facilitator'** and **'learning objectives negotiated'**.

Concerning **'Mistakes feared'**, JoG firstly interpreted it with hesitation that it meant 'students who get the wrong ideas consider it a defeat by themselves'. This interpretation implied that the fear might not be induced by teacher's teaching style per se. She then asked the interviewer what it was supposed to mean.[12] This again shows that the wording of this dimension is unclear.

Concerning **'attention mainly on knowledge'** - **'attention equally on knowledge and skills'**, JoG added that,

> 'the attention should be mainly on fun... If you get kids enjoying themselves, they are going to learn... because they remember it through the activity they are doing... the argument that took place at the time, whereas, a fact is a bit of a cold sort of thing, unless you relate it to something, it's got very little meaning per se.' (JoG-4)

This was to reinstate her strong preference of, using the wordings of the DUBS' table, **'learning by doing'**, **'learning by debate and discussion'** or **'interactive learning'**.

Clearly shown from JoG's comment was her extremely positive attitude towards the general concept of enterprising learning modes. Simultaneously, she was able to take constructive unbiased opinion towards individual dimensions in which the dichotomy was treated as complementary.

3) Rating of Teaching Tendency
Self-Rating
JoG rated her own teaching tendency at ease. Like FO, JoG also naturally split the table into two columns and allocated two rates on each side of the continuum along every dimension. Excepting the dimensions for which she saw equal importance from both didactic and enterprising modes, including **'feedback from the teacher'** ('5'), **'sessions programmed'** ('3'), **'teacher=expert'** ('4') and **'learning objectives imposed'** ('4') where a high rate was given, other didactic features were rated from '0' to '2'. On the other hand, most enterprising features were given the highest rate of '5' except **'concept discovered'** and **'learning objectives negotiated'** which were rated '4'. The distinct preference of JoG towards enterprising teaching modes was salient. In order to show tendency, the two scores were subtracted. In total, JoG scored 10^a (23 unadjusted) which placed her the fourth highest in the enterprising tendency in teaching. When asked whether the rating profile represented her teaching style, she answered that,

> 'some of the things that I've [rated] there may not reflect ideally what I'd like to do. But every teacher is bound by the system under which they are working...[13]' (FO-5)

More importantly, JoG thought that the rating was done according to her actual teaching practice rather than what she would have done ideally. However, as she had given the highest rate ('5') to most dimensions except **'concept discovered'** and **'learning objectives negotiated'** which were rated '4' on the enterprising side, the writer suspects that the rating is likely to be biased by preference rather than actual behavioural practices due to the impressionistic nature of the rating methodology and the inadequate behavioural descriptions of the dimensions.

Rating a Colleague
JoG, as a senior teacher, had formally appraised this colleague who was new to the school. According to JoG, the colleague's teaching style was nearly completely opposite to hers. The colleague scored - 22^a (-29 unadjusted) compared with JoG 's 10^a (23 unadjusted). JoG explained that such a difference was a result of the colleague's lack of experience, being young, nervous of being appraised, not being 'a natural teacher and he was under pressure from the school to maintain discipline and achieve results'.

A very interesting phenomenon was observed in JoG's rating. The dimension **'teacher infallible'** was given a different attribute when rating herself and her colleague. In self-rating, it means that she herself had a learning attitude towards teaching,

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[12] Recall that WZ found this dimension value-laden, FO interpreted it as teachers fearing mistakes instead of learners.

[13] She was referring especially to the examination system. She admitted that preparing pupils for exams was a different task from eliciting pupils' appreciation of literature. Since the public examination took over course work assessment, she had to spend a good deal of time reinforcing students' efficiency in factual recall within an artificial time limit. Such a system of assessing pupils' understanding, in JoG's opinion, was unfair, because it emphasised results and ignored the learning process which was equally important.

'I'm definitely not infallible ('0')... I'm still learning all the time ('5').'   (JoG-6)

When rating her colleague, it means that the colleague was
> 'nervous... terrified about being challenged by anything ('1')... afterwards, she did learn
> something ('3')'.   (JoG-7)

Although the negative connotation of **'teacher infallible'** was maintained in the rating, a different meaning was attached. This reflects the importance of the qualitative approach to interpreting data adjacent to quantitative numeric analysis. Furthermore, re-wording of the dimension to minimise random variations in interpretation is necessary (?).

4) Triangulation:
The comparison between JoG's own unprompted definition and the DUBS' definition of enterprising teaching modes shows total agreement with each. The global meaning of enterprise was shared. Generally speaking, her comments on individual dimensions of the DUBS' which showed her strong preferences towards enterprising teaching approaches were reflected in her rating of her teaching tendency although the initial dismissive remarks towards the first four dimensions were slightly moderated. Finally, her self rating showed that her original attitude towards enterprise was consistently practised.

Definition of Enterprising Behaviours
1) Personal Definition
JoG defined enterprising behaviours among her pupils as
> 'thinking for themselves... helping each other to come to understanding... thinking of ways in
> which knowledge is applied...'   (JoG-8)

The above definition reiterated the one in the protagonist's literature which stresses independent thinking, co-operation and application of knowledge. When asked how she observed those behaviours, JoG was able to give vivid behavioural exemplars which happened recently in the classroom to support her idea of enterprising behaviours. For instance, she gave the following incident to illustrate that pupils were 'thinking for themselves':
> 'Recently I've been studying Arthur Miller's 'The Crucible' with a group of 6th formers, and we
> were talking about McCarthyism, and I said, 'Right, into groups, think about where that is
> happening today: think about television news, think about the newspapers, think about your
> school, think about your homes...' They were in random groups. All I'd do was to walk down and
> join in from time to time. They were talking about so many different things... One group was
> talking about the way it was done in school, and another group was talking about Sadam Hussain...
> After a certain amount of time, I said, 'We've got to discuss some of the ideas here.' That was done
> in a very democratic manner. We ended up in a full class debate, and it all came from a play that
> they were subsequently studying, and I think it's absolutely fantastic.'   (JoG-9)

To explain what she meant by 'helping each other to come to understanding', she stated that
> 'to be enterprising, you must know that you are not a hermit, you are acting in relationship to other
> people and you get the best out of other people if you motivate them... The enterprising person is a
> motivator by listening, by suggesting, by encouraging, by supporting, and keeping doing things
> instinctively. They don't do it because they've been listening to a lecture on enterprise. It is done in
> a *relaxed, discussive* situation, it is a natural thing to do... They are making presentations. The
> group will choose their own spokesman, or they can do a group presentation. There's always
> feedback from the group and even the comparatively quiet person in the group is never ever a
> passive listener... what you can do is to teach everybody to maximise whatever *enterprise skills*
> they have.' (JoG-10)

Naturally emerging from her statement was the notion of maximising pupils' '*enterprise skills*'. Notice that this term had not been introduced to her before. While 'enterprising skills' were a topic of debate in the academic literature, in terms of identifying what these skills are, JoG mentioned '*enterprise skills*' as if it was a generic term of common acknowledgement. Her practitioner's approach makes an interesting contrast to the academic approach. To investigate her understandings further, JoG was requested to explain what these skills were. She responded that
> 'it depends on what the objective is.'   (JoG-11)

Instead of categorically naming or labelling these skills into an adjective (e.g. 'creative') or an adverbial phrase (e.g. 'solving problems creatively'), she illustrated a learning incident in which these skills were expressed,

> 'we were looking at a passage that had been written by a parent to the kid who had what's called an 'Edward Syndrome'... one of the tasks, at the end of the time, was to imagine that you are a parent who's got a kid who is suffering this way, and what you need to do is to provide a help-line to this kind of facility... the enterprising kids... produced some excellent ideas. They used the media... produced incredible leaflets and they were eye-catching, informative... gave addresses to the people that you could go to... telephone numbers for equipment. They gave a help service line for people who suffer from the same situation... arranged people who had the same problem to meet... They realised somebody who was put into such a situation needed specific encouragement and they thought of slogans like 'You are not the only one' and they drew a map of the hospital and pinpointed the places that you have to go and the person you have to ask for, and that came from them understanding that *enterprise is quite often common sense ideas cut into a form that most people would understand...* One group decided that they were going to set up a series of fund-raising events so that research could be done into this particular kind of child malady, and they drew up a programme of things that they could do... they have been up to another local hospital and got the information about 'Edward Syndrome' so that they could actually pinpoint this sort of machine... work out the cost... how much they had to raise. One of them was going to do door to door collections with a kind of leaflet information to people...and other people were going to appear in television and run a television raffle. That's a new enterprise and that all came from reading about somebody who has suffered, and passed on the information,...and in doing so, they have thought about communication and about helping, and they have understood a condition that they have never thought existed before, and that was from reading somebody's autobiography.'   (JoG-12)

From the above analogy, JoG did not directly label the skills that were involved in those activities while these skills could possibly be identified with the DUBS' categorisation of enterprising skills, i.e. **'persuasiveness'**, **'planning'**, **'negotiating'** and **'decision taking'**. Furthermore, the pupils' behaviour could be attributed as being **'creative'**, **'versatile'** and **'resourceful'**, etc. according to the DUBS' model[14].

More interestingly, she perceived that *'enterprise is quite often common sense ideas cut into a form that most people would understand'* and that how enterprise skills were demonstrated depended on the learning objectives (JoG-10). Such understanding was in tune with Gibb's speculation that 'opportunity and freedom to practice being "enterprising" in a supportive climate, with such behaviour being rewarded, is also arguably likely to lead to personal development in this respect.' (Gibb, 1993, p.15)

The analogies JoG provided (JoG-9, 10, 12) have precisely reflected her own definition of enterprising behaviours (JoG-8). Closely associated with these behaviours was the mode of learning which was 'relaxed', ' discursive ' and activity based, in tune with the promoters' version of enterprising learning.

2) Comments on the DUBS' List:
The Conventional Dictionary/Thesaurus Definitions
To JoG, the thesaurus labels of enterprising behaviours, namely **'daring'** which she connected with **'opportunistic'** and **'ambitious'**, were largely undesirable. She associated **'daring'** with

> '...somebody who's prepared to go off at tangents... very occasionally it's relevant, but mostly it's exhibitionism.'   (JoG-13)

Being **'Opportunist'** or **'ambitious'** was not desirable since it could mean:

> 'somebody who wants to shine and...not contributing to the group... kids who will take other people's ideas and utilise them... and therefore, it's a moral condemnation...'   (JoG-14)

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[14] It would be interesting to compare what JoG actually commented on with the DUBS' categories later.

Concerning **'pioneering'**, it was seldom a theme in her teaching because she would have provided students with the initial ideas. It was being **'adventurous'** ('prepared to explore ideas') and **'progressive'** ('positively developmental') that she regarded as positive and important.

The DUBS' Definition

Concerning the DUBS' definition of enterprising behaviours, JoG did not think that **'actively seeking to achieve goals'** was necessarily desirable depending on what the goals were. She gave a very interesting account:

> '...as far as I'm concerned, the goal is to stimulate kids to appreciate literature and to see its wider application. I don't think that that is their goal. I think their goal is to get good results at the end of the day...to get 'A's and... At the moment, there is a kind of goal syndrome going on because of their exams blooming within a couple of weeks. But most of the time, I want them to enjoy, to understand, to apply and to learn through literature. And I think they do that, it's just suddenly when somebody goes, 'Oh, no! We've got to do well in exams'... 'this is why we are at school, we've got to get good results before we go to the 6th form,' and when they are in the 6th form, 'we've got to get good results before we get to university', so, that's their goal. I don't think they are aware of other goals...if you were to interview a kid and say,' What is your goal?' They wouldn't say, 'Oh, to understand the wide application of Jane Austin,' or ' To appreciate that Shakespeare is as relevant today as it was and in recent time,' or 'In order to improve my communication skills' - it's something that we talk and it's a sort of jargon... you never get a kid to, or very few, to actually pinpoint goals other than results and finishing his course. ' (JoG-15)

JoG suggested that goals set between the teacher and pupils might be incompatible.[15] So far, there exist three different interpretations for this category. AG and FO readily interpreted goals as learners' personal inspiration. WZ read 'goals' as the ones lecturers imposed on students since he would not know the goals that his students set for themselves. JoG simply suggested that teachers and pupils might have different goals in learning with an implied disapproval that pupils' goals were dictated by the instrumental payoff of getting good results which potentially took over true appreciation of knowledge. Hence, the discrepancy between goals set in the teachers' agenda or in the learners' agenda should be addressed since this will affect the perspective of observation.

Regarding **'flexibly responding to challenge'**, again, JoG gave an unusual definition:

> '...they challenge one other. It's very much a personality thing whether they are flexible or not... I don't know whether I agree wholly with 'flexibility'... [One] would argue that you've got to be flexible in order to get the best out of people, and I agree, but young people are not known for their flexibility and may be that is one case where it is not enterprising... *in teenagers flexibility is definitely regarded as a weakness and it's sort of backing down, conceding...*' (JoG-16)

While WZ would like to see students being more flexible, JoG was disputing that being flexible might be regarded as being weak. Arguably, the discordance between WZ and JoG lies in the totally different fundamental assumption of 'challenge'. WZ referred challenge to a task while JoG referred it to among fellow students. Although JoG's understanding of this category was not shared among other interviewees, it is worth noticing the possible need to refine the label in order to minimise semantic discrepancies.

The word 'uncertain' in the following two categories: **'coping with and enjoying uncertainty'** and **'taking actions in uncertain environments'**, has generated strong debate from JoG:
> 'JoG: I can speak personally, and I can speak on behalf of what I've witnessed in the classroom, I hate uncertainty and I don't enjoy it *one* bit. And I think those kids don't enjoy uncertainty. They like to know where they are going and they don't like to think, 'Oh the world is my oyster and I can do ABCDEFG...' The pressure is in deciding what to do, which means certainty... Certainty means a positive goal. It means being confident in what they are doing, and it means actively pursuing a particular line... Uncertainty implies that you are open to anything and I think that it's got to have a bit of a goal even if that goal may be changed...

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[15] In fact, the majority of the participants in this study readily accept the goals that 'the kids' have: to achieve well in their study, which may lead to an instrumental reward eventually.

RM: How about if I put a definition for uncertainty as life, in general, has a lot of uncertainties around...

JoG: Yes, I'd like to make sure that they become certainties.

RM: I think what you've meant already is that you're coping with it by inserting certainty. [JG: Yes!] Do the students do that as well? How do they...

JoG: Oh yes! They do! ...I think that's me...imposing my personality on things that happen in the classroom... *uncertainty to me implies wobbling, weakness, not getting anywhere* and I'd like to achieve... *If someone is uncertain, then it's less likely for them to make a decision because they don't know where it's going to lead, otherwise, you are daring...'*   (JoG-17)

JoG associated uncertainty with a negative connotation of lacking a sense of direction. Consequently, she herself strongly disliked and would not enjoy uncertainty. She projected her interpretation of 'uncertainty' to her pupils and believed that they would not be able to make decisions in uncertain environments. Although it seemed to the present author that JoG had coped with uncertainties by setting up goals and 'making them become certainties', still JoG debated that the word 'uncertain' itself possessed inherent undesirable aspects which made the two behavioural categories unacceptable. Coincidentally, WZ and FO also found these categories imprecise to the extent that 'uncertainty' was not immediately associated with learning in an educational setting.

JoG also suggested that **'negotiating'** could mean

'a weakness of conceding to others' point of view [because] the kids' have got definite ideas... So, you need to provide them with a situation in which negotiation takes place...'   (JoG-18)

So far, JoG had suggested that **'actively seeking to achieve goals'**, **'flexibly responding to challenge'** and **'negotiating'** would possibly be interpreted very differently between the teachers and the students. This raised another methodological issue,

• if pupils/learners' self rating of enterprising behaviours is done in contrast with the teacher' rating, using the DUBS' list, homonymous interpretations might lead to contradictory results.

Likewise, being **'dynamic'** could mean good or bad traits depending on the individual,
'the positive side of it is to initiate enthusiasm... get? things going. The negative side of it is to blow things up.'   (JoG-19)

In general, except the category **'autonomous'** of which 'kids are generally not' and that it was 'the most difficult to define', JoG expressed no difficulties in giving behavioural descriptions for each label.

Synonyms/ Links / Overlaps/ Descriptions Among Categories
Referring to Table 4.5., colour coding highlighted the similar utterances found among categories. JoG's own definition of enterprising behaviours was echoed in her remarks on DUBS' categories **'commitment to make things happen'**, **'persuading others'**, **'self-confidence'** and the positive aspect **of 'flexibly responding to challenge'** and **'dynamic'**. These utterances (in blue) had a strong theme of helping and motivating each other. **'Adventurous'** and **'go ahead'** were treated as synonyms (in *black italics*) which mean 'exploring ideas'. **'Daring'**, **'opportunist', ambitious'** and the negative aspect of being **'dynamic'** shared the undesirable quality of exploiting group interest for personal success or attention (in purple). **'Coping with and enjoying uncertainty'** and **'taking action in uncertain environment'** were associated with being **'daring'**. Simultaneously, having **'uncertainties'** and **'negotiating'** with others had the connotation of being 'weak' and 'conceding' among teenagers (in green). Both **'versatile'** and **'resourceful'** had the element of divergent thinking (in red) while being **'resourceful'** also implied the ability of being **'autonomous'**, i.e. operating on one's own (in *red italics*).

Table 4.4. Analysis of JoG's Overlapping Descriptions of the Enterprising Categories

Enterprising Category	Behavioural Description	Learner A	Learner B
JoG's personal definition:	thinking for themselves... helping each other to come to understanding... thinking of ways in which knowledge is applied... acting in relationship with other people and you get the best out of other people if you motivate them, ...the enterprising person is a motivator... by listening, by suggesting, by encouraging, by supporting, and keep doing		

	things instinctively... to maximise whatever enterprising skills they have		
'adventurous'	*somebody who's prepared to explore ideas.*	2	8
'daring'	somebody who's daring to say something... prepared to go off at tangents regardless of group feeling or what the teacher is leading towards... very occasionally it's relevant, mostly it's exhibitionism.	0	7
'go ahead'	*the same as being adventurous*	1	9
'opportunist'	connected with 'daring'... somebody who wants to shine, ignoring progress made in the group. *They seize an idea and take it as their own and develop it, not contributing to the group.*	0	5
'ambitious'	*take other people's ideas and utilise...* they have understood, they have participated but *they use other people* and it's a moral condemnation.	4	10
'flexibly responding to challenge'	you've got to be flexible in order to get the best out of people... But in teenagers flexibility is definitely regarded as a weakness... backing down, conceding	2	7
'coping with and enjoying uncertainty'* ------------------------------ -- **'taking actions in uncertain environments'***	uncertainty implies being wobbling, weak, not getting anywhere... If someone is uncertain, it's less likely for them to make a decision because they don't know where it's going to lead, otherwise, you are daring	0 ---------- - 0	5 ---------- - 6
'commitment to make things happen'	excel with each other	3	10
'persuading others'	a motivated group persuades each other by eliciting thoughts and supporting ideas, give group pressure, offering alternatives, to know when to intervene, not to make others feel little.	0	10
'negotiating'	could be a weakness, being conceding to others' point of view... The bad negotiators are dogmatic, unaware of conceding to the group, they just give in. The good ones convince others... have the power of oratory... are good debaters. It might only be verbally convincing, not the actual content.	1	7
'self-confident'	[kids] fear being ridiculed or contradicted. But if the others are wrong, the confident ones can point it out in a suggestive way....	1	10
'autonomous'	conglomerate but can *operate on ones own.*	4	9
'versatile'	...can turn a 'hen' into anything, can vocally register to people, very sensitive in picking up atmosphere, very tactful, act accordingly to different situation, very sensitive to the teacher's mood...	2	9
'dynamic'	get things going, the positive side of it is to initiate enthusiasm, the negative side of it is to blow things up	1	9
'resourceful'	literal thinking, many many different ways for a simple ordinary thing, *find way out on their own...*	2	10

* The two categories were combined and discussed under the topic 'uncertainty' by JoG.

3) Rating of Two Pupils (see Table 5-5)
The two pupils whom JoG rated showed a huge contrast in their profiles of enterprising behaviours. Learner A had a total score of 42 with $\mu=1.68$. Learner B scored 210 in total with $\mu=8.40$. Learner A was thoroughly rated much lower than Learner B. Idiosyncratic to JoG's rating behaviours was that she allocated the rate of '0' for Learner A in six categories when the instruction requested the lowest rate of '1'. Learner B, on the other hand, got the highest rate of '10' in also six categories. By far, this was the greatest contrast shown between two learners assessed by participants. Unique to JoG's rating exercise was that due to the lack of time, she did not do the rating within the interview. Instead, the scoring sheet was returned a few days after the interview.

4) Triangulation:

Generally speaking, the comparison of JoG's own definition of enterprising behaviours (JoG-8, 9) with her comments on that of the DUBS' discloses the ability of the DUBS' definition to encapsulate that of JoG since they shared similar understandings towards the subject matter, although expressed in totally different language. On the other hand, JoG gave very critical idiosyncratic comments on several categories which made an interesting contrast to her general acceptance of enterprise. This suggests that even though individuals may agree with the global concept of enterprise, their expressions may differ in terms of lexicons and semantics from the DUBS' presentation.

When comparing JoG's comments on the list and her rating behaviours, a puzzling phenomenon was found. Referring to Table 4.5. above, Learner A was consistently allocated with much lower rates than Learner A. Such consistency persisted on those categories which JoG had commented as largely undesirable (refer to categories in green and purple). Presumably, high rates in these undesirable categories should signify inappropriate behaviours. Following such assumptions would mean that Learner B who was rated high in those categories was perceived by JoG as 'worse' in comparison to Learner A. However, the writer would argue that the reverse was true, i.e. the high rates, in general, signified that Learner B was still a 'much better pupil' than Learner A?. This is due to the fact that the much appreciated global concept of being enterprising had taken over the individual disagreeable categories. Arguably, the undesirable categories (in green and purple) contained some positive elements (in black) except **'opportunist', 'coping with and enjoying uncertainty'** and **'taking actions in uncertain environments'** were considered to be totally inappropriate. Interestingly, the lowest rates which Learner B ever received were in these three categories ('5', '5' and '6'). This could be JoG's acknowledgement of the undesirability of these behaviours. Still they were much higher than those given to Learner A ('0', '0' and '0'). This scenario confirms the writer's suspicion that the overwhelming global concept of being enterprising has distorted JoG's judgement of these categories in such a way that a higher rate in a totally undesirable category would still be 'better' than 'none' in this case - a typical problem of impressionistic scaling (c.f. Plutchik, 1983).

However, this interpretation was further complicated by the possibility that being rated high on those undesirable characteristics would simply mean that a highly enterprising pupil was not a 'perfect pupil' but someone who would also misbehaves in certain patterns related to being enterprising. Take the discussion on **'ambitious'** for example, JoG claimed that

> 'ambitious kids will take other people's ideas and utilise them because they are ambitious to succeed... *they have understood, they have participated* but they use other people. Therefore, it's a moral condemnation rather than a condemnation of enterprise. They have been enterprising in the sense that they have utilised the group for their own ends which I think is wrong. But that's what being 'ambitious' is... There is a ruthless kind of connotation and that an ambitious person will use others.' (JoG-20)

The writer suggests the following modifications for the future rating exercise to increase the accuracy of interpreting these kind of impressionistic qualitative data:

- The heading of the classification (e.g. **'Enterprising acts'**) should be removed to minimise cues for the recall of the global concept to interfere with the local individual categories.
- Immediately before rating their pupils, participants should be asked to systematically identify the desirability of each category.
- After the rating exercise, participants should be asked to identify the enterprising and the non-enterprising categories according to their own understanding.

In terms of internal reliability of the rating methodology, the rates allocated to categories in blue and in red yielded a reasonable level. Other colour groups only gave marginally acceptable levels of internal reliability. The problem lies in the varying degree of mixture of the coexisting positive and negative elements within the categories concerned. Moreover, the time lapse between the interview and the rating exercise naturally decreased the level of internal reliability. Nevertheless, the overall rates within corresponding colour groups were consistent within an acceptable margin.

Finally, the interference by the global concept of enterprising behaviours in rating has shown that JoG' original strong supportive position towards enterprise was maintained.

Relationship between 'Enterprising Learning Modes' and 'Enterprising Behaviours'

JoG's spontaneous definition for enterprising behaviours mirrored her own definition of enterprising modes of teaching. Recalling her definition of enterprising teaching modes:

> '...it is putting the ball in the kids' court , and *getting them to think for themselves* and to develop ideas that are not spoon fed to them;... it is <u>to encourage kids to use education as a kind of step up for what they are going to do when they leave school</u>; and to encourage independent thought and social skills and take their main chance when it comes up.'

Compare the above with the definition for enterprising behaviours:

> '...it means *thinking for themselves*... it means helping each other to come to understanding, it means thinking of ways in which <u>whatever knowledge is gained can be applied</u>.'

The corresponding *italic* and <u>underlined</u> text showed that JoG had a clear, refined view on Enterprise. Resembling the mainstream protagonist's proposition, based on her own teaching experience, JoG prominently suggested that enterprising teaching modes foster the development of enterprising behaviours. The fact that 'it's difficult to talk (about enterprising behaviours) generally' and the distinctively enterprising learning activities were naturally called upon to demonstrate these behaviours confirmed this proposition.

Summary

Clearly, JoG has projected her own philosophy of education, i.e. self-empowering through co-operative learning and application of knowledge, onto the whole concept of enterprise. She manifested that

> '[With] my subject... [pupils] can apply anything from the text to a real life situation.... Literature teaches you things about people... about philosophy and education, and I think the enterprising kids will look at the world today and say, 'Oh, yeah, I understand what that means', because they have learnt about it.'

> 'to me, this is what English can do. It is something which is a little bit of a subject, and spread ideas around.'

Meanwhile, she was able to constructively commenton the DUBS' model of enterprising teaching modes and enterprising behaviours.

6. Profiling RW

Personal Background

RW had taught German at University level for 2 years before she took up teaching in a large comprehensive secondary school with more than 1,700 pupils. When the interview took place, she had been teaching German, French and Spanish to Key Stage 3 and 4 for half a year (age 11 to 16). She perceived the teaching atmosphere as informal and that her school was located at the lower achieving end in term of public exam results. She had to follow the National Curriculum for all classes and the examination syllabus for GCSE classes. She complained that the majority of pupils did not care much about learning. Prior to the interview, in her teacher training course, she had been given one lecture in Enterprise Education of which she had little recollection.

Definition of 'Enterprising Modes of Teaching'

1) Personal Definition

When asked 'Have you come across enterprising modes of teaching?', RW was not sure what it meant. The question was altered into 'How would an enterprising teacher teach?' She replied that

> 'Enterprising teachers take risks in teaching. They are adventurous, creative and innovative. They *give pupils independence, make the groups interact, create an atmosphere for them to come out of their shell, challenge their limit in order to push them further than they think they can reach.* But if enterprise means business, I don't think that is a teachers' responsibility to preach that.'(RW-1)

When the word 'enterprising' was attached to describe a teacher, RW's understanding of it bore striking similarities with the general concept shared among enterprise promoters. The adjectives 'adventurous', 'creative' and 'innovative' have been constantly used to describe entrepreneurs in the literature of entrepreneurship. The text in *italics* above further reveals her idea that the way enterprising teachers teach resembles the promoters' application of enterprise in teaching and learning at educational institutions. Even though being enterprising was more readily understood as a behavioural characteristic attributed to the teacher than a rationale for teaching methods, such characteristic ultimately embraced the same pedagogical disposition as the promoters'.

On the other hand, RW naturally acknowledged the association of enterprise with business. She believed that the binary implication of enterprise, i.e. *the pedagogical implication* and the *business implication* conflicted each other in the educational setting in the sense that the former constituted good teaching while the latter was inappropriate to a teacher's role.

2) Comments on the DUBS' Table

RW questioned the assumption that **'learning from lectures'** would presuppose **'passive role as listener'**. A listener who was not engaged in any physical or vocal activities did not mean that his/her mind was not stimulated. To support her argument, RW recalled her personal experience when she was mentally actively thinking, i.e. learning in cognitive terms in a lecture. Concerning **'sessions programmed' - 'sessions flexible'**, 'it depends on the objective of the session, sometimes it is better to be programmed and sometimes flexible.'[16] She believed that **'teacher=expert' - 'teacher=facilitator'** 'shouldn't be on opposite ends'. This echoed FO and JoG's criticism. **'Attention equally on knowledge and skills'** was regard as vague since the terminology of 'skills' and 'knowledge' and their division was superficial. Such a remark also appeared in academic critiques. Finally, she claimed that,

> 'The term 'enterprising' is weak. It doesn't seem to be different from student-centred learning. Why should you need a new invention?(RW-2)

Hence, RW shared JaG's question concerning the legitimacy of the term 'enterprising' to replace the teaching approach which was originally student-centred learning.

3) Rating of Teaching Tendency

RW remarked that her teaching styles varied according to the teaching activities planned beforehand and the group dynamics of the day. Nevertheless, she easily finished the rating exercise based on the teaching approach she mostly adopted. She scored 3[a] (10 unadjusted) on the enterprising side.[17]

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[16] An interesting subsequent question should be 'When is it better for sessions to be programmed, and when be flexible?'

[17] Due to interviewing error, RW was not asked to rate a colleague of her choice.

4) Triangulation
Personal Definition vs. Comments on the DUBS' Table

The comparison between RW's personal understanding and her comments on the DUBS' definition is intriguing. To RW, 'enterprising modes of teaching' did not have a concrete meaning on its own and that those modes were not denoted by the adjectival qualifier 'enterprising', but rather they were clearly student-centred learning features, whereas, teachers who adopted these features were regarded as being *enterprising*. In other words, the term 'enterprising' did not give new meaning to *how* one should teach, but rather, it was a personal attribute to a teacher *who* was characterised to be 'taking risks, adventurous, creative, innovative' and adopted highly regarded pedagogical practice.

Inserting RW's position into the disagreement between AG and JaG (refer to p.26-27), an amicable compromise seems possible. JaG claimed that the term 'enterprising teaching modes' was an illegitimate usurpation of the 'student-centred learning' paradigm. RW supported JaG's argument to the extent that those teaching modes distinctively belonged to student-centred pedagogy with no additional innovation which justified the re-labelling. Instead of jumping into criticising the re-labelling as usurping the education tradition (to which AG would call 'borrowing' of concept) RW bluntly questioned, 'Why should you need a new invention?' To that, AG could answer, 'The new "label" was for the purpose of emphasising the importance of developing enterprising pupils' through the teaching methods which RW had identified precisely in an enterprising teacher.

The above imaginary dialogue did not solve the problem of legitimacy of the re-labeling.[18] From a psycholinguistic point of view, an analogy might help to explain AG's proposition.

Analogy:	**This is an exciting day.**
Semantic meaning:	The way something happens constitutes the day exciting.
Parallel with AG's proposition:	**These are enterprising modes of teaching.**
Semantic meaning:	The way s/he teaches constitutes the teaching enterprising.

If the statement 'This is an exciting day' is accepted in daily usage, it justifies the daily usage of 'enterprising modes of teaching' in the sense that being 'enterprising' *embodies* the practices of the student-centred modes of teaching. This scenario may explain why among practitioners the terminology did not seem to cause the epistemological problems that it did among academics.

Another implication from RW's account was that, the focus of being enterprising is on the actor, i.e. the teacher. It seems plausible that teachers need to be enterprising in order to carry out the student-centred learning activities against many constraints in teaching. Following this line of understanding, the emphasis is on empowering teachers to be enterprising. Wilson (1997) points out that the teaching profession has been put under enormous pressure due to the heightened global competition of economic success in the 1990s. Education has been viewed as the vehicle to develop citizens for the 21st Century. Ironically, as Fullen (1994) claimed that instead of being more valued as an important stakeholder, the teaching profession has been held responsible for 'falling educational standard', a political imperative too often used to legislate educational change. This is particularly the case in the UK since the Great Debate in 1976 (refer to Chapter 1). Together with continuous cuts in the budget for education, over-loaded innovations in educational policies and increased administrative responsibilities (e.g. 18 Acts in 14 months in 1992-93) in the last ten years, the morale among the teaching profession has been greatly undermined (Chitty, 1993). *Teacher empowerment* should thus be given considerable attention. Simultaneously, the idea of an 'enterprising teacher' provides new scope to re-address the balance between the equal emphasis on the expert system of teaching (Vygotsky, 1976) and student-centred learning (refer to Chapter 2).

> • The notion of enterprising teachers is useful for re-addressing the balance between the expert system of teaching and student-centred learning.

The third implication comes from RW's acknowledgement of the bifurcated association of being 'enterprising' with both good teaching and business imperatives. Nevertheless, the dismissive attitude towards the latter did not seem to have deterred RW from the appreciation of the former. This suggests

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[18] Detailed discussion would come in the collective analysis in Chapter 6.

that the conflicting values with which 'enterprise' becomes associated need to be recognised but not mingled together into conflation or deflation of its intrinsic value.

Comments on the DUBS' Table vs. of Teaching Tendency
The comparison between RW's comments on the DUBS' table and her corresponding rating suggested some inconsistencies between her belief and practice. Having argued that **'learning from lectures'** and **'[passive]**[19] **role of listener'** could also stimulate cognitive learning, her own tendency did swing to **'learning from debates and discussions'** ('4') and **'learning by doing'** ('4'). Having argued that the terms 'knowledge' and 'skills' were superficial, she rated the dimension towards **'attention equally on knowledge and skills'** with a high rating of '4'. Having stated that **'teacher = expert'** - **'teacher = facilitators'** were wrongly dichotomised, one would expect her rating to be in the middle position ('0'). Instead, a moderate preference towards **'teacher = expert'** ('3') was recorded.

The author observed that the seemingly inconsistent rating did not result from a conflict between beliefs with actual teaching tendency as such. RW's comments on the DUBS' table were mainly a reaction towards the polarisation of the features and the consequent overall under-valuing of didactic modes. RW's remarks serve more to redress the balance from a theoretical stance rather than stating her own disposition towards teaching.

Personal Definition vs. Rating of Teaching Tendency
Finally, the comparison between her rating and her own definition (RW-1) shows that her attitude towards an enterprising teacher matched with her own teaching approach in such a way that she preferred to engage pupils in activities by facilitating **'learning from debates and discussions'**('3') and **'learning by doing'** ('4'). These interactive learning activities, however, were to fulfil the **'learning objectives imposed'** ('4') by **teacher's expert** framework of teaching ('3').

Definition of 'Enterprising Behaviours'

1) Personal Definition
When asked the broad question: What are enterprising behaviours?, RW responded with a question:
    'Of the pupils?'   (RW-3)

This suggests that being enterprising entails different behaviours among different categories of people. She defined *enterprising behaviours among pupils* as follows:
    'They ask questions, challenge things such as the concepts you taught them and your teaching styles. They suggest different alternatives to things in a pleasant, playful way. They experiment with certain roles such as being leaders of the group. They are pupils with the power of critical thinking.'   (RW-4)

RW's idea of enterprising behaviours was mainly located in cognitive learning within an educational environment. This might be the result of the carry-over effect from the previous discussion about the DUBS' concept of 'Enterprising Learning Modes'.

- The connection or confinement of enterprising behaviours into cognitive learning might be the result of carry-over effect from previous discussion of 'enterprising learning modes'.

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2) Comments on the DUBS' List

The Conventional Dictionary / Thesaurus Definition
RW generally thought that dictionary definitions did not suit classroom behaviours very much. She considered being **'opportunist'** as derogatory. While JoG thought that being **'progressive'** was very important, RW thought that it was irrelevant. RW's initial dismissal softened a little when she was probed to consider those definitions in terms of cognitive learning. For instance, she was asked to relate **'pioneering'** behaviour to learning. She was then able to give behavioural criteria such as 'learning ahead, do difficult and unusual tasks'. She described academically **'ambitious'** pupils as those who would 'make sure they don't miss out, ...care about marks and teachers' good opinions about them'.

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[19] RW did argue that the role of listening was not necessarily passive in didactic modes of teaching

The change of attitude towards a category which was originally considered as inappropriate or undesirable to classroom learning into something positive and relevant happened frequently in interviews (c.f. Kvale, 1994). This phenomenon could also be found in the interview with WZ, JoG (in rating) and JR. Two possible explanations were observed for such change. Firstly, the meaning of the category was *negotiated* through the discussion with the interviewer (Bruner, 1995). In this case consistency was maintained in the subsequent rating exercise whereby the category was rated according to the newly established meaning replacing its initial unfavourable association. The change was therefore genuine. Secondly, the utterance was merely *perfunctory* due to over-probing. In this case no shared meaning was established and the subsequent rating was done in a rough sketchy way resulting in ambiguity. Meaning was lost in a sense that it was not clear whether the high/low rating signify (un)desirable behaviours. The latter case applied to RW's perception of the dictionary definitions of enterprising behaviours. An important implication for research methodology was raised:

○ Shared meaning is a prerequisite for quantifying or operationalising qualitative concepts lest the quantitative data become misinterpreted and mislead findings.

The DUBS' Definition
Concerning **'actively seeking to achieve goals'**, RW believed that the qualifier 'actively' was essential because the majority of pupils wanted to be spoon-fed. Given the right tasks, however, they could become active and achieve goals. More importantly, they would then discover that they preferred to learn in an active way. This proposition echoed AG's speculation that pupils do need a specific task or situation to exhibit their enterprising behaviours.

RW remarked that **'coping with and enjoying uncertainty'** was particularly important to foreign language learning.

> '[Pupils] have to cope with the uncertainty of the target language... listen carefully and find bridges between their first and target language... take action and actively seek opportunities to produce the target language. They are the ones who can express a lot with very limited vocabulary and make fun of it, for instance, exaggerating the pronunciation. The opposites are the ones who say "I don't understand. Speak English, please." They refuse to try and cannot get over their mental block.'   (RW-5)

This view contrasted enormously with that of JoG who disliked 'uncertainty'. The conflict stemmed from the polysemous interpretation of the word 'uncertainty'. JoG referred it to 'lack of goal or direction to achieve in life' which implied 'wobbling, weakness, not getting anywhere' (a result of weak personal character), while RW associated it with the 'uncertainty of the target language' (a task). The same category which was viewed positively by one was totally rejected by another. Once again the importance of negotiating a shared meaning was conspicuous.

Concerning enterprising skills, RW suggested that the everyday schooling provided few opportunities for pupils to demonstrate their **'planning'** and **'decision taking'** skills, nor was there enough chance for them to be **'responsible'**, even though they would enjoy responsibility and would do well.

Concerning enterprising attributes, she regarded the word **'versatile'** as vague. She considered that the word **'dynamic'** depicted both desirable and undesirable behaviours. It might mean being 'mischievous' or 'hyperactive' while having 'an urge to learn' as opposed to being 'lethargic' or 'slow in pace of learning'.

Synonyms / Links / Overlap Descriptions Among Categories

Table 4.6. Analysis of RW's Overlapping Descriptions of the Enterprising Categories

Enterprising Category	Behavioural Description	Learner A	Learner B
RW's own definition of enterprising behaviours	ask questions, challenge things e.g. concepts taught and teachers' teaching styles... suggest different alternatives to things in a pleasant, playful way... experiment with certain roles e.g. being leaders of a group... They are pupils with the power of critical thinking		
'flexibly responding to challenge'	looks things up in the dictionary... have the confidence of accepting challenge... seek their own route to solve problems...	6	0

'coping with and enjoying uncertainty'	listen carefully and find bridges between first and target language... *actively seek opportunities* to 'produce' the language... can express a lot with very limited vocabulary and make fun of it... e.g. exaggerate the pronunciation.	7	0
'taking actions in uncertain environments'	same as above	7	0
'solving problems/ conflicts creatively'	manage to express themselves with what they've learnt... transfer learnt words from one context to another... pick a word from a target language and use it	7	0
'opportunity seeking'	suggest things to do to maximise learning in the way they want	5	0
'self confident'	ask questions, challenge the teacher and joke about their mistakes instead of being disappointed	10	0
'autonomous'	work ahead on their own and figure things out by themselves... but it doesn't mean independent thinking	7	0
'resourceful'	able to use their materials... seek different ways to handle a task without being told	6	0

The colour coding in Table 4.6. reveals that RW's own definition of enterprising behaviours overlaps a great deal with her descriptions for a **'self confident'** pupil who is also **'resourceful'** and **'opportunity seeking'**. To be **'resourceful'** and **'confident'** enshrines the ability of **'flexibly responding to challenge'**. Similar utterances are found among **'flexibly responding to challenge'** and **'coping with and enjoying uncertainty'**. The latter was regarded as the same as **'taking action in uncertain environment'**. Finally, one has to be **'autonomous'** to be **'resourceful'**, according to RW. The overlap descriptions reiterated RW's central theme of enterprising behaviours.

3) Rating of Two Pupils

RW's rating behaviour was rather extreme. Learner A had a total score of 132 with $\mu=6.00$ in contrast with Learner B who scored '0' throughout (refer to Table 4.6.) although RW was reminded that the lowest rating was '1'. Note that this was the only case of 'emotive rating' which exaggerated the potential of teachers' stereotypical liking or otherwise of their pupils. This is the fundamental weakness of the rating methodology which is largely based on subjective impression.

> • The rating methodology succumbs to teachers' stereotypical impression of pupils.

In general, she had no difficulties in rating. She re-stated the inappropriateness of the thesaurus definitions while rating and consequently put a '?' for both **'progressive'** and **'opportunist'** instead. She was unable to rate pupils' **'planning'** skills as she had mentioned that classroom learning (in her subject) did not provide opportunities for them to exhibit such skills.[20]

Finally, internal reliability of rating was maintained at a reasonable level as showed in Table 4.6. The categories of coded with the same colour were allocated with similar ratings varied at 1 point. The only exception was **'flexibly responding to challenge'** which had a mixture of the colour red (relating to **'self confidence'** which was rated '10') and purple (relating to **'autonomous'** rated '7' and **'resourceful'** at '6'). Rating '6' was associated with **'autonomous'** and **'resourceful'**.

4) Triangulation

Personal Definition vs. Comments on the DUBS' List

As discussed above, RW's own definition of enterprising behaviours with her comments on the DUBS' list showed a great deal of shared meaning. According to Table 4.6., RW's unprompted idea of enterprising behaviours matched with her descriptions for **'self-confident'**, **'opportunity seeking'** and **'resourceful'** in the DUBS' list. The only element which was left out of the DUBS' list from RW's definition was *the power of critical thinking*. Although being *analytical* was regarded as enterprising behaviour by Gibb (1993, p.15), it was not included in the enterprising behaviours listed (c.f. Gibb, 1993, p.14 Exhibit 1)[21]. This reveals the speculative nature of the DUBS' list which requires further

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[20] However, she persisted in allocating '0' rate for Learner B. This again showed her 'emotive' / stereotypical rating.

[21] Being 'analytical' was not included in Gibb's Exhibit for 'Enterprising Behaviours, Skills and Attribute' (p.14)

refinement. A fundamental conceptual re-alignment of the DUBS' model of Enterprise Education is vital:

> ⊙ The DUBS' model is more an 'ideal type' which seeks to explain 'the greatest number of possible facts to the whole' in 'a significantly representative form' (Martindale, 1963) rather than a positivistic model of causation or prediction due to its lack of precision and empirical foundation.

Comments on the List vs. Rating of Learner's Enterprising Behaviours
The comparison shows a reasonable degree of consistency. Having re-stated the inappropriateness of dictionary definitions, they were still rated all except **'progressive'** and **'opportunist'**. **'Planning'** was consistently not rated due to the lack of observation since pupils lacked opportunities to express their planning skills in her class, while **'decision taking'** and **'responsibility'** which had the same problem were rated without problems. Recalling similar situations with WZ and FO, when there was inadequate information for participants to rate their students, a neutral rating was given. However, this did not seem to be the case for RW. RW had either left it blank or rated accordingly by inference. This suggests that the global appreciation of the concept 'enterprising' had minimal effect on local rating in RW's case as individual categories had been considered independently.

Personal Definition vs. Rating
Finally, throughout the interview, RW's attitude towards enterprise had been congruent. Although she was aware of its association with business which she did not regard as appropriate, she acknowledged the positive implication it had towards education. Based on her own teaching experience, she was able to take a relatively neutral stance in criticising some conflated aspects of enterprise presented by Gibb while appreciating its intrinsic value. Her dramatic rating behaviour reflected more of her frustration towards her pupils' apathy in learning than the potential of enterprise in inducing value-laden criteria for assessing pupils' behaviours.

Perceived Relationship between 'Enterprising LearningModes' and 'Enterprising Behaviours'
An interesting contrast was made between RW's descriptions for *enterprising teachers* and *enterprising pupils.*

> 'Enterprising teachers take risks in teaching. They are adventurous, creative and innovative. They *give pupils independence, make the groups interact, create an atmosphere for them to come out of their shell, challenge their limit to push them further then they think they can reach.'* (RW-1)

> '[Enterprising pupils] ask questions, challenge things such as the concepts you taught them and your teaching styles. They suggest different alternatives to things in a pleasant, playful way. They experiment with certain roles such as being leaders of the group. They are pupils with the power of critical thinking.' (RW-4)

The two definitions indicates two different roles under the same attribute ('enterprising'). Enterprising pupils learn or behave in ways which mirror the teaching approach adopted by enterprising teachers. Such a proposition possibly indicates that enterprising teachers would adopt a learner-centred pedagogy (enterprising modes of teaching) which fosters enterprising behaviours among pupils.

Summary
RW's attitude towards enterprise in education was fairly neutral. Despite her disagreement on the business connection of the concept, she appreciated its positive connotation towards teaching and learning and was able to give constructive criticisms towards the DUBS' presentation of enterprise. Unlike JaG, the co-existence of the seemingly conflicting values did not cause 'unease' or 'paradox' in RW's understanding. Her preferred teaching style (self rating) reflected her belief (comments). According to Bernstein (1971), her subjects (German, Spanish and French) naturally favour a communicative and interactive approach of teaching. Together with the informal school environment, it is apparent that she had more freedom to develop her own teaching style which may explain her balanced and mixed style in teaching.

7. Profiling NG

Personal Background
NG has been a Chemistry teacher for Key Stage 3 to A-Level (aged 11-18) at a grammar school for 34 years. He is also Head of Chemistry. He has an average class size of 24 pupils. The teaching environment in Chemistry at school is perceived to be formal and traditional. Although the National Curriculum and examination syllabus do exert time pressure on teaching resulted in a more didactic approach to his teaching, he thinks that they provide necessary frameworks for teaching and learning. The interview marked the very first encounter with Enterprise Education for NG.

Definition of 'Enterprising Modes of Teaching'
1) Personal Definition
Having no prior knowledge, NG vaguely associated 'enterprising modes of teaching with 'evolving ideas on teaching',

> 'I think the ideas on teaching have been evolving ever since I've started and a lot of the things that we do now quite routinely would have been described as enterprising when we first started.' (NG-1)

However, the notion of evolution was defined vaguely as

> 'Anything that involves trying something new.' (NG-2)

Such response was the same with WZ and FO who had not come across the concept. To NG, the term 'enterprising modes of teaching' did not give rise to the same understanding as the promoters, nor did it have an association with business.

2) Comments on the DUBS' Table
Instead of commenting on the table, NG reflected upon his own teaching along selected dimensions using principally the enterprising categories as anchoring criteria:

> '*I think I'm mainly didactic but not entirely.* At an advanced level, I tend to present absolutely all the material that pupils need...in many different ways. Wherever I can, I back it up with some practical work and class discussions. I often set pupils little written tasks that they all have to do to make them all think... *So, I'm not quite as didactic as that.* With the senior class, I do tend towards ['**learning by lectures**']. For the younger, I try everything, '**debate and discussions**'. A lot of them are '**learning by doing**'. You set a practical task without telling them what the answer is... It's best to manage the lesson in such a way that pupils think they've suggested the method of tackling the problem... ['**concepts discovered**'] I like it when the pupils discover their own concepts, if they can summarise something that happens in a lesson and know what the pattern is, rather than the teacher telling the pupils. This works very well in Chemistry because a lot of the chemical principles are patterns. You can give pupils an isolated piece of information and they can set it out on a work sheet which is produced by the teacher and when they look at what they're putting down they can tell you what they have discovered.... ['**sessions flexible**'] I don't think I'm as flexible as some teachers, but I often find that what I achieve in a lesson isn't what I've planned to do, so, to some extent, *I suppose I must be flexible....* ['**mistakes learned from**'] I believe in pupils learning from mistakes. They certainly learn more from their mistakes - if they are motivated and are interested in the mistakes - than just getting something right... ['**teacher learns**'] I agree that the teacher learns quite a bit. I learn something every week... ['**objective negotiated**'] Objectives are not really negotiated largely because it is a practical subject and nearly always for a double lesson I've got some piece of equipment, some chemicals, some apparatus ready for a particular experiment... ['**attention equally on knowledge and skills**'] I recognise now much more than in the past, the emphasis is on skills, much less on knowledge because afterall if the pupil haven't got the knowledge, provided that they've got the skills to know where to look for it, then they can acquire the knowledge that they need in a reasonably quick time. So, yes, a bit of both (didactic and enterprising modes of teaching)' (NG-3)

NG's comments were strikingly similar to the other two scientists, WZ and FO, who also had not been exposed to Enterprise Education before the interview. They all shared the functional importance of the didactic method for teaching the amount of knowledge required. Resembling FO's (lecturer in Chemistry) proposition, NG also believed that the subject Chemistry naturally combined the elements of an active learning paradigm in practicals which entailed learning activities that called for '**debate and discussions**', '**learning by doing**' and '**interactive learning**'. Both NG and FO claimed that

'concept discovered' was a particularly good teaching strategy for discovering chemical principles, although FO doubted its practicality and opted for 'concept provided' to compromise the vast amount of concepts university students need to acquire.

Resembling WZ's proposition, NG also believed that enterprising approach was more relevant for acquiring skills. WZ rated 'learning by doing' highly and NG claimed that '[pupils] wouldn't use text and notes to learn a skill'. All three Scientists referred to skills mainly as those subject-based knowledge-oriented skills as opposed to a broader notion which also included 'life skills' such as interpersonal skills and communicative skills which some teachers of Humanities (AG, JaG & JoG) had strongly in mind in this study. This further supports Bernstein's idea (1971) that science subjects uphold a strong subject identity which reinforces the traditional strong frame of knowledge transmission. Consequently developing knowledge is stressed above personal development. Hence, skills are readily related to knowledge based skills rather than personal or interpersonal skills as such.

> • Scientists readily define skills as tools for acquiring knowledge, while in addition to that, teachers of Humanities stress more the importance of 'life skills'.

Seemingly, at the outset, NG preferred the enterprising approach. Discreetly hidden in his appreciation of enterprising modes, however, was his somewhat *uncomfortable* acknowledgement of adopting a didactic approach as depicted in *italics* above (Quote 3). This is possibly due to the perceived criticism existing in the table that teaching didactically meant bad practice.

> 'The way these titles expressed on the left here (didactic modes), one or two of these statements are set out in such a way that makes a person who looks at this think the didactic method must have something wrong with it. For example, 'passive role of listener', 'mistakes feared', 'teachers infallible', I don't think it has to be quite as... I mean there is an *implied* criticism there. In some cases, particularly in an advance level, I find that in some lessons you really have to teach almost like that (didactically) just to cover the syllabus. One hopes one doesn't have to do it very often, I certainly wouldn't do it like that for the whole of a double lesson, I might do it in the whole of a single lesson, because there is some work that I want to cover.'   (NG-4)

The amount of content to be covered inevitably determined didactic teaching, according to the above statement. Paradoxically, when asked whether he would teach more enterprisingly if the pressure to cover the syllabus was removed, the answer was 'Yes, but...':

> 'Yes, I think there will be a lot less didactic teaching. But I think if there's no syllabus to follow, the teacher would have to think of fresh ideas all the time and if he runs out of ideas, it becomes really hard work. Also, having a syllabus provide pupils with some sort of motivation or something to measure their progress. Some pupils would say, 'Could I have a copy of the syllabus so that I can see how much I know and how much there is still to learn'... When it gets well into the course, I do like students to have the syllabus so that they can check, in their mind, everything has been covered. So, I'm used to work with a syllabus, I'm happy to work with a syllabus. The students are used to work with the syllabus. That's probably why I tend to use didactic modes of teaching some of the time.'   (NG-5)

Up to this point, it was conspicuous that NG *preferred* enterprising modes over didactic modes. However, such preference became non-sustainable as later unveiled in his verbalised thought while rating his teaching tendency. Fundamental to NG's *belief* was that 'learning from lectures' would only work with older or the more academically able pupils,

> '14 year olds would not really have anything which I would mean an *ideal* lecture. *For older children,* they will have some which you describe as a lecture. *The good 14 year old class* might have a bit of that, but mainly ['debates and discussions'].'   (NG-6)

Concerning '(passive) role of listener'[22], NG valued the ability of listening. The reason for his tendency towards its counterpart, 'learning by doing', was probably less to do with his valuing of the superiority of this enterprising mode for deep level cognitive learning than his perception of pupils' inability to listen,

> '[Pupils] are not very good listeners on the whole, a few are, but most of them aren't. They don't know how to listen and they certainly don't know how to take in what they are hearing.'
> (NG-7)

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[22] The word passive was bracketed indicating NG's disagreement that listening would necessarily mean passivity (c.f. NG-2).

NG's preference of **'learning from texts and notes'** over **'interactive learning'** became more obvious during the course of the interview,

> 'I *try* and make them learn the structure from notes. Some do, but most don't... The weak ones don't learn anything at all, if they do learn anything, it's learnt interactively. *The clever ones will often learn from their text and notes* or from what they do in their exercise in their preps, because these are exercises to make them *think* rather than exercises that they just routinely do, something that they have been told how to do.' (NG-8)

Except the heuristic **'concept discovered'** which NG truly appreciated, the rhetoric of **'learning from debate and discussions'**, **'learning by doing'** and **'interactive learning'** highlighted in his initial liking (c.f. NG-2) remained at a superficial level of engaging pupils' interest in Chemistry (particularly the 'weak ones'), whereas the didactic modes were tightly associated with scholastic endeavour (the thinking older/cleverer pupils). The unstated assumption that didactic modes were somehow superior to enterprising modes was disclosed. Nevertheless, NG did not deny that the academically inclined could well benefit regardless of the teaching mode and that both approaches had their situational relevance in learning.

3) Rating of Teaching Tendency
Self-Rating
The immediate reaction to the rating exercise was the distinction of two groups: the A-level class and the classes below A-Level. As mentioned above, NG believed that he tended towards the didactic side more for the A-Level class, and the enterprising side for the younger classes according to the different needs and abilities of the two groups. For NG, the A-Level group had more single lessons which suited more didactic methods to deliver a greater amount of knowledge required in the syllabus. Moreover, some chemicals involved in the syllabus were unavailable or too dangerous to be used in experiments. On the other hand, in Key Stages 3 and 4, there was a higher percentage of skills to be acquired which called for more enterprising learning modes. Besides, younger pupils were regarded as less capable of listening, and as not easily stimulated to think with written exercises (c.f. NG-7 & 8).

Of the two groups, NG chose to rate his teaching style adopted for the younger classes. His total score was -1[a] (1 unadjusted) on the didactic side. He suggested that he would move one or two units towards the didactic side for the A-Level class for each dimension. Henceforth, his didactic tendency was confirmed.

While rating the table, NG remarked that **'feedback from the teacher'** was more beneficial than **'feedback from each other'** to pupils,

> 'Sometimes it does work well when the feedback is from another pupil. I find mostly it's best when feedback comes from the teacher. Say, when I get a good question from the class, I tend to answer it myself unless I can see another pupil may give what I think might be a good answer. But often the discussion disintegrates if somebody gives a silly unhelpful answer. So I tend to teach so that the feedback comes more from the teacher...' (NG-9)

Concerning **'teacher=expert'** - **'teacher=facilitator'**, he commented that the two were not opposites,

> 'I don't find these two conflict. The teacher is the guy who knows all about his topics and also the guy who is making it easy for the pupils to find a way of finding it out for themselves.' (NG-10)

Like FO, NG was confused as to whether **'mistake feared'** - **'mistake learned from'** referred to pupils or the teacher. He hesitated over **'attention mainly on knowledge'** - **'attention equally on knowledge and skills'**, because the dichotomy was not as balanced or extremitised as the rest.

Concerning the technical problem of rating the table, similar to FO and JoG, NG was not certain whether he should put 'two circles in each row'. He was requested to rate the way it was easiest for him to show his own teaching tendency. To which he decided to put one circle instead.

To summarise, NG commented that the table was too simplistic tinted with biases and false dichotomies. The two columns were viewed by NG as prejudiced *opposites* rather than value-free *continua*.

NG generalised a colleague whom he knows well as 'a shade more enterprising' in his teaching approach. He scored 11ª (13 unadjusted) on the enterprising side. NG explained the reason being that his colleague was about twenty years younger than himself and was probably 'a better learner' (referring to **'teacher learns'**). Notice that among 7 participants who had rated a colleague of their choice. There were only 2 cases in which the colleague was rated more enterprisingly than themselves. NG was one of the two. Nevertheless, more enterprising did not wholly mean better in teaching as showed in his remark on **'sessions programmed' - 'sessions flexible'**,

> 'Mine is better programmed than his. He is a lot more flexible than I am, but I think some of his lessons break down because he's so flexible.'   (NG-11)

In general, he expressed no difficulties in completing the rating exercise.

4) Triangulation
Personal Definition vs. Comments on the DUBS' Table
Initially, NG vaguely associated enterprising teaching modes with 'trying anything new'. When the DUBS' table was presented, he seemed to show an appreciation of the enterprising approach. However, as discussed above, such an attitude was likely to be a result of the pressure to conform to the value-ridden presentation of the table. As later revealed, didactic modes were attached to scholarship. According to NG, the interactive enterprising paradigm was more effective in engaging pupils interest in learning but less practical in delivering the amount of knowledge required for the preparation of exams for A-Level classes. Except for **'concept discovered'**, in the enterprising column, he had a clear didactic belief. Nevertheless, he gave valid comments on the simplistic dichotomies which unduly implied criticisms on the didactic side.

Comments on the DUBS' Table vs. Rating of Teaching Tendency
The rating result was consistent with NG's preference of a less didactic (or more enterprising) approach to younger classes and more didactic one for the A-Level class. Unique to NG's attitude was that he was the only participant whose fundamental attitude was such that lectures and notes induce deeper level of thinking.[23] However, in practice, such belief gave way to the interactive enterprising modes which were better in engaging the weaker majority.

Personal Definition vs. Rating of Teaching Tendency
Throughout the course of the interview, NG's attitudinal swing was observed: from vague initial knowledge of enterprising teaching modes to the superficial positive appraisal of them and ended with gradual revelation of his didactic belief. It is possible that the interview had challenged his fundamental didactic disposition. So far, it makes an interesting discovery that all three participants (WZ, FO and NG) who fall into the didactic side had no prior knowledge of the subject matter whereas those who had come across the subject (AG, JaG, JoG & RW) all fall into the enterprising side in varying degree.

Definition of 'Enterprising Behaviours'
1) Personal Definition
In contrast to his vague definition of 'Enterprising Learning Modes', NG articulated 'enterprising behaviours' in a precise way which was identical to the promoters' understanding,

> '...the pupil showed more than usual interest, initiative, gave plenty of ideas, would generally be more constructive in their approach to work.' (NG-13)

This implies that the word 'enterprising' was understood as an adjective for attributing certain behaviours of a *person* rather than teaching methods. Such understanding was similar to RW's.

2) Comments on the DUBS' List
The Conventional Dictionary / Thesaurus Definition
NG stated that

> 'it's very rare that I would describe a pupil as **'pioneering'** because most pupils don't actually try and seek to go where nobody else has gone. Most pupils are like sheep and they like to follow something which is largely predictable. They don't like to venture into the unpredictable...'   (NG-14)

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[23] All other participants, one way or the other, associated or claimed the enterprising counterparts to be superior.

'**Adventurous**' and '**daring**' are synonymous and that these behaviours were not appropriate in laboratory situations,

> 'the problem of being '**adventurous**' would be the same as being dangerous in chemistry. Adventure implies a element of risk and that's something that we try to eliminate in the laboratory. We try to keep the lessons fun. But the risk is always assessed beforehand. So, it's minimised so that there's no danger to the pupils. So, '**adventurous**' is not the adjective I would use. That's similar to '**daring**'.' (NG-15)

Similarly, '**opportunist**' was largely undesirable,

> 'That's not the word I would normally use in describing a pupil's behaviour. I don't think that word either applies much to behaviour in the chemistry laboratory or lessons. If I were to use that word, it would be because some pupils are behaving badly, taking the opportunity of my back being turned and have done something foolhardy or anti-social...' (NG-16)

Notice that NG could relate the above behavioural labels with classroom behaviours. However, these labels were not in NG's natural usage largely and were unwanted or rarely used in educational context. Among the thesaurus definition, only '**go ahead**' and '**ambitious**' were considered to be in tune with classroom behaviours.

The DUBS' Definition

NG's criticisms had a great deal in common with JoG's. Concerning '**flexibly responding to challenge**', his initial understanding of 'flexibly responding' implied 'avoiding' challenge. He then acknowledged that the word had a positive connotation. Consequently, he defined this category as having dual connotations of good and bad. Positively, it meant

> '[pupils] attack the problem one way and if they find that is not working, they attack it in a different way. The choice of method is based on some sensible previous experience... *That's something we are looking for, definitely.*' (NG-17)

Negatively, it was

> 'unpredictable whether the pupil would rise to a challenge or not. If you've got a class in a Saturday morning and you set them a challenge, some pupil don't respond to that challenge at all, and instead, they talk to somebody else about the rugby game that's on that afternoon. But another time of the week, they are much more responsive.' (NG-18)

The change of attitude towards this category was noted. NG's natural unfavourable interpretation of 'flexible' was modified since he recognised and saw the importance of the other existing interpretation which was favourable (NG-17 in *italic*). Hence, he accommodated the new meaning while retaining his usual understanding. This scenario was compared with WZ who initially dismissed the category for it applied only in a 'business-context'. WZ altered his position to total acceptance and seemed to have dropped his original interpretation. The comparison of NG and WZ's attitude change revealed the complexity of subjective meaning making. It echoed Fullan's claim (1995) that for any educational change to be successfully implemented, it required a great deal of time for negotiating its meaning with individuals and accepting differences. To ignore or reject opposite opinions without communications was to deny others the time and opportunity for truly understanding the value of the change programme which presumably has taken lengthy assimilation on the promoters' part.

> - The social construction of meaning requires negotiation and communication with a great number of individuals. For genuine change to take place, people need time and space to conceptualise, assimilate and eventually implement (Fullan, 1995).

Concerning '**coping with and enjoying uncertainty**', NG shared the opinion of JoG that

> 'Most pupils don't like to be uncertain about things. They'll much rather have certainty or confidence that they are doing things correctly because they are making progress...' (NG-19)

Both JoG and NG believed that 'uncertainty' indicated 'not getting anywhere' (JoG-17) whereas 'certainty' denoted 'making progress'. Naturally, then, one would not 'enjoy' uncertainty. Moreover, NG stated that,

> 'At school level, the pupils know that things that they are dealing with work in a certain way and if they do them in a different way, they don't work... they feel that they ought to know.' (NG-20)

Such recognition was in line with that of WZ and FO who thought that uncertainty was an alien concept which was largely absent in the learning environment in educational settings.

Furthermore, NG suggested that the relevance of **'coping with and enjoying uncertainty'** was subject specific,

> 'Perhaps it depends on which subject. My colleagues who teach RE or who have got a debating society and these sorts of thing might be able to identify this and build on it in a more positive way than in a science subject.' (NG-20)

No explanation was offered as why this would be the case. This opinion aligned with that of JoG who, from the point of view of a non-scientist, also believed that pupils disliked uncertainty, showing that subject specificity in this case was not supported. It is likely that whether the category was perceived positively or not depended more on personal association / interpretation than on the subject being taught.

Interestingly, he valued the importance of pupils' ability of **'taking action in an uncertain environment'**,

> '"If the result is uncertain, do such and such," we say this as a part of a drill. As pupils get further on with their course, we hope that sometimes they will do that themselves. They will observe, realise that they have done something which gives an ambiguous answer and will immediately take appropriate actions to try and resolve the ambiguity.' (NG-21)

The different attitude towards the two categories with the similar uncertain element lies in the different association attached. The former was attributed to the *person* who was uncertain, the later was to an uncertain *task*. When the former was also related to a task, e.g. in RW's case where uncertainty was attached to a target language, the category was considered relevant. The writer suggests that to minimise dispute on the first category, the word 'enjoy' be removed and 'uncertainty' replaced by 'uncertain tasks/situations'

• Rewording the category **'coping with and enjoying uncertainty'**.

Concerning **'opportunity seeking'**, NG treated this as synonymous with **'opportunist'**.

Concerning the enterprising skills **'persuasiveness'** and **'negotiating'**, NG found little application to his subject. He connected these skills immediately with 'buying and selling' which had no connection with his teaching and therefore his pupils' learning,

> 'There are some careers where negotiating skills are important, like buying, selling, marketing, persuading other people to depart with their money... It's like coming against a brick wall, altering your position to make different suggestions, I would be most unhappy if I had to follow a career that involved me in negotiating a lot. And I don't think it applies much in my teaching.' (NG-22)

The word **'autonomous'** which was abruptly associated with 'self-governing', was not his vocabulary either. Like the way he interpreted **'flexibly responding to challenge'**, his immediate reaction was disapproval. Nevertheless, he acknowledged the alternative meaning,

> 'The pupil who would not wait and see what other pupils are doing, but will organise himself or his group.' (NG-23)

Likewise, being **'dynamic'** had a double-edge meaning of pupils who were seeking attention 'for good reasons or bad'.

Synonyms / Links / Overlap Descriptions Among Categories
NG found some categories repetitive as shown in Table 4.8. For instance, **'versatile'** was made synonymous with **'flexibly responding to challenge'**, being **'resourceful'** implied **'solving problems and conflicts creatively'**, **'commitment to make things happen'** and **'taking action in an uncertain environment'**. The colour coding shows that 'taking initiative' is the central theme of enterprising behaviours articulated in NG's own definition.

Table 4.7. Analysis of NG's Overlapping Descriptions of the Enterprising Categories

Enterprising Category	Behavioural Description	Learner A	Learner B
NG's own definition of	showed more than usual interest, initiative, gave plenty of		

enterprising behaviours	ideas, would generally be more constructive in their approach to work		

	'initiative': the first to get their work set up very quickly and finish as they start... who are energising and they won't wait and see what the others are doing before they do it themselves...the leader in a pair or group.		

	'constructive in their approach to work': constructive suggestions e.g. 'What will happen if we try this', or 'Could we try that?' or 'Why don't we do it this way?', which show the ability to plan, carry out and conclude from experiments, using his own ideas, not relying on other pupils for ideas		
'solving problems/ conflicts creatively'	the creative ones... very quickly realise what they are assigned to do, do not wait till other pupils to start... always the first to do it...	3	4
'commitment to make things happen'	same as 'actively seeking to achieve goals'... well motivated pupils who don't wait and see what everybody else is doing, and they try and get the answer out, or come to a conclusion with that particular task on their own initiatives.	2	6
'actively seeking to achieve goals'	pay attention during the course or lesson... concentrate on their tasks, make sure they'll fill up the work sheets, answer all the questions, complete any homework tasks and hand them in on time	5	2
'planning'	This has quite a high profile in my subject... to be able to plan an experiment and justify each aspect of the plan, using some scientific ideas... to understand the importance of repeating an experiment to confirm a result... there is an amount of uncertainty..	5	3
'autonomous'	a pupil who would not wait and see what other pupils are doing, but will organise himself or his group	6	5
'versatile'	pretty much the same as 'flexibly responding to challenge'*	5	6
'flexibly responding to challenge'*	attack the problem one way and if it is not working, they attack it in a different way. The choice of method is based on some sensible previous experience...	2	8
'resourceful'	somebody who will 'solve problems and conflicts creatively', the one who 'makes things happen' and 'taking action in an uncertain environment'.	2	7
'taking actions in uncertain environments'	if the result is uncertain they will observe, realise that they have done something which gives an ambiguous answer and will immediately take appropriate actions to try and resolve the ambiguity	2	6

* category containing both positive and negative connotation which may increase the degree of error variance.

3) Rating of Two Pupils
When asked to rate two pupils of his choice, NG responded,
> '...it would be easier to do the extreme than the non-extreme pupils. But I'll try with a non-extreme pupil...'   (NG-24)

Pupil A had a total score of 77 with $\mu=3.08$ in contrast to Pupil B who scored a total of 152 in total with $\mu=6.08$. B was on average 3 points higher than A except in the five categories in which A actually had a higher score. Such result suggested that NG had thought about each enterprising category carefully and that the numeric discrimination was sufficient in mapping individual behavioural profiles.

4) Triangulation
Personal Definition vs. Comments on the DUBS' Definition
NG's own definition of enterprising behaviour had much in common with the DUBS' definition with a central theme of 'initiative' behaviour. Being enterprising naturally signified self-initiative behaviour

since NG did not have any prior connection with Enterprise Education. In other words, the DUBS' model was broad enough to embrace the key feature of NG's subjective understanding.

Comments on the DUBS' Model vs. Rating of Learner's Enterprising Behaviours
When comparing NG's rating against the behavioural criteria he set for each category, inconsistency was detected. For instance, the ratings allocated for categories in red which contained the element of 'initiative' varied (see Table 4.7.). **'Commitment to make things happen'** was regarded as "much the same as people who are **'actively seeking to achieve goals'**". One would then expect that the ratings given to the two pupils for the two categories would be similar. However, the rating was inconsistent in this case. A closer investigation showed that even though NG stated that the two categories were much the same, the behavioural descriptions given were dissimilar. This explained why these categories were not consistently rated for the two pupils. The weaknesses of the impressionistic rating methodology was also demonstrated.

Moreover, the developmental change in original perception of categories (as discussed in WZ' profile) implied the holistic nature of the categories which contain multiple behavioural criteria/expressions, in some cases entailing conflicting values. Recalling the much criticised reductionistic behavioural check list which artificially breaks down the holistic nature of human behaviours, the question is to what extent such a check list is valid in representing the conflicting whole. This will be discussed further in Chapter 7.

> • To what extent is a refined behavioural checklist valid in representing the conflicting whole of enterprising behaviours?

Although the change of attitude was caused by multiple and sometimes conflicting behavioural criteria which affected the reliability of the rating methodology, consistency was observed in general terms. For instance, ratings given to the categories **'solving problems and conflicts creatively'**, **'commitment to make things happen'** and **'taking action in an uncertain environment'** which were attributed together to being **'resourceful'** were consistent.

Personal Definition vs. Rating
All through the process of defining his own understanding, to commenting on the DUBS' list and the rating exercise, NG's attitude towards enterprising behaviours was constant. There was no trace of the much favoured global concept over-riding individual categories in rating.

Perceived Relationship between 'Enterprising Learning Modes' and 'Enterprising Behaviours'
The contrast between the initial *lack of meaning* of 'enterprising modes' with the *thorough definition* of 'enterprising behaviours' implied that being 'enterprising' was naturally attributed to pupils' behaviour rather than a teaching-learning approach. However, there was not enough evidence from the interview to infer whether NG believed that 'enterprising behaviours' were caused or enhanced by 'Enterprising Learning Modes'. While appreciating that enterprising teaching modes were more effective in engaging younger and weaker pupils to learn, NG maintained the importance of learning didactically from text and notes which was associated with scholastic endeavour.

Summary
Using Bernstein's proposition (1971) to predict NG's pedagogical disposition, NG rightly falls into the category of didactic tendency since he comes from a traditional Science background with a strong subject identity (Chemistry) *and* he teaches in a formal educational institution (Grammar school). Concerning the concept of 'enterprising teaching modes', while appreciating the importance of the progressive learning paradigm, he was sensitive towards the implied criticisms of on didactic teaching. Nevertheless, valuable points were made which would help modify the existing model. Concerning the concept of 'enterprising behaviours', it was narrowly refined in terms of learning the subject. Pupils' personal development as a whole was largely left unmentioned. Finally, no relationship was established linking the two concepts. In other words, it did not seem to the case that enterprising approach to learning was exclusively related to the development of enterprising behaviours, according to NG.

8. Profiling PD

Personal Background
PD has been teaching General Science from Key Stage 3 to A-Level Chemistry and Mathematics for 20 years. He spent 3 years teaching in Nigeria and 17 years at a large comprehensive school of more than 1,700 pupils. He had an average class size of 26. The teaching environment was informal which he claimed was the only appropriate teaching approach for a low-achieving school. He disliked teaching according to the National Curriculum and the syllabus for public exams. He had not been exposed to Enterprise Education before the interview.

Definition of 'Enterprising Modes of Teaching'
1) Personal Definition
PD thought that the concept of enterprising modes of teaching was not definable. He associated it vaguely with 'practical work' and 'experimentation' in various teaching methodologies. The term enterprise did not seem to have a concrete meaning to PD as it did to enterprise promoters.

2) Comments on the DUBS' Table
So far, PD was the first scientist in this study who believed that **'learning from debate and discussion'** was more appropriate than **'learning from lectures'** for a practical subject like Science. He identified his teaching approach fully with the enterprising column presented in the DUBS' table,

> '...the Enterprising Modes of Teaching, seem to be everything that I agree with... There are pieces of information that do have to be imparted and they are very very few and far between. Otherwise, students, no matter what age[24], are more likely to remember because they have actually worked themselves, rather than being told.'   (PD-1)

The interviewer then presented the other scientists' argument (WZ, FO and NG) in favour of didactic teaching mainly due to the need for acquiring a large amount of core, basic knowledge. PD admitted that it was rather unusual to adopt the enterprising approach in Science subjects. However, he argued that only very few basic and core concepts would need to be delivered didactically. Fundamentally, the enterprising approach which stressed the use of daily application was more relevant for a practical subject like Mathematics. He suggested that the real reason for the didactic dominance was the result of strong tradition.

> '...the people in control are the people who have succeeded through the traditional didactic modes and they think that what is right for them is what works. And it *can* work, but I don't think it really works for most people.' (PD-2)

PD's view echoed Bernstein's claim (1971) that Science subjects which had a strong traditional subject identity and technical language favoured strong framing, i.e. didactic teaching with little active participation from students.

Concerning individual dimensions, PD did not find **'feedback from the teacher'** and **'feedback from each other'** contradictory. He reluctantly made sessions less flexible due to the 'unfortunate introduction of the National Curriculum'. Flexibility gave way to cover the prescribed topics.[25]

3) Rating of Teaching Tendency
Self-Rating
PD's enterprising tendency was consistently expressed in the self rating of his teaching style. He scored 21[a] (40 unadjusted) on the enterprising side, the third highest among all interviewees. All ratings fell on the extreme end of enterprising ('4' and '5') except in three dimensions. The dimension **'interactive learning'** was rated at a moderate '3' indicating the need for **'learning from texts and notes'** occasionally. **'Feedback from each other'** was rated low at '1' since it was not contradictory to **'feedback from the teacher'**. **'Session flexible'** was also low at '1' since the introduction of the

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[24]This claim seems to contradict with SG, JR and NG who believe that age has something to do with how one learns and therefore how teachers teach.

[25] This seems to overrule his argument with other scientists against didactic teaching. The difference is one of attitude. Other scientists were in favour of the didactic method and were willing to deliver large amount of information through didactic means, whereas PD was against the didactic approach although he unwillingly dropped to a low rating on **'programme flexible'**.

National Curriculum had pressurised him to programme sessions more than he would preferred in order to cover the content required.

Rating a Colleague
PD remarked that the Maths department in his school was devoted to the enterprising approach which was unusual because Maths teachers tend to be more traditional. Nevertheless, he found a fellow teacher who was slightly towards the didactic side with total score of -8[a] (-4 unadjusted). An interesting shift of perspective was noted when he was rating his colleague that 'to some degree, it's important for the teacher to be an expert (**'teacher = expert'**)' and the subsequent rate of '-2' was given. This was compared with his self-rating 'that has to be high at that end (**'teacher = facilitator'**)' with a high rating of 4. When asked how he inferred that his colleague tended more to be an expert than a facilitator, PD admitted that, he based his judgment on very minimal contact,

> '... it's just from the odd occasions in which I've been in his lessons and overhearing what this person was talking about teaching.'   (PD-3)

He also suggested that there would be discrepancies between his inference and his colleague's own perception of rating.

4) Triangulation
Personal Definition vs. Comments on the DUBS' Table
Although the term 'enterprise' did not seem to inspire PD with the same pedagogical implication as the promoters, it was clear from the beginning of the interview that he was open to progressive teaching paradigms. As predicted, he identified himself totally with the enterprising approach while dismissing the relevance of didactic teaching, making an interesting contrast with other scientists' opinion so far presented in this thesis. No connection was made between enterprise and business.

Comments on the DUBS' Table vs. Rating of Teaching Tendency
PD's favourable attitude towards the DUBS' presentation of enterprising teaching modes was totally consistent with the result of his rating. This suggested a total match of his preference (belief) and his actual practice (behaviours) largely unaffected by constraints in teaching which most teaching professionals experienced. Even his complaints on the National Curriculum only had limited effect on his teaching.

Personal Definition vs. Rating of Teaching Tendency
PD's attitude towards teaching and his thorough support for enterprising teaching method was constant throughout the interview. He was the first scientist in this study who had not come across Enterprise Education before and yet was totally absorbed into the promoters' understanding of enterprise. He found that the concept of enterprise fit well with his own philosophy of education and life in general, bearing in mind that the label enterprise did not naturally give rise to a concrete understanding until the DUBS' model was presented.

Definition of 'Enterprising Behaviours'
1) Personal Definition
When asked what enterprising behaviours are?, PD requested a clarification between teachers and pupils, implying that such behaviours were role specific. He equated enterprising behaviours from pupils with 'questioning',
> 'Questioning. 'Why something is like this?'... Pupils could do a lot of mini investigations. Everything is a positive learning experience... because life is like that... It's about choosing your own materials, choosing the way in which you investigate, a very free and open approach, to say 'I wonder what would happen if so and so happened', or 'I wonder what happens if I try this.' Rather than thinking, go away and look at them - I don't think that learning only takes place in writing - I think learning is what's in them. It's the *process*, it's what's going in your head that's so important... I just don't think that enterprising behaviour has a boundary'   (PD-4)

The emphasis was first and foremost on cognitive learning through active experimenting. The fact that PD had taken his own philosophy towards life on board and expressed it by adopting the language of being 'enterprising' became evident. In other words, the word 'enterprise' denotes a certain attitude towards life and being enterprising was to act consistently with such an attitude.

2) *Comments on the DUBS' List*
The Conventional Dictionary / Thesaurus Definition
PD thought that all the thesaurus definitions were synonymous. These were all desirable behaviours to be facilitated, including **'pioneering'** which was considered a 'strong word', **'daring'** 'has a bad press' because it has been related to danger, and **'ambitious'** which needed 'to be countered by reality'. They all shared the same fundamental attitude, that is, 'what if...', 'having the confidence to go into the unknown', 'pushing themselves forward', 'looking out for things', and 'it's more about life style as a whole, not just about education.' However, PD expressed difficulties in giving behavioural exemplars of pupils exhibiting these behaviours because they rarely happened. He believed that people were innately enterprising until such qualities got 'knocked out of them' from excessive cautions in life, i.e. 'Don't do this', 'Don't do that'...

The DUBS' Definition
Concerning **'actively seeking to achieve goals'**, PD claimed that pupils did not display much of this enterprising behaviour due to the fact that the school had low expectation from pupils and that the region was one which suffered from over thirty years' unemployment. Goals have been knocked out of people. Similarly, **'flexibly responding to challenge'** required a great deal of confidence building exercise starting from something pupils could do. PD also agreed with JoG that pupils were seldom flexible.

Concerning **'coping and enjoying uncertainty'**, PD echoed JoG and NG's claim that it was human nature to dislike uncertainty, nor did people cope well with it.

Unlike WZ, FO and NG, PD thought that the enterprising skills of **'persuading others'** and **'negotiating'** were essential to school learning and it took place frequently in classrooms.

Concerning **'planning'**, he suggested that
> 'Although I feel that planning is important, in some cases, it can be too important... to exhaustively plan takes a lot of the fun and spontaneity out of things.'   (PD-5)

Finally, he thought that **'decision taking'** skills were not usually found among pupils mainly because
> '...by the time kids get to a secondary school, a lot of the enterprise has been kicked out of them by lack of success in this environment.'   (PD-6)

Concerning enterprising attributes, PD stated that **'confidence'** was the central theme for any forms of learning. Particularly with pupils in his school who were so used to reject doing things because they lacked the confidence to make an attempt.

Similar to WZ's understanding of **'autonomous'**, PD did not rate this quality highly because he believed that it was more important to share and work with others than working on one's own. Like JoG, he found it difficult to spot pupils demonstrating such behaviour. NG had also had reservations about the label and JoG found it hard to define. Altogether, **'autonomous'** was a relatively 'odd' concept.

To summarise, all enterprising behaviours were considered most desirable except **'autonomous'** which PD found less desirable and **'coping with and enjoying uncertainty'** which was alien to pupils. He felt that teachers should facilitate its development. Unfortunately, he had repeated difficultiy in citing behavioural descriptions for most categories mainly because he did not observe much of this taking place at his school which he perceived as a 'low-achieving' 'difficult school'.

Synonyms / Links / Overlap Descriptions Among Categories
Throughout the discussion, PD made numerous links between behavioural categories as shown in Table 4.8. 'Questioning' and 'experimentation' (in red) with 'confidence' (in blue) and 'sharing' (in green) were the most repeated terms which made up the central theme of enterprising behaviours.

Table 4.8. Analysis of PD's Overlapping Descriptions of the Enterprising Categories

Enterprising Category	Behavioural Description	Learner A	Learner B
PD's own definition of enterprising behaviours	'Questioning. 'Why something is like this?'... a lot of mini investigations... choosing your own materials, choosing the way in which you investigate, a very free and open approach. Rather than thinking, go away and look at them...		

'pioneering'	Having the confidence *to try something different*, ...to know that if they wanted they actually could do it.... just go for it.	7	2
'adventurous'	virtually the same as **'pioneering'**	7	3
'daring'	linked with **'pioneering'** and **'adventurous'**. It's 'what if...'	6	3
'go ahead'	forging their own way to things and pushing themselves forward	6	3
'progressive'	same as **'go ahead'**	7	3
'opportunist'	looking out for things	8	3
'ambitious'	a student who is **'pioneering'**, **'adventurous'**, **'daring'**, **'go ahead'**, **'progressive'** and **'opportunist'**	9	2
'flexibly responding to challenge	*look at the problem from different angles*... just to get started to do something, look at the aspects of things that they can do first... that's a confidence building exercise.	8	4
'taking actions in uncertain environments'	pupils who are **'progressive'**, **'go ahead'** and all that	8	2
'solving problems/ conflicts creatively'	think about the cost of the material they use... a novel way of tackling an open-ended tasks. Go beyond the realm of what one might expect.	7	4
'commitment to make things happen'	that's summing up all the things I've said before...the openness to try things and to put things into such a way that that might well happen...	7	2
'persuading others'	explaining to peers your argument helps to reinforce your own and make it much more effective... getting the right balance between being over forceful and not being persuasive enough.	5	2
'planning'	should be done by actually doing, by experimentation, and learning that if it doesn't work then, change your plan. The good planners call upon various people within the group, write things down, sort them out...	8	5
'negotiating'	It's all wrapped up in this, negotiating who does what, negotiating with the teacher for more resources, materials or time, etc...	6	3
'decision taking'	Again, it's in the **'planning'** and so forth. But it's a big step for the kids to take. All these things are related.	8	3
'self confident'	when they're approaching something they don't know they would make an attempt at it, break it down into small and more manageable tasks... gradually get into the topic.'	7	2
'versatile'	given a certain problem, they use certain methods, certain materials that would actually help... adapting what you've got to fit.	8	3
'dynamic'	it goes back to experimentation and always questioning...	7	2
'resourceful'	linked up with 'versatility', making do with what you've got, adapting... make Maths applicable to everyday situations...	7	3

3) Rating of Two Pupils

PD had chosen two pupils who were distinctively different. Pupil A whose behaviours had been used as exemplars to describe **'go ahead'** and **'taking action in uncertain environment'**, had a total score of 181 with $\mu=7.24$. Before rating Pupil B, PD mentioned that this pupil was 'very unsure of himself' and did not like to question through things. His total score was 69 with $\mu=2.76$.

The interviewer observed that PD rated Pupil A highly in a couple of categories upon which he hesitated. PD explained that

'I don't have any direct evidence although I do feel that, probably knowing him fairly well, those words must apply.'   (PD-6)

PD's rating yielded good internal reliability probably because the difference between the two pupils were conspicuously distinct. For instance, the categories **'persuading others'** and **'negotiating'** (in green) only varied consistently by 1 point. **'Planning'** which had some extra element of 'experimentation' (in red) varied according to the ratings for the other categories in red. Among the

red categories, variations were between 2 points, except **'ambitious'**. PD explained that it was because Pupil A was 'over-ambitious'.

4) Triangulation
Personal Definition vs. Comments on the DUBS' List
PD's own definition of enterprising behaviours blended in well with the DUBS' definition. As shown in Table 4.7., the colours red and blue decoded from PD's own understanding appeared in most of the DUBS' enterprising categories. PD's attitude towards education (and indeed to life) was in agreement with that of the enterprise promoters. In other words, the DUBS' definition was broad enough to embrace PD's.

Comments on the List vs. Rating of Learner's Enterprising Behaviours
PD's comment on the DUBS' list was highly consistent with his rating behaviours. The fact that he tended to link most of the enterprising categories into three main elements, together with the marked distinction between the two pupils, contributed to such a high consistency. Considering that he had no prior encounter with enterprise education, and given his reservation about the importance and appropriateness of the categories **'autonomous'** and **'coping with and enjoying uncertainty'**, PD accepted enterprise with discernment, minimising the expectancy affect of the interview.

Personal Definition vs. Rating
PD's rating and his original definition of enterprising behaviours revealed his genuine disposition towards enterprise.

Perceived Relationship between 'Enterprising Learning Modes' and 'Enterprising Behaviours'
Although enterprising modes of teaching did not inherently signify a concrete pedagogical stance for PD, he identified immediately his total preference for the DUBS' model immediately. When comparing his own definition for enterprising teaching modes with that of enterprising behaviours, the central theme of 'questioning' and 'experimentation' were maintained and expounded. In fact, when discussing enterprising behaviours, before he could give any behavioural descriptions, he mentioned without prompting the important role of teachers in facilitating these behaviours among pupils. Thus, it was evident that PD saw the value of Enterprising Learning Modes as an important vehicle in bringing about enterprising behaviours in pupils. PD's view on education and life as a whole was in agreement with that of the promoters of enterprise. His protagonist attitude towards enterprise became apparent throughout the interview right from the start.

9. Profiling JR[26]

Personal Background

JR has been a teacher in a primary school for 35 years. She mainly teaches KS2 children with a class size of around 32. She is also the RE co-ordinator. The school has about 350 children. She thinks that the school gives pressure for didactic teaching methods[27]. Like all primary school teachers, she has to teach according to the National Curriculum, which she criticised for restricting flexibility and creativity both for teachers and children, despite its many positive aspects. She had attended a few enterprise workshops through INSET within the last few years. Before the interview actually started, she enthusiastically showed the interviewer handbooks which she obtained from those workshops.

Definition of 'Enterprising Modes of Teaching'

1) Personal Definition

JR explained enterprising modes of teaching as:

> 'working as a team... bringing different strands of the National Curriculum together... It's another way of interesting those children who may be not so interested in doing Maths or English in books, but they are quite prepared to do more *practical activities*. Quite often you'll find that those children who are specifically good at Maths or English are not necessary those children who would shine when they are doing their project in enterprise.' (JR-1)

JR readily articulated the cross-curricular nature of some enterprise activities and its effectiveness in creating interest in learning, especially for children who were less academically inclined. She elaborated on the modes of teaching through an enterprise activity, a 'book fair', which took place during the enterprise week at school. 'Team-work' and 'practical activities' were also emphasised.

The interviewer requested JR to explain why enterprising modes of teaching were more relevant to less academically inclined children. JR answered,

> 'I wouldn't say that those children who are academically inclined are not motivated. They are interested in it as well. It's just that quite often, education throws up those children who might have been escaping your notice, maybe the middle band of children where they don't necessarily get the opportunity to shine. All of a sudden you can see [them in enterprise activities]. They might not be leaders in PE or sitting around talking about science, but when it comes to practicality of money, and organisation - our line of enterprise ...' (JR-2)

JR also observed that enterprise not only broke through traditional conventional interaction between herself as a teacher and the children in her class, it also created a new platform to involve children and teachers from other classes. This helped break down the isolation among classes. Altogether, enterprise provided a unique learning context for children of different abilities to express themselves which went beyond what an ordinary classroom learning environment could achieve. JR articulated the objectives of enterprise in such a way that reflected the promoters' understanding. Notice that the only difference was that JR talked about enterprise as separate cross-curricular activities from classroom learning. This differed from the DUBS' approach, which *also* included similar activities in individual subject learning in the classroom.

2) Comments on the DUBS' Table

Instead of commenting on the table, JR split the table into two halves and reflected on her own teaching preference accordingly. In the didactic column, she disagreed with most of the items except **'feedback from the teacher'** which she actually regarded as an important role in enterprise. ("That's part of how I go about enterprising"). She also had reservation towards **'attention on knowledge'** ("I'm not into enterprise for knowledge as such, it takes knowledge, but it's knowledge in a different way"). She distinguished enterprise knowledge as 'children learning from themselves, finding out for themselves', which was different from knowledge from 'reading through books or teaching, listening to me giving my impressions of knowledge'. Such a simplistic distinction between knowledge and skills, which was shared among the majority of the other participants (except RW), contradicted the academic debate that the distinction was falsely dichotomised and conflated by enterprise enthusiasts (Thompson, 1984).

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[26] JR and SG (4.2.10.) come from the same primary school, yet each has a very different profile, which makes an interesting contrast.

[27] SG believes that the school is liberal in allowing individual teachers to adopt their own teaching approach as they see fit.

In the enterprising column, JR thoroughly identified her own teaching approach with the enterprising modes.

3) Rating of Teaching Tendency

Self-Rating

JR automatically rated her teaching approach, which was specially adopted for the enterprise week. Her total score was high on the enterprising side at 25[a] (44 unadjusted). JR was then requested to go through the table and rate again according to her everyday teaching, comparing it with her teaching for the enterprise week. The contrast was marked. She scored very high on the didactic side at -33[a] (-16 unadjusted). Various reasons were given to such a dramatic swing.

> 'I'm treating enterprise as somewhat different. [In everyday teaching], subjects for example history, geography, science, with 32 children in the class, they are mainly passive listeners. I don't think that's a good thing but it's the way that you have to teach to get the information and to get everything done in the time which you've got. They have to sit there, you have to teach children who can't read and have very limited memory... the facts about Henry VIII and the dissolution of monastery which has been absolutely nothing to them - in that way, they are passive listeners. But in enterprise, they are never passive. That's why I like enterprise so much.'   (JR-2)

Class size, limited time, the amount of content (of which some was not related to children's' experience), coupled with their inadequate reading ability and limited memory at that age, were apparent reasons for JR to be didactic, causing conflict with her own beliefs.

> '[I tend to adopt didactic modes] mainly because of other people's expectations on me and my children. The government have expectations, the school has expectations, the parents have expectations and that are often in conflict with me as a teacher, having had a lot of experience in teaching, and feeling that I know a little bit how to teach. [The enterprising method] is the way I approach teaching but that's not the way I'm being allowed to teach.' (JR-3)

Embedded in JR's statement was the fear of insecurity of letting go of the didactic method, which she saw as safe for meeting 'public demand'. JR was the only participant who had an enthusiastic attitude towards enterprise, but scored with the highest didactic tendency (-33). JR's personal experience was that 'other people's expectations' have discriminated against enterprising teaching in pragmatic terms. Such a perception contradicted JaG's speculation that public opinion was one which favoured enterprise and hence 'there was an implicit valuing' which would affect participants' opinion to conform to the enterprising approach. An interesting question was raised:

> - To what extent does the cultural environment, at school and in society as a whole, preserve the didactic tradition, or otherwise, promote the enterprise value? Or paradoxically both?

On the contrary, SG, JR's colleague at school, perceived quite an opposite school environment from JR. In other words, even within the same environment, the above question might stimulate significant individual differences.

Moreover, the drastic swing of the extreme didactic classroom teaching (-33[a], -16[ua]) to the extreme enterprising approach for the enterprise week (25[a], 44[ua]), suggested her behavioural change in interacting with her children. Such change, however, according to Harris (1994), was subjectively perceived by the actor/s (the teacher/pupils) since no significant change in teaching style was objectively observed by the observer-participant in the classroom, using the pre-established quantitative measurement. Despite the potential recalling and reporting bias from the actor, the actor-observer dispute casts doubts on the sensitivity and appropriateness of the observer-coding quantitative measurement for measuring complex social behavioural. This was due to the fact that the observer's quantification of behaviours was subjectively designed for the sake of measurement. This quantification could be significantly different from that of the experimenter.

Rating of a Colleague

When requested to rate a colleague, JR responded,

> 'I can't do that. I don't really know how my colleagues teach... I have no opportunity of seeing them teach. I will be guessing.'   (JR-4)

SG whom she regarded as a new teacher with less experience was chosen. SG was scored -5^a (-10^{ua}) on the didactic side. This is the second time that the colleague's score was less didactic than the participant. The first incidence was recorded in NG's rating. Both NG and JR were much older and had been teaching for over 30 years, while their colleagues were much younger and were new to the school. However, this was not the case with JoG. She rated the new teacher much more didactically and attributed the new teacher's didactic tendency to lack of experience. Thus, age *per se* was unlikely to be a determinant for teaching preferences afterall, rather than personal perception.

The mutual rating between JR and her colleague SG, together with their self-rating, has provided an interesting source for reliability testing of the rating methodology. This is discussed in SG's profile.

4) *Triangulation*

Personal Definition vs. Comments on the DUBS' Table
With her previous knowledge of Enterprise Education, JR explained Enterprising Learning Modes using the enterprise activity she organised at school This took the form of fund raising (the Book Fair) for the purpose of cross-curricular learning putting individual subjects together into practical application, with the emphasis on team-work and learning through pragmatic problem solving. Those features were identical to the DUBS' model which emphasised interactive learning through doing. The only difference is apparent in JR confining enterprise teaching modes into enterprise activities, whereas the DUBS' model also applies the enterprise approach to individual subject learning in the classroom. Therefore, in theory, the DUBS' definition embraced that of JR, but its application did not.

Comments on the DUBS' Table vs. Rating of Teaching Tendency
The way in which JR separated enterprise learning activities with day to day individual subject learning became conspicuous when she was verbalising her teaching preference while rating. The dramatic switch between enterprising modes of enterprise activities and didactic modes of day to day classroom teaching had caused cognitive dissonance. From her 35 years of teaching experience, she claimed that enterprising teaching modes matched her rich understanding of how children would learn. Unfortunately, such modes of teaching did not fulfill public expectation in education. Such claim raised a series of logical questions:

- If enterprising teaching modes match children learning, why will they then fail to meet public expectations?
- Could it be that public expectations are unreasonable?
- Or, could the problem lie in the teacher's perception?

The first two questions will be discussed collectively in the next chapter. Concerning the third question, JR reported experiencimg difficulties in exercising the enterprising modes during the interview,

> '...it's hard for a teacher to let the children to fall into pitfalls, but that is what enterprise is all about. It's about them getting into situation and getting out of this situation, where, literally, I'm there to give helping support. But my role is not a dominant role and as a teacher, I find that very difficult to carry out.' (JR-4)

> 'In a class, the pioneer is me. You can't have two leaders in a classroom situation...' (JR-5)

> '...if I have been [rating my own teaching tendency] ten years ago, I wouldn't have been bent into the idea of [enterprising modes], because 10 years ago, I wasn't being able to be aware of [how children actually learn]. I would have been caught in more of how I thought children learn instead of the way children actually be learning. The more you teach the more you realise how little you know about teaching, and the more you realise that you have to learn about it yourself, and the more children are teaching you how to teach them...' (JR-6)

The above quotes indicate that JR has accepted the principles of enterprising teaching and learning. However, its practice is at odd with her old modes of teaching (didactic) upon which she based her identity (dominant role) as a teacher (JR-4). The challenge to change her pedagogic approach threatens her deeply rooted identity and has become a source of unease. At this cross-road of change, JR actually found relief in the enterprise activities in which she could match her teaching behaviours with her own beliefs. She taught didactically in the classroom for individual subjects which means that the threat of her identity was contained in enterprise activity only. Thus, the writer speculates that JR's inability to see the relevance of enterprising teaching modes for daily teaching of individual subjects was a result of external pressure perceived through internal dissonance.

JR's complicated self rating results reveal that her favourable attitude towards enterprising modes of teaching was consistent with her enthusiastic self definition only in terms of belief. In terms of behaviour, her most adopted teaching style, which was predominantly didactic, was inconsistent to with her original belief. Such dilemma is more than the problem of applicability from theory to practice (that enterprising modes might not be practical enough), it is also to do with overcoming the unease and feeling of insecurity which every change has brought to an individual (Fullan, 1991).

Definition of 'Enterprising Behaviours'

1) Personal Definition
JR defined enterprising behaviours as:
> '...co-operation, acquiring skills that actually relate to life... an awareness of how you live in a real world, for example, dealing with money, dealing with everyday problems...'   (JR-7)

JR's understanding of enterprising behaviours was not confined to academic endeavour. She took a broad view of children's overall development of 'skills that actually relate to life', an utterance which reflected that of the enterprise promoters.

2) Comments on the DUBS' List
The Conventional Dictionary / Thesaurus Definition
JR regarded **'pioneering'** as both desirable and undesirable. It was desirable because a pioneer was 'a leader... taking a dominant role... having a lot of ideas... and well into forging ahead and carrying people along with them and having very strong opinions'. However, such behaviour would 'generate problems in school where teachers expect children to conform...' She expressed having problems with a child who was labelled as being a pioneer in her class,
> '...we have done nothing but fight all year, because, to be honest, in a class, the pioneer is me, and you can't have two leaders in a classroom situation... and that's how I was, very strong opinionated, see things in black and white... it's not always very good if you can't see the grey area... [And this child is the same]... We tend to go forging ahead, carrying people with us regardless of the fact that maybe they don't want to come with us at all. Maybe it's not good for them to be going that way - very self-opinionated...' (JR-8)

Notice that JR's definition of **'pioneering'** was not shared by others. It was further related to **'adventurous'** and **'daring'**. However, it was good to be **'adventurous'** because 'that is pioneering again, but not so much,' whereas **'daring'** was not always good since it was readily associated with being 'fool hardy'. Likewise, **'opportunist'** could mean good and bad, but the immediate assumption tended to be negative. Finally, JR thought that being **'ambitious'** did not apply to young children since they were not aware of what their ambition might. Such an observation was only shared by her colleague SG concerning to primary children.

The DUBS' Definition
The DUBS' definition of enterprising behaviours was mostly accepted as good qualities which should be enhanced in children with a few exceptions. JR equated **'opportunity seeking'** with the same negative connotations with as the term **'opportunist'**. **'Autonomous'** was also regarded as undesirable, since it was defined as being 'not able to rely on others' advice and help when they need to'. Being **'dynamic'**, to JR, meant 'making much noise... promoting himself or herself in a forceful way' and hence, undesirable.

Like JoG, NG and PD, JR also doubted that children would enjoy uncertainty. Ordinary classroom teaching did not allow them to have 'problems' and that 'you are trying to iron out the problems before they reach them'. Interestingly, she believed that children naturally enjoyed **'taking actions in uncertain environments'**. Here uncertain environments referred to a physical novel place (for school field trip, for instance), unlike uncertainty which means 'problems'.

Concerning **'solving problems/conflicts creatively'**, JR criticised the National Curriculum for putting constraints in the time-table for teaching that obstructed creativity to develop in children.
> 'I have to point it straight to the National Curriculum - there isn't the time, there isn't the scope, there isn't the facility for allowing children to be creative, because you as a teacher are taking a risk if you're allowing things to go wrong, and if things go wrong, you have to have

the time to put them right, and quite often it's quicker not to let them go wrong. So, you are sometimes preventing them from being creative, and you're solving their problem for them by not giving them the opportunity to solve their own problem.'   (JR-9)

Concerning the enterprising skills, she thought that **'persuasiveness'** and **'negotiating'** were synonymous and that children in her class were too young to possess these skills in a highly developed form. Furthermore, **'planning'** was not her strong point and therefore she thought only very few children in her class were able to plan.

Synonyms / Links / Overlap Descriptions Among Categories

Table 4.9. Analysis of JR's Overlapping Descriptions of the Enterprising Categories

Enterprising Category	Behavioural Description	Pupil A	Pupil B
JR's own definition of enterprising behaviours	co-operation: being flexible and helping each other in groups... acquiring skills that relate to life e.g. dealing with money, everyday problems...		
'pioneering'*	taking a dominant role... having a lot of good ideas, forging ahead and carrying people along with them, having very strong opinions...	8	2
'adventurous'	same as 'pioneering'... willing to try something, not frightened of making mistakes...	8	1
'daring'*	back to 'pioneering'... pushing the guidelines that you have given them to the extremes... a very narrow line between daring and fool hardy.	8	2
'go ahead'	always ready to lead, to talk and make decisions...	8	2
'progressive'	similar to 'go ahead'.. except that they want to get on and are prepare to be led...	8	2
'opportunist'*	self-promotion...working to their own advantage... children who are aware of the fact they can teach themselves, they are aware of that opportunity and take it.	8	2
'ambitious'	those children who want to do their best... who know where they are and want to go further in what they're doing...	8	0
'actively seeking to achieve goals'	are aware of what the goals are and actively try to pursue those goals	9	2
'flexibly responding to challenge	are prepared to pursue, do not give up easily, try with different approach	9	2
'solving problems/ conflicts creatively'	suggest different ways to do things, can often cut through all the dead wood and get straight to the problem... come by different paths to the same conclusion.	9	2
'commitment to make things happen'	forge ahead and are prepared to fall down and get up and keep going and whatever the goal is they are going to get there...	9	4
'persuading others'	the leaders, carrying people with them... forging ahead with careful consideration...	5	3
'negotiating'	the persuasiveness and the negotiating go together.	5	2
'self confident'	shown in their language, in their attitude to what you're doing and how they get on with other children, how they negotiate.. not frightened of taking a lead in something	9	1
'autonomous'*	having the confidence to think of themselves as an island and being at the most important, self-promotion... they are making decisions and taking the lead and coping with the problems that arise without reference to me.	9	1
'versatile'	have the confidence to speak out and negotiate, relating to you in a good healthy way and they might question what you're doing...	8	1
'dynamic'*	someone who is promoting himself or herself in a forceful way	9	1
'resourceful'	those who are not taking everything at face value, they think around things and sideways... lateral thinking... not always going from A to B directly. They are aware of alternatives.	8	2

* category with both positive and negative connotation which may increase the degree of error variance.

As shown in Table 4.9., throughout the interview, JR repeatedly uttered phrases such as 'forging ahead', 'taking the lead', 'not afraid...' when giving behavioural descriptions to many of the enterprising categories including **'pioneering'**, **'daring'**, **'go ahead'**, **'progressive'**, **'ambitious'**, **'actively seeking to achieve goals'**, **'flexibly responding to challenge'**, **'commitment to make things happen'**, **'persuading others'**, **'negotiating'**, **'self-confident'**, **'autonomous'** and **'versatile'** (in red). Moreover, similar utterances such as 'having a lot of good ideas', 'try with different approaches', 'different ways to do things' and 'think around things' were also found in categories **'pioneering'**, **'flexibly responding to challenge'**, **'solving problems/conflicts creatively'** and **'resourceful'** (in green). The third group of overlapping behavioural descriptions was coded in blue with the theme of 'self-promotion' attributed to **'opportunist'**, **'autonomous'** and **'dynamic'** behaviours. These categories (in blue) together with **'pioneering'** and **'daring'**, contained both desirable and undesirable behaviours, according to JR. Altogether, the three themes portrayed conflicting values in the notion of enterprising behaviours, calling into question the of relevance of enterprising behaviours in education (Bailey, 1993).

⊛ enterprising behaviours contain conflicting values

3) Rating of Two Pupils

Two distinctly different pupils were deliberately chosen to contrast their profiles for enterprising behaviours. Pupil A was rated extremely high in the profile, with a total score of 200 with $\mu=8.00$. Only the categories, **'persuading others'** and **'negotiating'** were given a moderate rating since these skills were said to be not yet well developed in young children. In contrast, Pupil B scored 50 with $\mu=2.00$. This extremely low profile was made more obvious when a rating of '0' for **'ambitious'** was allocated to Pupil B instead of '1' for the lowest . JR concluded that

'[Pupil B] is scoring low because he is not **"self-confident"**.'　　　　(JR-10)

The researcher observed that for categories with conflicting values, Pupil A constantly received high ratings, compared to the lower ranking of Pupil B, (except **'opportunity seeking'** where a rating of '7' was given). JR explained that in Pupil B's case, a high rating of '7' definitely represented a highly negative quality i.e. 'self-promotion, working to one's own advantage'. Interestingly, the interpretation given to Pupil A (the pervasively good pupil) was not straightforward:

'It depends on how you look at them... *They are all positive in her case...* I wouldn't necessary say that giving her age, **'daring'** is a good thing [for instance]. But when you look at these words, I see [Pupil A]... *Whether it's negative or positive, I would still give her an '8'...*'
(JR-11)

This inconsistency emerged from the discussion between the interviewer and JR. It seemed that initially, JR was not aware that she had fallen into the trap of the global concept of enterprising behaviours taking over the individual local rating (the theory of 'everything goes', i.e. high rating for a 'bad' pupil signifies 'bad' behaviour whereas high rating for a 'good' pupil signifies 'good' behaviour). After being challenged by the researcher, deeper discernment replaced overall impression and JR recognised that negative qualities co-existed with the positive in the case of the good pupil.

4) Triangulation

Personal Definition vs. Comments on the DUBS' List
Referring to Table 5.9., JR's personal understanding of enterprising behaviours bore no direct association with how she understood the DUBS' list. This was the first instance when no immediate similarities were detected from a participant's own definition with their definitions for the DUBS' categories. Nevertheless, JR's definitions for both enterprising education and enterprising behaviours were in total agreement.

Comments on the List vs. Rating of Pupils Enterprising Behaviours
JR's understanding of enterprising behaviours was consistent to the extent that those categories considered irrelevant to school children of her age were rated with caution. For instance, she believed that her children were too young to possess the skills of **'persuading others'** and **'negotiating'**. These categories were consistently rated low. While rating, she reiterated her assertion that children naturally

did not enjoy uncertainty and that an uncertain environment was not in accordance with her philosophy of teaching,

> 'in classroom situations, it's never meant to be an uncertain environment, so my whole philosophy is not making the classroom situation an uncertain environment.'   (JR-12)

Consequently, she could only draw inference from the very occasional outdoor activities.

However, as discussed above, one major inconsistency was apparent in that the global concept of enterprising behaviours was all-pervasively desirable that it interfered with the independent meaning of individual categories. This phenomenon became increasingly obvious with those categories that contained conflicting values. This inconsistency creates confusions in interpreting pupils enterprising profile. For instance, a high rating of **'opportunist'** for a 'good' pupil could mean solely the good side of the interpretation or both the good and the bad, whereas the same high rating for the same category for a 'poor' pupil means only bad behaviours. Precisely speaking, the interpretation of those categories which contain conflicting values were largely dependent upon *whom* JR was rating. Thus, the problem lies not so much in the conflicting values that existed in certain categories, but the sporadic change of 'screening' of these values, i.e. if the child is good in general, s/he may just about be thoroughly good, while if s/he is bad in general, s/he would be thoroughly bad! Without the debate between the researcher and JR to clarify the issue, the logical assumption that high rating connote desirability could just be so tragically wrong! This scenario raised the following profound concern:

⊚ How to interpret the numeric results which could randomly signify either bad or good qualities or both.

Personal Definition vs. Rating
Referring to Table 5.9, there was a lack of immediate shared meaning between JR's own definition of enterprising behaviours and her understanding of the DUBS' categories. However, JR did not seem to refute the legitimacy of the categories.

Perceived Relationship between 'Enterprising Learning Modes' and 'Enterprising Behaviours'

When comparing JR's interpretation of 'Enterprising Learning Modes' (Quote JR-1, p.115) with that of 'enterprising behaviours' (Table 5.9), a causal relationship was implied. The former stressed 'team work', which entailed 'co-operation and helping each other in groups'. EML also took the form of 'practical activities', which helped develop practical 'skills that relate to life, e.g. dealing with money, every day problems.'

Summary

JR's profile has provided an interesting account of analysis. She was aware of her change of attitude from a traditional didactic approach to a progressive one from which the enterprising method was derived. However, in behaviour, the didactic modes dominated due to numerous perceived constraints and public expectations. Using Bernstein's proposition to predict JR's teaching tendency, she teaches in a primary school (which favoured progress teaching), in an environment which she perceives to be traditional (which favoured didactic teaching). This results a conflict between her belief in progressive teaching modes, such as enterprise, while succumbing to pressure to teach against her beliefs. Meanwhile, her paradox was resolved temporarily by the occasional enterprise activities within which she felt free to teach enterprisingly. Seemingly, therefore, the total 'conversion' to enterprising teaching method in everyday classroom has been put 'on hold'.

10. Profiling SG

Personal Background

SG, a colleague of JR, is the Science co-ordinator of the same large primary school of more than 350 pupils. When the interview took place, she had been teaching for just two years, with a smaller class of 28 pupils of mixed age between 7 and 9. Contrary to JR's belief, SG claimed that the school provided freedom for individual teachers to adopt their own teaching methods. Sharing JR's point of view, SG repeatedly criticised the National Curriculum for restricting creativity in teaching and learning. She became familiar with Enterprise Education in her teacher training course and also through INSET.

Definition of 'Enterprising Modes of Teaching'

1) Personal Definition

SG's own definition of Enterprising Learning Modes was in complete agreement with the aims of Enterprise Education, which was advocated by the promoters, the Mini Enterprises in particular.

> 'To me, it means making children aware of what life is going to be like in industry, preparing for when they are older the whole progress of planning, producing, selling and buying, and getting finance together, if we take it to the extremes, like writing to the bank and ask them if you can borrow money... we did it like a project... They get a good understanding of what it's all about... you've got to plan your things... It's a good way to get them to think, so, it's a good learning strategy'   (SG-1)

Unfortunately, SG remarked that even though such learning strategy was worthwhile, it was impractical,

> '...because you've got so much to get through in the National Curriculum, and yet it takes so long to do a project like that, that you stretch the time. You've more or less got a fore-go week's straight forward teaching just to give it up to do something.'   (SG-2)

SG did not expand upon what she meant by 'learning strategy' which was seemingly assumed to be equivalent to the Enterprising Learning Modes.

2) Comments on the DUBS' Table

Instead of contrasting the two columns, SG split them into two halves and commented on them separately. Referring to the didactic column, she was readily dismissive of the dimension **'learning from lectures'**, **'passive role as listener'**, **'teacher infallible'** and **'teacher=expert'**. Concerning **'mistakes feared'**, she believed that teachers nowadays have come to appreciate that 'mistakes are something to learn from, and not to tell [children] off...'. Concerning **'attention mainly on knowledge'**, the National Curriculum was again criticised for emphasising too heavily on knowledge, leaving limited scope for creativity.

There were a few dimensions in the didactic column which SG valued. **'Concept provided'** was essential for providing initial ideas for the class. Although she regarded **'learning from texts and notes'** as irrelevant for young children of her class who have not developed adequate reading capability, she felt it was necessary for older children. **'Feedback from the teacher'** was regarded as very important by SG and **'learning objectives imposed'** meant a structure which was prerequisite for learning.

Referring to the enterprising column, she agreed that all of the dimensions were good teaching strategies, although she experienced a dilemma concerning **'programme flexible'**:

> 'Session has got to be flexible and that's what causes the problem, flexibility that you haven't had because it's such a work load... your sessions have to fit into the time-table, you are structured. Especially now, we've got to do 4 hours of this a week, 4 hours of that a week... and you've got no hours left! So, to have your sessions flexible, you've more or less got to collapse your time-table for a week which you might think, "but you haven't got that many weeks!"...You haven't got much time left to get through what you have to get through by law in the document.'   (SG-3)

Obviously, the National Curriculum was to blame for a over-prescriptive structure which has left limited time for flexibility.

Furthermore, SG also had some reservations concerning **'learning objectives negotiated'**,

'...not particularly for my age. Because they would only just go for the very easy options... they wouldn't stretch themselves. That's what in the earlier one (**'learning objectives imposed'** - the opposite continuum) I said it should be structured pointing them to the right direction and get them to where you want to be discretely.' (SG-4)

The interviewer detected that while splitting the table into two columns, SG did not seem to see **'concepts provided'** - **'concepts discovered'** as opposites. She explained that,

'I give them the ideas that I want them to develop. But I provide the initial idea, they can take it further themselves. And it comes with my more mature ones. They will follow up my initial concepts... and they go off on their own and discover their own things from that. So, I provide the core and the able ones can take it further. But the majority, at the minute, stick with what I've provided.' (SG-5)

Similarly, **'feedback from the teacher'** - **'feedback from each other'** were not perceived to be opposites.

In general, SG very much favoured the enterprising modes of teaching while she was able to express difficulties in putting some of them into practice and appreciate the need for some didactic practice. She also pointed out the dimensions that were not relevant to her teaching, and those she perceived as complementary the continuum.

3) Rating of Teaching Tendency

Self-Rating
Embarking on the rating exercise, SG indicated that she taught differently according to subjects, Science in particular. She was then requested to rate her general and specific approaches to teaching Science separately. For general practice, she had a total score of 0^a (20^{ua}). Except for those value-laden dimensions which she rated '5' on the enterprising side without hesitation, the rest of the rating spread evenly across the continuum. **'Session programmed'** and **'learning objectives imposed'** were rated '3' and '4' respectively on the didactic side, while **'learning from debates and discussions'**, **'learning by doing'** and **'concepts discovered'** were rated moderately at '2' or '3'. **'Learning from texts and notes'**- **'interactive learning'** and **'feedback from the teacher'**- **'feedback from each other'** were rated '0'.

The above result was compared with the rating for her teaching approach to Science. A total score of 26^a (45^{ua}) was recorded, representing a marked swing to the enterprising side. Again, the value-laden dimensions were certainly rated to the absolute '5' on the enterprising side. The rest of the dimensions also swung to the extreme of '4' and mostly '5' on the enterprising side except **'sessions programmed'** which remained at '3' on the didactic column.

The dramatic change of approach to Science, a subject towards which she was most enthusiastic, positioned her general belief and preference on the enterprising modes rather than neutral, even though she had strongly emphasised the importance of some of the didactic methods. Her own words summarised her attitude clearly,

'I do feel that *the enterprise modes of learning are definitely the ideal*. But I still think the traditional modes - part of that - has to be provided, not all of them but a lot of them, and more so at the younger age. They've got to have initially, when they are young, Key Stage 1 (5 to 7 of age), confidence built up. But be very structured, otherwise, some of them will never be on track. As they get older and more confident, you'll need to put less of your own input into it because they have become confident learners, and hopefully, independent. That's a long process to move them up to that. Practically, you would only get those Enterprising Learning Modes persons in your 5 or 6 top end, where that can work these kids the best.' (SG-6)

The author however did not neglect the possibility that SG's tendency towards enterprising modes was a result of the value-ladenness of the enterprising column, which was increasingly compulsive when rating along a polarised continuum.

SG's approach to Science presents a situation of discontinuity with other Science teachers at secondary and tertiary level in their attitude towards teaching. She believed that Science was best taught in an enterprising way because it was an 'open' subject that had no definite answers whereas other subjects, such as English, were old fashioned and thus required more didactic teaching. SG's belief was in agreement with PD, a Science teacher in secondary. However, PD's reason for enterprising learning

contradicted that of SG, in that he believed that only few bright pupils would benefit from didactic teaching, whereas SG believed they were the only ones who would benefit from the enterprising approach. The two university lecturers agreed with SG that the academically competent students were the ones who suited the enterprising modes while the rest, undergraduates in this aspect, had to be taught mainly didactically. However, in terms of subject specificity, the lecturers differed from SG in that they believed that enterprising modes were more readily applicable to social sciences, whereas Science subjects required a more didactic approach just to cover the basic, core information to be learnt. SG claimed the opposite. To complicate the issue further, SG's closing remarks reiterated the lecturers' point of view that didactic approach was essential for the structured delivery of basic core information:

> 'You've got to provide the concepts when they are very young. They've got to listen to you because they can't read. So, they are passively listening to you. They depend on you *so much* to tell them how well and marvelous they are in what they are doing, being told how to do it right, in a good manner. So, there's a lot of that didactic methods still very important. As they get older and are confident they can do more enterprising modes of teaching. So, *the basics need a lot more traditional didactic 'chalk and talk', and then that (enterprising modes) takes over later on.* I love doing that, but just have that would be a roulette. It would, wouldn't it? Some [children] would come through, some wouldn't. Some would develop skills, some would stretch themselves, others wouldn't. That's why we need a structure. You've got to point some of them in the right direction, or they'll go backward.'   (SG-7)

The following table summarises the pattern of discontinuity of opinions concerning the relevance of teaching approach to Science among teachers across all levels.

			PRIMARY SG	SECONDARY NG/PD	UNIVERSITY WZ/FO
Verbal Comments	Science	Academically Competent	E	D	E
		Others	D	E	D
	Arts		D	E	E
	Belief		E	D/E	D/E
Ranking	Behaviour	Science	E	N/E	D/D
		Others	N	--	--

E = enterprising modes; D = didactic modes; N = total score in ratings falls between E and D.

The above table suggested that participants' personal opinions on the impact of individual factors, which they claimed to have determined their teaching approach, were inconclusive and controversial. Despite the lack of a representative sample, the table nonetheless shows how individual opinion may differ. A standardised quantitative generalisation which shows simple patterns can be misleading, since the same factor would lead to different outcome and the same outcome would actually be arrived from diverse, idiosyncratic and controversial reasoning.

Rating of a Colleague
SG rated her colleague JR (see 4.2.9.) whom she thought had a totally different approach to teaching. The colleague was scored highly with -26[a] (-40[ua]) on the didactic side. This score was compared with SG's own rating of 0[a] (20[ua]) for general teaching practice and 25[a] (45[ua]) for teaching Science which located her highly on the enterprising side. SG thought that the difference was a result of the different teacher training they received:

> 'So, that's totally opposite to how I teach. But I'm obviously trained differently from when she was trained 18 to 20 years ago. We're totally different.'   (SG-8)

The mutual rating between SG and JR and the way they 'observed' each other presented an interesting insight into the validity and reliability of the rating methodology and the measurement instrument (i.e. the table contrasting two teaching styles). This is discussed in the next section.

4) Triangulation
Personal Definition vs. Comments on the DUBS' Table

In the main, SG's own understanding of Enterprising Learning Modes was in line with that of the DUBS' definition. The difference lies in that she limited the 'learning strategy' into a mini enterprise project, whereas the DUBS' model emphasised the application of this learning strategy as an approach to learning in general, regardless of subject specialities. Nevertheless, the DUBS' concept did encompass that of SG.

However, when it comes down to individual dimensions, SG did not agree with the DUBS' model since she believed that **'concepts provided'**, **'feedback from the teacher'** and **'learning objectives imposed'** were essential for teaching, especially of young children. She did not perceive these dimensions as opposites to their counterparts in the enterprise column (**'concepts discovered'**, **'feedback from each other'** and **'learning objectives negotiated'**) as the DUBS' table presented although the degree of relevance of these counterparts seemed to be subject to age and learning ability of individual children.

Comments on the DUBS' Table vs. Rating of Teaching Tendency

An interesting scenario was detected from the comparison between SG's comments on the DUBS' table and her rating results. Her rating for hergeneral approach to teaching was highly consistent with her verbal comments on the DUBS' table. A moderate tendency towards enterprising modes of teaching was recorded which reflected her general appreciation of the overall enterprising method while the individual dimensions were rated consistently according to her verbal comments. For instance, **'feedback from the teacher'** - **'feedback from each other'** was given '0' indicating equal emphasis; **'concepts discovered'** was rated low at 2 on the enterprising side and **'learning objectives imposed'** was rated very highly at '4' on the didactic side. The reason for the 'neutral' tendency was that children needed to learn in a structured way, they would not stretch themselves.

However, such consistency was weakened when she rated her teaching approach to Science. She rated highly at '4' for **'feedback from each other'** and **'learning objectives negotiated'**. For Science, an open subject, the general need for structured learning was perceived to be not as important and the enterprising method was favoured. Seemingly, the element of SG's enterprising belief was almost thoroughly exercised and confined to the subject of Science.

Personal Definition vs. Rating of Teaching Tendency

It is obvious that SG has an enterprise belief although from the very beginning, in her own definition, she felt that the enterprise learning strategy was 'impractical'. Consequently, in general teaching practice, she was fairly neutral in adopting both the enterprising and the didactic approach. However, her enterprise belief was mostly expressed through her teaching approach to Science. The author suspects that the intertwining factors of her fundamental protagonistic belief and the value-laden dimensions have contributed to her extreme enterprising rating for teaching Science.

Definition of 'Enterprising Behaviours'
1) Personal Definition
SG perceived a certain dissociation between her original understanding of the concept and the concept portrayed throughout the interview. Her immediate response to the question: 'What do you think enterprising behaviours are?' revealed such dissociation,

> SG: Can I just clarify what I thought Enterprise Education was, looking at the　　　whole issue, from the start to the finish, to do with industry. Is that right or　　　not?
> RM: There are so many different opinions, so there's no right or wrong answers.
> SG: Because that's what I always thought it was. So, am I on track?
> RM: Yes.　(SG-9)

Despite the dissociation, she promptly gave her own understanding of enterprising behaviours which entailed:

> 'the ability to listen to others, the ability to work as a team member, and be willing to share your skills because some people are definitely more able to be an expert at a particular aspect of their work than others. But that means that they should be a good team member... be able to plan carefully, be able to be a divergent thinker in order to think of different avenues.'
> (SG-10)

In the main, SG's definition of enterprising behaviours is strikingly similar to that of the protagonists in the academic literature. This is possibly due to her previous enterprise experience in training college and through INSET in school. However, this previous exposure suggests the overwhelmingly strong message of 'industrial awareness' overshadowing the learning strategy and its aims of enhancing

enterprising behaviours. A similar scenario was found in the case of JR (SG's colleague) who also expressed concern that she might have 'misunderstood' the topic in discussion at the beginning of the interview.

2) Comments on the DUBS' List
The Conventional Dictionary / Thesaurus Definition
All the behavioural categories from dictionaries, except **'adventurous'**, were treated as synonyms. 'Self-interest' and 'keenness' or 'enthusiasm' were the mostly repeated words for these categories. Unlike other participants, SG seemed to have accepted all these categories to be desirable. For the category **'ambitious'**, she made an interesting remark that children with good home support were the ones who were conspicuously ambitious, although the ones who did not have such support would also express their ambition in a less obvious way. This observation raised the problem of measuring the effect of the enterprising teaching approach for enhancing enterprising behaviours since family background becomes a confounding variable. Thus, it is important that the methodology in use takes into consideration the potential interactive effect of home and school on children's learning.

- How to take into consideration the confounding variable, i.e. home, for the development of children's enterprising behaviours?

The DUBS' Definition
SG accepted all the DUBS' enterprising categories except **'taking action in uncertain environment'** and **'autonomous'**. She had difficulties with the notion of 'uncertain environment'. She believed that children generally did not like and would not cope with an uncertain environment. Therefore, it was a teacher's responsibility to eliminate uncertain environments so that children would feel secure. Hence, the category was not relevant to her age group.

Concerning 'autonomous', she immediately associated it with those children
'who don't need anybody else's opinion because they know it all anyway...' (SG-9)

According to SG, **'autonomous'** contained conflicting values. It was desirable when it implied the ability to take decisions and work on one's own. However, 'sometimes it can cause a problem because if they are too autonomous, they don't want to share, they are not good at team skills'. SG also thought that it was age related, with the younger children being more autonomous and normally growing out of it.

When discussing **'versatile'**, SG criticised the knowledge-based National Curriculum for limiting scope for the development of versatility among children. She referred to being **'versatile'** as engaging in a variety of activities, such as tap dancing (that she did with her class), rather than knowledge obtained from books.

Finally, she commented that all these enterprising categories highly similar. She explained that was why she offered similar descriptions for each of them (see Table 5.10). Apparently, she has collapsed most of these categories back to the one specific concept, i.e. being enterprising. Consequently, she claimed that she could easily identify 'who is what' among her class, since the categories were very clearly attributing to that specific quality.

Synonyms / Links / Overlap Descriptions Among Categories

Table 4.10. Analysis of SG's Overlapping Descriptions of the Enterprising Categories

Enterprising Category	Behavioural Description	Learner A	Learner B
SG's own definition of enterprising behaviours	the ability to listen to others, to work as a team member, to share your skills, to plan carefully, to be a divergent thinker thinking of different avenues.		
'pioneering'	always asking questions and trying to solve problems. Their minds are forever working. They show enthusiasm and interest in the classroom.	10	9
'daring'	they don't mind making mistakes, just go ahead and do it.	9	7
'go ahead'	they are the planners, the ones that shows keenness, straight on with things. They talk about ideas and put them down	10	7
'progressive'	self-interest and taking it a stage further.	10	8

'opportunist'	seek every opportunity to go straight to what they like, show an interest in things and extend the original task themselves	10	10
'ambitious'	want to do everything to keep you happy. Again, self-interest, to take it a step further without being told. <u>They'd go to the library outside school and bring in things from home. Those who want recognition for doing well.</u>	10	8
'actively seeking to achieve goals'	<u>they'll go to the library after school, ask their parents to take them to places because they want to finish their task well on time</u>	10	10
'flexibly responding to challenge	seek advice and change ideas or materials they are using. They are enthused by new ideas will not easily lose interest.	9	9
'coping with and enjoying uncertainty'	by mass excitement in the class, getting enthusiastic about 'what's going to happen next' and anticipating end results	10	10
'opportunity seeking'	constantly being enthusiastic, always listening, paying attention and seeking every chance to continue doing things that interest them, always asking questions.	10	8
'commitment to make things happen'	to keep on until they get what they want to achieve, constantly going back to the drawing board, making things again and again, perseverance until it's sorted, do not like to be behind	9	7
'persuading others'	constantly asking for what they want, persevering	10	7
'planning'	always have a piece of paper in front of them and write all their ideas down, don't want to miss anything out, they'll listen to everybody, then go back and draw a design, keeping records of what they've decided.	10	7
'negotiating'	be fair, trying their utmost to keep everybody happy by making sure that they have listened to everybody's idea. If they are not taking notice of somebody, they will tell them why and not fall out.	9	6
'decision taking'	try their utmost to come to a friendly agreement by voting... they will solve their own problems and they've got the competence to tell you what they've decided to do.	10	8
'self confident'	the way they walk and look at you in the eyes, they can have a conversation with you, say why they've done something with a perfectly reasonable reason... they will share things and not be frightened to give you a better explanation...	10	9
'autonomous'	make their own decisions, don't need anybody else's opinion because they know it all. They are alert, watching. They know exactly what's going on... being studious	10	9
'responsible'	treat things properly, they are keen to learn, 'progressive', 'adventurous', 'opportunist', etc. those who are responsible show genuine interest in learning	10	10
'versatile'	they are creative children who will adapt, make do with what they've got. They are full of enthusiasm.	9	7
'dynamic'	showing a genuine desire to learn, constantly questioning then go off discovering things for themselves. They're active. Their minds never rest.	10	8
'resourceful'	they will adapt and have plenty of flexible ideas, actively looking for things they need to tackle a task	10	9

In Table 5.10., the colour red prominently shows the repeated theme of many of the enterprising categories, i.e. enthusiasm and a genuine interest in learning, constant questioning and going a stage further from what is being taught. This central theme was found in 15 categories out of 24, including **'pioneering', 'go ahead', 'progressive', 'opportunist', 'ambitious', 'flexibly responding to challenge', 'coping with and enjoying uncertainty', 'opportunity seeking', 'commitment to make things happen', 'persuading others', 'autonomous', 'responsible', 'versatile', 'dynamic'** and **'resourceful'**. The colour blue indicates that SG's own unprompted understanding of enterprising behaviours was captured by the DUBS' list which includes 'the ability to listen to others', 'planning' and 'divergent thinking'. As mentioned above, the amount of repeated descriptions indicated that SG has treated most of the categories within one frame of 'being enterprising'.

3) Rating of Two Pupils

SG picked two of the best children who worked as a team and were regarded as very enterprising before she actually rated them. According to SG, Pupil A tended to take the lead and had a total score of 240 with $\mu=9.60$. Pupil B scored 202 in total with $\mu=8.08$. Due to the consistent high scores given to both pupils, SG's rating yielded a high level of internal reliability. The only exception was 'taking actions in uncertain environments', the category which she found irrelevant and unusual in school learning and in which young children were naturally not good:

> 'I think that's down to maturity... they [school] still tend to keep things secure [for children]. Well, I just put 'good' ('5') for that because, they are not hopeless, but they are not excellent.'
> (SG-11)

4) Triangulation

Personal Definition vs. Comments on the DUBS' List

The overlap behavioural descriptions between SG's own understanding of enterprising behaviours and her comments on the DUBS' list indicates that the DUBS' definition of enterprising behaviours was able to encompass that of SG.

Comments on the List vs. Rating of Learner's Enterprising Behaviours

SG's rating of her two children enterprising behaviours was highly consistent with her comments on the DUBS' list. The only problem lies in the category 'autonomous', where she perceived conflicting values. However, as shown in Table 5.10, the desirable aspect of being 'autonomous' did overlap with other categories which had the same high rating. Obviously, SG had automatically considered solely the positive side of the category when she had the two best children in mind. The simple rating methodology was inadequate to reveal the complexity of the behaviours to be measured.

Personal Definition vs. Rating

The comparison between SG's rating behaviours with her personal definition reveals that throughout the interview, her original protagonistic attitude towards enterprising behaviours was confirmed.

Perceived Relationship between 'Enterprising Learning Modes' and 'Enterprising Behaviours'

Although SG claimed that enterprising modes of learning were potentially good learning strategies (SG-1), she did not seem to relate that with the development of enterprising behaviours. She re-emphasised her understanding of enterprise education as solely related to industry (SG-9) and that she suspected herself as 'off the track' in the interview. This implied that, without the context of industry-relatedness, she found it difficult to recognise that one of the aims of such learning strategies was to develop enterprising people. In order words, the theme of industrial awareness has overshadowed the theme of developing enterprising behaviours.

Summary

To summarise, SG had a positive attitude towards enterprise education. However, she was able to give objective criticism and appreciation to both the didactic and enterprising approach to teaching. As set out in the final statement (SG-7), she thought that the didactic approach had the advantage of emphasising a good structure for children's learning, whereas the enterprise approach would be more beneficial when they became more competent in learning. SG's profile completed the whole individual analysis and has been a source for completing the discontinuous understanding of enterprising learning with other scientists from tertiary and secondary level. Moreover, the mutual rating of teaching style with her colleague JR (4.2.9) has brought an important insight into the strengths and weaknesses of the rating methodology.

Table 9. Analysis of SG's Overlapping Descriptions of the Enterprising Categories

Enterprising Category	Behavioural Description	Learner A	Learner B
SG's own definition of enterprising behaviours	the ability to listen to others, to work as a team member, to share your skills, to plan carefully, to be a divergent thinker thinking of different avenues.		
'pioneering'	always asking questions and trying to solve problems. Their minds are forever working. They show enthusiasm and interest in the classroom.	10	9
'daring'	they don't mind making mistakes, just go ahead and do it.	9	7
'go ahead'	they are the planners, the ones that shows keenness, straight on with things. They talk about ideas and put them down	10	7
'progressive'	self-interest and taking it a stage further.	10	8
'opportunist'	seek every opprtunity to go straight to what they like, show an interest in things and extend the original task themselves	10	10
'ambitious'	want to do everything to keep you happy. Again, self-interest, to take it a step further without being told. They'd go to the library outside school and bring in things from home. Those who want recognition for doing well.	10	8
'actively seeking to achieve goals'	they'll go to the library after school, ask their parents to take them to places because they want to finish their task well on time	10	10
'flexibly responding to challenge	seek advice and change ideas or materials they are using. They are enthused by new ideas will not easily lose interest.	9	9
'coping with and enjoying uncertainty'	by mass excitment in the class, getting enthusiastic about 'what's going to happen next' and anticipating end results	10	10
'opportunity seeking'	constantly being enthusiastic, always listening, paying attention and seeking every chance to continue doing things that interest them, always asking questions.	10	8
'commitment to make things happen'	to keep on until they get what they want to achieve, constantly going back to the drawing board, making things again and again, perseverance until it's sorted, do not like to be behind	9	7
'persuading others'	constantly asking for what they want, persevering	10	7
'planning'	always have a piece of paper in front of them and write all their ideas down, don't want to miss anything out, they'll listen to everybody, then go back and draw a design, keeping records of what they've decided.	10	7
'negotiating'	be fair, trying their utmost to keep everybody happy by making sure that they have listened to everybody's idea. If they are not taking notice of somebody, they will tell them why and not fall out.	9	6
'decision taking'	try their utmost to come to a friendly agreement by voting... they will solve their own problems and they've got the competence to tell you what they've decided to do.	10	8
'self confident'	the way they walk and look at you in the eyes, they can have a conversation with you, say why they've done something with a perfectly reasonable reason... they will share things and not be frightened to give you a better explanation...	10	9
'autonomous'	make their own decisions, don't need anybody else's opinion because they know it all. They are alert, watching. They know exactly what's going on... being studious	10	9
'responsible'	treat things properly, they are keen to learn, 'progressive', 'adventurous', 'opportunist', etc... those who are responsible show genuine interest in learning	10	10
'versatile'	they are creative children who will adapt, make do with what they've got. They are full of enthusiasm.	9	7
'dynamic'	showing a genuine desire to learn, constantly questioning then go off discovering things for themselves. They're active. Their minds never rest.	10	8
'resourceful'	they will adapt and have plenty of flexible ideas, actively looking for things they need to tackle a task	10	9

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Table 8. Analysis of JR's Overlapping Descriptions of the Enterprising Categories

Enterprising Category	Behavioural Description	Pupil A	Pupil B
JR's own definition of enterprising behaviours	co-operation: being flexible and helping each other in groups... acquiring skills that relate to life e.g. dealing with money, everyday problems..		
'pioneering'*	taking a dominant role... having a lot of good ideas, forging ahead and carrying people along with them, having very strong opinions...	8	2
'adventurous'	same as 'pioneering'... willing to try something, not frightened of making mistakes...	8	1
'daring'*	back to 'pioneering'... pushing the guidelines that you have given them to the extremes... a very narrow line between daring and fool hardy.	8	2
'go ahead'	always ready to lead, to talk and make decisions...	8	2
'progressive'	similar to 'go ahead'.. except that they want to get on and are prepare to be led...	8	2
'opportunist'*	self-promotion...working to their own advantage... children who are aware of the fact they can teach themselves, they are aware of that opportunity and take it.	8	2
'ambitious'	those children who want to do their best... who know where they are and want to go further in what they're doing...	8	0
'actively seeking to achieve goals'	are aware of what the goals are and actively try to pursue those goals	9	2
'flexibly responding to challenge	are prepared to pursue, do not give up easily, try with different approach	9	2
'solving problems/ conflicts creatively'	suggest different ways to do things, can often cut through all the dead wood and get straight to the problem... come by different paths to the same conclusion.	9	2
'commitment to make things happen'	forge ahead and are prepared to fall down and get up and keep going and whatever the goal is they are going to get there...	9	4
'persuading others'	the leaders, carrying people with them... forging ahead with careful consideration...	5	3
'negotiating'	the persuasiveness and the negotiating go together.	5	2
'self confident'	shown in their language, in their attitude to what you're doing and how they get on with other children, how they negotiate.. not frightened of taking a lead of something	9	1
'autonomous'*	having the confidence in thinking themselves as an island and being at the most important, self-promotion... they are making decisions and taking the lead and coping with the problems that arise without reference to me.	9	1
'versatile'	have the confidence to speak out and negotiate, relating to you in a good healthy way and they might question what you're doing...	8	1
'dynamic'*	someone who is promoting himself or herself in a forceful way	9	1
'resourceful'	those who are not taking everything at face value, they think around things and sideways... lateral thinking... not always going from A to B directly. They are aware of alternatives.	8	2

* category with both positive and negative connotation which may increase the degree of error variance.

Table 7. Analysis of PD's Overlapping Descriptions of the Enterprising Categories

Enterprising Category	Behavioural Description	Learner A	Learner B
PD's own definition of enterprising behaviours	'Questioning. 'Why something is like this?'... a lot of mini investigations... choosing your own materials, choosing the way in which you investigate, a very free and open approach. Rather than thinking, go away and look at them...		
'pioneering'	Having the confidence *to try something different*, ...to know that if they wanted they actually could do it.... just go for it.	7	2
'adventurous'	virtually the same as **'pioneering'**	7	3
'daring'	linked with **'pioneering'** and **'adventurous'**. It's 'what if...'	6	3
'go ahead'	forging their own way to things and pushing themselves forward	6	3
'progressive'	same as **'go ahead'**	7	3
'opportunist'	looking out for things	8	3
'ambitious'	a student who is **'pioneering'**, **'adventurous'**, **'daring'**, **'go ahead'**, **'progressive'** and **'opportunist'**	9	2
'flexibly responding to challenge	*look at the problem from different angles*... just to get started to do something, look at the aspects of things that they can do first... that's a confidence building exercise.	8	4
'taking actions in uncertain environments'	pupils who are **'progressive'**, **'go ahead'** and all that	8	2
'solving problems/ conflicts creatively'	think about the cost of the material they use... a novel way of tackling an open-ended tasks. Go beyond the realm of what one might expect.	7	4
'commitment to make things happen'	that's summing up all the things I've said before...the openness to try things and to put things into such a way that that might well happen...	7	2
'persuading others'	explaining to peers of your argument helps to reinforce your own and make it much more effective... getting the right balance between being over forceful and the not being persuasive enough.	5	2
'planning'	should be done by actually doing, by experimentation, and learning that if it doesn't work then, change your plan. The good planners call upon various people within the group, write things down, sort them out...	8	5
'negotiating'	It's all wrapped up in this, negotiating who does what, negotiating with the teacher for more resources, materials or time, etc...	6	3
'decision taking'	Again, it's in the **'planning'** and so forth. But it's a big step for the kids to take. All these things are related.	8	3
'self confident'	when they're approaching something they don't know they would make an attempt at it, break it down into small and more manageable task... gradually get into the topic.'	7	2
'versatile'	given a certain problem, they use certain methods, certain materials that would actually help... adapting what you've got to fit.	8	3
'dynamic'	it goes back to experimentation and always questioning...	7	2
'resourceful'	linked up with 'versatility', making do with what you've got, adapting... make Maths applicable to everyday situations...	7	3

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Table 6. Analysis of NG's Overlapping Descriptions of the Enterprising Categories

Enterprising Category	Behavioural Description	Learner A	Learner B
NG's own definition of enterprising behaviours	showed more than usual interest, initiative, gave plenty of ideas, would generally be more constructive in their approach to work 'initiative': the first to get their work set up very quickly and finish as they start... who are energising and they won't wait and see what the others are doing before they do it themselves...the leader in a pair or group. 'constructive in their approach to work': constructive suggestions e.g.'What will happen if we try this', or 'Could we try that?' or 'Why don't we do it this way?', which show the ability to plan, carry out and conclude from experiments, using his own ideas, not relying on other pupils for ideas		
'solving problems/ conflicts creatively'	the creative ones... very quickly realise what they are assigned to do, do not wait till other pupils to start... always the first to do it...	3	4
'commitment to make things happen'	same as 'actively seeking to achieve goals'... well motivated pupils who don't wait and see what everybody else is doing, and they try and get the answer out, or come to a conclusion with that particular task on their own initiatives.	2	6
'actively seeking to achieve goals'	pay attention during the course or lesson... concentrate on their tasks, make sure they'll fill up the work sheets, answer all the questions, complete any homework tasks and hand them in on time	5	2
'planning'	This has quite a high profile in my subject... to be able to plan an experiment and justify each aspect of the plan, using some scientific ideas... to understand the importance of repeating an experiment to confirm a result... there is an amount of uncertainty..	5	3
'autonomous'	a pupil who would not wait and see what other pupils are doing, but will organise himself or his group	6	5
'versatile'	pretty much the same as 'flexibly responding to challenge'*	5	6
'flexibly responding to challenge'*	attack the problem one way and if it is not working, they attack it in a different way. The choice of method is based on some sensible previous experience...	2	8
'resourceful'	somebody who will 'solve problems and conflicts creatively', the one who 'makes things happen' and 'taking action in an uncertain environment'.	2	7
'taking actions in uncertain environments'	if the result is uncertain they will observe, realise that they have done something which gives an ambiguous answer and will immediately take appropriate actions to try and resolve the ambiguity	2	6

* category containing both positive and negative connotation which may increase the degree of error variance.

Table 5. Analysis of RW's Overlapping Descriptions of the Enterprising Categories

Enterprising Category	Behavioural Description	Learner A	Learner B
RW's own definition of enterprising behaviours	ask questions, challenge things e.g. concepts taught and teachers' teaching styles... suggest different alternatives to things in a pleasant, playful way... experiment with certain roles e.g. being leaders of a group... They are pupils with the power of critical thinking		
'flexibly responding to challenge'	looks things up in the dictionary... have the confidence of accepting challenge... seek their own route to solve problems...	6	0
'coping with and enjoying uncertainty'	listen carefully and find bridges between first and target language... actively seek opportunities to 'produce' the language... can express a lot with very limited vocabulary and make fun of it... e.g. exaggerate the pronunciation.	7	0
'taking actions in uncertain environments'	same as above	7	0
'solving problems/ conflicts creatively'	manage to express themselves with what they've learnt... transfer learnt words from one context to another... pick a word from a target language and use it	7	0
'opportunity seeking'	suggest things to do to maximise learning in the way they want	5	0
'self confident'	ask questions, challenge the teacher and joke about their mistakes instead of being disappointed	10	0
'autonomous'	work ahead on their own and figure things out by themselves... but it doesn't mean independent thinking	7	0
'resourceful'	able to use their materials... seek different ways to handle a task without being told	6	0

Table 4. Analysis of JoG's Overlapping Descriptions of the Enterprising Categories

Enterprising Category	Behavioural Description	Learner A	Learner B
JoG's personal definition:	thinking for themselves... helping each other to come to understanding... thinking of ways in which knowledge is applied... acting in relationship with other people and you get the best out of other people if you motivate them, ...the enterprising person is a motivator... by listening, by suggesting, by encouraging, by supporting, and keep doing things instinctively... to maximise whatever enterprising skills they have		
'adventurous'	*somebody who's prepared to explore ideas.*	2	8
'daring'	somebody who's dare to say something... prepared to go off the tangents regardless of group feeling or what the teacher is leading towards... very occasionally it's relevant, mostly it's exhibitionism	0	7
'go ahead'	*the same as being adventurous*	1	9
'opportunist'	connected with 'daring'... somebody who wants to shine, ignoring progress made in the group. *They seize an idea and take it as their own and develop it, not contributing to the group.*	0	5
'ambitious'	*take other people's ideas and utilise...* they have understood, they have participated but *they use other people* and it's a moral condemnation.	4	10
'flexibly responding to challenge'	you've got to be flexible in order to get the best out of people... But in teenagers flexibility is definitely regarded as a weakness... backing down, conceding	2	7
'coping with and enjoying uncertainty'*	uncertainty implies being wobbling, weak, not getting anywhere... If someone is uncertain, it's less likely for them to make a decision because they don't know where it's going to lead, otherwise, you are daring	0	5
'taking actions in uncertain environments'*		0	6
'commitment to make things happen'	excel each other	3	10
'persuading others'	a motivated group persuades each other by eliciting thoughts and supporting ideas, give group pressure, offering alternatives, to know when to intervene, not to make others feel little.	0	10
'negotiating'	could be a weakness, being conceding to others' point of view... The bad negotiators are dogmatic, unaware of conceding to the group, the just give in. The good ones convince others... have the power of oratory... are good debaters. It might only be verbally convincing, not the actual content.	1	7
'self-confident'	[kids] fear being ridiculed or contradicted. But if the others are wrong, the confident ones can point it out in a suggestive way....	1	10
'autonomous'	conglomerate but can *operate on ones own.*	4	9
'versatile'	...can turn a 'hen' into anything, can vocally register to people, very sensitive in picking up atmosphere, very tactful, act accordingly to different situation, very sensitive to the teacher's mood...	2	9
'dynamic'	make things going, the positive side of it is to initiate enthusiasm, the negative side of it is to blow things up	1	9
'resourceful'	literal thinking, many many different ways for a simple ordinary thing, *find way out on their own...*	2	10

* The two categories were combined and discussed under the topic 'uncertainty' by JoG.

Table 3. Analysis of WZ's Overlapping Descriptions of the Enterprising Categories

Enterprising Category	Behavioural Description	Learner A	Learner B
WZ's personal definition: Self-iniative in learning	"understands his opportunity to learn, rather than regarding [learning] as an extra chore... a student who thinks, 'I don't understand that', or who stirs a conversation with his tutor on something that is useful for him so that he can learn		
'flexibly responding to challenge'	...seek various ways of solving the problem...think independently what is taught and solve the problem in his or her own way [as opposed to] just take out their notes and try to copy the method...	9	4
'solving problems / conflicts creatively'	...go to the library and [look for extra materials about the problems] [as opposed to] open the notes taken from lectures and try to solve them...	9	4
'resourceful'	...goes to the library a lot... finds things through the computer network [to access some information that is not easily available]... knowledgeable [as opposed to] just follow their nose and do nothing else...	10	5
'commitment to make things happen'	...takes initiative to [persuade others to work / solve problems together].	10	8
'persuading others' / 'persuasiveness'	...very similar to 'commitment to make things happen' because it normally involve other students and you persuade them to do something for/with you... they work together, to exchange information, to discuss courses... be very determined and knowledgeable enough to suggest/persuade the others what they want to do.	3	3
'negotiating'	coming back to this 'persuading others'...	5	5
'opportunity seeking'	...comes and asks you questions... tries to find you because he doesn't understand something... plan their courses... looking for good opportunities to actually use their studies here to develop something they want to do afterwards [in their career].	7	6
'dynamic'	...comes to see you all the time... uses tutorials sufficiently... [initiates discussions] in tutorials [as opposed to] not to say anything...	9	6
'planning'	...plans his time-table... what to attend and how to do his work ... always hand their work on time...	8	7
'pioneering'	...a student who is resourceful is often the same one who has some pioneering ideas and will dream up something first.... but because 'pioneering' [is a] bigger word applied more to an exceptional circumstances than resourceful. A pioneering students will always be resourceful...	7	5
'daring'	...don't see much difference between 'daring' and 'adventurous'...	5	4
'go ahead'	'Go ahead' and 'progressive' go together... comes and asks you questions... uses Mathematics in an unconventional way... doing some interesting research topic... chooses some imaginative and perceived goals to follow... has certain ideas what to do... who has already thought about planning their future...	8	3
'opportunist'	... [positively] seek an opportunity that might arise... having a go-ahead, being progressive in their thinking... [negatively] exploit the situation for little cost... choose easy subjects to get a better grade, they would have learnt less...	7	7
'ambitious'	...have some ideas what they want to do with their life... plan something and have an interest in career... exploit their skills they have... desire to achieve something...	9	9

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Table 2. Analysis of FO's Descriptions of Perceived Overlapping Enterprising Categories

Enterprising Category	Behavioural Description	Learner A	Learner B
FO's personal definition: 'acting independently on own initiative'	'maximise their learning potential... discussing potential problems within the course and bringing it forth for discussion at tutorials about terms' teaching arrangements... any sort of self-initiated behaviour to learn more from the course... [taking a] more active role... (FO-16)		
'actively seeking to achieve goals'	set an agenda of something they want to do... asking your help so that they can speed up the process or achieve that goal.	7	7
'flexibly responding to challenge'	[find many ways to tackle a task]...being able to prepare to search for information in unorthodox places, be prepared to visit other libraries so that they can get the information they are looking for... ask around people in the department who know about the subject. ...not just [doing what is] convenient.	7	6
'Taking action in an uncertain environment'	[the ability to take action in an uncertain environment is associated with self-confidence]	6	8
'solving problems / conflicts creatively'	... approach [problems] in a [non-]standard methodical way... deal with them more literally and come up with solutions using their own imagination.	6	7
'commitment to make things happen'	know what they want from their degree and they're prepared to put in the work to achieve that.	8	7
'persuading others'	they are quite assertive or sufficiently self-confident in their own ability that they will stand their own ground and reason with you and defend themselves...	6	7
'planning'	[handling several tasks at the same time] by organising time to the best advantage... planning ahead to maximise time... [show a lot of initiative]... very actively planning out time schedule for completing [work]...	8	6
'decision taking'	without having to double check with you first... be prepared to make decisions about what the best way to do [things] without needing confirmation... when things go wrong... they would rectify it [without needing] reassurance... largely dependent on self-confidence	8	6
'confidence'	[actively taking learning opportunities], not embarrassed of making mistakes...	7	7
'autonomous'	work on their own initiatives... don't [need] double checking on things.	7	6
'versatile'	come up with their own solutions to problems... to be able to improvise a little rather than either automatically asking for help or [simply giving up]... being able to apply themselves to different things... have skills which cross different disciplines...	7	8
'dynamic'	...links in with self-confidence... choosing their own dissertation titles, being proactive in searching for information or looking up references themselves, not just going to your supervisor and asking for research topics or reference lists...	8	7
'resourceful'	...use their own resources to solve [problems]... make do with what's available... using different techniques... getting ideas from different sources... looking for the best way to deal with them...	7	6

Appendix 5: Colour Coding System for the Analysis of Enterprising Behaviours

Table 1. Analysis of AG's Overlapping Descriptions of the Enterprising Categories

Enterprising Category	Behavioural Description	Learner A	Learner B
'actively seeking to achieve goals'	somebody who knows what they want and pursues it...	3	4
'opportunity seeking'	those who actively interact to get things they are interested in, getting involved to take part in doing things...	5	7
'commitment to make things happen'	to see things through inside or outside classrooms...	5/6	6
'planning'	set targets or schedules to finish the task...	5	4
'responsible'	do things on time, see things through for themselves and for others...	7	6
'dynamic'	make things happen, get up and do things, not just tied in classroom learning but also activities outside school...	4	6

Enterprising Category	Behavioural Description	Learner A	Learner B
'coping with and enjoying uncertainties'	a negative example is the ones who always want to be told everything...	5	5
'autonomous'	get on with what one's doing without the need to collaborate; act according to one's own thought instead of repeating what is being taught...	6	6
'versatile'	try to do things in many different ways, not just follow teachers' or classmates' way...	4	7
'solving problems/ conflicts creatively'	show different way of solving the same problem...	5	7