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Academic Misconduct in Higher Education: Perceptions, Self-reports and Perspectives

Helen M. M. Smith

Doctorate of Education

2008

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University of Durham
School of Education

A thesis submitted in partial fulfilment of the requirements for the degree of Doctor of Education

0 9 JUN 2009

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Abstract

In the last two decades the international research literature has demonstrated a growing awareness of student cheating, with high levels of self-reported cheating, especially in the United States (U.S.). Much of the early literature on student cheating originated in the U.S. but from the mid 1990s onwards there was increased interest in student cheating in Europe and the rest of the world.

The aim of this research was to explore perceptions and self-reports of, and attitudes towards, cheating in undergraduate programmes. There was an element of comparison involved, in trying to identify differences between students studying for degrees in healthcare professions and psychology.

A mixed methods approach was adopted. First, students (n=159) completed anonymous questionnaires that invited them to i) rate the perceived frequency of use in "students on a course like theirs" of each of 27 behaviours that ranged from signing as present students who were absent from classes to copying in examinations; ii) self-report their own use of the same behaviours. Second, volunteer students (n=10) and academics (n=12) from the same programmes as the questionnaire sample were interviewed.

Questionnaires were analysed using SPSS to identify within-group and between-group differences; interview transcripts were analysed using the constant comparative method (Glaser & Strauss, 1967). Ninety six percent of the sample believed that "students on a course like theirs" cheated in some way, exact percentages ranging from 24%-96%, depending on the cheating behaviour. When it came to self-reporting, the students in the sample self-reported significantly less cheating than they perceived in their peers. Whilst there were significant differences between healthcare and psychology students in their perceptions of cheating, no such difference was found in their self-reports. Interviews revealed that almost 60% of students believed that academics rarely investigate suspicions of cheating. Fifty percent of academics confirmed that view.

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Professor Jim Ridgway, my research supervisor, for his insightful comments and encouragement throughout.

Dr Sean McCusker for creating the Excel bar chart presented on p 80.

.....

This thesis is dedicated to my family, Martin, Sarah and Stephen, recently joined by baby Oliver, who inspires us all.

Declaration

The material contained in this thesis has not previously been submitted for a degree in this or any other university.

Statement of copyright

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Related publications

Smith, H. & Ridgway, J. (2004) 'Strategies for Defending the Validity of Assessment Systems.' *EARLI Conference,* Solstrand, Norway. June 2004.

Smith, H. & Ridgway, J. (2006) 'Another piece in the cheating jigsaw.' *2nd International Plagiarism Conference:* Gateshead: The Sage. June, 2006.

Smith, H. & Ridgway, J. (2006) 'The cheating jigsaw: student and academic perceptions of where some pieces fit.' *EARLI Conference,* Redworth, Co. Durham. August 2006.

Smith, H. & Ridgway, J. (2008) 'Why students cheat (in their own words as well as those of others).' *3rd International Plagiarism Conference.* Northumbria University, Newcastle upon Tyne, 23-25 June 2008.

CHAPTER 1

INTRODUCTION

This thesis is about cheating in higher education. The study originated from an interest in student learning, and the ways in which assessment can contribute to learning. The focus on cheating behaviours grew from an awareness of an apparent increase in student cheating, and interest in the effects that cheating could have – for example on learning, on the morale of other students and on the credibility of university awards. This chapter presents the background to, and rationale for, the study in the context of its conceptual, theoretical and historical underpinnings.

1.1 Learning and assessment

> From its modest beginnings in the universities of the eighteenth century and the school systems of the nineteenth century, educational assessment has developed rapidly to become the unquestioned arbitrator of value, whether of pupils' achievements, institutional quality or national educational competitiveness. Equally remarkable has been the lack of any serious challenge to this hegemony. (Broadfoot, 2000, in Leathwood, 2005:310)

Broadfoot's description of assessment as an "unquestioned arbitrator of value" is questionable. The design, purpose and quality of assessment are rightly increasingly questioned, not least because of the emphasis placed by politicians on its outcomes, particularly at primary and secondary levels. In the context of assessment used as " an object of policy," Wiliam (2000:2) has observed that "Educational assessment has thus become divorced from learning, and the huge contribution that assessment can make to learning has been largely lost." (Wiliam, 2000:16). This study originated from the belief that it is not only policy that divorces learning from assessment, but also any factor that influences students to cheat in assessments, as cheating arguably reduces the learning opportunities offered by well-designed assessments.

From the 1990s onwards, following the introduction of semesterisation and modularisation across higher education, the extent and variety of

assessment increased, with a move in many subjects away from the more traditional unseen examination to a greater variety of assessment. At about the same time there was increasing interest in assessment for, rather than of, learning (Sambell, McDowell & Brown, 1997) which contributed to academic interest in creating more varied opportunities for students to learn from and to demonstrate their learning through assessment. Norton, Tilley, Newstead and Franklyn-Stokes (2001:269) stated that "Since Marton and Saljo's (1976) original distinction of deep and surface approaches to learning, there has been a concerted attempt throughout higher education to encourage students to take a deep approach to their studies." One means by which this was attempted was through changes in assessment design, with more widespread use of assessments undertaken over a period of time rather than through a reliance on examinations.

Increasingly, learning is no longer seen as an activity confined to an expected age range or a formal location, and lifelong education is a requirement of many roles and professions. Bourner (2003:267) wrote:

> Recognition of the accelerating pace and impact of technological change, economic change and social change has created awareness of the need for graduates to be lifelong learners. Insofar as HE seeks to prepare students for work and for life it increasingly seeks to develop their capacity for lifelong learning.

There is evidence that cheating students do not alter their behaviour after they have completed formal education (McManus, 2005; Mangan, 2006). In the USA in 2004, a federal investigation identified 463 federal employees with fraudulent degrees; they included managers and senior executives in the departments of Energy, Transportation and Homeland Security. Oregon is one of only a few States that has now made it a criminal offence to use a degree obtained in such a way. Increasing expectations of lifelong learning opportunities underline the importance of students and academics understanding their roles in maintaining academic integrity so that the foundations of ethical academic practice are established as early as possible.

1.2 Assessment and cheating

Dochy and McDowell (1997:279) described the role and history of assessment in education as "crucial, probably since the earliest approaches to formal education," while Bourner (2003:268) observed that "within the

academy assessment confers legitimacy." When discussing the legitimacy of assessment the issues of honesty and fairness are central, as is a shared understanding of what is understood by the term cheating. "Trust and student honesty ... remain central to a successful academic system" (Evans, 2006:87). There is evidence that student perceptions of what constitutes cheating are not always consistent with those of their tutors (Roig & Ballew, 1994; Roig & Marks, 2006). There are those who may ask why cheating in assessment matters, as it can be perceived as a victimless crime. According to McManus *et al.* (2005:1065), the victims of cheating in medical school are "patients treated inappropriately by improperly qualified doctors". Varnham quoted an anonymous contributor who summarised the concern that could be applied to any accountable profession: "It matters whether the guy who built the bridge cheated his way through engineering school. I'd worry about that." (Anon. in Varnham, 2001:391).

University awards have historically been predicated on assumptions of effort, merit and excellence, and in recent years the results of that merit and excellence, in the form of university awards, have been published in annual league tables. Those league tables have become the means by which universities are judged according to their performance against national performance indicators. At the same time, student numbers equate to income for higher education institutions. It could therefore be understood if some institutions were not vigorous in their encouragement of formal investigation of student cheating as, if large numbers of students were required to withdraw from their studies through cheating, that would impact on attrition rates and subsequent league table position. To penalise students for cheating also carries risks of legal action, as reported in the case of Gunn versus the University of Kent at Canterbury when a student, identified by his University department as having plagiarised in assessments, admitted that he had used the internet to plagiarise throughout his three year degree, but was preparing to take legal action against the University claiming that the institution had "failed to give proper guidance on acceptable research techniques," and further, that his plagiarism should have been identified prior to the end of his final year of study. The matter was settled out of court. (Baty, 2004a:1). In the same year, the academic press accused universities of condoning plagiarism, reporting that one university's revised plagiarism policy allowed students to copy up to 20% of an assignment (Baty, 2004b). These examples illustrate the dilemma for higher education

institutions: the need to be seen to protect their reputation and standards and at the same time not to be excessively punitive, as reputations are built on success in performance indicators as well as on integrity.

Newstead (2003:99) wrote of the "widely-held belief" amongst academics that continuous assessment such as coursework essays "encourages a deeper approach to learning and studying than do formal exams", while at the same time students' behaviour is "dominated by the desire to get a good mark and this discourages them from more desirable forms of studying and learning". Newstead (2003:99) discussed the purpose of assessment and wrote of the "considerable body of evidence on whether assessment motivates learning". He concluded that assessment "does little to promote desirable learning and much to promote undesirable rote learning and ... game playing." According to Heberling (2002:2): "Today, putting the plagiarised material in one's own writing style is too much work for our technologically advanced students ... for the student, the absolute hardest part of this process is to give proper credit through a citation."

Research has shown that it is not only students who will cheat to gain unfair advantage. McLafferty and Foust (2004:186) wrote that "words are academics' currency and bond", but Bretag and Carapiet (2008) reported their research findings on the extent to which some academics have self-plagiarised and gained academic credit by publishing the same materials in different publications without acknowledgement. LaFollette (in Addison, 2001:1) described how even the most blatant and extreme examples of plagiarism in American scientific research were tolerated in the 1970s, being excused as " i) aberrations; ii) effects of changed political and economic environment after the Reagan administration deregulated scientific grants and iii) a consequence of focusing on fiscal responsibility and regulating the quality of research management in universities." Political and sociological influences at the time may have contributed to an academic climate then where allowances were made, expectations were different and electronic means of detection did not exist. The present situation no longer condones behaviour such as plagiarism that may have been committed years before. In 2002, the British vice-Chancellor of the largest university in Australia, Monash, was dismissed for examples of plagiarism undertaken some twenty to thirty years previously. It was suggested at the time that, given his immediate and unreserved apology and the period of time elapsed since the

incident, he may have been allowed to remain in position had it not been for strong suggestions of similar "indiscretions" by other senior figures at the same university (Hinks, 2002). Would one example of plagiarism in the institution have been condoned, but two or more would not? The integrity of academic awards is so closely associated with the integrity of the individuals on whose judgement the award rests, or who manage the process, that there is little room for indiscretion.

There is evidence that initiatives to enhance the effectiveness of assessment can raise achievement from primary through to undergraduate education (Black, 1998; Black & Wiliam, 1998 and 2002). Black and Wiliam's review of 580 publications included studies from several countries and a range of subject areas, focusing on formative assessment; they concluded that the effective use of formative assessment "produces significant, and often substantial, learning gains." The present study has focused on summative, rather than formative assessment, but there is evidence that all well-planned assessment offers potential for learning (Taras, 2007); if that position is accepted then cheating in assessments reduces learning opportunities. Whilst the purpose, reliability and validity of some assessments may be questioned, that particular debate lies outside the remit of the present study. What is especially relevant though is the learning loss to individuals, and to society, that results from plagiarism and other forms of cheating. In formative assessment, carefully planned and monitored as part of an overall assessment strategy, there is likely to be less risk of plagiarism being used to the same extent as there would be in some summative assessments. Taras (2007) argues that formative and summative assessment need not be distinct from one another but that summative assessment can, when so planned, result in formative learning for students. Others suggest a further use for formative assessment: that by carefully designing and monitoring stages of student assessment, in other words building in formative stages, much plagiarism and cheating could be "designed out" (Le Heron, 2001; Carroll & Appleton, 2001; Harris, 2002).

1.3 The historical context of cheating

There are innumerable ways in which unfair advantage can be gained, and the two most common have been shown to be plagiarism and collusion (Barrett and Cox, 2005). The earliest research reference on academic plagiarism found during the literature review for this study dates from 1936,

when Parr wrote about "the problem of student honesty" and reported that 42% of his student sample "took advantage of the opportunity to be dishonest" (p.320), which he interpreted to be a "conservative estimate of the proportion of students likely to be dishonest in the typical college classroom". Chapter 2 presents a review of more recent literature on student cheating that includes findings from a range of North American, European and Australian studies showing that more than 50% of the undergraduate students sampled have self-reported cheating in some way whilst at university. The issue of how cheating is defined unquestionably affects the results of any surveys and is further discussed in Chapters 2 and 3.

World history provides many examples of alleged plagiarism or at the very least of work being ascribed to other, more famous names. The American Declaration of Independence offers an example of a famous oration where its originality and lack of acknowledgement have been questioned. At issue are the expressions used by George Mason, Governor of Virginia and subsequently those presented by Thomas Jefferson in his famous Declaration of Independence. When compared with the statement by John Locke at the end of the previous century there are remarkable similarities, as shown:

... all men are created equal...with certain unalienable rights, ... life, liberty, and the pursuit of happiness. (Thomas Jefferson, 1776)

... all men are equally free and independent and have certain inherent rights... namely, the enjoyment of life and liberty,...possessing property, and pursuing and obtaining happiness and safety. (George Mason, 1776).

... all Mankind...being all equal and independent, no one ought to harm another in his Life, Health, Liberty, or Possessions. (John Locke, 1690)

On being accused of plagiarism:

"[The idea was] not to find out new principles..[not] aiming at originality [but] to be an expression of the American mind" (Jefferson)

"The object was to assert, not to discover truths" (James Madison)

Few would now expect political speeches to have been solely written by the speaker, and in many contexts there is a general acceptance that speeches may be ghost-written or multi-authored with no necessity for acknowledgement. But both in the written word and the artistic creation, particularly where there could be merit associated with the assumption of originality, there is an expectation of "fearless telling of the truth" in

recognition of original ideas (Hinks, 2002:1). The question of style and its influence on the work of others cuts across academic, literary, musical and artistic creativity. Throughout history, students have emulated their masters, sometimes with awe-inspiring results. The famous ceiling of the Cistene Chapel in the Vatican was completed under the direction of Michelangelo by a large number of junior artists working to his style. This was not problematic because in the completion of the work was there was no obvious intention to deceive. Hinks (2002) states that a charge of plagiarism is rarely levelled for honest mistakes; yet that statement is debatable, as honest mistakes are difficult to define and to identify. What is an honest mistake; when honesty is in question who can verify the good character of the accused; where does the responsibility lie for ensuring that students understand how to avoid academic misconduct? Such questions are increasingly prominent in higher education and it is no longer tenable to accept that students are unaware of the risks and the potential advantages of cheating. Equally, it is no longer acceptable for academics to assume student understanding. Students and academics alike can no longer claim ignorance of institutional expectations and regulations: in higher education there is an unambiguous expectation of acknowledgement of the ideas or work of others.

In the last two decades the international research literature has demonstrated a growing awareness of student cheating, with indications of high levels of self-reported cheating, especially in the United States. Much of the early literature on student cheating originated in the U.S.A., but from the mid 1990s onwards there was increased interest in student cheating in Europe and the rest of the world. It is possible that as awareness has increased so has the extent, and therefore it is difficult to be definitive about the true scale of increase.

Coinciding with increased awareness of cheating is a lack of agreement in the academic community on acceptable definitions of plagiarism, and there is an uncertainty amongst academics about exactly what is and is not acceptable writing and assessment behaviour. That uncertainty fosters a continuation of inconsistent marking practice, with the potential for some students to be penalised while the work of others, with similar writing styles and practices, passes unremarked.

In addition to academic lack of certainty over, for example, plagiarism there is evidence that students are not clear on where the distinction lies between acceptable and unacceptable behaviour (Ashworth P., Bannister, P. & Thorne, P. 1997), leading to some students being concerned that they might inadvertently plagiarise and to others taking advantage of the perception that their tutors are unlikely to investigate any suspicions of plagiarism. Ashworth *et al.* found in their interviews with students that plagiarism was "a far less meaningful concept for students than for academic staff, and it ranks relatively low in the student system of values" (p.201).

The first major study of plagiarism in U.K. higher education was conducted by Franklyn-Stokes and Newstead (1995) who investigated student and academic perceptions of the frequency and seriousness of cheating behaviours. Their work is discussed in Chapter 2, and the list of cheating behaviours that they created through their research was adapted for use in the questionnaires for the present study.

1.4 The origins of a thesis

Ofqual, the new qualifications regulator for England, has stated that its primary objective is to ensure that public confidence in assessments and qualifications is maintained (Nisbett, 2008), as "plagiarism and dishonest practice ... serves only to erode confidence in the value and currency of important national qualifications." Hague wrote: "Academics must believe that acquiring the ability to test ideas and evidence is the primary benefit of a university education." (Hague, in Bourner, 2003:269). Hague's statement was published in 1991 and would also be true of many academics in the early 21st century. It is argued that student cheating in assessments removes or at least decreases that primary benefit of university education, and that any research that presents fresh findings on attitudes to and reasons for cheating offers higher education further opportunity to reflect on and review its own practice in assessment.

Previous research on cheating has concentrated largely on assessing the extent of cheating, identifying its causes or, to a lesser degree, evaluating strategies designed to minimise it. (McCabe *et al.*, 2001; Scanlan, 2006). The present study was exploratory in nature. It grew from an interest in the effects of cheating to a study of the frequency of cheating, differences between student subject discipline groups and reasons for cheating.

An early premise was that of public expectations of honesty and ethical behaviour in students studying for entry to graduate healthcare professions, and the discovery that research reports indicated the opposite: that even undergraduate medical students had self-reported cheating (Baldwin *et al.*, 1996; Rennie & Crosby, 2001; McManus, 2005). Since Le Heron (2001) found that the majority of students in her New Zealand sample cheated "just to get a pass," and Scanlan (2006) reported in the U.S. Journal of Allied Health an estimated five fold increase in cheating across state Universities' campuses since the 1990s, one of the study's aims was to determine whether differences existed between healthcare and non-healthcare students in their attitudes to cheating.

The study was not concerned with hypothesis testing but with generating theory; as such the theoretical context was grounded in human behaviour and attitudes and included consideration of behavioural theories such as attributional bias, social identity and motivation as well as theories of student learning, assessment and motivation. As the study progressed and the aims were refined, the matter of differences between student groups became less important than other findings, such as the student perception that academics would be unlikely to investigate any suspicions of cheating.

> "Plagiarism is all about gambling – a student betting that you lack the fortitude to come up with the evidence to back your suspicions .... Plagiarism is more than theft. It represents a challenge to your integrity and expertise and puts your reputation on the line." (Bugeja, 2000:3).

Other research, particularly from the U.S., showed a strong association between student perceptions of their peers cheating and the extent of self-reported cheating (McCabe, Trevino & Butterfield, 2001; Hard, Conway & Moran, 2006). This led to the present study identifying perceptions and self-reports of cheating in the student sample, which enabled between- and within-group comparisons to be made, as well as comparison of findings from other researchers.

This thesis documents a study that involved students and their university lecturers. Research by Hard, Conway and Moran (2006) supported previous findings by Whitley (1999) that student perceptions of cheating are an overestimation. The extent of actual cheating is difficult to determine,

particularly when the accuracy of perceptions is questioned. The aims of the present study included identifying perceptions of, attitudes to, and self-reports of cheating and how it may be minimised, reasons why students cheat and factors influencing whether or not academics choose to investigate their suspicions of student cheating.

In seeking to present the student and academic narrative, the study built on both U.K. and international research, focusing particularly on post-1995 literature and higher education in the United Kingdom. Chapter 2 presents a critical review of this literature which is used to contextualise the findings of the study.

1.5 The research questions

"The classic position of a researcher is not that of one who knows the right answers but of one who is struggling to find out what the right questions might be!" (Phillips & Pugh 2000:48). What are "right" questions? For the purpose of this study right questions were taken to be those that addressed the aims of the study and, as far as possible, enabled the researcher to draw conclusions based upon the answers gained. The focus of the data gathering was on individual cheating behaviours but there were several perspectives that influenced the formulation of research questions and resultant aims; those perspectives included social, institutional, academic and student, and they are reflected in the research aims and in the subsequent findings. The research questions for this study were refined following a review of the literature, reflection on experience and pilot studies.

Questionnaires sought to identify:

i) the likely extent, and characteristics, of student cheating;
ii) differences in perceptions and self reported behaviour between and within two student groups: healthcare and non-healthcare;
iii) the influence of factors such as the subject studied and attitudes to learning on self-reports of cheating;
iv) major reasons for cheating and not cheating;
v) student awareness of university investigations of cheating;
vi) perceptions of the level of risk of being caught cheating;

The interview schedules were designed to:

i) verify the credibility of questionnaire findings;

ii) explore perceptions of, and attitudes towards, the role of assessment design in facilitating learning and in facilitating cheating;
iii) identify perceptions of the seriousness of individual cheating behaviours;
iv) explore interviewees' ideas for deterring cheating;
v) explore student attitudes to cheating;
vi) explore the extent to which academics investigate their suspicions of cheating;
vii) identify student knowledge and views of university policies on breaches of academic integrity;

1.6 The study

It is clear that cheating is not "a unitary concept" (Newstead, S., Franklyn-Stokes, A. & Armstead, P., 1996) and that cheating in assessments can take the form of many different behaviours, not all of which are perceived by students to be cheating (McCabe, D.L., Butterfield, K.D. & Trevino, L.K., 2003; Thompson, 2006) and not all of which are clearly understood.

In order to address the research questions, the strategy was to use mixed methods: questionnaires for students followed by individual interviews with student and academic volunteers. Cohen, L., Manion, L. & Morrison, K. (2000:23) stated that "theory should not precede research but follow it." The research is based on an interpretive approach whereby the social world is viewed predominantly from a humanist perspective and the choice of research instruments enables data gathering through the investigation of personal perspectives and participant engagement. The emphasis therefore was on interpretation of the overall findings rather than a hard analysis only of the significance of any differences identified. That is not to say that quantitative analysis does not have a place, but simply that in the context of this study such a focus would be inappropriate. Beck (1979, in Cohen *et al.*, 2000:20) wrote: "While the social sciences do not reveal ultimate truth, they do help us to make sense of our world. What the social sciences offer is explanation, clarification and demystification of the social forms which man has created around himself."

There are those who would argue that a qualitative approach to investigation goes too far in neglecting the more straightforwardly verifiable scientific

approaches. Such criticism merits consideration. Qualitative approaches rely upon interpretation of findings rather than a more scientific statement of "significance". In order that data should be interpreted as reliably and meaningfully as possible, an element of quantitative analysis was included in the form of simple statistical analysis of the questionnaire data, described in Chapter 4.

The term *cheating* is used throughout this thesis as a means of describing the range of ways in which so-called academic misconduct can occur, in other words, the ways in which students can gain unfair advantage in assessments. The terminology is used for convenience, acknowledging that cheating can take many forms and, as stated earlier, is "not a unitary concept" (Newstead *et al*, 1996). Despite the negative connotations associated with the concept of cheating, and that plagiarism and other forms of cheating are inherently corrosive to academic systems, there was no intention that this study would make judgments about the participants, simply that it would explore perceptions and attitudes of students and academics in order to further an understanding of underlying factors involved in cheating. The question of the morality of cheating, whilst not a focus of the study, emerges in Chapter 5 in student interview comments.

"Overall, the purpose of assessment is to improve standards, not merely to measure them." (Ofsted, 1998:5:6). Adapting the principle of Ofsted's statement, and applying it to higher education, this study was based on the aspiration of improving standards of student learning through carefully designed assessment that is relevant to the subject and has authenticity for the student. The continuing importance of assessment in education is summed up by Black (2001:65): "As reformers dream about changing education for the better they almost always see a need to include assessment and testing in their plans and frequently see them as the main instruments of their reforms." This study is based on a concern for the validity of assessment.

Summary of chapter

This chapter has identified the origins of, and the rationale for, the study. The next chapter presents a critical review of the research literature relevant to the study's aims.

CHAPTER 2

CHEATING IN CONTEXT: A REVIEW OF THE LITERATURE

"Everybody produces evidence on the human condition. The brave make it public and await criticism." (Shipman, 1997:vii)

What follows is a review of the literature on student cheating in assessments. Whilst the focus is on higher education, related research in the United States has been conducted in schools and colleges as well as universities; it has been included in this review because of its subject relevance. The chapter explores six overall themes: the meaning of cheating; its apparent extent; factors in cheating; perspectives on and responsibilities relating to cheating; minimising cheating.

2.1 Methodological problems in the literature

Many writers on student cheating refer to Davis, Grover, Becker and McGregor's 1992 questionnaire survey of more than 6000 USA students from so called "elite" undergraduate schools, whose findings showed that 60% of their student sample admitted to having cheated once, with 12% admitting to being 'regular cheaters'. Students identified several factors as being influential in determining cheating such as *pressure for good grades, stress* and *condoning teachers*. Davis *et al.*'s study contains limited information on methods but it is noted that the 21 questions in their survey refer simply to 'cheating' rather than to individual behaviours. This reference to an unspecified (and negative) concept may have biased responses for several reasons: there is evidence that definitions are important in gauging the extent of cheating (Ashworth *et al.* 1997; Burrus, McGoldrick & Schumann, 2007); students do not always perceive their behaviours to be cheating; and in line with attributional[1] bias (Kelley, 1971) and social identity[2] theories (Gaudelli, 2001; Lapinski & Rimal, 2005) students are also unlikely to admit to behaviours perceived as negative (Hunter, Reid, Platow & Stokell, 2000). Davis *et al.*'s findings are, however, consistent with those of Forsythe, Pope and McMillan who reported in 1985 that cheating students excuse their own cheating by attributing it to external causes.

[1] Attributional theory: designed to explain how people perceive, infer or ascribe causes to their own and other people's behaviour. (Oxford Reference Online, 2006; Weiner, 1992).
[2] Social identity: the sense of belonging and shared values associated with membership of a specific group or groups (Eysenck, 1998).

Several studies of cheating behaviour used anonymous questionnaires to obtain student self-reports of cheating. Attitudes to cheating, with their inferences of dishonest practice, mean that the truthfulness of responses from both tutors and students is hard to verify, but it was not uncommon for the limitations of self-reports not to be acknowledged by authors. The concept of truth in the context of the reliability of self-reporting is discussed in Chapter 6.

2.2 The meaning of cheating and the importance of definitions

There is increasing awareness of the need for a clear understanding of acceptable and unacceptable practice in academic writing, and the application of definitions to complex concepts such as cheating or plagiarism does not necessarily result in clear understanding. Cheating is defined as to "act dishonestly or unfairly in order to gain an advantage, especially in a game or examination" (New Oxford Dictionary of English, 1999). Le Heron (2001: 245) defines cheating as "submitting the work of other people as your own or breaking the rules governing the assessment task". There are innumerable ways in which unfair advantage can be gained, and there is some evidence that the two most common are plagiarism and collusion (Barrett and Cox, 2005). Whilst cheating in student assessments is much broader than simply plagiarism, the chapter reflects the focus of relevant literature, which is on plagiarism.

The term plagiarism is derived from the Latin *plagiarus*: 'kidnapper' from the 17th century (New Oxford Dictionary of English, 1999). Ashworth, Freewood and Macdonald (2003) write that plagiarism "is a notion specific to a particular culture and epoch" and that in order to address the problem "one must not assume that students have a prior grasp of the unequivocal meaning of the notion". It is likely that students do not have a "prior grasp" because there is not an unequivocal meaning.

Ashworth, Bannister and Thorne (1997) argued that no investigation of cheating and student attitudes should be undertaken unless student interpretations of cheating had first been established. In order to identify student perceptions of cheating and plagiarism they used postgraduate students (n=19) who were undertaking a module in research interviewing and for whom the interview (of undergraduate students) and its reporting formed the module assessment. Interviewers were encouraged to adopt an informal style within predetermined areas of discussion. Each interviewer was responsible for interviewing one undergraduate student and then transcribing and analysing the responses. In

order to reduce the potential for interviewer bias, two of the authors conducted secondary analysis of transcripts. Their findings contributed to the early knowledge of cheating in the U.K. at the time, showing for their sample that students were unclear about what constitutes plagiarism, that changing patterns of learning and assessment were factors in cheating, that plagiarism is generally not viewed by students as a major misdemeanour and that peer loyalty influences students' attitudes to cheating.

In their study of staff perceptions of student plagiarism Flint, Clegg and Macdonald (2006) extended Ashworth *et al.*'s 1997 theme of student uncertainty about plagiarism. Their findings, based on interviews with academics (n=26) from across one post-1992 university, demonstrated the difficulty that many academics face in defining plagiarism, a theme further developed later in this chapter. They also identified the influence that subject discipline can exert on understanding what might constitute plagiarism, for example, there was a greater tendency for art and design academics to conceptualise plagiarism in terms of ideas and designs since their professional work, and student assessments, were based on, and resulted in, artistic rather than verbal creativity.

Burrus, McGoldrick and Schumann (2007) were concerned that self-reports of cheating could lead to false results where students' understanding of cheating was incomplete. Their study compared self-reports from three hundred students across two U.S. universities, before and after the respondents had been provided with a definition of cheating; they found that "students tended to under-report cheating behaviours when a definition of cheating was not given" (p.6). Based on their survey they concluded that student surveys that do not include definitions of cheating can lead to "erroneous conclusions" due to students being unclear as to what constitutes cheating. Descriptive statistics showed mixed student interpretations of what behaviours constituted cheating (93% thought that glancing at the text of adjacent students in exams was cheating but only 42% thought that comparison of answers from take-home examinations was cheating). This was consistent with other studies that have shown that students perceived cheating in examinations to be significantly more serious than cheating in coursework (Franklin-Stokes & Newstead, 1995).

Addison (2001:6) claimed that "the most influential statement about originality is attributed to Young" (1759) and went on to quote:

> the mind of a man of Genius is a fertile and pleasant field, a pleasant Elysium ... it enjoys a perpetual Spring. Of that Spring, Originals are the fairest Flowers: Imitations are of quicker growth, but fainter bloom. Imitations are of two kinds: one of Nature, one of Authors: the first we call Originals, and confine the Imitation to the second ...

Some, such as Mixon and Mixon (1996), Petress (2003) and Varnham (2001) refer to plagiarism in semi-legal terms as an academic crime or 'theft', while others believe simply that it is largely due to student unawareness or weak writing style rather than to deliberate misconduct. Davis, Grover, Becker and McGregor (1992) and Zangrando (1991) use medical descriptions such as 'epidemic' and 'cancer', while Daly and Horgan (2007) describe cheating in the U.S. as "endemic". Petress mixes metaphors by using references both to crime: "intellectual theft", and medicine, stating that cheating "grows like a cancer" and is "contagious". Plagiarism undoubtedly includes degrees of seriousness, (similar to both medical conditions and crimes) that range from insufficient acknowledgement of the work of others, to the wholesale copying of a complete work, and a range of variations between the two. It is the degrees of plagiarism that contribute to the lack of shared understanding in both students and academics. Carroll and Appleton (2001:4) have stated: "While often academics are sure that they know what plagiarism is when they see it, any discussion that goes beyond a dictionary definition will soon reveal considerable variation in understanding." Hinks describes the "autonomous activity" of academic practice as being "absolutely dependent on the scholarly activity of others ... the co-operative sharing of ideas and findings". Hinks' presentation of the problem at the same time offers the solution. It is normally only when sources and ideas are not acknowledged and correctly cited that accusations of plagiarism arise. Ashworth *et al.*'s 1997 interview study of undergraduates found that students displayed anxiety over the potential for them to be accused of academic crimes that they may unwittingly have committed either through inexperience in early assessments or later through lack of understanding of academic writing conventions.

Pennycook (1996:226) states:

> ... unilateral accusations of plagiarism are inadequate and arrogant. Part of the problem here lies with the use of the term *plagiarism* as if it described some clearly definable practice ... behind this clumsy term may lurk any number of different concerns ...

His view of plagiarism is that there is an inter-relationship between "text, memory and learning" (p.201) that impacts upon our notions of plagiarism, affects individuals in different ways and needs to be considered when working with students from cultures where there is an expectation of repetition of learned texts. His paper is fascinating, reflecting his own fascination of genuine cultural differences in expectation and learning style. He describes writing as "a constant interplay between creativity and previous reading" or, when he quotes Goethe (1963:52) "everything clever has already been thought; one must only try to think it again". He argues strongly for academic flexibility in "drawing boundaries between acceptable and unacceptable textual borrowings" and goes on to emphasise the responsibility of academics in ensuring that they themselves understand the complex issues of plagiarism. Pennycook's stance on academic responsibility is developed by LeClercq (1999), whose survey of U.S. law schools revealed a lack of agreement on the definition of, and punishment for, plagiarism as well as large scale institutional weakness in the failure to educate their students in good academic practice.

Barrett & Cox (2005) investigated students' and academics' understanding of plagiarism and collusion in one U.K. university and found that plagiarism was well understood, but that collusion was less so. Academics and students in their sample were in agreement that collusion was more likely to lead to learning and that this fact made it more acceptable than plagiarism. Barrett & Cox's finding that plagiarism was well understood is not consistent with other reports that indicate an anxiety in students who fear that they might be accused of plagiarism through their ignorance of what is acceptable (Dahl, 2007; Ashworth *et al.*, 1997; Roig, 1997). Barrett & Cox used a questionnaire based on 10 scenarios to identify student (n=452) and academic (n=59) ability to investigate their understanding of what would constitute plagiarism and collusion in assessments. The provision of definitions of plagiarism and collusion was designed to ensure that respondent ratings were not based on the meaning of the terms but on the "characteristic behaviours" of each. Barrett's study was well designed, and piloted with academics and students; its weakness was the apparent need for respondents to complete the questionnaire in a limited time. The situation for respondents was described as follows: "brief wording was used in each scenario to minimise the time taken to complete the questionnaire as this was administered in class or meeting time. This meant that an appropriate response to some scenarios was debateable but we asked for a decision one way or another" (p.112). Thus, despite the strengths of the pilot work, preparation of scenarios and sample size,

the fact that the findings are not consistent with other studies may be due simply to respondents having insufficient time to consider fully the scenarios presented to them.

2.3 Extent

Despite student self-reports that indicate large-scale cheating, its true extent remains difficult to quantify. Several reasons contribute to the difficulty: the reported studies differ in their focus, their methods of investigation, the sources used and cultural influences. Findings from a range of North American, European and Australian studies however all show that more than 50% of undergraduate students sampled have self-reported cheating in some way whilst at university (McCabe *et al.*, 2001; Newstead, Franklin-Stokes & Armstead, 1996; Marsden, Carroll & Neill, 2005).

An alternative method of assessing the extent of cheating might be to identify the number of institutional investigations, but even that is not a reliable method as there is some evidence that the numbers of investigations represent only a fraction of actual occurrences of cheating (Keith-Speigel, Tabachnik & Washburn, 1998). If that is the case, Beauchamp's (2006) report provides cause for concern: documents released under Freedom of Information legislation in Australia revealed that 962 students in universities in the state of Victoria alone were penalised for cheating between 2003 and 2005; the result was that scores of students were expelled and others fined or suspended for up to five years.

The first major study of plagiarism in U.K. higher education was conducted by Franklyn-Stokes and Newstead (1995) whose questionnaire identified student and academic perceptions of the frequency and seriousness of cheating behaviours. They were reporting on two related studies: the first (n=112) identified and verified the cheating behaviours, and also the frequency of use of each. Their second study used a different student sample (n=128) and sought to identify the seriousness and self-reported incidence of each behaviour. They compared the perceptions of one group of students with the self-reports of another, and found them both to be "very high" (p.169), with self-reports indicating that more than half of the students surveyed had, or continued to be, engaged in a variety of "cheating behaviours", consistent with results from the U.S. (McCabe & Trevino, 1993), and later supported by Scandinavian findings (Bjorklund and Wenestam 1999). The strength of Franklin-Stokes and Newstead's work was its multidisciplinary and cross-institutional focus, particularly at a time of little

research into student cheating in the U.K. Their study can be criticised for its comparison of data from two separate studies, each with different research questions and using samples with different characteristics. Despite this, their work was important in the mid 1990s in raising awareness of a problem that was not widely recognised in the U.K. at the time.

Bjorklund and Wenestam (1999) found that "students tend to see cheating as a more or less normal part of their studies". Their study was ambitious, and aimed to investigate the frequency, methods of, and reasons for, undergraduate cheating in Finland, as well as to assess the influence of factors such as age, gender, number of years of study, subject discipline, and level of study. In order to facilitate comparisons with data from other countries they used a Swedish translation (the language of instruction at the sample institutions) of the questionnaire devised by Franklyn-Stokes and Newstead (1995), and in so doing invalidated at least one area of questioning (*invention of data*), which their report recognised had been misunderstood by students. Their methods of investigation closely followed the format of Franklin-Stokes and Newstead's original and, despite not acknowledging the limitations of the sample, the study highlighted the extent of perceived, if not actual, cheating, with 91.9% of respondents reporting perceptions of cheating behaviours in their fellow students.

In 1987 the California Department of Education described cheating as 'epidemic' following 75% of secondary school students self-reporting that they had cheated at some time in their school work (Schab (1991) in Anderman, 2004). This was in line with the U.S. Center for Academic Integrity (C.A.I.) reporting in the order of 70% of all U.S. college students admitting to cheating. There is evidence that students frequently self-report what they perceive to be minor cheating and the C.A.I. estimated that "serious cheating on state university campuses" had increased fivefold since the 1990s. There is no detail available from the C.A.I. on how they would define "serious cheating" but it is noted that many assessments in the U.S. are still examination based, and frequently designed as multi-choice question papers. In the U.K. the most serious cheating rated by students was related to examinations. It is therefore reasonable to assume that "serious cheating" in the United States would be related to formal examinations.

Hard *et al.* (2006) used questionnaires for students and academics in one U.S. university to investigate student and academic beliefs and self-reports about the frequency of cheating. Their 16 point cheating scale "described the behaviours,

devoid of any moral or ethical judgement" in order to avoid any ambiguity over what does or does not constitute cheating. Universities in the U.S. use examinations as a more common method of assessment than is the case in many U.K. programmes; their list of cheating behaviours reflected this assessment balance, with 7 of the 16 behaviours referring to examinations. They found that students' perceptions of cheating in their peers were considerably higher than their self-reports. These findings of apparent overestimation of cheating are consistent with those of others such as Bjorklund and Wenestam (1999) and Chapman and Lupton (2004) whose findings were also of student perceptions significantly exceeding self-reports. Hard *et al.*'s statistical analysis of the data showed that, for their sample, a large majority of students engaged in cheating, but self-reported that it was only on rare occasions. This finding is important, as it provides an indication of the extent of cheating, unlike other reports such as that of Rennie & Crosby (2001) who presented numbers of students self-reporting their use of cheating behaviours but without identifying the frequency of occurrence. Hard *et al.*'s study demonstrated a significant correlation ($p<.05$) between student perceptions of cheating and their self-reports, $r = .35$, supporting findings by McCabe *et al.* (2001) that perceptions of cheating in peers influences students to engage in similar behaviours themselves.

Marsden, Carroll and Neill (2006) conducted a rigorous, large scale study involving 4 Australian universities and 12 different departments and found that 41% of their sample admitted cheating in examinations, 81% in coursework through various degrees of plagiarism and 25% to falsifying attendance records or illness reports. These findings are broadly in line with the extent of reported cheating in the U.S. and the U.K., although self-reported cheating in examinations (rated by students as the most serious form of cheating) was higher in Marsden *et al.*'s study than in Franklin-Stokes & Newstead (1995), who reported between 6-13% self-reporting different forms of examination cheating. In apparent contrast, O'Leary & Cotter (2000) found that Australian accountancy students self-reported significantly *less* willingness to cheat in examinations than their Irish counterparts, the percentage of each nationality self-reporting their willingness to cheat being 23 : 56 respectively. Apparent differences between the two studies may be the result of methodological differences between Marsden *et al.*'s questionnaire and O'Leary & Cotter's case study scenarios that required respondent prediction of behaviours in hypothetical situations. In the former, Marsden *et al.* had used a questionnaire requiring self-reports of frequency against 19 cheating behaviours that had been adapted from previous work by

McCabe (2001) and Roig & De Tommaso (1995). To compare the two therefore involves comparing, for one student sample, self-reports of previous behaviour with, for the other sample, prediction of behaviour in hypothetical situations. The difference in questionnaire style, together with differences in the sample characteristics, are likely to account for the difference in findings.

Petress (2003:2) states that, in his experience, most of the students reported to have cheated did so repeatedly "in almost every class, every year until caught; and sometimes, even after being caught, they continue the practice until expelled". His methodology is not clearly specified but appears to be based upon a series of conversations with students and school teachers. Petress' contention, though, is that the majority of students are inherently honest, that dishonest practice has to be learned, and that early instruction in schools, with correction where necessary, would reduce the tendency for academic dishonesty to be accepted by students as the norm. School responsibility, therefore, is seen by him as being extremely important in order for a cultural change in student academic practice to result. Petress' views on institutional responsibility support those of McCabe and Trevino (1993), and McCabe, Trevino and Butterfield (2001; 2003), who have consistently reported on the success of honour codes in reducing cheating in U.S. colleges and universities. The influence of honour codes on student behaviour is discussed in Section 2.6.

2.4 Influences on cheating

Williams (2001) contends that there are two main reasons for the proliferation of cheating, and for plagiarism in particular: the increased use of assessed coursework, and the rapid advances in technology that have led to information on any topic being readily available and not always traceable to its source. Only a few other authors, such as Ashworth *et al.* (1997) and Le Heron (2001) have identified changing patterns of assessment as a contributory factor in cheating. Williams presents a strong argument in support of his theory: twenty to thirty years ago the majority of assessments in schools, colleges and universities comprised a combination of supervised unseen examinations and practical face to face assessments that provided fewer obvious opportunities for cheating. The answer to student cheating is not however as simple as reverting to unseen examinations. As has been shown in Section 4, studies in the U.S. and Australia, where examinations are the most frequent mode of assessment, have found high rates of self-reported cheating in examinations as well as in coursework (Marsden *et al.*, 2006; McCabe *et al.*, 2001).

Le Heron (2001) described the situation in New Zealand higher education where, despite other reports suggesting that students cheat to improve their grades, her experience was of students cheating "just to obtain a pass". Her experience may have been influenced by the open entry policy for over 21 year olds which meant that their entry level knowledge of the subject, in this case Information Systems, was frequently found to be insufficient to enable them to cope with the required level of study.

Bennett (2005) reported on a questionnaire survey of factors associated with student plagiarism in one U.K. university. His findings from a sample of second to fourth year students (n=249) suggested that students with lower academic grades were likely to self-report minor but not major plagiarism. Major plagiarism, where it occurred, "appeared to be driven more by fear of failure ... mitigated by fear of punishment ... than by the desire to succeed" (p.157), showing some consistency with Le Heron's findings of students needing *just to pass*.

Subject discipline

Studies investigating associations between subject discipline and levels of cheating are inconclusive, largely because of limited samples. There is consistent evidence however that Business Studies students are more likely to both self-report and to be found guilty of cheating. McCabe and Trevino (1993) found that business students in the U.S. self-reported the most cheating, followed by engineering, science and humanities in that order. The issue of business students cheating was also raised in the U.S. academic press by Mangan (2006) who reported that more than half of the business graduates surveyed had admitted to cheating at least once during the course of the previous year. Australian press reports of large numbers of students found guilty in Victoria Universities during 2003 to 2005 reported that "economics, business and commerce faculties at Melbourne and Monash universities recorded the highest number of student cheats" (Beauchamp, 2006).

Newstead, Franklyn-Stokes and Armstead's 1996 study found a significant difference in the cheating behaviours self-reported by students (n= 943) from different academic disciplines, with broadly-defined "science" students self-reporting the most cheating, followed by "technology" and lastly education and health-related courses. From their sample they identified a profile of a typical

cheating student in higher education as a younger male of lower ability studying science. Newstead *et al.* (1996:230) comment on the difference between their own results and those of Bowers (1964) whose findings placed "career-oriented courses such as business, education and engineering" at the top of the cheating list, and physical science, with markedly lower ratings, at the bottom. The differences in findings shown in these two reports may be due to methodological differences such as the style of self-reporting, the content of the questionnaire and the phraseology of the questions, as early surveys tended to ask students about "cheating", rather than using lists of specific behaviours. There is, however, some consistency between the findings of Bowers (1964) and McCabe and Trevino (1993), both reporting on studies conducted in the U.S., in identifying business students as the most likely to self-report cheating.

Gibelman, Gelman and Fast (1999:175) reported in 1999 that while "confirmed cases of plagiarism among social work students are relatively small in number, they exist and are growing". Scanlan (2006) believed that the 2%-60% range in health profession students self-reporting cheating represented an underestimation of the true extent, while one in seven medical students in Rennie and Crosby's 2001 study admitted that they either would do or had already copied from sources without acknowledging original authors.

It might be expected that medical students would demonstrate honesty and ethical principles in their studies as well as in their professional practice, but there is a growing body of evidence from anonymous student self-reports that medical and non-medical students will demonstrate similar attitudes towards, and behaviours in, cheating. In a questionnaire survey of 827 medical students at Zagreb University Medical School, Hrabak *et al.* (2004) found that 94% admitted to cheating at least once during their university studies, with the extent of cheating increasing from year two to year six. The definition of cheating is an important factor in interpreting the results since, in Hrabek's study, the behaviour reported by the highest number of students (89.1%) was "signing in an absent student on a class attendance list'" and that reported by the fewest (0.7%) was "paying for passing an examination". His results are consistent with those of Franklin-Stokes and Newstead (1995), where the level of self-reporting was in inverse proportion to the perceived seriousness of the behaviour. At less than 1% such a level of blatant cheating as "paying for passing an examination" may appear negligible, but in Hrabek's study the low percentage equates to several doctors cheating (n=6), which in the U.K. would contravene the guidelines of the

General Medical Council: " as a doctor you must be honest and trustworthy" (GMC, 2001). Whilst Hrabek's study was based in Croatia, Rennie and Crosby's research with Dundee University medical students (2001) demonstrated similar attitudes to cheating, where percentages of students (n=461) who self-reported either previously having cheated or that they would consider cheating varied from 2% for "copying answers in a degree examination" to 56% for "copying directly from published text and only listing it as a reference".

McManus *et al.* (2005) conducted statistical analysis of student answers in postgraduate medical examinations in an attempt to identify similarities that could be explained only by pairs of students copying each other's answers. The validated software used was based on Angoff's method for identifying "anomalous behaviour indicative of cheating" in multiple choice medical examinations (and it was shown through examination 1 as an example that Type 1 errors were effectively eliminated.) The candidates across several centres and 11 examinations provided 11,518 candidates and 6,178,628 potential pairs. Whilst the results of analysis found one pair cheating for every 1,000 candidates, it was impossible to ascertain which member of each pair had copied, and thus further investigation was needed. The importance of the study was that it showed that at least one candidate in every thousand was copying answers, equating to a minimum of eleven qualified doctors out of the sample of over 11,000 who did not know the answers to medical questions and were prepared to cheat to pass the examination. Whilst in absolute terms the numbers are small, the consequences of that small number of doctors being potentially unfit to practise could be significant to their patients.

Following their large scale, cross-institutional survey in the U.S., Baldwin, Daugherty, Rowley and Schwartz (1996) reported that 66.5% of their sample of second year medical students reported that they had "heard about" their peers cheating. This compared with high self-reports of cheating in school (40.5% in high school, 16.5% in college) that dropped notably to 4.5% self-reporting that they had cheated in medical school. The low percentage of self-reports in medical school may be due to the honour code factor such as that reported in several of McCabe's reports (2001; 2002; 2003), whereby students at institutions where cheating is openly derided and discouraged self-report cheating in lower numbers. Medical students may indeed cheat less than other subject groups or alternatively may, in accordance with social norms theories, respond to surveys in the way that they feel is expected of them (Gaudelli, 2001; Lapinski & Rimal, 2005).

In their investigation of ethical attitudes in final year accountancy students in Ireland and Australia, O'Leary and Cotter (2000) found that over 50% of Irish students (n=139) would be prepared to take a bribe or to cheat in an examination, more than twice as many as their Australian counterparts (n=103), but that the risk of detection was a powerful deterrent and almost halved the percentage of those prepared to cheat. Interpretation of the results was interesting, as it revealed that in Australia ethics was a mandatory component of the accountancy degree studies, and that in the Irish university there was no specific emphasis on ethics, suggesting that the Australian inclusion of ethics into accountancy degree study may have been a powerful moderating influence on students' attitudes to cheating.

Information technology

> The reason has less to do with decreasing honesty among students as with the ease with which cheating can be accomplished. As with most good things, there is an inevitable down side to the World Wide Web. (Gibelman *et al.*, 1999)

For some years companies have existed within and outside the U.K. that will provide, or commission to order, downloadable essays, dissertations and even doctoral theses (Cox, 2003). Such works exhibit a range of quality and price, ranging from free or exchange essay banks to commissionable work being readily available at a cost that increases with the size and level of study. McKenzie (1998) described the loss of student learning that occurred as students "wielded an electronic shovel" in order to "find and save huge chunks of information with little reading, effort or originality". For those willing to risk the quality and originality of an unseen purchase it is also not difficult to find subject specific essays for sale on e-Bay for as little as £2-3.

Groark & Oblinger (2001:7) quoted a U.S. *Student Monitor* survey that found that 97% of students used the Internet and 70% used it every day. This is an indication of the extent of use of the Internet, and does not suggest that all students using the Internet would do so in order to cheat, although published research provides some measure of Internet cheating in the United States.

Szabo & Underwood's survey (2007) found that more than 50% of their sample would use the Internet to cheat, also that males and first and second year students held more liberal views of cheating than did females and third year

peers. Their sample (n=291) was confined to a single university in the U.K. and their results can not therefore be assumed to have any wider generalisability but it is noted that their findings on age-related cheating are consistent with those of, for example, Newstead *et al.* (1996) and Williams (2001), as discussed later in this chapter.

Other studies offer different perspectives: Scanlon and Neumann's (2002) cross-institutional questionnaire survey in the U.S. surveyed students (n=698) on 9 campuses to identify the extent of Internet plagiarism. They used a Likert-type scale against list of specific behaviours to identify the self-reported frequency of each behaviour as well as perceptions of other students' behaviours. They found that the extent of "plagiarism using the Internet" was no more prevalent than "conventional forms" (p.383). This may be because students who would self-report plagiarism could use both conventional and web-based means of doing so. The authors acknowledged that it was not possible to identify from their data the extent to which student plagiarism was due to the ease of Internet access, and whether restricted access would have reduced plagiarism overall.

Debate over the influence of the Internet in plagiarism is not restricted to the United States. Delegates at an Oxford University conference on plagiarism (*Beyond the Search Engine:* 2007) voted overwhelmingly against the motion that "new technology is undermining the traditional values of integrity and rigour in academic research and study". There was general acceptance of the potential for the Internet to "facilitate plagiarism" but following the conference the U.K. academic press reported that "the consensus was that it is not to blame for the apparent rise (in plagiarism) in recent years", there being a range of contributory factors including the pressures of assessment in modularised courses, a view supported by Devlin (2007) and Norton, Tilley, Newstead and Franklyn-Stokes (2001).

Walker's view is that "students can demonstrate exceptional research skills and ingenuity in finding ways to cheat the system, with or without technology" (1998:244). Plagiarism, especially through the Internet, is frequently not achieved without effort. Some students apparently believe that, because of the time spent in procuring or customising a piece of work in order to submit it as their own, they are as entitled to credit as the student who studies, researches and produces an original submission with full referencing (Walker, 1998). Roach (1998:1) supports the contention that, in plagiarising, students are "cheating

themselves of an education" because by copying materials from readily-available web sites they are not developing their own critical, evaluative skills.

Gibelman *et al.* (1999:367) refer to "seemingly unlimited opportunities to gain easy access to information" but ready access to on-line information provides little or no guarantee of the quality of the material so obtained. Gibelman *et al.* investigated the quality of papers purchased through the Internet by having three papers (one 'off the shelf': that is, bought from an Internet site, one 'customised' essay commissioned from an Internet site, and the third a genuine student's essay) graded by senior academics from universities across the U.S. Their findings were surprising, particularly in the lack of consistency in the grading of the papers but also that the papers purchased from the Internet (both off the shelf and commissioned) were shown to be likely to pass even if with a lower grading than the genuine student's paper. Gibelman's study was described as "quasi-experimental" (p.367) and showed a range of marks from "unacceptable" for both of the Internet papers to 80% for the *off the shelf* and 87% for the customised version. The marks awarded to the legitimate paper ranged from 30% to 90%. The researchers concluded that the key factors in determining the grade awarded were the institutional environment and the personal standards and expectations of the marker, rather than the supplied marking criteria. Thus two worrying factors emerged: the lack of consistency in marking by experienced academics and the low risk of detection faced by students who purchase or otherwise acquire essays from on-line sources.

As the technology for enabling and supporting cheating has developed, so too have the electronic means of detection. Universities in New Zealand are encouraged to adopt the use of the Essay Verification Engine (EVE), and in the United Kingdom the Joint Information Services Committee (JISC) provides support for subscribing institutions, their staff and students through the availability of *Turnitin U.K.*. Such software enables academics to identify work copied from on-line and other sources, and can be introduced at an early stage as a significant learning tool to enable students to identify unacceptable or weak referencing practices. Its options have recently been increased to enable electronic submission, receipting, feedback and peer review.

In Dahl's "exploratory study" (2007) of the use of *Turnitin U.K.,* the majority of his postgraduate business students sample reported their preference for *Turnitin* as a means for submitting assessed work and receiving grades and feedback,

compared to the more conventional methods of submission and feedback. On the basis of his student responses, Dahl's findings challenged Carbone's criticism (2001, in Dahl, 2007) that to use detection software such as *Turnitin* is to treat students like criminals. In fact two of the respondents, when asked in the questionnaire what they most liked about *Turnitin*, responded that with such software, "something was done about plagiarism". His other finding of interest was that 16 of the total 24 respondents felt that they needed more information "about what plagiarism is", consistent with the findings of Ashworth *et al.* (1997) and Burrus *et al.* (2007). Dahl acknowledged the limitations of his small convenience sample and his findings, though limited, are relevant especially at a time when more higher education institutions are integrating the use of detection software into their assessment practice. The sample comprised only postgraduate students and this characteristic is likely to have influenced the positive attitudes shown towards the use of *Turnitin*, as postgraduate attitudes towards cheating have been shown to be less liberal than those of undergraduates (McCabe *et al.* 2001; Newstead *et al.* 1996).

Evans (2006:90) suggested that "detecting electronic plagiarism now appears to be almost as easy as committing it". Electronic detection may not however be without drawbacks. Evans reported on an evaluation of detection software in the Cardiff School of Social Sciences where its implementation was part of a broader strategy to "improve standards of scholarship amongst its students" (p.88). Unlike the study by Dahl, Evans' sample comprised undergraduates (n=170) who were trained in the use of the software before they submitted assessed work; questionnaires were completed following the submission of work by both standard and electronic means. Respondents were found to rate highly their ability to avoid plagiarism, and Evans interpreted this as being at odds with other research that suggested student uncertainty about how to reference (he did not though specify his sources despite the literature review earlier in his report). Based on the information provided in his paper, the reliability of this report on student views of plagiarism is questionable, since it is not certain that the questionnaire either provided a definition or asked students if they understood the meaning of plagiarism. Despite that, Evans' findings on the effectiveness of detection software were useful: believing that the task of checking originality reports for all students would be too time consuming for academics he selected a sample of those essays whose originality reports indicated 0-25% matching of text. He found that most of the electronic matching came from titles, references in the bibliography and correctly-cited quotations, on the basis of which he suggested

that "the cost of the false negatives that are allowed to slip through by not checking for minor plagiarism is not enough to justify the effort it would take to prevent them" (p.95). He concluded that "As checking all on a large scale is unsustainable the integrity of students remains essential". The need for academic judgement in assessing originality reports has been clear since the inception of detection software. The most efficient use of such programmes will also require a sampling strategy in order to convince academics responsible for large cohorts that it is a tool to help rather than to hinder.

Academics have for some time been aware of the threat of litigation should they accuse students of cheating. The use of detection software also risks student challenge. In 2004 a U.S. student took legal action against his institution, arguing that *Turnitin.com* "would profit from his work" since all essays entered into its database are archived for future comparisons. He won his case (Thompson, 2006). Some years earlier, in 1997, Boston University took legal action against eight U.S. based essay banks across seven states claiming that they had broken a Massachusetts law banning the marketing or sale of so-called "term papers". A federal judge dismissed the case (Roach, 1998).

Cultural and international perspectives

Pennycook (1996:227) suggested that "all language learning is to some extent a process of borrowing other people's words", and that "the distinction between intertextuality and plagiarism is a very fine line". There is evidence from Ashworth (1997) and Burrus *et al.* (2007) that even students for whom English is the first language do not always understand where that "fine line" lies. Pennycook's theme of "borrowing other people's words" was echoed by Rinnert & Kobayashi (2005) whose comparative study found that Japanese students were less exposed than U.S. students to the rigours of accurate citation and that their perception of borrowing the ideas (and words) of others was correspondingly "not entirely negative" – a fairly clear example of a cultural difference in academic expectations of students. The consequences of international student exchange or full time study in cultures with different expectations could be severe for students unprepared for the difference.

Part of the problem for students is the difference between the expectations of schools and higher education. Pennycook described the comments of two students who believed that secondary school had left them ill prepared in theory and practice for the conventions and standards of academic writing and citation

expected in higher education assessments, with one stating that "in secondary school no teacher forbids us to do something like that" (p.224). Pennycook's sample comprised Chinese students, but arguably the same could be said for the experience of many U.K. students.

Hyland (2001:380) described plagiarism as a "coping strategy employed by students because of the pressure to conform to the linguistic expectations of the academic community, when they lack the necessary linguistic and sociolinguistic skills". Her New Zealand study involved the observation and interviewing of two class teachers and six students regarding the effectiveness of feedback on plagiarism found in essays. Her conclusion was that in order to provide meaningful feedback to students there needs to be a balance between sensitivity to students' feelings and cultural differences in order to provide straightforward information on what is unacceptable and how to change it.

In 2002 the Shanghai Star reported that student cheating in China, Hong Kong, South Korea and Taiwan on formal examinations such as the computerised Graduate Records Examination (GRE) and the internationally recognised Test of English as a Foreign Language (TOEFL) was so widespread that the Educational Testing Service had suspended the computer-based version of the examinations, retaining only paper-based tests, until cheating web sites devoted to it had been closed. These "Jijing"[3] sites were found to be posting examination questions as well as hints on how to answer the questions, resulting in a significant rise in Chinese student scores, especially in the language components.

As a result of the GRE scandal, and building on their academic interest in cheating, Chapman and Lupton (2004) conducted a study to compare self-reports of, and attitudes to, cheating in Hong Kong and U.S. business students. Their survey found that U.S. business students were significantly more likely to cheat than their peers in Hong Kong and that U.S. males in the sample were more likely to cheat than their female peers. No gender differences were found in the Hong Kong sample. The U.S. : Hong Kong difference in self reported cheating is likely to result from the cultural differences in attitude towards cheating and what behaviours were interpreted as cheating, with the American students demonstrating "more liberal" attitudes to what was and was not seen as cheating, as well as to student openness in surveys of sensitive subjects such as cheating. From the limited information available on the questionnaire design, it seems that

[3] Jijing: *the experience of taking a computer test*

the survey sought self-reports on students' "cheating", which is likely to have biased responses due to known cultural differences in beliefs about academic dishonesty. The inclusion in the survey of non-judgemental scenarios for student rating was useful though, and enabled the identification of differences between American and Hong Kong attitudes to student behaviours in assessment. The findings included Hong Kong students demonstrating "more conservative views" (p.432) of cheating behaviours, believing more readily than the U.S. students that behaviours were not honest. In the context of the concern in Hong Kong over demonstrated cheating rates, the significant difference in self-reported cheating between the two culturally different areas raises other questions. Are the self-reported levels of cheating in Chapman and Lupton's study a reliable indicator of actual cheating, in which case the extent of cheating in North American male business students would be alarming? Or might it be the case that Hong Kong students, in competition for sought-after overseas university places, would cheat in their English language and other tests and then lie about the extent of their cheating? Chapman and Lupton's study offers results that lead the interested reader to reflect on one of the fundamental questions arising from all self-reports of negative behaviours: the estimation of the truthfulness of the responses and the effect of this on the reliability of the findings.

E. Evans, Craig and Mietzel (1993) examined pupils' perceptions of academic cheating in Costa Rica, Germany and the USA. Their questionnaire was comprehensive, and they paid attention to its accurate translation, but as it contained "109 items" its length had the potential to decrease reliability, due to the risk of respondents giving insufficient consideration to their responses. Following analysis of variance, and consistent with their previous research, they found that, whilst there were national differences, there were important similarities that suggested common attitudes to cheating across all three countries. High achieving students across all groups were more likely, and German students generally were less likely, to identify behaviours as cheating. The authors suggest that the latter difference was likely to be due to the structures and ethos of the German education system, although they provide no detail in their paper to support this. In fact, the German education system is less competitive at high school level than it is for more junior pupils who are competing for programmes of study (Miller *et al.* in Anderman & Murdock (2007 ed.), where cheating for oneself or to help friends can be seen as peer or self support and thus an acceptable behaviour. The authors also found "strong tendencies" (p.596) across all groups to blame incompetent teachers for

increasing levels of cheating, consistent with the findings of Davis *et al.* (1992) and Forsyth, Pope and McMillan (1985) and in line with theories of attributional bias (Kelley, 2005).

Lim and See (2001) examined attitudes towards cheating and the likelihood of students reporting cheating that they had witnessed, basing their questionnaire on the work of Newstead *et al.* (1996). Their cross-institutional sample (n=518) was not described except in terms of gender and ethnicity (both, in the sample, being representative of the student profile in Singapore, where the study was conducted). Several of their findings were consistent with those of Burrus *et al.* (2007) and Franklin-Stokes and Newstead (1995) where student perceptions were that exam-related cheating was more serious than coursework cheating such as plagiarism and fabrication.

There is little published research on the situation in African universities. Teferra (2001) examined the conduct and misconduct of students taking examinations in Ethiopia, where the mode of assessment at the time of his paper appeared to be largely through invigilated examinations: essay or multi-choice format. His survey was based upon an e-mail survey of the perceptions of sixty Ethiopian academics and his results are therefore based on observations, opinions and several assumptions for which there is little supporting evidence. He does acknowledge some of the weaknesses of his study, and while the methodology and interpretation are questionable, he identifies academic misconduct as being a result of misplaced value systems in society: "not ... as an isolated instance but as a general social ill" (2001:170). His findings do not add greatly to the international body of knowledge on plagiarism, but the study itself and his resulting observations indicate a growing awareness in African universities of academic cheating.

Despite examples such as Teferra's study, plagiarism is still viewed by some as being "specific to Western cultures" (Hyland, 2001), and as being difficult to brand as a "crime" as its use may have been inadvertent. The arguments for inadvertent plagiarism arise from more than just one theory: inadvertent plagiarism may result from the phenomenon of cryptomnesia – implicit memory (Tenpenny, 1998) or from students deliberately incorporating other material into theirs without acknowledgement, and believing that to be a legitimate activity. The question of intent is one of the most difficult aspects of cheating to prove.

There is little doubt that culture can be one of the influences on student attitudes to plagiarism. In the global marketplace in which higher education exists, both U.K. students abroad and students from overseas studying in the U.K. are increasingly exposed to conflicting cultural expectations. As has been shown, there is no clear-cut global distinction between cultures, neither east – west nor north – south, in their attitudes to what would constitute plagiarism. Sherman (1992:197) reported that her Italian students "saw copying wholesale from original texts as both legitimate and as showing respect for the original author". It seems that Sherman's Italian students were working within their cultural educational norms just as were Pennycook's Chinese students.

Gender and age

There is some evidence from the U.K. that the extent of cheating varies according to the level of study, ability, motivation and gender (Newstead *et al.*, 1996). Newstead *et al.*'s findings are consistent with those of Marsden *et al.* (2006) who found in Australia that male students under the age of 25 and studying full time reported higher levels of cheating, both in examinations and in coursework and that first year students were significantly less likely to cheat than were students at all other undergraduate stages. Marsden *et al.*'s Australian findings resonate with U.S. studies that found that cheating decreased significantly between high school and college (Davis *et al.,* 1992). It may be that students on entry to another institution with which they are unfamiliar need a period of time to orientate themselves to the expectations of that institution. On finding that their peers apparently are cheating in numbers without fear of suspicion or investigation they adopt similar behaviours according to peer norm theories, consistent with the findings of Hard *et al.* (2007).

Davis *et al.*'s (1992) large survey of students (n=>6000) included a range of school types and sizes. Their findings in U.S. high schools and colleges supported the hypothesis that males self-report more cheating than their female counterparts, and although the differences between males and females were significant it is noted that Davis *et al.* were comparing male and female samples from institutions with different characteristics and political ethos. At the time of the survey there were no known honour codes in the institutions. McCabe and Trevino (1997) reported that although they found that males self-reported more cheating than did females, when they examined within-course data they found few gender differences; for example, women in male-dominated disciplines such as engineering reported their need to play "by the men's rules" in order to be

successful, and correspondingly self-reported similar rates of cheating as did the men. This last finding is important and has largely not been replicated in other studies, but should be a consideration when evaluating the findings of other reports of gender influence on cheating. McCabe's 2001 report concludes that, despite evidence of males self-reporting cheating more than females, "data suggest that within similar majors, gender differences are often very small" (p.228). This is consistent with Miller *et al.*, writing in Anderman & Murdock (2007) who refer to the hypothesis that male students cheat more than females as "speculative".

Baldwin, Daugherty, Rowley and Schwartz (1996), Lim and See (2001) and Daly and Horgan (2007) reported that males were more likely than females to self-report cheating, a finding supported by Newstead *et al.*'s 1996 U.K. study where they additionally found that, for their sample, lower achieving males self reported more frequent cheating than did their female counterparts, with the gender gap decreasing as achievement increased. Evans *et al.* (1993), in their cross-national study of school children, reported "no substantive gender differences" in *perceptions,* rather than self-reports, of cheating. Marsden *et al.* (2005) cite Crown & Spiller's review of U.S. college cheating (1998) which suggested that the male>female cheating balance had reversed. This is possible, but is arguably an unreliable conclusion, being based in part on the results of E. Evans *et al.* (1993) whose study was of student *perceptions* rather than self-reports and the length of whose questionnaire, discussed earlier in the *cultural and international perspectives* section, threatened its reliability.

Parr's 1936 study claimed that the frequency of cheating increased from age 17 to 21. This is consistent with Marsden *et al.*'s findings (2006), but closer examination of Parr's results reveals some contradictions as, for example, 22 year olds cheated less frequently. Parr described his method of data collection as "simple and almost foolproof": his study was based over a 2 year period with 409 college students, whose quarterly multiple-choice standardised tests were secretly marked by an assistant before being self-marked by the students at a later date. Scores by the secret independent marker were compared with those of the student markers, and evidence of cheating was taken to be the number of students who corrected their answers during the marking process. The 42% cheating rate was interpreted by Parr as being a "conservative estimate of the proportion of students likely to be dishonest in the typical college classroom" (p.320) since the tests were for formative purposes only and would not contribute

to summative marks. More males (45%) cheated than females (38%) but Parr interprets the difference as being " more apparent than real" as the females had higher average "mental ability" than the males, based on each student's rating in the American Council Psychological Examination. This is in part consistent with the findings of Newstead *et al.* (1996) whose large-scale questionnaire study of undergraduates showed that males reported more cheating than females but that self-reports of cheating declined with age.

As will be discussed under the heading of *Motivation*, other studies have shown that students with higher grade point averages and those with higher levels of mastery rather than goal orientation are less inclined to cheat, supporting Parr's findings of an inverse relationship between classroom achievement and cheating (Dweck, 2000; Anderman & Midgley, 2004). Parr's study was an early example of academic acknowledgement of student cheating and his findings are broadly consistent with much later studies. He is open to criticism for his apparent disregard of ethical considerations in not informing his students that they were taking part in a research study, yet had he done so his study would have yielded biased results.

The findings of Marsden *et al.*, Davis *et al.* and Parr were not wholly consistent with those of McCabe *et al.* (2001:227), whose report was based on ten years of large-scale cross-institutional research in the U.S. investigating individual and contextual influences in student cheating. Resulting from their research and also from their consideration of existing literature they suggested that age was less of a predictor of cheating than the stage of the course, with first and second year students cheating more than those in third or fourth years; the third and fourth year students describing the academic relationships that had developed with their tutors that made it more difficult to consider cheating. This would suggest that it was not age *per se* that was a the influencing factor, but the period of time in higher education that had enabled positive relationships to develop.

Some researchers report that those who do cheat tend to be 'serial cheaters'. Davis and Ludvigson (in Bjorklund & Wenestam, 1999) found that university students who cheated had also cheated in school, although Davis *et al.* (1992) reported a significant decrease in reported cheating between high school and college, and other research from the U.S. has indicated reduced levels of cheating as students progress through higher education (Williams, 2001). These findings from the U.S. are consistent with those of Newstead *et al.* (1996) who, also using

students' anonymous self-reports, found that twice as many U.K. undergraduate students below the age of 20 self-reported cheating than did their peers over the age of 25. The apparent inconsistencies between Scandinavia and the U.S. and U.K. findings may be due to lower rates of detection in schools compared to those in colleges and universities (Pennycook, 1996). It is important to note that lower levels of detection should not be assumed to imply lower rates of cheating.

Motivation

Pintrich (2003:669) describes motivational theories as being "concerned with the energization (*sic*) and direction of behaviour." In good health, all humans possess motivation; it is the basis of survival and achievement (Maslow, 1970). Maslow's theories of human need (1970) are based upon the human drive to achieve firstly, the essentials for physical survival, and then the desirable elements for cognitive and emotional well-being such as achievement and aesthetics. His methodology and resulting theories have subsequently been criticised (Arnold, Cooper and Robertson, 1995; Eysenck, 1998), but still remain a fundamental part of most introductions to Psychology.

Motivation in its broadest sense has been seen by some theorists as a *characteristic*, an integral part of an individual's personality (Bentham, 2002; Galloway *et al.*, 1998). As such, it was seen as essentially intrinsic, but subject to influence by variables such as age, context and environment. In educational psychology such an interpretation has for some time been recognised as being too limited to address the complex range of issues related to motivation and learning. Others have more closely aligned their views with Behaviourism and, in particular, operant conditioning (Skinner, 1954) whereby motivation for a task arises from having successfully completed similar tasks. Similarly, negative experiences in a task or set of tasks is likely to reduce motivation to subsequently attempt similar. Much of the early work on motivation in education was conducted with school-age children, but there have been studies in recent years that have demonstrated findings from higher education that resonate with theories from, for example, Dweck (1986; 2000).

Dweck (1986) suggested, from her work with schoolchildren, that achievement motivation could be divided into two categories:

- learning goals, whereby the learner seeks to develop his/her own mastery of something for their own individual, personal reasons;

- performance goals, whereby the learner will be judged on his/her performance (p.1040).

Newstead *et al.* (1996) recognised a consistency between their findings and Dweck's theories of learning motivation. They found that the males in their study were "more likely to be studying as a stop-gap," and that they admitted to cheating because "they wanted to increase their mark, suggesting that they have performance goals". Women were "more likely to be studying for personal development" (p.238), which would suggest learning goals.

Adaptive, mastery-oriented, motivational behaviours are based on personal identification and attainment of achievement goals. In contrast, maladaptive, so-called "helpless" motivational behaviour is associated with an inability or a failure to establish, maintain or reach realistic goals. Dweck's studies with children of the same ability demonstrated how the adaptive child responds positively to new challenges, and is not deterred by apparent obstacles, while at the same time, the "maladaptive" child avoids intellectual challenge and is easily deterred in the face of difficulty.

Dweck suggested a relationship between performance orientation and maladaptive strategies such as avoidance, in contrast to mastery orientation conditions where students are less likely to engage in avoidance strategies. Anderman and Midgley (2004:502) describe the situation where "a student who uses an avoidance strategy most likely will not obtain a higher grade in class; however, the student who successfully cheats will unfairly obtain a higher grade". Anderman and Midgley conducted a longitudinal study of the development of achievement goals and students' self-reported cheating behaviours in mathematics, from middle through to high school. Their methodology and analysis were thorough: their sample was drawn from nine middle schools and five high schools across "economically diverse districts" (p.504) where students completed questionnaires administered by trained research assistants. The reliability of their cheating measure scale was high (Cronbach's α >.80) and they found that self-reported cheating was positively related to performance goals in class, and negatively related to mastery goals in class. Their findings were consistent with Dweck's theories as they described:

> When a student holds a *mastery goal*, the student is interested in mastering and understanding the material. When a student holds a *performance goal*, the primary reasons for engaging in an academic task are to demonstrate that one is smart, or to avoid looking less than smart.

(Anderman & Midgley, 2004:501)
In associating learning goal orientation with coping behaviours such as cheating they have extended Dweck's theories and provided underlying reasons for some students choosing to cheat.

Pintrich (2004) and Urdan and Schoenfelder (2006) have discussed an extension of Dweck's mastery-performance theories: that is, a division of mastery and performance orientation into *approach* and *avoidance* components. Mastery oriented students would typically accept challenging tasks, adopt a deep learning approach and persist in the face of difficulty. Mastery avoidance has to date been less clearly identified, although even without substantive empirical evidence it can frequently be recognised in the behaviours of the "bright but lazy" student who achieves with a planned minimum of effort. Conversely, typical performance-avoidance tendencies would include using shallow learning strategies, giving up when faced with difficulty and self-handicapping.

Others such as Entwistle and Ramsden (1983) and Biggs (1987) identified *surface*, *deep* and *achieving* motivation in university students in Europe and Australia. The findings from these authors are not inconsistent with those of Dweck: *deep* motivation is similar to mastery orientation, *achieving* echoes performance orientation and *surface* equates to students simply doing the minimum necessary to achieve a pass.

Dweck's work on motivation and learning styles in schoolchildren showed that learning styles were established at an early age and prior to higher education. Jacobs and Newstead (2000:243) wrote: "Surprisingly little is known about what motivates university students: why they embark on their studies in the first place, what changes take place during the course of their studies and what factors influence their motivation." Jacobs and Newstead reported on their three related studies in the U.K. to investigate undergraduate motivation. In order to explore undergraduates' perceptions of motivation they used a modified questionnaire that required respondents to rate the importance of a range of pre-categorised elements of their psychology degrees, the categories being *knowledge*, *skill* and *experience.* In their second study their sample comprised students from another university as a comparative measure in order to establish generalisability of their findings, which they described as "strikingly similar". Their third study suggested that student motivation changed throughout the three years, being lowest in the second year, and that in the early stages of study

students perceive all aspects to be important. Their overall findings suggested that students are motivated either by the subject itself or by the acquisition of more general skills and experiences.

Jacobs and Newstead suggested, on the basis of their findings, that females were more highly motivated than males and that categories such as *surface or deep learning* and *learning or performance goals* were distinct from their own *subject or generic* categories of motivation. Their interpretation is interesting but is open to debate. Their *subject* or discipline motivation could certainly be interpreted as being broadly in line with Dweck's mastery orientation (2000), where students are self-motivated to learn more about the subject. Their *generic* motivation categories however, included personal and social elements of university life which, whilst important factors in student development and in their effect on motivation, are quite distinct from descriptions of learning styles or motivation.

2.5 Academic and institutional issues

Roig and Ballew (1994) compared the attitudes towards cheating held by U.S. college professors, with their students' expectations of them. They used an established *Attitudes towards Cheating Scale* with 404 students and 120 professors each receiving two questionnaires. Respondents completed one questionnaire according to their own opinions about cheating, and the other according to how they believed the other, 'typical professor' and 'typical student' respectively, would complete. Analyses of variance were comprehensive and findings were consistent with other studies in the U.S. It had been anticipated that the attitudes of the college professors to cheating would demonstrate a greater degree of condemnation than those of the students surveyed, and that was shown to be the case. Professors' attitudes and their students' expectations of them were similar. Of most relevance was the consistent finding that "students are significantly more tolerant of cheating than professors" and they suggest that in the case of academic dishonesty, "tolerant attitudes may indeed underlie actual dishonesty" (p.13), although their study did not claim to have found an association between attitudes with self-reported rates of cheating. An association between tolerant attitudes and self-reported cheating was identified however by Chapman and Lupton (2004), already discussed in Section 2.4, whose findings showed in U.S. business students a more liberal attitude to cheating as well as six times more self-reported cheating than business students in Hong Kong.

Birch, Elliott and Trankel (1999) distributed questionnaires to academics in the University of Montana in order to identify "a portrait of the ethical professor" (p. 243), noting that, at the time of writing their paper, there was no university provision of either ethical codes or standards of academic conduct. Their questionnaire was sent to all academics in the university (n=336), respondents being required to rate 64 examples of behaviour as degrees of ethical or unethical behaviour. Statistical analysis of the 147 usable responses identified nine behaviours that at least 90% of respondents had rated as unethical. In addition, characteristics of the so-called ethical professor identified by their sample included "exhibits equity and fairness" and "does not ignore evidence of cheating" (p.243). The qualities of Birch *et al.*'s ethical academic may appear to be at odds with findings from other studies, described in Section 2.5. They are not; it is likely that their findings represent an ideal, whereas Section 2.5 presents a portrait of reality.

The burden of proof for academics

"But plagiarism is rarely a clear-cut case of theft and there are many situations that can make academics uncomfortable." (Barrett & Cox, 2005:109)

There is some evidence to suggest that, for many academics, there is a perception that investigating alleged plagiarism is not worth the effort. The burden of proof, the time involved and the risk of litigation can seem to mitigate against "academic justice" (Le Heron, 2001; Varnham, 2001). Keith-Spiegel, Tabachnik, Whitley and Washburn (1998) reported that out of almost 500 U.S. university professors surveyed, 20% admitted that they had not taken action in obvious cases of cheating. They had conducted a national survey of academics to determine why evidence of cheating was frequently ignored, a hypothesis shared with others such as Hard *et al.* (2006). Keith-Spiegel *et al.* used factor analysis to identify four clusters of reasons for academics not pursuing their suspicions of students cheating: *emotional reasons* such as stress and lack of courage; *difficult reasons* such as time and effort; *fear reasons* such as anxiety over possible retaliation or legal redress; *denial reasons* such as the belief that cheating students would fail regardless of intervention or that the worst offenders would get away with cheating. The most common reason identified for academics not investigating suspicions of cheating was insufficient evidence that cheating had actually occurred. Given the potential for student motivation to be affected by observing their tutors turning a blind eye to cheating students, the authors hypothesise that "some students inclined to be honest may be faced with an

unwelcome moral dilemma: should they cheat to keep up with the class or maintain their honesty and risk getting a lower grade" (p.225). Their work in focusing on the academic perspective provided an important distinction between student and institutional perspectives, particularly given the potential for academics to influence directly the extent of cheating. Their findings included the academic conviction that "dealing with cheating is among most onerous tasks of the profession" (p.215).

Barrett and Cox (2005) reported that 51% of academics in their sample from one U.K. university (n=59) admitted ignoring their suspicions of cheating. Simon, McCullough, Morgan, Oleson and Ressel (2003) investigated the relationship between staff confidence in faculty investigative processes and the institutional strategies for reducing levels of student cheating. They found that only 50% of academics in their sample had confidence in the impartiality of their institutions' investigative processes, and that the remaining 50% would deal with their suspicions informally. Simon *et al.*'s questionnaire survey, based in a medium-sized U.S. university, achieved a 47% response from the total complement of 493 academics. Following chi-square analyses one of the main findings showed that female academics were significantly more likely to be "sceptical" of institutional processes in the management of suspected cheating, and that those academics who had more trust in institutional processes (males in that sample) were also more likely to make use of the "full range of options open to them", when managing cases of suspected cheating (p.201). McCabe *et al.* (2003) reported the findings of Graham *et al.* (1994) where only 9% of the 79% of academics who reported observing cheating penalised the students.

The higher academic workload associated with increasing student numbers, widening access policies and an altered student profile is plausibly a contributory factor in academic avoidance of investigating suspicions of student cheating, in addition to the categories of reasons identified by Keith-Spiegel *et al.* (1998) and others, and "because any allegation of cheating is naturally one of dishonesty, the standard of proof is high" (Varnham, 2001:394). Thompson (2006) described the case of a university physics professor in a university with an honour code who was informed by a student that others in the class were plagiarising. As a result the professor created a software programme that would identify similarities in student essays, resulting in several students having their awards cancelled. Students subsequently interviewed by reporters accused their professor of a "violation of trust of his students, and thus of the honour code" due to his

continued use of the detection programme. Given such a situation for many academics, it is not surprising if some adopt a survival stance akin to Bottery's analogy: "They lower their heads to pull the cart instead of raising their heads to look at the road." (Anonymous, in Bottery, 1992: frontspiece).

The pressure on students to achieve can also be experienced by their teachers, who feel responsible for the outcomes of their pupils' assessments. In the summer of 2006 the U.K. press reported evidence of cheating in A-level assessments. English Literature examiners reported that they had identified schools that were producing model answers for classes in order to boost grades (Henry, 2006). In a political climate where schools' positions in league tables are influential in maintaining their financial and social status, it is not surprising that teachers provide every support for their pupils to achieve, and that in some cases they give credit to younger pupils whose Internet searches have provided them with apparently flawless essays. It is plausible that some students unwittingly plagiarise in early higher education assessments if they have been unprepared for and inadequately informed of the change in institutional expectations between school and university.

2.6 Plagiarism and copyright

There is growing support in higher education for reviewing the ways in which students are educated about plagiarism and other forms of cheating. It is proposed by some that a greater emphasis on issues of copyright, ownership and the boundaries within which writers may use the work of others would prove a more effective basis for encouraging responsible and honest academic practice (Walker,1998; Williams, 2001). Walker emphasises the responsibilities of teachers for educating students about "intellectual property" by focusing on copyright issues rather than only on plagiarism and the potential penalties for use of inaccurate citation methods. Her stance is positive, promoting the benefits of scholarship as "an ongoing conversation in which the student has an active role": a gentle reminder that assessment is a learning opportunity. Walker goes on to point out that "fair use" of the work of others was, until recent years, rarely questioned. There must however be a common understanding of "fair use" in order that the point where it becomes unfair, and thus plagiarism, is clearly recognised, as highlighted by the work of Ashworth *et al.* (1997). Continuing advances in world wide web publications and associated technology have led to complex copyright questions that could not have been predicted before mass use of the Internet became commonplace. Chu Moy (1998) advised that the easiest

way to avoid copyright infringement is to ask permission, and, "if in doubt, to consult an attorney". The two acts, cheating and copyright infringement should not be confused however, as copyright infringement is illegal, irrespective of intention.

2.7 Deterrence of cheating through strategy or penalty?

Walden and Peacock (2006:204) propose that plagiarism is "better addressed by engaging with the causes rather than concentrating on its detection". This suggestion echoes strategies adopted by Macdonald and Carroll (2006), McCabe and Trevino (1993) and McCabe *et al.* (2001; 2003). Macdonald and Carroll (2006:242) suggest that even a notional 10% of cheating cases in the U.K. would result in large numbers of student assessments requiring investigation, but that "the majority ... would be ... misuse or misunderstanding of academic conventions with only a small minority reflecting serious deliberate plagiarism". The question here of intent is important but is difficult to prove and very easy for students to use as a basis for appeal. In legal matters, ignorance of the law is not accepted as an excuse. A realistic option for higher education may be to adopt simple solutions such as Macdonald and Carroll's suggestion that institutions adopt a "holistic approach" to the problem, focusing on prevention rather than penalty. Kirkvliet and Sigmund (1999) also adopted simple solutions and found that when students were reminded by their lecturers that cheating of any kind was in contravention of university regulations they were significantly less likely to cheat than students who were reminded only through written handouts.

Le Heron (2001:247) describes the methods and results of a pilot study conducted alongside an informal control group of a parallel class of second year Information Systems students. Anecdotal evidence from students had supported her views and those of her colleagues that "cheating was widespread" and that the cheating students were able to pass written assessments without gaining the practical skills required to be successful on the course. The tutors' response was to redesign course assessments in order to remove cheating opportunities. In subsequent evaluation the redesigned first year assessments were described by students and academics as "virtually cheat proof", and the altered assessment designs were extended to the second year, where attempts at cheating were subsequently found to be "minimal and unsuccessful," (2001:250). Importantly, student perceptions of the changes were of fairness and usefulness. There is no information provided on the extent of student feedback or the means by which it was obtained, although it may be assumed that student representation on course

committees, as mentioned as an early source of information, continued to be used as a data source. At an institutional level Le Heron's university introduced a requirement that students "must be able to explain and discuss any material they submit for assessment" (p.254), ostensibly in order to reduce cases of student litigation but more practically enabling the addition of formal (through viva voce) or informal verification of ownership of submitted materials. Walden and Peacock's (2006) proposals were less investigatory and were particularly supportive of student learning. They reported their evaluation of an assessment tool, the i-Map, designed to provide a record of the "individual pathways of (student) research activity". In attempting to provide "proof of process" they suggested that the i-Map "promotes good academic practice and removes the motive for plagiarism". Their suggestions also address the requirement identified by Le Heron's institution for students to "explain and discuss any material they submit for assessment".

Mixon and Mixon (1996:2) contend that if the "cost" (by which they mean the penalty if caught cheating) of the crime of cheating was increased then its incidence would fall. Their survey of undergraduate business students examined the "probability of the habitual occurrence of crime in the classroom". From their own regression model they concluded that seeing other students cheat was positively related to the probability of cheating, as was a friendship with cheating students, a conclusion supported by the findings of McCabe & Trevino (1993; 2001). On the basis of their findings they suggested that "perhaps the expected punishments were not having deterrent effects, but were reflecting the belief among students that they were not likely to get caught" (Mixon & Mixon, 1996:376). They conclude that, in order to reduce levels of academic cheating, the probability of detection and the subsequent punishments must be perceived by students to pose a risk larger than is the case at present. This stance resonates with proposals by Stefani & Carroll (2001) and others who, whilst strongly supporting academic awareness and fair, effective penalties, also believe that there is a greater responsibility: that of institutions to clearly teach sound academic practice and to publicise the penalties for cheating. Scanlon and Neumann (2002) state that students avoid plagiarism in situations where penalties are known to be severe, consistent with McCabe and Trevino (1996) who found that "convincing" institutional disapproval had a significant effect on levels of plagiarism.

2.8 Honour codes: a question of honour or other factors?

One of the difficulties of adapting existing academic cultures to embrace honour codes is that the effectiveness relies on student involvement, including the reporting of other students who are observed cheating. From their earliest days of education children are reluctant to report their peers to school authorities, and there is evidence that students in higher education are no exception (Scanlan, 2006). Scanlan, like Macdonald and Carroll (2006), promotes the need for institutional strategies that would ensure a comprehensive approach to reducing the incidence of cheating.

Donald McCabe's research has featured throughout this chapter. Working with Trevino (1993), and at other times Trevino and Butterfield (2001; 2003), he investigated the effect of honour codes on cheating in the U.S. His methods included large cross-institutional samples and rigorous analyses, and his findings demonstrated high generalisability of findings. In 1993, McCabe and Trevino reported that levels of cheating, measured by student self-reports, were significantly lower in U.S. colleges that had honour codes. They additionally found that the existence of honour codes was less influential on cheating rates than "other social context factors" and that student cheating was most strongly associated with perceptions of their peers' behaviours. McCabe and Trevino (1993) admitted to being surprised by the strength of the relationship between student cheating and peer behaviour, stating:

> The strong influence of peer's behaviour may suggest that academic dishonesty not only is learned from observing the behaviour of peers, but that peer's behaviour provides a kind of normative support for cheating. The fact that others are cheating may also suggest that, in such a climate, the non-cheater feels left at a disadvantage. Thus cheating may come to be viewed as an acceptable way of getting and staying ahead. (p.533).

This was a consistent finding in their research that spanned over a decade (McCabe *et al.*, 2001) and is in line with the work of Burrus *et al.* (2007) and Mixon and Mixon (1996). McCabe and Trevino (2002) found that the incidence of "serious cheating" in colleges with honour codes was 25%-50% less than in institutions without honour codes. They acknowledged though that honour codes were not a panacea and that it was the manner of their implementation that was crucial: that unless students and academics were regularly reminded of, and engaged in, discussion about the issues of integrity and academic ethics, the honour codes alone were meaningless. They also found that the context of the institution and its students was influential in the relative success of the system,

honour codes being less effective in institutions where students were not full time and residential.

These findings are consistent with those of Roig and Marks (2006) whose survey used a validated *Attitudes to Cheating Scale* before and after the implementation of an honour code, with two separate samples from a single private university. Whilst Roig & Marks may have expected to identify a difference in student attitudes pre- and post- honour code, they found that the scores from both samples were almost identical. They concluded that the manner of implementation of the honour code, as well as "certain demographic characteristics of the institution" had influenced their results. The factors they identified *were* possible influences, but the authors did not acknowledge the limitations of their restricted sample that was also likely to have affected their findings. On the basis of their small-scale study they reached the unreliable conclusion that, despite intense academic and media interest in student cheating over 10-15 years, there had been no significant improvement in the outcomes from what they described as "the war against cheating".

In 2003, McCabe *et al.* altered their focus from students to academics in order to identify the influence of honour codes on academic attitudes and behaviours. Their questionnaires to a cross-institutional sample of academics found that in U.S. honour code institutions the attitudes of academics were more positive towards institutional academic integrity policies, and the academics were more likely to trust the formal processes in dealing with investigations of suspected cheating. Academics in so-called honour code institutions were also more likely to trust students to monitor peer behaviour as the code expected. Academics in institutions without honour codes were more likely to deal with their suspicions in their own way. This last finding is consistent with several studies of academic actions following suspicions of cheating, where a large majority of academics report avoidance of institutional investigative processes and instead prefer to deal with their suspicions or observations informally (Barrett & Cox, 2005; Keith-Spiegel *et al.*, 1998;).

As indicated by McCabe *et al.* (2001, 2003) honour codes are not effective in totally eliminating cheating, they simply provide opportunities to reduce it (or at least to reduce its self-reported extent). Notably, Scanlan (2006:180) stated that "many colleges and universities that have good honor code systems continue to experience a high incidence of academic misconduct". McCabe & Trevino (2002)

acknowledge that honour codes are meaningful only when students are regularly reminded of their importance and are engaged in ongoing discussions of issues of integrity.

It is clear from the several reports by McCabe *et al.* that honour codes, appropriately implemented, can result in fewer self-reports of cheating in those institutions. Does then the existence of an honour code create the perception that fewer students are cheating, as perceptions are known to influence the extent of self-reports of cheating? Alternatively, have the honour codes really lowered the incidence of cheating, or are the students in those institutions where honour and ethics are so strongly promoted, less willing to admit to cheating behaviours? In their report on the importance of definitions of cheating, Burrus *et al.* (2007:3) state simply that "students at institutions with well-publicized honor codes are less likely to admit to cheating compared with students at non-honor code institutions". The question of the reliability of self-reports remains unanswered. If students are prepared to cheat, would they also be prepared to lie about it?

Summary of chapter

This literature review has identified wide-ranging studies of student cheating spanning several decades and cultures. There are difficulties in making comparisons of findings due to differences in, for example, research questions, methodologies, samples and interpretations. Arising from the research findings discussed in this chapter are theories that suggest a range of reasons for students choosing to cheat, and these sometimes opposing stances may plausibly contribute to existing academic uncertainty about the extent of the problem and how effectively it might be addressed. Despite there being some evidence indicating the influence of gender, level of study and subject discipline, there is little definitive agreement on the extent to which those variables influence the behaviour of students in assessment.

Two influences that have consistently been found to influence cheating behaviour are students' learning orientation and their perceptions of the extent of cheating in their peers. As males have been shown to be more performance than mastery oriented than their female peers, it is likely that learning orientation, rather than gender, is the influencing factor. In addition, Section 2.5 provides the first hint, but as yet no evidence, that some students may cheat because they believe that they are likely to get away with it as their tutors will not investigate.

The next chapter discusses the methods of data collection for the study and the factors that influenced the selection of those methods.

CHAPTER 3

METHODS AND METHODOLOGY

The aim of this study was to explore perceptions and self-reports of, and attitudes towards, cheating in undergraduate programmes. The research philosophy was one of exploration and discovery rather than the testing of hypotheses, in accordance with the emergent processes advocated by Lincoln and Guba (1985). Denscombe (1998:7) emphasises the importance of recognising the survey approach as a "research strategy, not a research method. Many methods can be incorporated in the use of a social survey. Researchers who adopt the strategy are able to use a whole range of methods within the strategy". Denscombe's underlying philosophy has been applied to this study, although in a selective way rather than in the uncritical manner that could be inferred from his "many methods."

In order to address the research questions, the strategy was to use mixed methods: questionnaires for students followed by individual interviews with student and academic volunteers. The use of questionnaires provided a practical means of obtaining data from large numbers of students and provided a quantitative perspective in an otherwise interpretivist study. The interviews enabled exploration of questionnaire findings and of individuals' 'world views'. This chapter describes the process through which the research design was shaped, the considerations that influenced that process and the methods of data collection and analysis.

3.1 Methods and methodology

The term *methods* is used throughout this thesis to refer to the means by which data have been gathered. Silverman (2001) interprets *methodology* as an overarching framework for both quantitative and qualitative approaches, the methods used within that framework being influenced by the research questions. Cohen, Manion and Morrison (2000:45) summarising Kaplan (1973), state that "the aim of methodology is to help us to understand, in the broadest possible terms, not the products of scientific inquiry but the process itself." Cohen *et al.*'s interpretation is that methodology is the way in which data gathering operates and is critiqued. The viewpoints of Silverman and Kaplan are not mutually exclusive, as few would dispute the importance of critical evaluation of the research process and outcomes. This

thesis has adopted Silverman's interpretation because of its clarity and its relevance to the methods selected for this research. Reflection on, and critique of, methods of data collection in this study are integrated throughout the chapter.

3.2 Ethical considerations

Cavan (1977 in Cohen *et al.*, 2000:56) speaks of ethics as:

> ... a matter of principled sensitivity to the rights of others. Being ethical limits the choices we can make in the pursuit of truth. Ethics say that while truth is good, respect for human dignity is better, even if, in the extreme case, the respect of human nature leaves one ignorant of human nature.

To investigate with students and academics their attitudes towards cheating implied that some students could be willing to engage in dishonest practice, no matter how small its extent. The sensitivity of the subject was not underestimated and it was recognised that the effect of the subject matter on responses would be difficult to quantify. Participants were volunteers and were provided with assurance of the protection of their rights at all times. Prior to any contact with participants, permission to undertake the study was obtained from the Ethics Committee of the School of Education, University of Durham, and from the School Ethics Committee of the university from which the student and academic samples were drawn.

Hammersley (1998:138-9) outlines four elements that have proved controversial in ethnographic research: deception, privacy, damaging consequences and consequences. Those four elements were also relevant in the preparation and implementation of this research and so the research topic was openly acknowledged, all participants were volunteers and were fully informed of their rights of confidentiality, anonymity and withdrawal.

Anonymity of respondents and the confidentiality of responses were personally assured by the researcher, and for that reason the university has not been identified. Students who participated in the pilot study received the same assurances (Appendix 1). When the questionnaires were administered full information was provided to the selected cohorts by means of a presentation by the researcher followed by distribution of written information. Following that, students choosing not to participate were free to

leave the room. Details of information given to students are provided in Appendix 2.

In the case of interviews, assurance of confidentiality and anonymity was given at the time of the questionnaire distribution, reinforced through the first e-mail contact, and repeated at the time of the interview (Appendix 3). It was a primary objective to ensure that there should be no negative consequences for participants as a result of taking part in the study.

3.3 The questionnaire

Design

Questionnaires sought to identify

i) the likely extent, and characteristics, of student cheating;
ii) differences in perceptions and self reported behaviour between and within two student groups: healthcare and non-healthcare;
iii) the influence of factors such as the subject studied and attitudes to learning on self-reports of cheating;
iv) major reasons for cheating and not cheating;
v) student awareness of university investigations of cheating;
vi) perceptions of the level of risk of being caught cheating;

The subject sensitivity, relative position of questions, the minimisation of excess length, the visual impact and ease of completion were all considered when designing the questionnaire. Since some students could be deterred from participating in the research due to the sensitivity of the subject matter, it was important that the questionnaire design and length did not serve as an additional deterrent. Denscombe (1998:96) states that "It is worth remembering that there is, perhaps, no more effective deterrent to answering a questionnaire than its sheer size," although Cohen *et al.* (2000:262) dispute the notion of questionnaire length being a deterrent: "nor does the questionnaire necessarily have to be short in order to obtain a satisfactory response rate." Nonetheless, the length of the questionnaire was a consideration in its design. The questionnaire comprised two sections. The first used a list of 27 "cheating behaviours", and was based on an original list of behaviours compiled by Franklin-Stokes and Newstead (1995). The adoption or adaption of research tools that have been used in previous studies is not new; Macdonald (1997:344) supports the "replication of studies in different contexts" as being "good research".

In order to create a sense of order in questions containing lengthy lists, the cheating behaviours were grouped into three categories: those related to coursework, those related to examinations and those that were not specific to either coursework or examinations. The list was presented as a range of behaviours and the term *cheating* was not used so that there was no inference of moral judgement being made. Students were asked firstly to rate the frequency with which "students on a course like theirs" would use each behaviour, and secondly, in the next question, to self-report the frequency of their own use of the behaviours. The frequency ratings were *very common, quite common, rare* and *not known to happen*.

The remainder of Section 1 sought to identify reasons for students choosing either to cheat or not to cheat, and the final two questions asked students to rate *how commonly they believed students were investigated for behaviours such as those listed in questions 1 & 2,* and *how commonly they believed students were found guilty of behaviours such as those listed in questions 1 & 2.*

Demographic data on age and gender were obtained from Section 2. These questions were placed at the end of the questionnaire in order to maximise completion of the first questions. Section 2 also asked students to rate the importance of (i) their degree classification and (ii) the learning experience gained through university study. The importance of each was rated as *very, fairly, not very* or *not at all* important.

The student perspective on the questionnaire design was sought through a pilot study, described in the following section. A copy of the questionnaire is provided in Appendix 4.

The questionnaire pilot study

A pilot study of the draft questionnaire was undertaken with four third year students, each registered on a different course in one university, and none of whom was connected to the cohorts selected for the sample. The volunteer students were recruited through one student who was known to the researcher and who was one of the pilot study students. Students received their instructions and questionnaires by post; they were asked to complete all questions in Section 1 except for question 2, which would have required

respondents to self-report their own behaviours. They returned their completed questionnaires and written feedback by post and three of the four attended a group discussion where they made suggestions for change. Discussion took place on the completeness of the cheating behaviour list, the relevance of the behaviours, any areas missing, clarity and ambiguity of all questions. Participants were particularly asked their views on the terminology used to describe the frequency rating, which they found to be clear.

The students who participated in the pilot study foresaw no major problems in other students volunteering to participate, despite the potential sensitivity of the subject. As a result of feedback from the pilot study the questionnaire was slightly modified, largely by placing demographic data in Section 2 but also by adding one more cheating behaviour recommended by the students: *two or more students using SMS texting in an examination.*

In addition to the questionnaire being revised as a result of the pilot work, the draft research questions were refined and modified as the study progressed. Minkin (1997) in Dunleavy (2003:41) supports the development and modification of ideas that occur through exploratory action research: "being puzzled, being unsure, being mistaken, and changing tack through trial and error, seem to be both integral and conducive to creative research".

The sample

Kinnear (2004:1) states, "even a random sample is not necessarily representative" and Polgar and Thomas (1991:121) state that random sampling is infrequently used in qualitative research, it being more usual to select respondents who are more likely to provide the "required insights into the situation or issue under study". The principles supported by Polgar and Thomas were particularly relevant to this study and so a purposive sample of third year undergraduates was selected from one university in the north of England. Silverman (2001:250) cautions that purposive sampling does not provide a "simple approval to any case we happen to choose, rather, (it) demands ... that we think critically about the parameters of the population we are interested in and choose our sample case carefully on this basis".

The programmes were selected to represent health-related and non-health subjects, and the permission of programme managers was obtained prior to any contact with students. As it was considered unlikely that there would be

100% participation, cohorts were sought that would be large enough to allow for non-participation of some while at the same time enabling the study to remain viable. Students studying degrees for entry to health professions were drawn from two separate health profession programmes, nursing and physiotherapy, in order to provide as large a sample as possible. The non-healthcare students were drawn from psychology, which was a single, large, cohort.

Psychology students represented non-healthcare students for the purpose of comparison. The reasons for selecting psychology were pragmatic: the size of the cohort, a known academic link in that School and the availability of the students for administration of the questionnaire. It is acknowledged that students studying subjects such as engineering, english or history would have offered a more 'extreme' comparison with healthcare, since psychology graduates have a range of careers open to them, including clinical psychology, in which situation they would then be working as healthcare professionals themselves. The comparison of healthcare students with psychology therefore lay in the undergraduate distinction that the healthcare students were located in a School of Health and preparing for registration with healthcare regulatory bodies, while psychology students were not. The lack of significant difference between the two student groups in some of the questionnaire analyses shown in Chapter 4 may be attributable to the sample selection.

Third year students were selected because they had experienced at least two years of university study, assessments and observation of student behaviour; they would also be expected to have graduated before this research was completed or any papers resulting from the research published, which it was hoped would effect a higher level of participation.

The selected cohorts varied in size from 65 to 130; the total number of completed questionnaires was 159. Participants were not known to the researcher and it was judged likely that there would be little contact across the student groups, which were based on two separate university campuses.

Table 1: Distribution of respondents by programme

Health-related undergraduates		Psychology undergraduates
Physiotherapy	Nursing	
58	31	70

Whilst there is anecdotal evidence that the student population selected was largely representative of the population studying on those programmes, the results from this purposive sample should not be assumed to be generalisable to the wider student population.

The questionnaire administration

Questionnaires were distributed at the end of a scheduled teaching session with the permission of programme managers. For each of the three cohorts this was at the end of a lecture and at a time when the groups had no following commitments, thus providing an opportunity for the researcher to request volunteers, distribute questionnaires and collect them immediately following completion. Once lecturers had left, the questionnaires were administered by the researcher who presented information about the research, gave assurance of confidentiality and anonymity and was available for further information and for immediate collection of completed questionnaires. No incentive was offered and students were free to leave at any time. This resulted in response rates of 100% for physiotherapy, and approximately 50% each for nursing and psychology. The 100% return from physiotherapy may have been an empathetic response from the students who, whilst unknown to the researcher, were aware that they shared the same professional background.

The questionnaire analysis

It is held that abstract, rather than concrete, concepts are not only more difficult to define but are also more difficult to measure (Diamantopoulos, 1997). The questionnaire required participants to rate so called cheating behaviours by means of their perceived frequency. Data such as these in the form of ratings are acknowledged by statisticians to be a "grey area" in terms of their suitability for parametric testing, and social researchers have been known to treat some ordinal scales as if they were interval in order to make use of the more powerful metric measures of significance

(Diamantopoulos, 1997:30). The pragmatic versus the purist viewpoints are summarised by Diamontopoulos:

> If we use ordinal measures as if they were interval, we can err seriously in interpreting data and the relations inferred from data ... on the other hand, if we abide strictly by the rules, we cut off powerful modes of measurement and analysis and are left with tools inadequate to solve the problems we want to solve. (p.29-30).

In addition to the level of measurement, the nature of the topic was sensitive and, "where the information sought could be described as sensitive, there are arguments for using a lower, rather than a higher, level measurement." (Diamantopoulos:21). There continues to be debate over the re-interpretation of data in order to use parametric tests in statistical analysis of data (Kinnear, 2004). In the case of the ordinal data resulting from this research no assumptions of intervality could be justified and therefore nonparametric tests were applied, using Microsoft Windows Statistical Package for the Social Sciences (SPSS), version 11.5.

For the purpose of between-group comparisons, and in order to address the research questions, the three cohorts that comprised the sample were treated as two groups: health-related (n=89) comprising physiotherapy and nursing, and psychology (n=70). Before combining groups, comparisons were made of findings from the physiotherapy and nursing programmes and, as there were no statistically significant differences, they were treated as one group of health-related students. Details of this analysis are presented in Appendix 5.

3.4 The interviews

The interview style was influenced both by the interpretive paradigm with its emphasis on "seeking understanding of the meanings of human actions and experiences, and on generating accounts of their meaning from the viewpoints of those involved" (Fossey et al, 2002: 718), and by the intention to use the interview as an exploration of issues identified in the student questionnaire responses. DiCicco-Bloom and Crabtree (2006:315) describe the purpose of the qualitative interview as contributing to "a body of knowledge that is conceptual and theoretical and is based on the meanings that life experiences hold for the interviewee". That would imply that there are no wrong answers in interviews such as these, simply individual

perspectives. The strength of interview data are also dependent on the quality of methodological and interpretive rigour, as discussed in Section 4.5.

Figure 1: Factors influencing the choice of interview style

Advantages	**Type of interview**	**Advantages**
Informality;		Reliability;
Richness;	⇦ ⇨	Comparability of data;
Respondent choice in communication;		
Potential to discover unique interviewee views and ambiguities;		Researcher control;
	Less structured / **More structured**	
More natural interchange;		Economy of time;
Effect of interpersonal variables		

Adapted from Eysenck, 1998:690

Given the sensitivity of the topic the preferred style was informal and conversational. A structured interview schedule was not considered appropriate as it was important to engage participants as quickly as possible in relaxed conversation, and to retain the degree of flexibility necessary to expand responses where appropriate. Conversely, unstructured interviews can result in interviewees leading the direction of conversation and therefore could not be relied upon for comparison of responses. The semi-structured interview enables interviewees and interviewer to develop responses, is dependent for its success on the judgement and facilitation of the interviewer and "a sensitivity to the complex nature of interaction during the interview itself" (Denscombe, 1998:110) and was therefore identified as the most appropriate method of addressing many of the research questions. It was also important to retain as much consistency as possible in the questions in order to enable the identification of themes from responses. Semi-structured interview schedules were therefore devised: one for use with students and the other with academics.

The interview questions

When dealing with sensitive topics or socially unacceptable behaviours Cohen *et al.* (2000:256) suggest that "it is wise to expect greater bias and unreliability" and propose that the questions should always be viewed from the perspective of the interviewee rather than the interviewer in order to identify sensitivity or offence that would lead to biased responses. The interviewee perspective was obtained by seeking comments on the draft academic interview schedule from academics (n=2) not involved in the study and by conducting a pilot interview with a recent graduate who had provided feedback on the draft questionnaire. The academic pilot respondents were asked to identify any areas of ambiguity or lack of clarity in the interview schedule for academics and were invited to make suggestions for improvement. The purpose of the pilot interview with the recent graduate was to gauge the time taken and to enable identification of any lack of clarity or questions that may be seen as intrusive. There were no suggestions for substantive change.

The interview schedules were designed to:

i) verify the credibility of questionnaire findings;
ii) explore perceptions of, and attitudes towards, the role of assessment design in facilitating learning and in facilitating cheating;
iii) identify perceptions of the seriousness of individual cheating behaviours;
iv) explore interviewees' ideas for deterring cheating;
v) explore student attitudes to cheating;
vi) explore the extent to which academics investigate their suspicions of cheating;
vii) identify student knowledge and views of university policies on breaches of academic integrity.

The interview schedules are in Appendices 10 and 11 respectively. Some questions were common to both student and academic schedules, but others were not, reflecting the different research questions addressed through the separate interviews. During the course of each interview, students and academics were given a copy of the same list of cheating behaviours used in questionnaires, and asked to rate the seriousness of each by using a simple colour coding system whereby green represented *not really cheating,* yellow was *not as bad as other forms of cheating* and pink represented *worse than other forms of cheating*. During subsequent analysis of the results each colour was assigned a number from 0-2 to represent its perceived seriousness, with green scoring 0, yellow 1 and pink 2. This provided a numerical score for each behaviour, enabling them to be rated according to their perceived seriousness, and comparisons of differences to be made between academic and student scores. The results are presented in Chapter 5.

The interview sample

The sample comprised students and academic staff drawn from the same programmes as the questionnaire sample.

Student participants were volunteers from the questionnaire respondents. At the time of administration of the questionnaire students were asked to provide their e-mail and mobile phone details if they were willing to be interviewed at a later date. That contact information was provided on a

template that was not attached to the questionnaire and could not be traced back to it (Appendix 6). Twenty eight of the 159 student participants provided their contact details; the distribution is shown in Table 2.

Table 2: Distribution of original student volunteers for interview

Physiotherapy	Nursing	Psychology
18	3	7

Ideally, the number of interviewees would have been determined by findings from the early interviews, so that when it was identified that little new information was emerging, there would have been no further need to continue with more interviews, as information saturation, described by Fossey *et al.*, 2002, would have been reached. Contact was made with the volunteers shortly after they had completed third year assessments, that period being selected due to student availability for interview. In the end, following contact from the researcher, 10 of the original 28 students were willing or available to be interviewed. All 10 volunteers formed the student sample for interview.

Distribution of interviewees by programme is presented in Table 3. All student interviewees were female.

Table 3: Distribution of student interviewees by programme

Physiotherapy	Nursing	Psychology
8	1	1

Academic interviewees were drawn from the same programmes as the student respondents. Following an email invitation distributed to the three programme teams, twelve academics from a possible 31 volunteered to be interviewed. The sensitivity of the subject may have influenced other academics not to participate (interviews subsequently confirmed that several academics were aware that they did not pursue suspicions of cheating in student assessments because of time constraints). The distribution by programme and gender is displayed in Table 4.

Table 4: Distribution of academic interviewees by gender and programme

Gender	Physiotherapy	Nursing	Psychology
Male	1	1	1
Female	2	7	0

The interview: considerations

"Interviews are actually something more than just a conversation. Interviews involve a set of assumptions and understandings about the situation which are not normally associated with a casual conversation." (Denscombe, 1998:109).

The assumptions to which Denscombe refers involve consent, trust, interpretation of responses, and control of the interview agenda, none of which are likely to have the same relevance in a "casual conversation". Whilst there are significant differences between conversation and research interviews, it was nonetheless important that interviewees felt as far as possible that they were in fact engaged in conversation with the interviewer. The sensitivity of the subject matter could have inhibited responses from, in particular, students, due to the perceived power imbalance and their lack of familiarity with the interviewer, although that very unfamiliarity could also have acted in favour of them providing uninhibited responses, since the interviewer was not known to them and had assured confidentiality and anonymity. One means of minimising potential student apprehension over the subject sensitivity would have been to provide advance copies of the interview schedule for participants. This was considered but was not done for the following reasons:

- Ensuring that the views expressed were those of the interviewees rather than those of the interviewer was one factor in maximising validity (Polgar and Thomas, 1991). Prior distribution may have encouraged respondents within a cohort to discuss the questions and thus to bias the independence of their responses by demonstrating attitudes that they perceived to be more socially acceptable, as discussed by Denscombe (1998) and supported by social norms theories (Gaudelli, 2001; Lapinski & Rimal, 2005). At the end of each interview participants were asked not to discuss the interview questions with their peers until after a time

identified by the researcher as the anticipated conclusion of all interviews.

- It was important that interviewees had confidence in the interviewer to protect their confidentiality and anonymity: that confidence was important not only to facilitate natural responses but to assure respondents that their participation would not be disclosed. Neither students nor academics were identified to others by the researcher but, as they were drawn from discrete programme teams and some academics from shared offices, it was possible that advance receipt of an interview schedule may have resulted in office discussion and identification of the volunteers.

Consideration was given to the use of group rather than individual interviews; this would have resulted in one interview of students and another of academics. The group interview option offered the advantages of saving a considerable amount of time in interviewing, transcribing and analysing two instead of twenty two interviews as well as of generating group discussion. The time saved by conducting group interviews would have been substantial, but the potential for a group interview to restrict individual comment and to bias responses was a serious consideration, particularly given the sensitivity of the subject. Lewis (1992) in Cohen *et al.* (2000) recognised the advantages and disadvantages of group interviews and further identified the difficulties involved in coding the resulting narrative. The advantages of group interviews were therefore outweighed by the disadvantages, and it was decided that individual interviews would enable the research questions to be addressed more effectively.

The aim was to "rapidly develop a positive relationship" and to "get the interviewee talking" (DiCicco-Bloom and Crabtree, 2006:317). The introductory question therefore was designed to be non-personal and factual in both student and academic interview schedules, and participants were informed at the outset that no questions of a personal nature would be asked. Oppenheim (1992:67) recommends that

> "depth interviewers must listen with the third ear ... note not only what is being said but also what is being omitted; must pick up gaps and hesitations and explore what lies behind them; and must create

an atmosphere which is sufficiently uncritical for the respondent to come out with seemingly irrational ideas, hatreds or misconceptions."

The required concentration described by Oppenheim is difficult to maintain if the interviewer is simultaneously taking notes, and if the interviewer is not taking notes there is the potential for the presence of a note-taker or a tape recorder to inhibit participants' responses (Cohen *et al.*, 2000). The decision to audio-tape interviews, with participants' permission, was taken in order to:

- enable greater interaction between the researcher and interviewees;
- increase reliability and validity through recording full responses rather than attempting to take freehand notes;
- remove the effect of another researcher being present as a recorder of the conversations;
- provide full verbatim transcripts of the interviews for later analysis, as recommended by Seale (1991), rather than a summarised version that would be liable to interviewer bias during both the note taking and during the interpretation of the notes at a later date.

There is no reliable means of assessing the extent to which a tape recorder might have affected responses, but one interviewee indicated in unsolicited comments at the end of the interview that although she had been made aware of the tape recorder at the outset she had immediately forgotten about it.

The interview: method and controls

Due to the planned timing, all students had completed their studies and had no university contact with the rest of their year groups; neither was there any known contact across the three programmes. It is therefore assumed that at least the majority of student participants were unaware of the other students in their peer group who had volunteered to be interviewed. As discussed earlier in this chapter interview questions were not sent to participants in advance of interviews. All students therefore entered the interview with the same degree of information, there having been no opportunity for 'contamination' of views or the influence of others through social discussion of the interview questions.

All interviews were held during extended working hours in an academic office assigned for the purpose of the interviews. The room, furniture and tape recorder were prepared prior to the start of each interview. Each interview

was recorded on a separate audio-tape and each tape was checked along with the tape-recorder prior to each interview. External interruptions were discouraged by means of a sign on the door. Prior to starting the interview a standardised information sheet was read to each interviewee assuring confidentiality and anonymity, seeking permission to tape record the interview and detailing arrangements for the protection and disposal of tapes in accordance with the Data Protection Act (1998) (Appendix 3). Student participants were also informed that the research would not be completed until an estimated two years after their own graduation, further minimising any risk of them being identified. All participants agreed to their interview being tape recorded. No incentive other than travel expenses was offered to participants.

Transcription

One interview from each of the two groups, student and academic, was transcribed by the researcher. The remaining twenty were transcribed by an assistant. Whilst it has been claimed that transcriptions can be verified by checking random sections of each interview (Kirk & Miller, 1986), that stance remains debatable: how large a random section, how many random sections and how good do those random sections need to be to offer confidence in the accuracy of the transcription? In order to maximise reliability all transcriptions in this study were checked in their entirety by the researcher against the audio-tapes; all were found to need some degree of amendment to correct inaccuracies and to ensure the inclusion of paralanguage. The few inaccuracies identified appeared to be due to the speed and pitch of speech as well as the accent of respondents, and in the transcripts of three academic interviews the inaccuracies would have led to the reporting of responses opposite to that intended. Silverman (2002:230) emphasises the importance of the accuracy of transcription, and the inclusion of paralanguage, in increasing the reliability: "the reliability of the interpretation of transcripts may be gravely weakened by a failure to transcribe apparently trivial, but often crucial, pauses and overlaps." Eysenck (1998:220) describes the prosodic cues that demonstrate the difference in meaning that can be gained from the spoken rather than the written word: "speakers sometimes provide useful cues to syntactic structure based on variations in their pitch, intonation, stress and timing."

The process of checking and correcting transcriptions in this way was multipurpose, serving to increase reliability as well as simultaneously enabling preliminary analysis of the content. Seale (1999) describes the increased reliability offered by accurate transcription in conversation analysis when compared to what he refers to as a tidied up version that can lead to ambiguity or alternative interpretations. Within the limitations of this research it was not the intention to record the time intervals as fractions of seconds between or within responses as would be found in true conversation analysis; the aim was to provide an accurate written record of each interview, but to note interviewee pauses as an indication of hesitation or reflection, as in Eysenck's prosodic cues.

Each interview transcript was given a coded identifier, to which only the researcher had access, in order to protect the anonymity of interviewees.

The interview analysis

In 1967 Glaser & Strauss described the two methods of analysing qualitative data as (i) *coding and analysis,* in order to test a hypothesis or (ii) *examination of the data,* in order to generate new theory. They proposed at that time a third approach to analysing qualitative data that would combine the most useful elements of both (i) and (ii), and called it *the constant comparative method:* using "the explicit coding procedure of the first approach and the style of theory development of the second" (Glaser & Strauss, 1967:102). Rose (1982, in Seale, 1999:89) claims that "the process of developing concepts and indicators is the core of the analysis of qualitative data." Glaser & Strauss (1967:103) advise that, in constant comparative analysis the data are coded "only enough to generate, hence to suggest, theory" and that their method "is concerned with many hypotheses synthesised at different levels of generality". This study was not concerned with the testing of hypotheses and, in analysing interview transcripts, Glaser and Strauss' constant comparative method was adopted, as it is "designed to allow, with discipline, for some of the vagueness and flexibility that aid the creative generation of theory" (1967:103).

Initially domain analysis was undertaken, a domain being "any symbolic category that contains other categories" (Spradley, 1978 In Cohen *et al.*, 2000:149) a similar process to the categorization described by Lincoln and Guba (1985). This involved identifying broad themes and patterns in the

transcripts, some of which contained sub sets of categorisation. The difference between content analysis and the constant comparative method is that during the coding process emerging categories identified from interviewee statements were compared with previous categories in the same domain, which facilitated confirmation of themes as they were identified.

Interview transcriptions were also searched for examples that would not only verify findings from questionnaires, but also for deviant case examples that did not necessarily fit the emerging categories, as described by Silverman (2001). Dingwall (1992) in Silverman described the use of the comparative method of analysis alongside the identification of deviant cases in order to demonstrate validity through presenting raw data for the readers' own interpretation.

Verification

There are arguments for and against the confirmation by participants of interview transcriptions. Bloor suggests that respondent validation provides "another source of data and insight" (1986:43). Lincoln and Guba (1985:314) recommend member validation as a means of "establishing credibility" and Seale (1999) proposes that the strongest means of achieving this is through member validation of the final research report, rather than through the weaker means of seeking comments on the accuracy of interview transcriptions. In the case of discourse analysis, Yardley (1997, in Seale, 1999) argues that respondents are unlikely to agree with, or understand, any deconstruction of their views, where the researcher is likely to be perceived as more expert than the respondents. It has also been argued that conversation analysis is self-validating due to its accurate portrayal of respondents' reasoning, supported by the presentation of complete interview transcripts that enable researcher interpretation to be verified (Seale, 1999). In this research it was considered that the time that elapsed between interviews and the transcription and analysis would have decreased the benefits of respondent validation due to the difficulty of respondents recalling their responses. Seale's self-validation method through the retention of complete interview transcripts was therefore adopted.

3.5 Research controls, validity, reliability and minimisation of bias

It is impossible to remove completely threats to reliability and validity, but in order for research outcomes to be meaningful and credible it is important to

minimise the threats as far as possible (Cohen *et al.*, 2000; Carmines & Zeller, 1979). Kirk and Miller (1986:20) state that "Reliability is the degree to which the finding is independent of accidental circumstances of the research, and validity is the degree to which the finding is interpreted in a correct way." Carmines & Zeller (1979) emphasise that validity is "a matter of degree, not an all-or-none property." The aim of this section is to demonstrate that appropriate consideration was given to maximising reliability and validity where it was appropriate to do so.

Validity considerations

In this mixed methods study, in order to demonstrate internal validity in the questionnaire it had to be constructed in such a way that the resulting data made sense in the context of the research questions. Descriptions such as authenticity, cogency, credibility and confirmability are amongst the concepts applicable when confirming internal validity. Authenticity was strengthened through the pilot study, the sample size and the selective nature of the purposive sample. Cogency was addressed through the use of Franklin-Stokes and Newstead's list of cheating behaviours, further strengthened by the pilot work, and interviews were used to confirm the credibility of the questionnaire findings.

The construct validity of an empirical measurement can usually be assessed if the measure can be placed in a theoretical context. Kerlinger (1986) associates construct validity with the testing of alternative hypotheses normally associated with quantitative approaches, while Carmines and Zeller (1979:23) describe the process of construct validation as "by necessity, theory-laden" but add that it would be wrong to believe "that only formal, fully developed theories are relevant to construct validation". This study was not concerned with hypothesis testing but with generating theory; as such the theoretical context was grounded in human behaviour and included the concept of cheating and behavioural theories such as attributional bias, social identity and motivation. Strengthening the construct validity of this study was addressed through the wide-ranging literature review that examined the concept of cheating from several viewpoints. The aim of generating theory from this study while at the same time being open to existing theories confirmed through the literature review seemed consistent with Carmines and Zeller's flexible attitude to the relevance of construct validation to emerging theory.

Whether or not content validity can be demonstrated in the social sciences is the subject of debate, as it is dependent on the measurement of abstract concepts (Carmines & Zeller, 1979). There are those who categorically reject the concept of content validity due to the difficulty of demonstrating rigour in its assessment. Where there are no agreed criteria for assessing the content validity of an instrument then "content validity rests mainly on appeals to reason regarding the adequacy with which important content has been sampled and on the adequacy with which the content has been cast in the form of test items" (Nunnally, 1978 in Carmines & Zeller, 1979:22). Consideration of the content validity of the questionnaire and the interview schedule focused on the extent to which they addressed the research questions on which they were based.

External validity, or universal generalisability, is not claimed for the results of this study. There are however several plausible generalisations that can be made and which are discussed in Chapters 4, 5 and 6 following the analysis of questionnaires and interviews. Lincoln and Guba (1985) propose that generalisability in qualitative research should be interpreted as comparability and transferability, advising naturalistic researchers not to try to shape findings from qualitative studies into quantitative results. Instead they propose that it is the readers of the research who should decide the degree to which transferability is appropriate, and this can only happen if the researcher provides data that are sufficiently descriptive. Chapter 5 provides analysis of the rich data that resulted from interviews with students and academics.

Validity and reliability in interviews

> When we talk about the world we live in, we engage in the activity of giving it a particular character. Inevitably, we assign features and phenomena to it and make it out to work in a particular way. When we talk with someone else about the world, we take into account who the other is, what that other person could be presumed to know, 'where' that other is in relation to ourself in the world we talk about. (Baker, 1982 in Silverman, 2001:86)

Baker's perspective implies either reflective practice or subconscious activity in everyday conversation, either or both occurring in varying degrees dependent on the context and the individual. What Baker is describing is

particularly relevant to the interpretation of interview materials: an individual's perspective is quite simply that, being their interpretation of the world as they see it. In addition to the perspective of the interviewee, the interviewer will inevitably bring to the interview and its analysis his or her own perspectives and values.

There is another perspective of validity that should be considered in qualitative research, and that is that "positivist notions of validity in qualitative research should be replaced with the notion of authenticity" (Maxwell, 1992 in Cohen *et al.*, 2000;106) and that "understanding is a more suitable term than validity."
Cohen *et al.* (2000:121) suggest that the minimisation of bias is "the most practical way of achieving greater validity in interviewing." In order to maximise validity of the interview data it was therefore necessary to consider the following:

- the researcher's own values;
- the values of interviewees;
- the effect of the researcher on the interviewees and their responses;
- the assumption of truth in responses;
- the benefits of triangulation of data;
- the merits of respondent validation;

All of these factors are discussed in this Chapter except the question of truth in the context of self-reporting, which is discussed in Chapter 6.

Minimisation of bias

The use of self-reporting was an important aspect of this research in both questionnaires and interviews but it is acknowledged that self-reporting is open to potential bias. The issue of volunteer bias (Cohen *et al.*, 2000) is one of unknown and unpredictable effect. The effect that the responses of those who chose not to participate would have had on the overall findings, had they participated, was minimised as far as possible by trying to enhance response rates through personal administration of questionnaires with supporting information provided. A majority of interviewees were judged to be, or stated in unsolicited comment that they were, over 25; all were female. There can be no assumption that attitudes of non-interviewees would be similar to those who were interviewed; equally, no transferable

assumptions can be made on the basis of findings from the self-selecting sample of interviewees.

It might be postulated that those students who volunteered to be interviewed did so because they had little to hide, or alternatively that some volunteered out of a sense of bravado. Certainly, responses from several, but not all, indicated their anger with those students who were known to cheat. Other studies have shown an inverse association between age and self-reports and a larger percentage of male students than female self-reporting cheating. This study had unequal numbers of male (n=35) and female students (n=124) and no inferences can be drawn from the gender or age group of the students who volunteered to be interviewed.

The truthfulness of responses will affect the validity of any research. As with non-response bias, it is a factor that, once full information has been presented to respondents, is outside the influence of the researcher. The concept of truth and its relevance in the interpretation of self-reports is discussed in Chapter 6.

Interviewer effect

Researcher bias was considered, particularly in the wording and placing of the questions, and in the analysis of responses. The pilot study aimed to identify bias, ambiguity or lack of clarity. It is possible that there may have been a 'researcher effect' on the student participants in the pilot due to a perceived difference in status between the student participants and the researcher, and if so their largely positive responses could have been influenced by social desirability and a desire to please the researcher, consistent with Eysenck's response acquiescence (2000), as discussed in Chapter 6. If that was the case then the planned benefits of the pilot study would have been lessened.

Denscombe (1998:208) describes qualitative data as "the product of a process of interpretation ..... the data do not exist out there waiting to be discovered, as would be the case if a positivist approach were adopted, but are *produced* by the way they are interpreted and used by researchers." It is never possible to eliminate completely the effect of the researcher on the research process, as Denscombe goes on to describe: "the researcher's self plays a significant role in the production and interpretation of qualitative data

... the researcher's identity, values and beliefs cannot be entirely eliminated from the process." It was important in this research to demonstrate a non-judgmental attitude in all interactions with volunteer students and academics, and to be objective in the analysis of transcripts. Polgar and Thomas (1991) discuss the need to reflect the views of the interviewee rather than those of the interviewer and therefore the necessity for sensitivity, objectivity and the application of good inter-personal skills in order to maximise validity. Every effort was made to achieve this. It is nonetheless recognised that it is never possible to completely extract from the analysis a researcher's inherent predispositions and prejudices and that the researcher's 'self' will inevitably have affected both the process and analysis of this research. Hammersley discusses the "procedural and personal reactivity" that can lead to significant error in observations and interactions. He continues:

> it is not whether the research process or the characteristics of the researcher have affected the behaviour that was observed, but rather whether they have affected it in respects that are relevant to the claims made (and to a significant degree). Often, reactive effects may be judged likely to have occurred, but unlikely to have had a significant effect on the validity of the findings. (Hammersley, 1998:86)

In order to minimise the effects of researcher bias in the analysis of interview transcripts, reliability checks were carried out by an independent assistant, acting as a critical friend, on the coding of answers to open-ended questions, as recommended by Silverman (2001). The categories identified by the researcher were independently confirmed and no changes were necessary.

Reliability

> The amount of chance error may be large or small, but it is universally present to some extent. Two sets of measurements of the same features of the same individuals will never exactly duplicate each other. (Stanley, 1971:356)

Stanley's point is that unreliability can not be totally eliminated, but although repeated measurements of the same item or aspect may not be identical there should be consistency between measurements, and it is the consistency in repeated measurements that implies reliability. In the same way that unreliability is always present, random error, inversely related to the degree of reliability of the measuring tool, can not be totally eliminated.

In order to minimise random error, the pilot study for the questionnaire, discussed earlier in this chapter, examined the wording of questions and instructions in order to minimise any ambiguity.

Cronbach (1971:447) states that "one validates, not a test, but an interpretation of data arising from a specified procedure". Cronbach's alpha test of internal consistency was performed on the cheating scale for perceptions and self-reports and demonstrated high inter-item consistency ($\alpha > 0.9$).

3.6 Critical appraisal of methodology and methods

The mixed methods

Whilst it has been argued that there is a measurable reliability in statistical testing, (although arguably only when tests are applied correctly and conclusions drawn appropriately) there is much of value that can be added to a numerical story through non-statistical interventions. As Fielding and Fielding state:

> The most advanced survey procedures themselves only manipulate data that had to be gained at some point by asking people ... ultimately all methods of data collection are analysed 'qualitatively' in so far as the act of analysis is an interpretation, and therefore of necessity a selective rendering. (Fielding and Fielding, 1986, in Silverman:29)

Merton and Kendall state that:

> Social scientists have come to abandon the spurious choice between qualitative and quantitative data: they are concerned rather with that combination of both which makes use of the most valuable features of each. The problem becomes one of determining at which points they should adopt the one, and at which the other, approach.
> (Merton and Kendall, 1946, in Cohen *et al.,* 2000:40)

The use of both questionnaires and interviews provided opportunities not only to use "the most valuable features of each" but to triangulate the findings by using the interviews to validate findings from the questionnaires.

Not all researchers agree on the benefits of triangulation of data. Silverman (2001) proposes that it is inappropriate in qualitative research, arguing that

the aggregation of different types of data arising from different methodologies does not result in the identification of "an overall truth" (2001:235). He does concede that as long as the researcher does not "ignore the context-bound and skilful character of social interaction" then triangulation may have some worth as long as it is not assumed to depict a "true state of affairs" (2001:247) by simply focusing on areas of intersection of the data. Cohen *et al.* (2000:112) describe the potential benefits of triangulation in social science research in order to better explain the "richness and complexity of human behaviour by studying it from more than one standpoint and, in so doing, by making use of both quantitative and qualitative data." They go on to state that "multiple methods are suitable where a controversial aspect of education needs to be evaluated more fully" (p.115), and suggest that reliance on a single method of research may result in bias or distortion of the researcher's interpretation.

Denscombe (1998:3-4) acknowledges the limitations and the benefits of triangulation, suggesting that a multi method approach can offer "differing but mutually supporting ways of collecting data." Seale neither supports nor dismisses triangulation, but suggests that "it is not the case that triangulation must always lead to convergence and confirmation" but that "as part of a fallibalistic, reality-testing approach to research, it can lead to new theories" (1999:58).

In this research the sensitivity of the research topic was a key consideration in determining the need for more than one method of investigation, the intention being, not to reach one overall truth, but to add to existing knowledge by exploring participants' perspectives. The use of triangulation was therefore intended to "reduce bias and to better explain" as supported by Cohen *et al.* (2000:112) as well as to be open to Seale's notion of emerging theories. Kirk and Miller (1986:10) state: "By our pragmatic view, qualitative research does imply a commitment to field activities. It does not imply a commitment to innumeracy."

The questionnaire design

In the early stages of designing the questionnaire, consideration was given to adding definitions to the frequency ratings of questions 1 and 2: the lists of 27 cheating behaviours. When the questionnaire was discussed in the pilot study, students indicated a strong preference for no further explanations to

be added, and found the scale choices to be self-explanatory. On reflection, it is possible that the pilot feedback was influenced by a desire to please the researcher and, while there is no evidence of the rating scale not being clear and reliable, the reliability could have been strengthened by the addition of definitions of the frequency ratings, and any questionnaires designed to follow on from this study would do so.

Questions 3 and 4 asked respondents to identify as either major or minor a range of potential reasons for students choosing, firstly, to cheat and secondly, not to cheat. In fact, the analysis of those two questions focused on the reasons identified as major, and future research on this subject would adopt a simpler scale in order to identify reasons without rating them.

The questions considered by the researcher to be the most important were the ratings of cheating behaviours. In case students needed to leave before they reached the end of the questionnaire, the 'cheating behaviour' lists were placed at the beginning of the questionnaire, numbered 1 and 2, with demographic questions coming at the end. No time limit was placed on completion and ultimately there were no incomplete returns.

The interviews

Fossey et al. (2002:719) state that qualitative research "aims to give privilege to the perspectives of research participants and to illuminate the subjective meaning, actions and context of those being researched."

When questionnaires were administered at the beginning of the academic year 28 students volunteered to be interviewed. Eight months later, towards the end of the same academic period, only 10 of the original 28 students responded to invitations to interview. This time delay was deliberate in order to enable initial analysis of questionnaires to take place and because of student placement commitments and assessments throughout the year that would have limited their availability for interviews.

Several factors could have influenced the decrease in volunteers from the original 28 to the final 10. It seemed that many students had not checked university e-mail accounts following completion of final assessments; others may have changed mobile telephone numbers, been on holiday or secured early employment. In addition, once the influence of the researcher's

presence at the time of the questionnaire administration was removed some students could have changed their minds about being interviewed. This may also have been due to peer influence and group norms whereby discussion with other students influenced volunteers' willingness to participate.

It is possible that in the eight month period between the questionnaire administration and the interviews student attitudes to cheating may have changed. Such potential changes in perspective can be due to a range of factors such as the stress of the final year of degree studies or any number of personal and life factors. This was an unavoidable variable that is acknowledged as being incalculable.

The interview schedules for students and academics were used to ensure the consistency of questions across interviews, but the deliberate, semi-structured style of the interviews resulted in the direction of responses and resulting conversations being more variable. This was not unexpected. Denscombe (1998) confirms the likelihood of gaining non-standard responses in interview, and Eysenck (1998:693) states that "in all but the completely structured interview ... at least some questions must be created on the spot as part of normal conversation". Extracts of responses can provide supporting evidence of emerging themes but no claims are made that they prove any points, nor are any claims of universal generalisability made, but the richness of the information gained in this way added to the emerging story of student and academic attitudes.

Summary of chapter

This chapter has discussed the considerations that influenced the design and implementation of the research and has included a critique of the methods.

The next chapter presents the key findings from the analysis of data resulting from the questionnaires.

CHAPTER 4

ANALYSIS PART 1: THE QUESTIONNAIRES

This chapter presents the results of data analysis arising from the questionnaire to students, which sought to identify:

i) the likely extent, and characteristics, of student cheating
ii) differences in perceptions and self-reported behaviour between and within student groups
iii) the influence of factors such as student group and attitudes to learning on self-reports of cheating
iv) major reasons for cheating and not cheating
v) student awareness of university investigations of cheating

Some data arising from student interviews have also been included where, for example, student interview comments confirm questionnaire findings.

4.1 Demographic information

One hundred and fifty nine completed questionnaires were returned, an estimated 66% of the total number of students in the sample. The response rate comprised 100% from physiotherapy (n=58) and an estimated 50% from each of the other two groups, nursing and psychology (n=31 and n=70 respectively). Twenty two percent (n=35) were male and seventy eight percent (n=124) female. Appendix 4 contains a copy of the questionnaire.

The age range of respondents was 19 to 68, with 60% being in the range 20-21.

Male students had a higher mean age, at 26.1, compared to the mean age for females at 23.1. This difference in mean age was to be expected, as more than 50% of the sample comprised students studying for degrees in healthcare professions where male students, although typically fewer in number than females, are more likely to be aged over 21. The ratios of male:female students across healthcare and psychology were very similar at 1:3.5 and 1:3.6 respectively. Psychology students demonstrated the greatest spread of age, from 20 to 68 years.

As detailed in Chapter 3, for the purposes of comparison two student groups were formed from the sample, group 1 being healthcare students comprising physiotherapy and nursing (n= 89) and group two being psychology students (n = 70).

4.2 Method of analysis

Denscombe (1998:178) emphasises that "small-scale research with limited resources" need not "go beyond the use of ... descriptive statistics". This study used within-group comparisons of responses to identify differences between student perceptions of the frequency of cheating and the extent to which students self-reported using the same behaviours; in addition, between-group comparisons were used to identify differences between the student groups.

Questionnaire data were coded, entered into SPSS and checked for errors. As discussed in Chapter 3, nonparametric tests were selected for the largely ordinal data. The cheating scale for perceptions and self-reports was found to have high inter-item consistency (Cronbach's $\alpha > 0.9$). Data were analysed listwise in SPSS so that missing values were ignored.

4.3 Findings

The following section reports the results of statistical analysis designed to answer the research questions i – v.

Perceptions

More than 90% of students thought that *students on a course like theirs* engaged in behaviours such as *not contributing a fair share to group work, signing as present a fellow student on a course where obligatory attendance is required* and *paraphrasing material from another source without acknowledging the original author,* with over seventy percent rating those behaviours as either very or quite common.

Self-reports

Six behaviours were self-reported as being either *very* or *quite* commonly used by more than 20% of students, as shown in Table 5. However, when all self-reporting was taken into account (that is, the frequency rating included *very commonly, quite commonly* and *rare*) the percentages were notably higher, as follows, and highlighted in Table 5:
paraphrasing without acknowledgement (68.6%),
signing as present a fellow student on a course where obligatory attendance is required (60.4%)
copying material without acknowledging the source (59.7%).

Appendix 7 presents example analyses of differences between perceptions and self-reports of cheating behaviours.

The behaviours self-reported as being most frequent were those related to coursework. The behaviours with the lowest levels of self-reporting included cheating related to examinations or to behaviours that would be seen as unethical or immoral such as lying, bribery or seduction. In interviews, students rated the seriousness of the same cheating behaviours. Comparison of the seriousness with the self-reports revealed an inverse relationship between the two, with the behaviours rated as most seriousness (for example, cheating in examinations) being self-reported as very infrequent or not at all. This is consistent with the findings of Franklin-Stokes and Newstead (1995) whose results revealed similar student perceptions of seriousness, higher self-reported cheating in coursework than in examinations and an inverse relationship between seriousness and self-reporting.

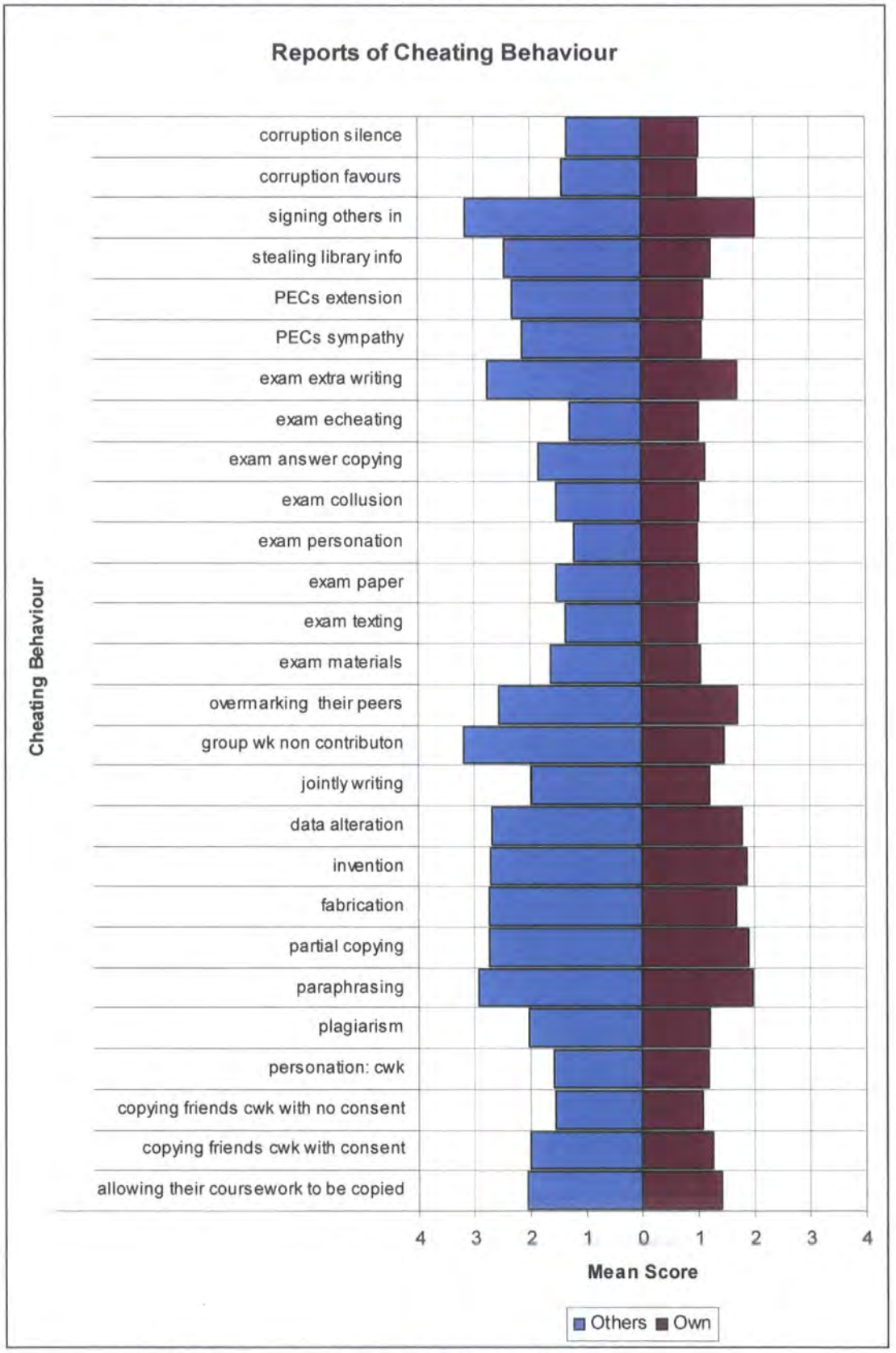
Table 5: Self-reports of cheating behaviours

Cheating behaviour	% self-reporting behaviour as very common or quite common	% self-reporting any usage
Signing as present a fellow student on a course where obligatory attendance is required	30.2	60.4
Inventing data (e.g. entering non-existent results for a project)	26.3	49.6
Copying material for coursework from a book or other publication without acknowledging the source	24.5	59.7
Paraphrasing material from another source without acknowledging the original author	23.9	68.6
Altering data (e.g. adjusting data to obtain a significant result)	23.2	49
In a situation where students mark each other's work, coming to an agreement with another student or students to mark each other's work more generously than it merits	20.8	46
Fabricating references or a bibliography	18.2	45.2
Continuing to write in an examination after the invigilator has asked candidates to stop writing	17.6	48.4
Not contributing a fair share to group work	8.8	35.8
Allowing own assessed coursework to be copied by another student	8.8	33.3
Reducing the availability of books or journals in the library by deliberately mis-shelving them so that other students can not find them, or by cutting out the relevant chapter or article.	6.3	17
Copying another student's assessed coursework with their knowledge	5.7	21.4
Submitting a piece of coursework as an individual piece of work when it has actually been written jointly with another student or students	3.7	17.5
Submitting as their own a piece of work derived from another source (essay bank; former students; other)	3.7	17.5
Copying from a neighbour during an examination without them realising	2.5	11.3
Doing another student's coursework for them	2.5	15.1
Lying about medical or other circumstances to get an extended deadline or exemption from a piece of work	1.9	6.9
Keeping silent about a tutor's misbehaviour or misuse of his/her position in order to get approval in a test or to gain a higher mark	1.3	1.9
Lying about medical or other circumstances to get special consideration by examiners (e.g. extra time to complete examination; sympathetic consideration of extenuating circumstances)	1.2	6.2
Taking unauthorised material into an examination	0	5.7
Copying another student's coursework without their knowledge	0	6.9
Illicitly gaining advance information about the contents of an examination paper	0	2.5
Taking an examination for someone else or having someone else take an examination for them	0	0.6
Premeditated collusion between two or more students to communicate answers to each other during an examination	0	3.8
Attempting to obtain special consideration by offering or receiving favours, for example bribery, seduction, corruption	0	0.6
Using SMS mobile phone texting in an examination	0	1.3
Extracting electronic information from pocket pc or similar devices during formal examinations	0	1.9

Differences between perceptions and self-reports of cheating

For all cheating behaviours, student perceptions of cheating in *students like them* were notably higher than their self-reports, as shown in Figure 2.

Figure 2: Perceptions and self-reports of cheating behaviour

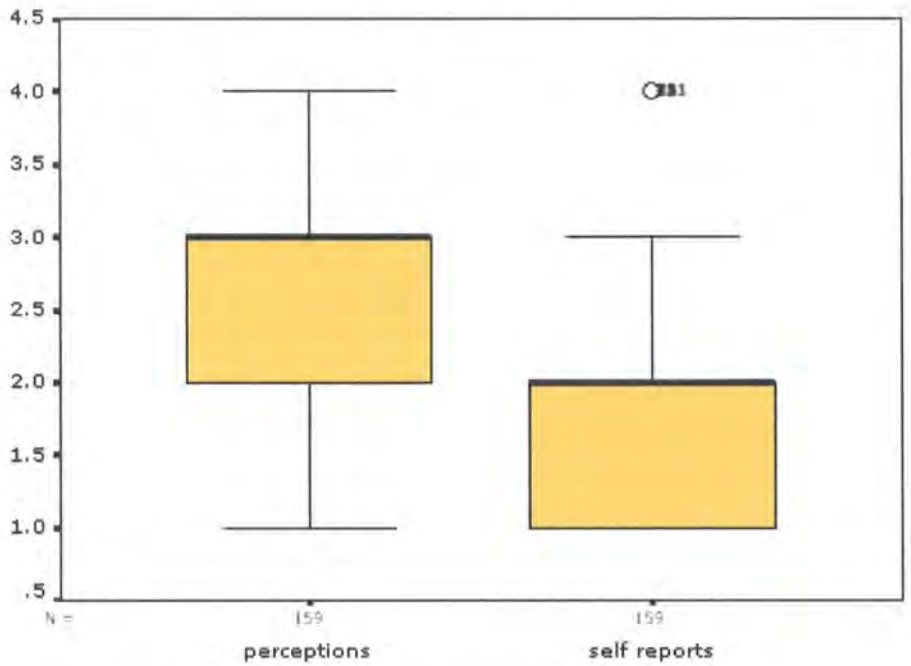


4: very common; 3: quite common; 2: rare; 1: not known to happen

A Wilcoxon related samples signed ranks test identified differences between student perceptions of other students cheating and their self-reports of the same cheating behaviours. The differences were significant beyond the 0.005 level for all 27 cheating behaviours, with the perceived frequency of cheating being greater than that self-reported. The following results for *copying without acknowledging the original author* and *paraphrasing without acknowledging the original author* are examples of behaviours self-reported as *very* or *quite common* behaviour by more than 20% of students. A sample of the results for other behaviours is displayed in Appendix 7.

Figure 3: Copying material for coursework from a book or other publication without acknowledging the source: student perceptions v self-reports

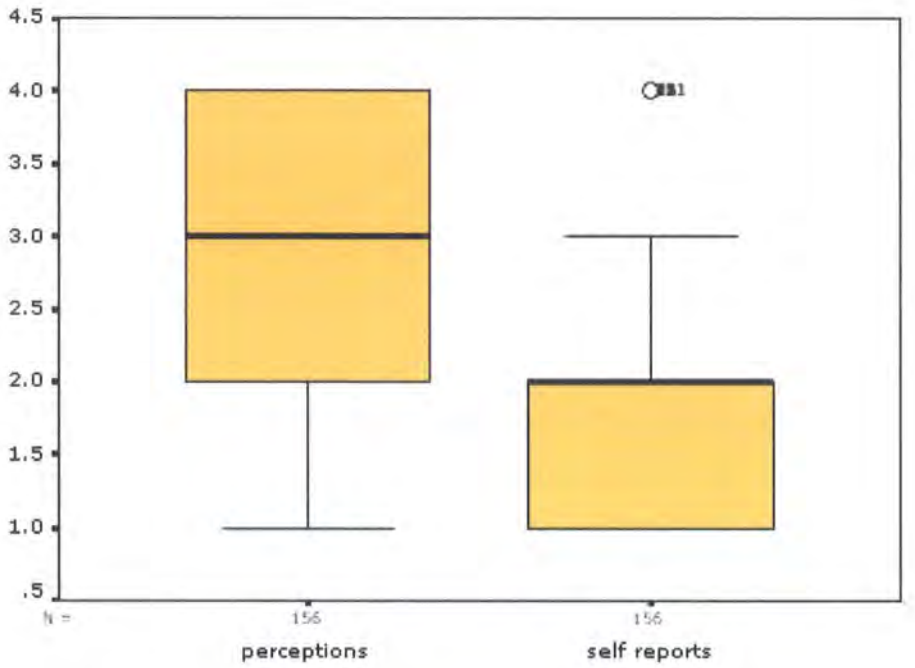
Copying material for coursework from a book or other publication without acknowledging the source: $z = -8.392$, $p < 0.005$. The mean of the ranks in favour of perceptions was 55.17, while the mean of the ranks in favour of self-reports was 33.0 The distributions for the perception of cheating and self-reports are shown in Figure 3.



Copying without acknowledging the source

Figure 4: Paraphrasing material from another source without acknowledging the original author: student perceptions v self-reports

Paraphrasing material from another source without acknowledging the original author: $z = -8.717$, $p < 0.005$. The mean of the ranks in favour of perceptions was 53.34, while the mean of the ranks in favour of self-reports was 31.50. The distributions for the perception of cheating and self-reports are shown in Figure 4 where the difference in median score of perceptions and self-reports is clear.



Paraphrasing without acknowledging original author

It is likely that factors related to peer descriptive norms and attributional bias contributed to the differences demonstrated in Figures 3 and 4 (Hunter et al, 2000; Satterwhite, 2000). This theme is developed in Chapters 2 and 6: The Literature Review and Discussion of Results. Not all studies have demonstrated the same difference for example, Franklin-Stokes and Newstead (1995) found that their sample reported perceptions of high levels of cheating that were matched by similarly high self-reports of cheating. This difference and possible reasons for it have been discussed in Chapter 2.

Association between perceptions and self-reports

There was a strong positive correlation between student perceptions of cheating and their self-reports for 18 of the 27 cheating behaviours. The association was especially marked in coursework, with 11 out of 13 coursework behaviours showing a correlation with significance beyond the

0.005 level, for example in data alteration where the correlation coefficient was 0.592, $p < 0.005$ (Spearman's rho). This positive correlation is consistent with the findings of Hard *et al.* (2006) and McCabe *et al.* (2001) as well as with theories of peer descriptive norms, and is discussed further in Chapter 6. The exceptions in coursework that showed no correlation were *doing another student's coursework for them* and *not contributing a fair share to groupwork*. For examination and 'other' modes of cheating the results were mixed, with positive correlations for 3 out of 8 examination behaviours and 4 out of 6 'other' behaviours. Appendix 8 presents examples of correlation analysis.

Differences between the two student groups, healthcare and psychology

Would there be any difference between healthcare and psychology students in their perceptions and self-reports? Separate studies of medical students in the U.K. and Croatia have shown that up to 94% self-reported cheating in some form (Rennie and Crosby, 2001; Hrabak et al, 2004). The distinctiveness of healthcare students is that the professions they aspire to enter carry with them an implicit expectation of trust, and that human lives are frequently dependent on the knowledge and standard of care provided. Glick, 2001:250, wrote that "it is reasonable to assume that cheaters in medical school will be more likely than others to act dishonestly with patients, colleagues, insurers and government". Whilst that assertion is open to debate, any indication of cheating in professions associated with trust would be a cause for concern to find a greater degree of cheating in healthcare students than in other groups would be particularly worrying.

The healthcare students in this sample were studying subjects leading to graduate registration in two distinct professional areas, physiotherapy and nursing. Whilst there were known similarities in entry requirements and learning outcomes it could not be assumed that there would be no difference in perceptions or self-reports between the two programmes. Comparisons were therefore made of those data from the two programmes; sample results are presented in Appendix 5. That comparison found no significant difference between the two student groups. The data from physiotherapy and nursing were then merged to create one group of healthcare students (n=89) and their results were compared with those from psychology.

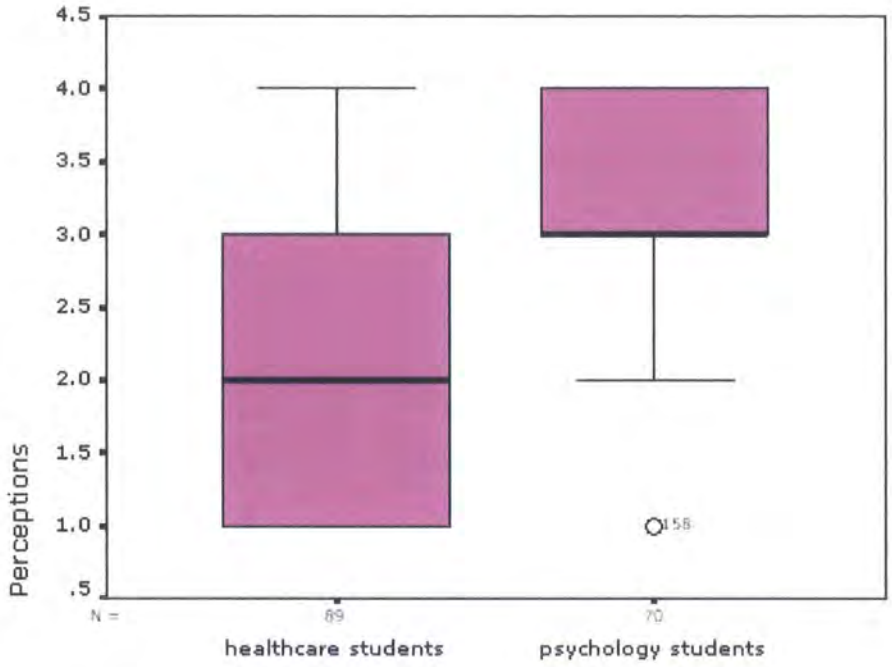
a) Perceptions of cheating in other students

The perception of psychology students was of a greater degree of cheating in *students like them* than was found for healthcare students.

Independent samples analysis of perceptions of cheating in other students was carried out for the student groups *healthcare* and *psychology*. For 20 of the possible 27 behaviours a Mann-Whitney U test showed significant difference beyond the 0.05 level between the two student groups in their perceptions of the frequency of cheating in their peers, with health students demonstrating a lower perception of cheating in *students like them* than did non-healthcare students. For one behaviour only, *signing as present a fellow student on a course where obligatory attendance is required,* healthcare students demonstrated higher average perceptions of 'students like them' than did psychology students, although this was not statistically significant (exact $p = 0.366$) and is taken to have no theoretical relevance.

The greatest difference in mean ranks was in *inventing data, e.g. entering non-existent results for a project, where* $z = -6.022$, $p < 0.005$. The mean of the ranks for healthcare students was 61.29 and for non-healthcare students was 103.79. The distributions for the two student groups are shown in Figure 5.

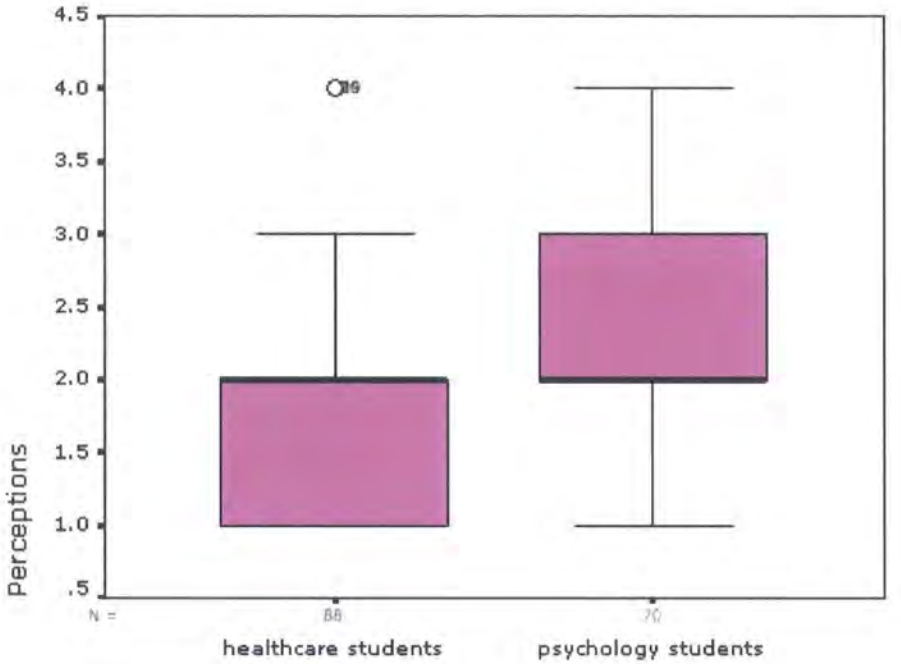
Figure 5: Inventing data, e.g. entering non-existent results for a project: healthcare and psychology students' perceptions of the behaviour of 'students like them'



Invention of data

A smaller difference in mean ranks but nonetheless statistically significant beyond the 0.005 level was demonstrated for *submitting as their own a piece of work derived from another source,* where $z = -3.628$, $p < 0.005$. The mean of the ranks for healthcare students was 68.33 and for psychology students was 93.54. The distributions for the two student groups are shown in Figure 6.

Figure 6: Submitting as their own a piece of work derived from another source: healthcare and psychology students' perceptions of the behaviour of 'students like them'



The behaviours where the student groups showed no significant difference in their perceptions of cheating frequency were derived from all three categories of cheating: coursework, examination and 'other' modes, and were as follows:

- *Paraphrasing material from another source without acknowledging the original author;*
- *Copying material for coursework from a book or other publication without acknowledging the source;*
- *Fabricating references or a bibliography;*
- *Illicitly gaining advance information about the contents of an examination paper;*
- *Continuing to write in an examination after the invigilator has asked candidates to stop writing;*
- *Reducing the availability of books or journals in the library by deliberately mis-shelving or stealing them;*
- *Signing as present a fellow student on a course where obligatory attendance is required;*

Self-reports for six of the seven behaviours listed above ranged from 23% to 96% of students. The remaining behaviour, *illicitly gaining advance information about the contents of an examination paper*, was self-reported by only 2.5% of students. It is surprising that any students self-reported this behaviour at all (rated as serious in Chapter 5: Table 12) and that any were able to gain advance knowledge.

Differences between student groups

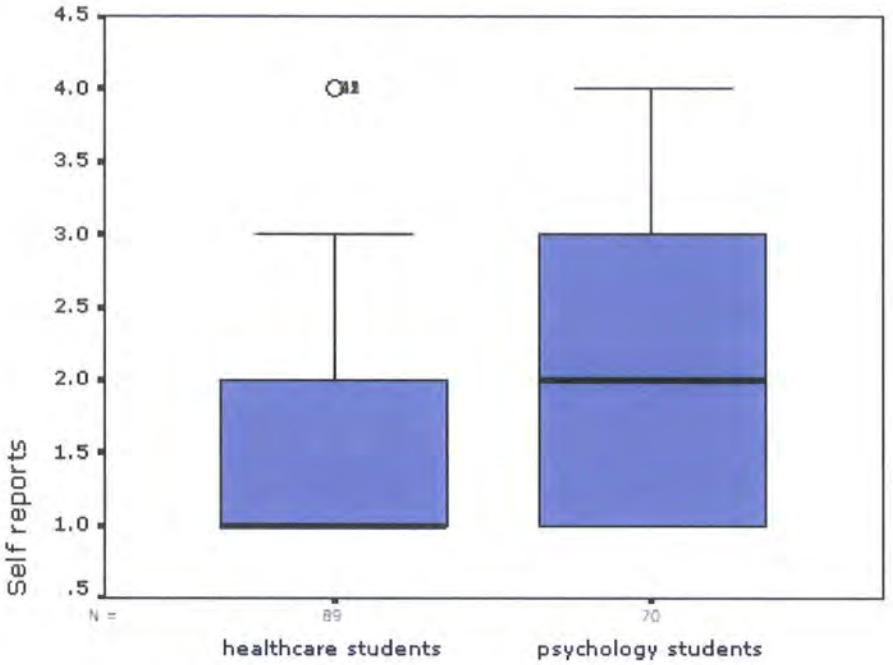
b) Self-reports of cheating

Whilst significant difference was identified between the two groups in their perceptions of the frequency of cheating, the opposite was found for self-reports. The results of a Mann-Whitney U test failed to show significant difference between the two groups for twenty two out of the twenty seven cheating behaviours. The five behaviours that demonstrated significant difference between the groups were:

- *Copying another student's coursework without their consent* (psychology > healthcare)
- *Inventing data, for example entering non-existent results for a project* (psychology > healthcare)
- *Altering data, for example, adjusting data to obtain a significant result* (psychology > healthcare)
- *Submitting a piece of coursework as an individual piece of work when it has been jointly written with another student or students* (psychology > healthcare)
- *Not contributing a fair share to group work* (psychology > healthcare)

with all five demonstrating significant difference beyond the 0.05 level. Results and distributions for two of the five behaviours follow as examples. In the case of the manipulation of data (invention and alteration) subsequent investigation revealed that healthcare student assessments offer fewer opportunities to manipulate data than is the case for psychology students and so the findings from that question are assumed to have no importance.

Figure 7: Inventing data, e.g. entering non-existent results

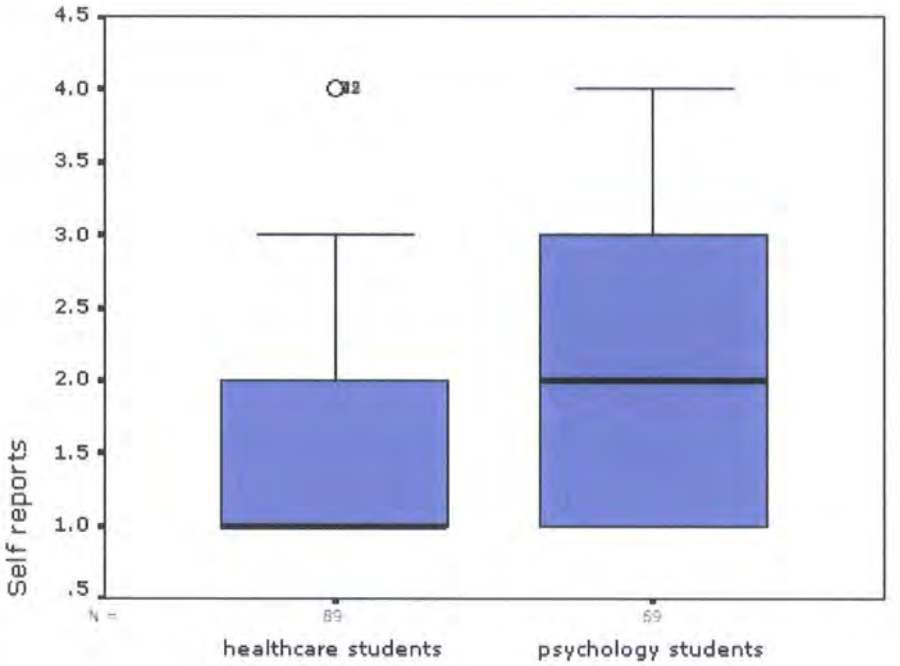


Invention of data

Inventing data, for example entering non-existent results for a project: z = -4.542. p < 0.005 (two tailed). The psychology students had an average rank of 97.37, while the healthcare students had an average rank of 66.34. Figure 7 shows the distribution.

Figure 8: Altering data

Altering data, for example, adjusting data to obtain a significant result: z = -3.397. p = 0.001, (two tailed). The psychology students had an average rank of 92.42, while the health students had an average rank of 69.48. Figure 8 shows the distribution.



Data alteration

The figures for the remaining three cheating behaviours that showed significant difference between health and psychology students are as follows:

Submitting a piece of coursework as an individual piece of work when it has been jointly written with another student or students: z = -2.050, p = .040, (two tailed). The psychology students had an average rank of 85.59, while the healthcare students had an average rank of 75.61.

Copying another student's coursework without their consent: z = -2.609. p = 0.011 (two tailed). The psychology students had an average rank of 84.72, while the health and social care students had an average rank of 76.29.

Not contributing a fair share to group work: z = 2.641, p = 0.008, (two tailed). The psychology students had an average rank of 88.75, while the healthcare students had an average rank of 72.33.

The results for the behaviours described in Figures 7 and 8, and in the foregoing text, show that on average psychology students admitted to more cheating in those five aspects of coursework than did healthcare students. Despite the apparently significant result for five behaviours, on the basis of these findings it can not be assumed that psychology students cheat more frequently than do healthcare students. Firstly there was no significant difference for the majority of the 27 behaviours, and for the remaining five it is possible that psychology students were more truthful in their self-reporting than were the healthcare students, although if that were the case the difference may have been expected to be consistent across all behaviours. A subsequent review of assessment methods for the sample revealed that healthcare students are likely to have fewer opportunities than psychology students for data manipulation in assessments and the overall differences in self-reports for the two student groups are therefore interpreted as having no theoretical importance.

Other studies have concluded that students studying for entry to a so-called caring profession are not immune to the temptation of cheating (Hrabek et al, 2004), as discussed in Chapter 2.

The research presented in this thesis compared attitudes and self-reports of healthcare students with 'other' students, in this case psychology. The findings demonstrate no significant differences between the two groups in the self-reported frequency of cheating, but significant difference in the perceptions in the two groups of the frequency of *students like them* cheating. Chapter 5 discusses this matter in the context of interviews with academics, where it was apparent that the psychology course included a greater amount than was provided in healthcare of both information and structured support for students that was designed to improve their understanding of academic integrity and to reduce cheating.

Motivational factors

Major reasons for a) cheating and b) not cheating

There was no limit on the number of reasons that could be selected in these two multiple response questions. Tables 6 and 7 present the percentage responses.

Table 6: Perceptions of major reasons for *some students cheating*

	% of students selecting reason
Pressure to pass	92.5
Laziness	87.4
Lack of time due to bad time management	83
Lack of subject knowledge	74.8
Ineffective study skills	60.4
Lack of time due to part time work	54.1
Low confidence in own ability	50.9
Ready access to downloadable web information	44
Peer pressure	32.7
Assessment design enabling cheating	30.2
Lack of perceived deterrent	29.6
Desire to impress tutor	17
Poor health	10.1
Lack of awareness of university regulations on cheating	6.9
Other	3.8

More than 50% of students identified as major reasons for other students cheating: *pressure to pass, laziness, bad time management, lack of subject knowledge* and *ineffective study skills*. These findings were confirmed by students in interviews who stated that *pressure to pass* and *poor time management* were the two foremost reasons. There was a significant difference between healthcare and psychology students in their rating of *laziness* as a major reason, with healthcare students having a higher mean score of 81.51 compared to a psychology mean score of 72.30 (exact $p = 0.014$, two tailed), although one psychology student's questionnaire response placed three ticks against laziness, presumably indicative of some strength of feeling. No significant difference was found between the groups in the remaining six major reasons for cheating.

With the exception of *pressure to pass* and *part time work* the reasons most highly rated indicate negative perceptions of other students, in line with attributional bias and social identity theories as discussed in Chapter 6.

Less than 4% of respondents (n=6) identified 'other reasons' in the space provided. The other reasons identified were:

1 *"parental pressure"* student 35;
2 *"friends offer information, e.g. share sources or offer help with writing a section of work – like using study skills"* student 45;
3 *"learning difficulties"* student 69;
4 *"thick"* student 90;
5 *"the environment of university places great emphasis on performing well academically"* student 117;
6 *"don't think going to get caught"* student 134;

All reasons except the fourth, *"thick"*, were in fact covered by the questionnaire categories provided: numbers one and five fall into the 'pressure to pass' category, and two and three into *lack of subject knowledge* and *ineffective study skills*. Number six lies within *lack of perceived deterrent*. "Thick" is outside the categories provided and is representative of the attitude of only one respondent.

Forty four percent of students in the present study rated *ready access to downloadable web information* as a major reason for cheating, and another 40% as a minor reason. Student opinion on the size of effect of the Internet therefore appeared to be split. A number of reasons could account for this, including the variety of ways other than the Internet in which students perceived and self-reported cheating to be taking place. Whilst ready access to Internet materials may be *a factor* in cheating (Szabo & Underwood, 2007; Groark & Oblinger, 2001), it is not the only influence.

Question 6 invited respondents to select as many major reasons as they wished for *some students not cheating*. Table 7 presents the percentage of students that selected each of the multi response categories.

Table 7: Perceptions of major reasons for *some students not cheating*

	%
Hard work	89.9
Personal motivation	89.3
Personal moral code	83.6
Effective study skills	77.3
Good time management	74.2
Perceived deterrent of university penalties	66.7
High confidence in own ability	40.9
Lack of awareness	10.7
Lack of IT skills	6.3
Other	2.5

Only two students identified 'other reasons' for not cheating, as follows:

"People want to do it honestly" student 123;
"Want to do well off own merit" student 19;

Critique: *the questionnaire invited students to mark each reason provided as either a major or a minor reason for students cheating and similarly, in the next question, for not cheating. As the purpose of the question was to identify perceptions of major reasons, the provision of 'minor reason' as an option may have biased responses from some students who, if given the option of selecting, or not, only 'major reason' may have responded differently. Whilst the results are reported here, as the validity of this question may be questioned, no assumptions are made about the theoretical importance of findings from questions 5 and 6.*

Awareness of university investigations of, and penalties for, cheating

Questions 5 and 6 asked students to complete the following questions by ticking one column for each of the two questions. As shown in Tables 8 and 9, 60% of respondents (n=95) believed that students were only rarely investigated for cheating, and 63% (n=100) that students were only rarely found guilty. There was no significant difference between the responses of the healthcare and psychology groups (Mann-Whitney U).

Table 8: Results for the question: *how commonly do you believe students are investigated for behaviours such as those listed in questions 1 and 2?*

% of students	Often	Sometimes	Rarely	Never
	3.1	36.5	59.7	0.6

Table 9: Results for the question: *how commonly do you believe students are found guilty of behaviours such as those listed in questions 1 and 2?*

% of students	Often	Sometimes	Rarely	Never
	3.8	32.1	62.9	1.3

Whilst no association was found between self-reported cheating and student perceptions of the extent of investigations of cheating, there was a significant association between student perceptions of investigation and their perceptions of the frequency of students being found guilty of cheating (correlation coefficient: 0.519, $p < 0.005$, two tailed). This association is not surprising and it seems that, although less than 30% selected *lack of perceived deterrent* as a major reason for cheating, it is one reason for students choosing to cheat. If the general perception is that there is little

interest in investigating student cheating, it follows that students would not believe that many would be found guilty.

McCabe *et al.* (1993; 2001) found that academics prefer not to become involved in bureaucratic investigations of student malpractice and that observant students can take advantage of such loopholes, believing that they could otherwise be disadvantaged since their peers are doing the same. Paradoxically, they also found increasing numbers of students and academics willing to adopt honour code principles as a means of restoring higher levels of ethical behaviour in higher education.

Attitudes towards outcomes of learning

Students were invited to rate the importance of (i) the degree classification and (ii) the learning experience gained from studying. Results are shown in Tables 10 and 11 respectively and show that high importance was placed on both the classification of degree and on the learning experience gained from studying. Since the classification of the degree is frequently a determinant of 'first destination' job success, the results for degree classification are not at all surprising.

Table 10: Importance of degree classification

	Healthcare students %	**Psychology students %**		**Total sample %**
Very important	55.1	84.3		67.9
Fairly important	41.6	15.7		30.2
Not very important	3.4	0		1.9
Not at all important	0	0		0

Almost 68% of the student sample overall rated their degree classification as *very important,* and no students rated it as *not at all important.* There was an interesting difference between the student groups that was significant beyond the 0.005 level: more than 84% of psychology students rated their degree classification as *very important compared to 55%* of healthcare students ($z = -3.96$, exact $p < 0.005$; the mean of the ranks for healthcare students was 69.58 and for psychology students was 93.24: Mann-Whitney U). Appendix 9 presents frequencies and analysis of significance.

The difference may be due to the expectation of job availability for healthcare graduates at the time of the survey, in contrast to the less certain situation for psychology graduates where the degree classification would be more important in a competitive situation. It should be noted that, since the

time of the survey, the availability of jobs in some healthcare professions, notably physiotherapy, has reduced markedly, and that if the survey were to be repeated the responses to this question may now be different.

Table 11: Importance of the learning experience

	Healthcare students %	Psychology students %		Total sample %
Very important	78.7	71.4		75.5
Fairly important	21.3	27.1		23.9
Not very important	0	1.4		0.6
Not at all important	0	0		0

There were no notable differences between the student groups in their attitudes to the importance of the learning experience, with more than 98% of both groups rating the importance of their learning as either very or fairly important, and more than 70% of each group as very important. This similarity between the student groups in their attitudes to learning was not anticipated. It was to be expected that students entering healthcare professions would recognise the importance of their learning to safe professional practice but it was not expected that psychology students would necessarily demonstrate the same attitudes. Possible reasons for this finding are discussed in Chapter 6.

Summary of chapter

Ninety six percent of the sample believed that *students like them* cheated in some way, the exact percentages ranging from 24%-96%, depending on the cheating behaviour. Perceptions were of a greater extent of cheating in coursework than in examinations; this perception was confirmed by self-reports that demonstrated the same emphasis. Nonetheless, when it came to self-reporting, the students in the sample self-reported considerably less cheating than they believed would be the case in other *students like them*.

Comparisons of the extent of self-reported cheating between the *health* and *psychology* students demonstrated such small differences between the two groups as to be of no practical or theoretical importance. This contrasted with student perceptions, where health students on average perceived significantly less cheating in their peers than did psychology students.

There was a strong positive correlation between student perceptions of cheating and their self-reports for the same behaviours. This was especially

marked in the coursework behaviours with the highest levels of self-reporting.

Major reasons for cheating or not cheating, selected by students, enabled a ranking according to the percentage of students selecting each reason. The three highest reasons were pressure to pass, laziness and bad time management, the overall ranking being largely consistent with attributional bias and social identity theories.

Student perceptions of academics investigating their suspicions of cheating were revealing and suggest one reason for the apparent increase in cheating. Close to 60% of students believed that only rarely do academics investigate their suspicions of cheating, and that only rarely are students found guilty should they be investigated.

Students in both healthcare and psychology groups placed high importance on both their degree classification and on their learning. Significant difference was found between the groups in their rating of the importance of the classification, with 84% psychology students and 55% healthcare students rating the classification as *very important*. There was no significant difference between healthcare and psychology in their rating of the importance of their learning.

This chapter has presented a quantitative perspective to the study through the statistical analysis of the questionnaires completed by students. Lincoln and Guba (1985) propose that generalisability in qualitative research should be interpreted as comparability and transferability, advising naturalistic researchers not to try to shape findings from interpretivist studies into "positivist" results. Instead, they propose that it is the readers of the research who should decide the degree to which transferability is appropriate, and this can only happen if the researcher provides data that are sufficiently descriptive. The following chapter provides richly descriptive data that illustrate the findings from the analysis of the interviews with students and academics.

CHAPTER 5

ANALYSIS PART 2: THE INTERVIEWS

The following chapter presents the analysis of interviews with students (n=10) and academics (n=12). The research questions addressed through interviews were:

What are student perceptions of:

- The types of assessments that lead to student learning;
- The seriousness of a given range of cheating behaviours;
- Other students who cheat;
- Excuses for cheating;
- Discouraging cheating;
- Academic regulations;
- Preliminary findings from the questionnaires;

What are academic attitudes to:

- The seriousness of a given range of cheating behaviours ;
- The extent of cheating by their students;
- Excuses for cheating;
- Investigating their suspicions of cheating;
- Their students' understanding of academic integrity, how to avoid plagiarism and the penalties for cheating;
- Discouraging cheating;

Details of the sample and the response rate have been discussed in Chapter 3; in summary, 10 students (eight from physiotherapy and one each from nursing and psychology) and 12 academics (three from physiotherapy, eight from nursing and one from psychology) were interviewed.

5.1 Presentation of analysis

Coffey & Atkinson (1996) acknowledge that the themes identified from interview transcripts result from data that are not always located in neat sections, even within the same interview. The same was true for this study, which found that information frequently emerged at different stages within individual interviews when, for instance, interviewees made secondary, unsolicited responses to questions posed earlier in the interview. For the purposes of this thesis, themes identified from both academic and student interviews have been presented according to the research questions to which they most closely relate, which are therefore not necessarily in the same order as the lists in Section 1. Quotations are verbatim, with paralanguage

as indicated. Identifier code numbers indicate the student or academic and were assigned in alphabetical order.

5.2 What assessments most effectively result in student learning?

Question to students

Eight of the 10 students interviewed identified practical assessments as having contributed most strongly to their learning. The location of the assessment (university or workplace) was not important. Three students identified a link between theory and practice as being instrumental in focusing their learning.

> I think the assessment process made me really focus on learning the skills and I think if I hadn't been assessed on it I wouldn't have necessarily gone out and researched all the evidence behind learning so I think it was essential to have the assessment.
> Student S02

Student S02 identified the research element as integral to promoting learning from practical assessment. Two other students identified a research element that assisted their learning through other modes of assessment such as oral presentations, experimental work and accompanying reports.

> The assignment based assessments ... yes, essays ... I learned far more I think from the assignments I think – because you learn the research where practical you don't have the theory behind. Do you see what I mean? ... and the research might be specific to a certain topic but it can be used in other areas, you know, like government publications go on to be used in practice. ... and asked at that point (end of second year) I would probably have said practice - I learned more in practice. But I think coming to the end of the course especially doing my dissertation I realised that em it was like the government publications and the things that you need to use for your practice that helped us to learn more than the practical side of it ... I think it was the way in which the thinking developed, because I em I looked on it totally differently the first year to the way I did in third year somehow.
> Student S03

> The experiments, where we had to do our own background research and justify our findings. It was a lot more in depth, the exams were just surface learning, you cram it in and write down as much as you can and hopefully that's enough. ... but the second years especially, with so many experiments and exams and everything, you just learned what you had to do for the next one and then you forget straight away because you couldn't physically retain it all, it was too much.
> Student S06

The attitudes to learning demonstrated by students S03 and S06 are consistent with Bourner's discussion of students' "orientations to study" and the distinction between surface and deep learning traits (2003:271). The distinction between the students who identified underpinning research as being the key to their learning (irrespective of the assessment design) and those students who did not, could be due to the difference in learning styles. An alternative, though not contradictory, perspective is offered by Sambell *et al.* (1997) who reported that authentic assessment had a positive influence on the motivation of students and on their learning. This is relevant to the study reported here as a large number of the student sample were studying for entry to professional career pathways.[1]

5.3 What assessments most commonly lead to student cheating?

Question to academics

One theme dominated responses to this question. According to ten of the twelve academics interviewed, written coursework submissions such as essays and dissertations provided the assessment mode most conducive to student cheating. Within that mode, the most common methods of gaining unfair advantage were cited as collusion (n=6), insufficient acknowledgement of the copied or paraphrased work of others (n=6) and procurement, normally through purchase, of completed assessments from other cohorts (n=4). Purchase of essays from other cohorts was perceived to be common, as was purchase from a range of internet sites, yet despite this in one programme the titles of essays in consecutive years were changed rarely and then only in response to academics recognising essay answers as being the same as they had read in previous years:

> We actually had to change it because, after six cohorts (laughing) all the (markers) were beginning to recognise it was being regurgitated. Academic A01

Most academics believed that plagiarism in the first year was unintentional and that it was difficult for many students to acquire the skills of academic writing, but that by the third year student awareness had increased and that plagiarism at that stage was deliberate.

[1] Authentic assessment is taken to be assessment that is relevant to and resembles 'the real world', that is, the professional world that most students are being prepared for (Gulikers, 2004:3).

Academics in interviews and students in questionnaires both identified lack of acknowledgement of original authors as a common issue. Students also highlighted falsification and fabrication of data and bibliographies as being commonplace. That academics did not identify falsification and fabrication was not surprising, as they would not be expected to be aware of behaviours that would not be readily apparent.

> The most common, that I'm aware of, is copying I think, from articles or books and not recognising the source, either paraphrasing it and not recognising the source I think is the commonest. ... Given the types of cheating that I have seen, I think it seems to be the essay type, very open type of questions.
> Academic A03

> I think probably the written, the essay type stuff. The most subtle ways of cheating I think are to be found in there ... I suspect that the most common is using other student's work, previously assessed work. Either, not in complete bits, but in part would be one of them. The other one would be about the interpretation of plagiarism and the naivety of students in copying work from books or articles and not referencing them. I think that's probably the most common. ... In particular it's kind of things like dissertations where there is published material in the library.
> Academic A10

> From experience, assignments. Particularly essay based assignments where there is a lot of material available, even advertised as being available for these kinds of things on the web. And we currently most definitely do not put all assessments that are submitted through a plagiarism detection system, it's been suggested that perhaps we might, it would be a situation that I would hate to think that we had got ourselves into. It takes entirely all the trust out of the system.
> Academic A08

> I think that an assignment should be changed now ... because the problem with our particular programme is that the assignments are the same every time. The titles are the same, and that means that obviously the students can, if they wish, use other peoples work and what I think we should do is have a bank, in any particular module, so that at any one time you can put a different assignment in and the students won't know what that assignment is. And that is one way that may eliminate, or certainly reduce, the amount of cheating, or potential cheating that goes on. But I think it's asking for trouble repeating the same assignments time after time.
> Academic A06

5.4 Are some forms of cheating viewed more seriously than others?

Question to students and academics

During the course of the interviews students and academics were asked to carry out a simple colour-coded 'seriousness rating' of the list of

cheating behaviours used in the questionnaire, by rating each behaviour as green for *not really cheating,* yellow for *not as bad as other forms of cheating* or pink for *worse than other forms of cheating*. During subsequent analysis of the results each colour was assigned a number from 0-2 to represent its perceived seriousness, with green scoring 0, yellow 1 and pink 2. Summation of the scores for each behaviour enabled them to be ranked in order of perceived seriousness, and comparisons of differences to be made between academic and student scores. As shown in Table 12 the total scores for several behaviours were the same. The areas of notable difference between academic and student ratings have been highlighted for ease of reference, with 1 being the most serious and 12 being the least.

Table 12: Perceptions of the seriousness of cheating behaviours, in rank order

Behaviours	Ranked by students	Ranked by academics
Taking unauthorised material into an examination	1	2
Using SMS mobile phone texting in an examination	1	1
Illicitly gaining advance information about the contents of an examination paper	1	2
Taking an examination for someone else or having someone else take an examination for them	1	1
Copying from a neighbour during an examination without them realising	1	1
Extracting electronic information from pocket pc or similar devices during formal examinations	1	1
Submitting as their own a piece of work derived from another source (essay bank; former students; other)	2	1
Premeditated collusion between two or more students to communicate answers to each other during an examination	2	1
Attempting to obtain special consideration by offering or receiving favours, for example bribery, seduction, corruption	2	2
Copying another student's coursework without their knowledge	3	1
Keeping silent about a tutor's misbehaviour or misuse of his/her position in order to get approval in a test or to gain a higher mark	3	3
Allowing own assessed coursework to be copied by another student	4	7
Copying another student's assessed coursework with their knowledge	4	6
Altering data (e.g. adjusting data to obtain a significant result)	4	2
Lying about medical or other circumstances to get special consideration by examiners (e.g. extra time to complete examination; sympathetic consideration of extenuating circumstances)	4	9
Lying about medical or other circumstances to get an extended deadline or exemption from a piece of work	4	9
Doing another student's coursework for them	5	4
Copying material from book or other publication without acknowledging the source	5	5
Inventing data (e.g. entering non-existent results for a project)	5	2
Submitting a piece of coursework as an individual piece of work when it has actually been written jointly with another student or students	6	9
In a situation where students mark each other's work, agreeing with another student or students to mark each other's work more generously than it merits	6	10
Continuing to write in an examination after the invigilator has asked candidates to stop writing	7	12
Fabricating references or a bibliography	7	5
Reducing the availability of books or journals in the library by deliberately mis-shelving them so that other students can not find them, or by cutting out the relevant chapter or article.	7	10
Signing fellow student s present on a course where obligatory attendance is required	8	8
Paraphrasing material from another source without acknowledging original author	9	9
Not contributing a fair share to group work	10	11

The most seriously ranked behaviours showed few differences between student and academic perceptions. In those behaviours rated as less serious there were several notable differences where, in all but one, student perceptions of seriousness were greater than those of academics. In that one case, academics rated *inventing data (e.g. entering non-existent results for a project)* in second place, which was therefore rated as seriously as *taking unauthorised material into an examination, illicitly gaining advance information about the contents of an examination paper* or *attempting to obtain special consideration by offering or receiving favours, for example bribery, seduction, corruption.* Students rated *invention of data* in fifth place. The reason for the difference could be because invention of data is not readily detectable and therefore is less likely to be identified than other forms of cheating. In interviews students perceived falsification and fabrication to be widespread and volunteered that it had been their practice:

> and I think making up data, you know, is it really cheating if you change a 7 to an 8, that kind of thing? ... it all gets cloudy again when you talk about references, sometimes you can't find a reference so you think you might make up a couple of dates, you are not really cheating, you're just kind of expanding the truth I suppose.
> Student S06

> Well the one about making things up on bibliographies, I've done that, added a few extra.
> Interviewer: Oh, I'm not asking what you've done.
> Student: But (pausing) yes, I don't think that's really cheating. But, em ... mmm it's difficult isn't it?
> Student S03

Cheating in examinations was identified by both students and academics as being more serious than cheating in other assessments, a finding consistent with other studies such as Franklyn-Stokes & Newstead (1995) and Lim & See (2001), and confirmed by students throughout their interviews.

> I think anything to do with exams, because everyone is in the same environment ... that to me is the worst kind of cheating because everyone is stressed and you are blatantly cheating, lying to get better grades
> Student S06

> I think in exams it's there, I think that everyone knows what cheating is but in assignments not so strongly.
> Student S08

The comment from student S08 suggests a reason for the differentiation between cheating in examinations and in coursework: that gaining unfair advantage in examinations is unambiguously cheating but that cheating in

coursework is more difficult to define both for students and for academics. On the question of plagiarism, neither students nor academics were clear on the line to be drawn on
either the extent or the definition. This is not consistent with the findings of Barrett and Cox (2005) who state in their reporting of a questionnaire survey of academics and students that plagiarism seemed to be well understood but that collusion was not. Closer examination of the detail of their findings however indicates that many academics, as found in the study reported here, differentiated between poor academic writing and deliberate attempts to copy, this differentiation resulting in inconsistencies of investigation and thus, potentially, of penalty.

Students reported in interviews that their peers would not necessarily identify common behaviours as cheating:

> I think that those people who are cheating might have a different perception of what cheating really is, in the sense of plagiarism or false references, that sort of thing.
> Student S05

> I think that a lot of, especially on the coursework kind of side of it, the people are probably what I would class as cheating but they don't see it quite as cheating, so they are not going to admit to it.
> Student S06

Statements such as those from students S05 and SO6, if typical, have implications for the interpretation of research data that rely on self-reports of unspecified 'cheating' rather than a self-reporting against a list of behaviours.

In other forms of assessment, students and academics were in agreement that procuring work from essay banks or from other students, or gaining advantage through bribery or seduction were also serious, although less so than examination-related cheating. Despite this, in unsolicited comments, a few students revealed the attraction and temptation of internet essay banks:

> I hadn't thought about that (laughing). You could buy essays from an internet site? I wish I had known that.
> Student S06

The light-hearted manner of student S06 was in contrast to the more reflective:

> I must admit, I've had a look through some of the internet sites just to see what was on offer but they don't really do (name of course deleted) work. There was one but it was quite expensive. I mean

> when you are stuck for deadlines and you're up to your eyes I can sort of see how people are tempted to do it. But I don't know, personally, whether or not I think it's cheating. I'm not really sure. Yes, it's not your work but em ... if you can get away with it and it's an original piece of work, just because you didn't write it yourself, you haven't copied somebody else's, somebody's done it for you – is that as bad as blatantly copying an assignment and handing it in as your own without somebody's knowledge?
> Student S01

Only one student stated categorically that all behaviours in the cheating scale were cheating, with three stating that they did not personally acknowledge all sources in their own work, and that they thought that it was 'probably cheating' but that 'everyone does it'. Responses showed an inverse relationship between the frequency of cheating that was identified through the analysis of questionnaires and students' perception of its seriousness: the less frequent the behaviour the more serious it was deemed to be by students, and the more frequently the behaviour was observed, the more students were accepting of it. This is consistent with work undertaken by Franklin-Stokes & Newstead (1995) that showed a similar inverse relationship between perceived seriousness and the extent of self-reported cheating.

Students differentiated between behaviours perceived as serious, those observed frequently and the 'grey areas'.

> I really should say no there isn't an acceptable level ... morally I think there is but technically no, it depends if it is a written exam or an assessment I think. Written exam, I think it is unacceptable to take stuff into exams to cheat in that way or copy off other people without their knowledge. In assignments I think there is a grey area between collusion and getting advice from people on your course and talking through your assignments with other students and getting ideas from them to write down. ... They make it quite clear on the course about references and plagiarism, they don't really make it clear what constitutes what is your own work.
> Student S01

> I think, theoretically, cheating is wrong whatever. But ... there is a grey area and things like em not acknowledging that it's written from a book, almost – plagiarising, even if it is just a sentence, in theory it's cheating but I would say that we've probably all done it. I know that, you know, you just shuffle a few words around and consider it your own. Would I consider that cheating? I probably would actually.
> Student S04

> Well the one about making things up on bibliographies, I've done that, added a few extra.

Interviewer: Oh, I'm not asking what you've done.

Student: But (pausing) yes, I don't think that's really cheating. But, em ... mmm

> it's difficult isn't it? Hiding books, I don't think that's really cheating. If somebody really wanted a book they could go to a bookshop and buy it ... I don't think that's limiting other people's use of information. Group work ... I think that's cheating, yeh, yeh. I think that's a dodgy area anyway isn't it? When you're in a group with a group of people that you get on with you're more than likely to give them a better mark than they really deserve. Even if you haven't come to an agreement about it, you're going to mark them more favourably aren't you? If they're your friends.
> Student S03

Davies (2000) suggested that some students do not understand what constitutes plagiarism while Burrus *et al.* (2007) found consistently that students in their sample did not have a clear understanding of what was meant by cheating. The findings of both would support the statements from students in this study who expressed anxiety about not understanding where they should 'draw the line'.

Several students admitted to hiding scarce resources in the library for their own use but excused it because they 'would share them with friends'.

> I would consider it devious, I wouldn't consider it cheating. In a way it depends on the situation, for example, if there aren't enough books in the library you could then turn round and say "well there aren't enough books in the library" So I would just think "I'm all right Jack, doing it for my own end". Yes, I think it is an unfair advantage but ... well, he got to the book first. I know that it is wrong, I do think that it is not the right way of doing things, but I think people do do it, I know I have done it, you know. There is no way I would do it if there were plenty of books there. And I would also tell my friends where it was.
> Student S04

Forsythe *et al.* (1985) found that students excused their own cheating through attributing it to external causes; in this case the cause was perceived to be inadequate library stocks. Attitudes to hiding books and resources in the library were not entirely consistent, as suggested by the following student's views in comparison to the previous two, SO3 and S04:

> (Hiding books in the library) that really is unacceptable. I'd be really annoyed if somebody did that.
> Student S02

5.5 The extent of cheating: academic and student perspectives

Academics were asked to comment on the following vignette, and how it compared with their own perceptions and experience of student cheating.

> *One 1997 study from the U.S. reported the following: of 422 students from 22 classes who completed self-reports, 36 reported that they had never cheated. 91.7% reported that they had engaged in at least one type of academic misconduct during the surveyed year.*

Three did not agree that their own students would cheat to the same extent. The remaining nine agreed that it was likely, with seven of them believing that the extent of cheating in their students was more widespread than was indicated by the few cases identified each year.

> I think that we don't come across half that goes on to be honest ... It's impossible to check everybody's work and I think that if you're familiar with the piece of work you can tell if the student's plagiarised it but ... if they are quoting text that you are not familiar with, and the students particularly write and can copy very cleverly, I think those are overlooked. It's the ones who aren't as sort of bright that don't get away with it because it's quite obvious that they've copied or that it's not their own work.
> Academic A06

> We have very very few cases picked up per year. Interestingly enough, this year we had I think ten cases of collusion towards the assessment in the module that actually covered academic misconduct and introduced JISC (laughing). So you know, it's like, they were actually told about academic misconduct and then still colluded on the piece of work.
> Academic A08

Several academics spoke of their gut feelings or suspicions of the extent of cheating in their students and rated the extent variously from ten to fifty per cent. One academic spoke of "spotting" less than 20% but had strong suspicions of the reality being twice as high:

> ... in terms of suspicions, you know, colleagues talking and students talking and just having this gut feeling that you have read before, that would be would be quite a lot higher I think, but not as high as fifty, I would say about forty.
> Academic A04

The views of academics who estimated 40-50% of their own students to be cheating in some way do not provide evidence of the extent of cheating. The percentage estimation is however consistent with the findings of Szabo & Underwood (2004) whose survey revealed that more than 50% of students stated that they would use the internet to cheat, while Newstead *et al.* (1996) found that 54% of their student sample self reported *paraphrasing material from another source without acknowledging the original author.*

5.6 Student attitudes to other students who cheat

Question to students

Three themes were identified from responses and were described by participants in terms of their feelings. The themes were annoyance, disinterest and pity. The degrees of annoyance were described as 'upset, it's not fair' through 'annoyed' to 'infuriated, cheated' and were described in various degrees by all but the three disinterested students. For three students the annoyance was not only with their peers who had taken advantage of systems in order to cheat but also with the university systems that allowed the cheating to happen without penalty.

> Really angry; really annoyed. I would feel that the system wasn't fair that they hadn't been found out.

Interviewer: that's interesting. So you would blame the system but not the student?

Student: Both I think. Annoyed that they'd had the nerve to attempt to cheat

> and try and get away with it and annoyed that the system hadn't picked up on it. I know people in my year who have cheated in exams, who have the notes written on their hands, like, all the way up ... very small writing. It's happened with a couple of students; it wasn't just me who noticed, other students as well.
> Student S06

> Infuriated because the hours of work that I put in at home, and then for somebody to maybe put in two hours of work and come out with a high mark or even the same mark, it just makes you feel cheated ...
> Student S09

> Upset and angry that they'd done it and got away with it. But at the same time, if that is what they're doing then they are not doing themselves any favours (laughing) ... if you have cheated through it.
> Student S07

The disinterest demonstrated by other students resulted from the perception that cheating students did not affect the results of those who had not cheated, and supported the view of the system being at fault for enabling the cheating to have occurred without detection.

> I think as long as I knew that I hadn't cheated there's no way that I would want to be in their shoes. I would know that I had worked for my mark whereas they had cheated for theirs. I would say probably just a bit annoyed with the system as much as anything ... because the way the system was set up wasn't rigorous enough.
> Student S04

Lim and See (2001:261) found that their student sample was "morally ambivalent" about cheating and "rather tolerant of dishonesty among their peers", with the majority not reporting their peers if they observed them

cheating but instead choosing "the expedient measure of ignoring the problem".

One student pitied peers who could be so desperate that they would cheat, and another two highlighted the fact that cheating students were not advantaging themselves in the longer term and that their future professional practice could represent a danger to the public.

> Probably a little disappointed, but more in the person I think than in the assessment.
> Student S05

> However, I don't think they are advantaging themselves at all because when you get out on placement or you get out into a job and you don't know your techniques, you don't have the knowledge and the skill ... you are potentially putting (the public) at risk if you don't know.
> Student S09

Despite some students expressing annoyance at their peers who cheated, all students accepted that cheating was a part of student life, and that very few students would consider reporting their peers who were known to have cheated. Several referred to an "honour code" amongst students "unwritten and unsaid" (Student S04) whereby to report student cheating would be perceived by the student community to be a more reprehensible action than the cheating itself.

> I think that, generally, students have a pretty laid back view of cheating. Only the real kind of moral ones would take a dim view of it. I think most people understand, oh I don't know actually, I assume most people think like me, couldn't care less as long as it doesn't affect me. If it does affect me, yeh, I would be bothered.
> Student S01

> I think it's just ... quite a normal thing and it's gone on for three years. And the general consensus is well I got away with it in the first year, so I'll do it for second and third year. So I think they see it as being a normal part of doing the degree, it's a normal part of em I'll just do it to get a higher mark, I'll learn more out on placement, it's just an assignment.

Interviewer: this is very subjective, but what is your perception about the level of

> cheating, what percentage of people on a course like yours in a year like yours do you think would engage in practices that would be generally seen as cheating?
> I could probably say a little over half the year, I can honestly say that, yes.
> Student S09

> I think almost totally accepted. Nobody's going to go round ranting and raving if they've cheated so it's kind of not really talked about. But the accepting of the group work and sort of playing around with your reference list, stuff like that, I think that is fully accepted ... you kind of accept that it happens but you kind of hope that they get caught ... we were all very tempted to in the last lot of exams to tell people, then who do you tell? After the exams they would have washed their hands and there is no proof ... Although as much as you want them caught you don't want to be involved in them getting caught. You don't want to be part of it.
> Student S07

All students agreed that some behaviours such as plagiarism and falsification of data and references were very common and that there was a general acceptance and, in some students, a perception that specific 'cheating behaviours' were not wrong:

> I think that those people who are cheating might have a different perception of what cheating really is, in the sense of plagiarism or false references, that sort of thing,
> *Interviewer:* so because everybody does it, is it OK?
> That's the general perception that everybody is doing it ... When you read other people's dissertations in the library, I know from my experience the ones that I looked up and thought that I will have to find that reference, then that reference wasn't there – there was no such reference.
> *Interviewer*: so there was no such reference?
> Yes, and I was a bit – ooh – (laughing) ... it was the reference of a journal and the title of the article and I just couldn't find it, and I ended up getting that year whole journal out and scowering *(sic)* through it thinking, I know that sometimes when you look at them on line and look in the library, sometimes they don't have the same numbers, so I ended up doing it by hand in the library and couldn't find it at all.
> Interviewer: so they'd made up such a good reference that you wanted to get it and it wasn't there?
> Yes (laughing).
> Student S05

> And I have seen another one is they will paraphrase from a journal but reference another journal so that it can't be checked up on so it looks like they have put it into their own words if you like.
> Student S09

Only one student stated categorically that all behaviours in the cheating scale were cheating, with three stating that they did not personally acknowledge all sources in their own work, and that they thought that it was "probably cheating" but that "everyone does it".

5.7 The extent to which academics investigate their suspicions of cheating

Academic responses were divided between those who had been (n=5) and those who had never been deterred from investigating their suspicions

(n=6). Recurrent themes were time, sympathy for students and burden of proof. Conversely, professionalism and expectations of honesty were factors in other academics always following through their suspicions. Timing, it seemed, was a crucial factor; the time of year, and associated workload, determined for several academics whether or not they would pursue their suspicions as also did the type of cheating and, for plagiarism, its suspected extent.

There were common factors in academic reluctance to investigate suspicions of cheating, with an overriding theme linking other factors to time:

> Knowing that it was going to take me a while to find what I was looking for, and just not being able to fit it in to the time available really ... and thinking about all the rest of the work that I had to do, not just the marking, meant that I just couldn't, - I just felt it was a job too far. Academic A03

In some instances, limited time was a particular factor due to larger than average cohorts, but was used by the senior colleagues of some academics to provide reasons for not wanting to penalise students who did not understand how not to plagiarise:

> And my colleagues felt we couldn't follow up every suspicion, because there is this belief that it is, amongst other people as well as myself, that it's accidental plagiarism, it's just a misunderstanding of how to use literature, and if you look for it you will find it, and that we can't afford to follow up.
> Academic A04

Whilst several academics spoke of the time factor in investigating suspicions of plagiarism, only one identified the difficulty of investigating suspected collusion with individuals who were not students:

> Oh, yes, yes. Time is a big factor. ... Yes, it put me off, because I thought, my goodness, how am I going to prove this. That first example, that's why I gave you that example, that is a one off and will probably never happen again. I can remember (another example) having great suspicions about one of my ex-students, a postgraduate management module, and I thought – I knew where she was actually working at the time – and I thought someone, either her mentor or her manager has helped her with this (laughing). I would have put money on it but there was no way I was going to be able to prove it. How would I prove that? I'd be doing the University a disservice wouldn't I if I accused a mentor and a manager.
> Academic A01

Academics who had never been deterred from investigating their suspicions cited issues of professionalism, their own as well as their students', and "accountability to the public" as being influential in their attitudes to what they perceived to be student dishonesty:

> if somebody is prepared to cheat or be dishonest in a programme that reflects on their professional working relationships as well.
> Academic A06

> ... the course involves the preparation of professionals who have a code of conduct. ... part of what I have challenged students on, if found cheating, is "What are you going to do when you're pressurised in practice? Are you going to be willing to modify documentation ... because you are stressed"?
> Academic A12

Academics were aware of institutional procedures, but a few admitted allowing their own interpretation of cheating to override the regulations:

> ... but you see, I think my stance would be ... it's how the student had actually perceived that or how they found it necessary to plagiarise, to cheat or to collude – I would be more interested in that as an angle. And a lot of that because university life where you've got modules that are always assessed, I think we have an over assessment load and I think that's one of the things that I do bring into the equation.
> Academic A09.

The academic attitudes and actions reported in this study support the findings of McCabe and Trevino (1993) and McCabe *et al.* (2001) who found that academics were reluctant to use institutional processes when investigating cheating, preferring to deal with suspected cases themselves without recourse to systems perceived as bureaucratic. Similarly, Newstead (2003) identified increasing workloads, higher staff : student ratios and "the assessment load" as factors in the increasing levels of stress observed in academics, all likely contributory factors in many academics preferring not to engage in formal institutional investigations of student cheating.

There was no agreement on what level of cheating (or poor academic writing) would be accepted by academics, and at what stage academic suspicions would trigger investigations. Three academics adopted a sympathetic stance towards students, one in particular describing himself as having a humanist perspective:

> in the early part, dare I say it, the student is actually showing some innovative behaviour in the fact that they are actually recognising the fact that they are cheating. And if that helps them to learn then I don't see it particularly as a major issue. If it was classed as a deliberate attempt to deceive I would look at it in perhaps a different way.
> Academic A09

Academic A09's perspective, whilst unusual in this study, is not unique. Barrett and Cox (2005), in their investigation of student and academic understanding of the terms plagiarism and collusion, discovered for example

that collusion is "much more acceptable than plagiarism because some learning is taking place". Other studies have identified the importance of explaining to students what is and is not acceptable academic writing practice (Ashworth, 1997; Burrus, 2007). Some forms of apparent collusion are in fact acceptable under the terms of a group assessment mode set out in formal assessment briefs. Students interviewed in this study discussed the ways in which they shared information such as references and ideas, and drew a clear line between that and the more extreme behaviours which resulted in copying.

Students were unanimous that those who cheat do so because they can get away with it. There was a perception that very few academics had time to investigate suspicions of cheating and that therefore the risk of detection was low.

> I think if university penalties were enforced, or people saw them being used more often, they would be a big deterrent. But I don't think you very often, well I certainly haven't heard of anybody who has been accused of, and followed through for cheating.
> Student S07

> .... You know, you're probably not going to get found out. Very few lecturers as far as we perceive it are then going to look up exactly that book and go through the whole book to try to find where you got that point from and whether you actually copied it directly. Particularly if it is something more obscure ...
> Student S04

Student SO4's comments echo those in Davis *et al.*'s 1992 study that asked why students allowed others to copy from their exam papers:
"Just to do it ... I knew if I got caught nothing would happen." (p.17).

5.8 Perceptions of acceptable excuses for cheating

Question to students and academics

Eight students rejected the notion that there could be any excuses for cheating. The remaining two students implied that there ought not to be any acceptable excuses, but that in reality stress or last minute genuine extenuating circumstances would be understandable reasons towards which they could be sympathetic. In addition, one student identified insufficient support being provided for those students who had limited experience of the style of essays upon which many university assessments were based.

> ... students for example who have come straight to university from doing A levels and they have done three science based A levels and

> not really used to writing assignments and struggle because they don't know how to write an assignment and there's not really been any kind of help been given. ... I could see how people get to the point where they cheat because they have no other option, they just can't do it otherwise. It's not because they are particularly bad citizens, it's just they've got to the point where they are clever enough to be on the course but they cannot get what they want to say on paper because they don't know how to do it.
> Student S01

One student provided the following reason for being sympathetic to students who might cheat in an examination. This single comment is not representative of the student sample but is noteworthy because both students and academics rated all forms of cheating in examinations to be the most serious, yet the student's example implies sympathy for situations of cheating in examinations:

> Maybe if something happened at the very last minute, like something terrible had happened a day before an exam and you missed your last cramming session then that might be a good excuse.
> *Interviewer:* do you know of any cheating in an exam? I'm not asking you to name names or anything.
> *Student:* yes, I've seen it, yes, just kind of like cheat cheats taken in and notes written on hands and things like that ... Just like a piece of paper hidden somewhere like a pencil case or something like that ... I think it's quite common.
> Student S10

Despite her apparent sympathy for students who might suffer hypothetical extenuating circumstances, student S10 adopted a pragmatic approach to students whose applications for special consideration were not accepted: "you just have to get on with it like everyone else."

The majority of academics (n=9) stated that there were no acceptable excuses for cheating and that processes existed for the formal consideration of students with personal extenuating circumstances. Academics were, however, not unanimous in this, with three admitting that they would make allowances during the marking process for students known to suffer personal extenuating circumstances (PECs), despite university regulations that enabled consideration of PECs only through formal extenuating circumstances boards of examiners.

Student and academic attitudes were similar, as was the small number of those who supported extenuating circumstances as an excuse. It was interesting to note that a small element from both the student and academic

groups would accept PECs as an excuse, although academic A10, initially sympathetic to student stress, recognised a professional dilemma:

> People under particular stress at certain times do daft things to get through. ... it would be forgivable to a certain extent. It depends on the kind of pressure the student was under. We have to be very careful, we are a professionally based course. You have to be careful because people will be under pressure all the time at work, so you are judging them on whether they can cope with pressure as well as what they can do as well. Academic A10

Academic A10's comment illustrates a not untypical interview discussion that resulted in interviewee reflection and subsequent contradiction of their initial responses.

5.9 Credibility of questionnaire findings

Question to students

Analysis of the questionnaire data was not complete at the time of the interviews but early findings were that student perceptions of cheating were considerably higher than self-reports and that the most highly rated reasons for cheating were pressure to pass, laziness and poor time management.

Students expressed no surprise that there was a high perception of cheating amongst students generally or indeed that far fewer admitted to it. They volunteered two possible reasons for this:

> i) apprehension that even anonymous questionnaire results could be viewed by their lecturers, resulting in more rigorous assessment practices and fewer opportunities to cheat;
> ii) student attitudes to what constitutes cheating, this itself influenced by the extent to which some students do cheat and an increasing acceptance of that in the student community.
>
> I think they wouldn't admit to it, I really do, yeh, even anonymously because if ... for argument's sake a huge amount of people who say yes they are aware of cheating but they are not gonna admit to it ... isn't a university lecturer going to validate those questionnaires then they are going to change or may become more rigorous with their exam procedures. So if they aren't admitting to it are they thinking ahead, thinking if I don't admit to it can I get away with it again? Student S09
>
> Nobody is going to, even in strict confidentiality, people won't admit they're cheating or what they're doing they won't see as cheating. It depends where you draw the line.
> Student S07
>
> People think that it's alright if they get away with it.
> Student S10
>
> A certain percentage of people would admit to it but I think they are going to be the cocky ones who think they can get away with it. I

> think that a lot of, especially on the coursework kind of side of it, the people are probably what I would class as cheating but they don't see it quite as cheating, so they are not going to admit to it.
> Student S06

> I think there is a greater perception of cheating than is admitted, because I think it goes on a lot more than we – I think because it is so common, and I don't mean that everyone within the University is cheating like mad, but there are so many different aspects of cheating that it goes on so often that you just get blind to it, you just don't see it as cheating any more.
> *Interviewer:* do you think that if your fellow students were cheating, really cheating, in any serious way that they would admit to it anyway?
> *Student:* Not the bright ones, no (laughing). Some of the more like the younger ones probably because they just talk about everything all the time.
> Student S01

> I think they are a bit wilier than they are given credit for at times, and there's probably quite a lot of cheating goes on but it's carefully done so it's not picked up on.
> Academic A08

The major reasons for cheating identified in the questionnaire were pressure to pass, poor time management and laziness. When asked to comment on this in interviews, students confirmed that *pressure to pass* and *poor time management* were more influential reasons than *laziness*.

> Pressure to pass is more than laziness ... That's probably because I see everybody on this course as competent, I don't want to think of them as lazy. I've never really come across anybody on this course who I think would blatantly go out to cheat but I know that people have been up against things and just been under pressure.
> Student S01

> I would definitely agree with pressure to pass and poor time management. You all know the student life, they are out 'til two o'clock in the morning partying .... Then they're panicking two days beforehand and that's when you get all the excuses, it is time management.
> Student S09

5.10 Student knowledge of regulations on academic integrity

Question to students and academics

There was evidence from academic responses that their programmes provided written information as well as at least one taught session to students, normally during the first semester of the first year. At the time of interview, students had reached the end of their third and final year of study, and they demonstrated little or no recollection of that information or how it

could be accessed. One student described the use she made of her student handbook:

Interviewer: would you know where to look for regulations and penalties?
Student: No.
Interviewer: They are in the student handbook that you get in first year.
Student: I just use it as a door stop.
Student S06

Many academics spoke of their awareness of 'information overload' for students during the initial induction period,

> We do that in the seminar and it generates a lot of discussion, but I find then it's forgotten. That first term is *so* busy and *so* information-driven and so many bits of paper are given to students that if you actually quiz them about anything in trimester two it's lost in the mists of time. And they've faithfully filed all this stuff but it is just too much to take in.
> Academic A04

> To be fair you never really expect freshers to take all this on board, you know, there is such a lot going on, you sometimes wonder if some of these things are a bit over the top in freshers' week. ... I think for the students to kind of get a feel of plagiarism is something that is very, very difficult for them to understand.
> Academic A08

Academic A08 articulated an understanding of students' difficulties only hinted at by other academics, that is, the difficulty for students of understanding how not to plagiarise. He ensured that his programme employed an integrated strategy for encouraging students to check electronically their own work prior to submission through the readily available *TurnitinUK* software.

> We say, here's a tool, get a piece of work and put it through it, see what it says, we're not going to take any marks off you in this piece of work but we want you to use this tool in the future before you submit a piece of work, bang it through this, it will tell you if you're plagiarising.
> Academic A08

The strategy designed by academic A08 included a process of reminding students throughout the three year programme of the importance of not cheating. Ironically, it was in his programme that students were found to have cheated in the very module designed to educate them about its avoidance.

> Interestingly enough this year we had, I think, ten cases of collusion towards the assessment in the module that actually covered academic misconduct and introduced JISC (laughing). So, you know, it's like

> they were actually told about academic misconduct and then still colluded on the piece of work.

This example from academic A08 was from one year group only, and would be of greater concern had the pattern been demonstrated across all three years. Within the limitations of this study it was not possible to comment on the behaviour of that cohort in subsequent years. The 10 students referred to represented seven per cent of the cohort, while JISC refers to the Joint Information Systems Council: Plagiarism Advisory Service, the abbreviation JISC being frequently adopted by academics to refer to the *TurnitinUK* software used by the service.

There was evidence from physiotherapy and nursing that information provided for students on academic misconduct focused on the avoidance of plagiarism and collusion, and that other types of cheating were described only in the institution's written regulations. Even in situations where a variety of measures was adopted to inform students, students were largely unaware of the information or where it could be located:

> We are all aware that there are rules and regulations, but I think if you ask any student on campus I don't think you would get many that have read the rule book or read the regulations or know exactly what they say ... I think if you are at the point where you are considering cheating I don't think it makes any difference what the rules and regulations say, you've still got to do it.
> Student S01

The experience of the students in this sample may not be unique. Ashworth et al (1997:187) found that students in his sample were unclear about "the notion of plagiarism" to such an extent that they were anxious that they might unwittingly plagiarise.

5.11 Student views on penalties

Student opinion was firmly in favour of penalties and their enforcement, "because it's not fair on everybody else or the course itself" (Student S08). This reference to the course was interpreted as a rare student reference to the integrity of academic awards.

The majority of students (n=7), were in favour of a 'scare penalty' for a first offence, such as failure of the module with requirement to resubmit and gain no more than the minimum pass mark. Two of the same students would "throw them off the course" for a second offence, deeming that to be

professional misconduct and therefore to be viewed extremely seriously. When invited by the interviewer to consider the different degrees of, for example, plagiarism (from copying one or two sentences through to complete essays) six out of ten students acknowledged the difficulties of determining fair and equitable penalties, and two believed that individual circumstances should be taken into consideration.

5.12 Perceptions of what would discourage cheating

Question to students and academics

All students and many academics agreed that it was very difficult to discourage cheating; in addition, there were two overarching themes of communication and awareness that were common across student and academic responses. Three suggestions for decreasing cheating were identified from the two themes:

1) Checking

   Academic perspective

   that more consistent use should be made of existing information technology such as electronic submission and plagiarism detection software.

   Student perspective

   that there was insufficient checking of all assessments: that invigilators in examinations should be more vigilant and rigorous, and that academics should build in formative checks on the progress of essays as well as dissertations:

   .... the written exams, having people, more people in the exam hall might put people off a bit more.
   Interviewer: more invigilators?
   Student: Yes ... and in course work essays maybe have things checked more often, people's references properly checked, and make people aware that people are doing that.
   Student S07

   Provide a certain amount of information ... so that you can see a natural progression between ... (drafts) ... to your final draft kind of thing ... Maybe ten percent could be chosen at random ... the threat almost of that would make people think that they'd better do that one properly. It would make me more organised and much more careful of references as you go along rather than wait until the end.
   Student S06

2) Investigating and communicating

Students stated that there should be greater enforcement of penalties and that that fact should be communicated to students as a deterrent. In addition, that universities and academics should take a firmer line,

investigate their suspicions and inform students of outcomes. The following quotes are typical:

> 'Cos I think there is a lot of, kind of false threats made a lot of the time, and nobody bothers following it through because it is too much trouble.
> Student S01

> I think if university penalties were enforced, or people saw them being used more often, they would be a big deterrent. But I don't think you very often, well I certainly haven't heard of anybody who has been accused of, and followed through for cheating. ... But because it is so hush hush if it is happening, I don't know how much it is happening, then it's not going to put people off, it's a risk they are prepared to take obviously.
> Student S07

Roig & Ballew (1994) reported Forsyth's (1985) findings that students who cheat are "likely to engage in external attributions in an effort to excuse their behaviour". Students in the study reported here were in no doubt that universities had a responsibility to ensure that opportunities for cheating were minimised, and suspicions investigated rigorously. These views are consistent with Davis *et al.*'s findings (1992:19) that one of the key factors in students cheating was "condoning teachers".

3) Increasing awareness

Academics identified the need for academics to better educate students. Elements of necessary education identified were: that their learning suffers if they cheat, the importance of academic integrity, and the existence and purpose of university academic misconduct panels.

Students believed that awareness of cheating should be raised across both the student and the academic communities:

> .... maybe staff need to be made more aware of it and look out for it more.
> Student S02

> kind of educate people what cheating is more .... I think there should definitely be more education on what is gonna happen if you're cheating and what is cheating, that the University classes as cheating.
> Student S08

The suggestion from student S08 echoes one of the recommendations made by Carroll and Appleton (2001), although it is unlikely that the student quoted would be aware of that. Carroll and Appleton advocate the design of

assessments that do not facilitate cheating, a principle supported by another student who volunteered:

> I think the key, I think something that I have learned from this course particularly, is that there are certain types of assessment in which cheating is made really difficult and I think rather than attempting to abolish cheating, because I think in certain situations, certain people will maybe cheat, I think for this particular course the fact that the practical assessments make it really, really hard to cheat shows that there is a way of assessing people without having to worry about cheating because it's not really possible to cheat ... the best way would be to have deterrents for the cases where you can't design out cheating but other than that design assessments where cheating is impossible.
> Student S02

One reflective comment from an academic was memorable. Whilst individual comments are open to accusations of anecdotalism, this one has been included because of its relationship to the theme of educating students about the loss of learning that results from cheating

> It would be impossible to do but would be the most beneficial thing to do I think, would be to have a time machine so that you could take students five years down the line and then they might actually think well, I actually wish I had done that work for myself now because the benefits that you actually gain from doing the work yourself, and having done the work, being able to think back on it, can only really be felt after the facts, and at the end of the day, that's what we are really all here for.
> Academic A08

Summary of chapter

Students identified two aspects of assessment that were instrumental in their learning: authentic assessment and their self-directed research of the subject.

One feature of the student and academic interviews was the level of agreement shown on many key issues. Both students and academics rated cheating in examinations as the most serious cheating. There was some difference between the two groups in their perceptions of the seriousness of a range of cheating behaviours but differences were restricted to those behaviours deemed by both groups to be less serious than cheating in examinations.

Students confirmed the finding from the questionnaires that perceptions of cheating were much higher than self-reports. Students stated that any questionnaire self-reports of cheating would represent an under-reporting, even in anonymous questionnaires, and identified two reasons:

- self preservation and the maintenance of the assessment status quo so that future assessments would not pose a higher risk of detection
- a lack of recognition in some students that their actions were unacceptable.

Written coursework assessments such as essays were identified by academics as the assessment type most likely to lead to students cheating. Despite that, such assessments formed a large element of course assessment strategies, with titles recurring in successive years on some courses. The most common types of cheating within the essay mode were collusion and various degrees of plagiarism. Students differentiated between serious cheating, frequently observed cheating and 'grey areas' that were insufficiently understood. This 'grey area' interpretation has important implications for higher education strategies to minimise cheating as it includes behaviours such as plagiarism and lack of acknowledgement of sources, self-reported most frequently by students - and at the same time is the aspect identified by students and academics alike as being the most difficult to define clearly.

Student attitudes to cheating fell into three categories: annoyance (with cheating students as well as with the systems that enabled students to cheat with impunity), disinterest and pity. Few students though wanted to be involved in reporting fellow students who cheated, as that was seen as a more reprehensible action than cheating.

Almost half of the academics interviewed had been deterred from investigating their suspicions of student cheating, largely due to the time taken to investigate. The remaining academics almost always followed up their suspicions because of their attitudes to professionalism and the professionalism they expected from their students. Nine academics believed that their students were cheating to a much greater degree than was indicted by their university's statistics.

A few academics acknowledged the overload of information to which students were subjected in freshers' week but most believed that they provided students with all necessary information on the avoidance of cheating. Students acknowledged receipt of information on cheating and its avoidance, but did not read it and could not recollect where it could be accessed. Student opinion was, however, firmly in favour of the enforcement of strong penalties as a deterrent as well as to maintain the integrity of academic awards.

The following chapter discusses the key issues arising from analysis of the questionnaires and interviews, in the context of the relevant research literature.

CHAPTER 6

DISCUSSION

The research literature indicates that large numbers of students worldwide will cheat, even if only occasionally, to gain advantage in assessments. There is ongoing debate about the influence of gender, level of study and subject discipline on student cheating, and there is evidence to support the influence of goal orientation as well as student perceptions of the extent of cheating in their peers; both of the latter influences have been associated with reasons for students cheating. Analysis of the data arising from this study resulted in several findings that add to the existing knowledge of why, and in what ways, students try to gain unfair advantage in assessments. This chapter discusses themes introduced in earlier chapters in the context of existing research literature.

6.1 Assessing the extent of cheating: perceptions and self-reports in context

One acknowledged problem in researching student cheating is the difficulty of determining its true extent. The student sample in this study demonstrated that there was a significantly higher perception of cheating in "other students like them" than their own self-reports would indicate. Hard *et al.* (2006) reported similar differences between perceptions and self-reports, which they attributed to peer descriptive norm beliefs, viewed by them as being extremely important due to their tendency to lead to higher levels of negative behaviour (in this case cheating) than would be the case if group perceptions were more accurate.

The differences in perceptions and self-reports found in this study are not consistent with the findings of Franklin-Stokes and Newstead, 1995, where the high perceptions demonstrated by their sample were matched by similarly high self-reports of cheating. Both the study reported in this thesis and Franklin-Stokes and Newstead's research used similar lists of cheating behaviours as a basis for anonymous questionnaires, but methodological differences between the two studies could account for the difference in findings, as discussed in Chapter 2.

It is likely that several factors contributed to the difference in the present study between perceptions and self-reports. Eysenck (1998) describes normative influences that, in this case, would have resulted in students conforming in their self-reports to what they thought would be the positive expectations that others may have of them. Smith, Hogg, Martin and Terry (2007:770) described normative influence as arising from "a desire to conform to the positive expectations of others – people are dependent on others for a positive regard, and comply with them to be liked ... traditionally considered the type of social influence most often associated with groups." Smith *et al.* went on to discuss the relationship between attitudes and behaviours: "when people view themselves as belonging to a group and feel that being a group member is important to them, they will align their behaviour with the norms and standards of the group" (p.772). Such theories help to explain the findings of McCabe *et al.* (2001) that showed that the most influential factor in students choosing to cheat was a perception of a high level of peer cheating.

Group influences, individual behaviours and attributions

McCabe & Trevino (1993, 1997) and McCabe *et al.* (2001) identified the strong association between academic misconduct (cheating) and student perceptions of peer behaviour:

> the strong influence of peers' behaviour may suggest that academic dishonesty not only is learned from observing the behaviour of peers, but that peers' behaviour provides a kind of normative support for cheating. The fact that others are cheating may also suggest that, in such a climate, the non-cheater feels at a disadvantage. Thus cheating may come to be viewed as an acceptable way of getting and staying ahead.
>
> (McCabe *et al.*, 2001:222)

McCabe's research in the U.S. has shown that where students believe that their peers are regularly cheating in assessments then their own self-reports of cheating are likely to be high; conversely, in many institutions with honour codes where there are expectations of honesty, self-reports are low. Such situations would be supported by social identity theories whereby individuals who perceived themselves to belong to a group, and believed that their membership of that group was important to them, would "align their behaviour with the norms and standards of the group", as adoption of the group standards provides "internalized guides for behaviour" (Smith *et al.*,

2007:772). Smith *et al.* found consistent evidence that adherence to so-called group norms would be more likely when individuals were experiencing a period of uncertainty, irrespective of its cause. Humans experience periods of uncertainty throughout life, and students no less than other groups. In fact it could be argued that the pressures of student life create undoubted uncertainties of success and failure, finance, employment and location moves, in addition to relationship and personal uncertainties.

Lapinski and Rimal (2005) discussed behavioural traits that determine the extent to which individuals within groups are "susceptible" to normative influences, and the importance of the behaviour itself as a determinant of individual and group attitudes. They wrote that

> ... one of the factors people use in making behavioural decisions pertains to their assessment as to whether others also engage in the behaviour. Yet, the power of normative influences has to be understood in the context of individuals' own judgements and behavioural constraints." (p.128).

They stated that, in order for individuals to be influenced by behaviours or attitudes in their social groups, they must "either feel some degree of affinity or desire connections with their reference group." (p.135).

Lapinski & Rimal (2005:129) went on to describe "social networks" such as, in this case, student groups whose collective norms may not coincide with the collective norm of the larger society in which the student group is located. Their theory, applied to a student group, would therefore mean that students may believe some behaviours to be acceptable within their student groups but would be reluctant to admit to those behaviours in wider society due to perceived negative connotations associated with the concept of cheating. This would support the findings of this study in which perceptions were higher than self-reports. They raised a key question, rhetorical in their paper, that is relevant to this study and to any discussion of normative theories: "What factors must exist in order for people to exercise their own judgement and defy normative influences?" (p.128). They also challenge some of the existing empirical evidence for normative influences, describing the conclusions as "suspect" due to methodological limitations. It is important to note that social norms, while related to behaviours within a social grouping are still reliant on individual perceptions about the extent of the behaviours or attitudes. "Individuals often misperceive the prevalence of

a behaviour in their social midst ... and the magnitude of this misperception is positively related to interpersonal discussion about the topic" (p.132).

Students in interviews confirmed that the difference found between perceptions and self-reports was not unexpected, stating that any student self-reports would undoubtedly represent an under-reporting. They believed that students who engaged in cheating would either not perceive their behaviour as wrong or would not admit to it even if they did, not wishing to alert academics to the ease with which cheating can take place in case greater rigour resulted.

The student perceptions of cheating are supported by the findings of Forsythe *et al.* (1985) who suggested that students protected their sense of self-esteem by externalising their actions, and that those who cheat "insulate themselves from the esteem-damaging consequences of their behaviour, so the self-regulatory processes that encourage conformity to norms of morality such as self-condemnation, guilt, shame, do not work to limit cheating." (p.80-81). Forsythe *et al.*'s views are consistent with those of Weiner (1992:17) who described the basis of many human behaviours as being the "enhancement or maintenance of self-esteem."

Walther and Bazarova (2007:3) wrote "It has long been recognised that, in order to maintain and enhance self-esteem, individuals cite situational explanations for their own actions, just as they tend to overlook situational factors that shape others' behaviour." They define the implications for learning arising from attributional tendencies as "... self-attributions – the acknowledgement of personal responsibility or its deflection – potentially determines learning and improvement." (p.1).

According to Weiner (1992), the basis of attribution theory is that individuals try to determine reasons for the occurrence of events, in particular those that are unexpected or negative. By 2008, Weiner (2008:154) had refined his theories of attribution, stating that it was inaccurate to refer to attribution theory as if it were a unitary concept, preferring attribution to be seen instead as a "field of study." Since cheating behaviour, when it is acknowledged as cheating, is perceived as negative, it is not surprising that students attribute reasons for its occurrence, in order to protect their own self-image. Newstead *et al.* (1996:239) refer to students tending to

"neutralise (rationalise) their own behaviour" in order to attribute blame to "the situation rather than to the individual" and thus to avoid acceptance of responsibility for their own behaviour.

Gollan and Witte (2008:189) base their theoretical framework of prescriptive attribution on Heider's concept of "oughts and values" (1958) that proposed the notion of "oughts" as shared beliefs or expectations about actions that should, or should not, be undertaken in a given situation. Since these proposed "oughts" represent generally expected standards of behaviour, they underpin socially shared moral judgments and, as such, are consistent with theories of social and group norms. Gollan and Witte suggest that justifications are one means of accounting for behaviours that are inconsistent with "ought requirements,"
differentiating between "reason attributions" which would lead to statements such as "I did x because ..." and what they refer to as "prescriptive attributions" which would be presented as "It was right to do x because ...". The rationale for their proposals is that justifications include a "moral evaluation or a moral judgment of the relevant action," and propose that "inconsistencies between actions and ought standards create the need for account-giving, with justification being one of several strategies of account-giving."(p.195). The usefulness of this theory is, however, questionable since the difference between "I did x because" and "I was right to do x because" is not necessarily a useful distinction, particularly if the respondent's justification includes "I did x because it seemed the right thing to do." Gollan and Witte note that the key difference between explanations and justification is that they are based on different objectives, prescriptive attributions being based on ethical principles, and themselves acknowledge that "in other respects, explanation and justification are quite similar to each other." (p.192). Students in the present study attributed cheating in their peers to a range of factors, including negative character traits and not perceiving cheating behaviours to be wrong.

De Cremer (2000) claimed that those who identify strongly with their peer group adopt group-serving attributions to a greater extent than those who demonstrate weaker group identification and further, that group members with particularly strong group affiliations associate positive group outcomes with the positive qualities displayed by group members but perceive negative outcomes to be due to external rather than to internal influences.

The perceptions of high levels of cheating found in this study could be due either to a to generalised weak group identification or to an attitude in many students that cheating, particularly in course work, was either not perceived negatively or was condoned. Such an attitude, displayed by many students in the sample and supported in interviews, would in turn have the effect of creating a sub-group of students for whom cheating or breaking assessment regulations was not unusual and who would strongly associate themselves with the values of that group. Interviews with students identified a further two sub-groups within the sample: those who were unconcerned as long as it did not affect them, and those angry at the injustice of cheating students apparently gaining advantage with impunity. The three attitudes are presented in Figure 9.

Figure 9: Attitudes towards cheating

Sub-group 1	Sub-group 2	Sub-group 3
Students prepared to cheat	Students unaffected by, and accepting of, others cheating	Students angered by cheating

Interview conversations suggested that the students who volunteered to be interviewed as part of the study largely demonstrated group 2 and group 3 attitudes of "not bothered" and angry respectively. According to Lapinski and Rimal's suggestions (2005) the students in sub-group 3 would have had little affinity with those in sub-group 1. Some students reflected on the questions asked and admitted that there was a grey area of uncertainty within which many students completed assessments and gained varying degrees of unfair advantage.

Student comments confirmed findings from other studies, such as Ashworth *et al.* (1997), that students were often unclear about where the line of acceptable and unacceptable assessment behaviour should be drawn. This

grey area interpretation has important implications for higher education strategies to minimise cheating as it includes behaviours such as plagiarism and lack of acknowledgement of the work of others – the behaviours self-reported most frequently by students - and at the same time is the aspect identified by students and academics alike as being the most difficult to define clearly.

6.2 The most common modes of cheating

This study identified that the cheating behaviours self-reported as most frequent were those related to coursework. Questionnaire respondents identified the most frequently-used behaviour as *paraphrasing material from another source without acknowledging the original author,* which was self-reported by more than 68% of the sample. In second place, self-reported by almost 60%, was *copying material for coursework from a book or other publication without acknowledging the source.* Both behaviours are forms of plagiarism, and should be considered in the context of the student view, expressed in interviews, that students do not view plagiarism as cheating:

> ... in theory it's cheating but I would say that we've probably all done it. Student S04

Paraphrasing and copying material without acknowledgement have been the focus of many other studies within the umbrella term of plagiarism. The findings of this study are consistent with those of several others, such as Barrett & Cox (2005), who reported that plagiarism and collusion were the two most common forms of cheating in assessments. There is consistency also with the findings of Scanlan (2006) who reported that 60% of health students self-reported cheating, and with Ashworth *et al.* (1997) who described students' uncertainty in understanding plagiarism, and for some their concern that they might plagiarise inadvertently; they also found that plagiarism is generally not viewed by students as a major misdemeanour. Ashworth's students' views are supported by those of Macdonald and Carroll (2006:242) who suggest that in investigations of student cheating "the majority ... would be ... misuse or misunderstanding of academic conventions with only a small minority reflecting serious deliberate plagiarism."

Bennett's 2005 study found that only 46% of his student sample (n=249) "agreed or strongly agreed with the statement that plagiarism was fundamentally immoral and shameful" and that 25% self-reported having

copied an entire piece of assessed work, 16% of the sample admitting to doing this "more than once or twice" (p. 149). Bennett (2005:158) also reported that students with weaker academic grades were more likely to report minor but not major plagiarism, proposing that "the academically weak are sometimes more prone to take short cuts by plagiarising in order to improve their academic performances."

Academics in the study reported here suggested in interviews that it was the less able students whose plagiarism was more obvious, and that the more able students could plagiarise without being discovered because of their advanced writing skills:

> It's the ones who aren't as sort of bright that don't get away with it because it's quite obvious that they've copied or that it's not their own work. ... I think they (the more able students) are a bit wilier than they are given credit for at times, and there's probably quite a lot of cheating goes on but it's carefully done so it's not picked up on. Academic A08

This is resonant of Ryan (1998), cited in Heberling (2002:2) who observed that "the laziness that prompts students to cheat can also prompt them to do a terrible job with their plagiarism."

Behaviours with the lowest levels of self-reporting included cheating in examinations, or behaviours such as lying, bribery or seduction. During interviews, students and academics rated the seriousness of cheating behaviours. Comparisons of self-reported cheating with the student ratings of seriousness showed an inverse relationship between the two, with the most seriously rated behaviours being self-reported as very infrequent or not at all. This is consistent with the findings of Franklin-Stokes and Newstead (1995) and Lim and See (2001) where students rated exam-related cheating as more serious than cheating in coursework, such as plagiarism, and self-reported much lower levels of cheating in the behaviours rated as serious. Such findings are unsurprising. Fewer students are likely to engage in the most serious forms of cheating, and those who do so would be unlikely to admit to it but would be more likely to provide socially desirable responses. This so-called 'social desirability response set' reduces the validity of self-report questionnaires since respondents tend to provide responses that they perceive to be socially desirable even though they may not be true. Assuring anonymity and confidentiality of responses was one means of reducing the

social desirability response and increasing validity, as was starting the questionnaire with a rating of behaviours in "students on a course like yours" before moving on to self-reporting their own behaviours. Despite the inclusion of measures such as these it is recognised that self-reporting, although necessary to the study's aims, can not provide guarantees of veracity. This perspective is developed in Section 6.5.

6.3 Influences on cheating

In their selection of major reasons for other students cheating, more than 50% of the student sample identified *pressure to pass, laziness, bad time management, lack of subject knowledge* and *ineffective study skills*. These findings were confirmed by students in interviews who stated that *pressure to pass* and *poor time management* were the two foremost reasons. With the exception of *pressure to pass* and *part time work* the other reasons highly rated indicate negative perceptions of other students, in line with attributional bias and social identity theories, as discussed in Section 6.1. These findings are consistent with other studies. Davis et al (1992:17) reported on several studies dating from as early as 1941 where "stress and pressure for good grades" were important factors in students cheating, and McCabe *et al.* (2001:228) reported on their own studies that had identified "pressure to get high grades" and laziness as well as "poor self image and lack of character" as major contributors in cheating. When asked to select major reasons for students not cheating, those reasons selected were associated with positive personal qualities such as diligence and motivation. Rogers (1981, in Satterwhite, 2000:287) described how "the self serves as an anchor point or immobile point of reference" to which others are compared. This is supported by theories of essentialising individuals into categories – in this case cheating students would possess negative traits and non-cheating students would choose not to cheat because of their innate positive qualities (Gaudelli, 2001; Hunter et al. (2000).

Motivational aspects

"Research indicates that the adoption of specific goals leads to predictable cognitive, affective and behavioural outcomes." (Anderman & Midgley, 2004).

Dweck (2000) suggested a relationship between performance orientation and maladaptive strategies such as avoidance (in contrast to mastery orientation,

where avoidance is less likely). Anderman and Midgely (2004:502) found that self-reported cheating was positively related to performance goals and negatively related to mastery goals, but drew a distinction between avoidance and cheating, stating that "a student who uses an avoidance strategy most likely will not obtain a higher grade in class; however, the student who successfully cheats will unfairly obtain a higher grade". Urdan and Midgely (2001) have discussed the concept of academic self-handicapping whereby students excuse low performance in assessments by deliberately engaging in distracting techniques (such as partying the night before examinations so that, in the event of low achievement, the party is the excuse rather than them being seen as having lower ability). Academic self-handicapping is resonant of Dweck's learned helplessness (1986; 2000) and maladaptive motivation, both avoidance strategies. The notion of self-handicapping is consistent with a form of attribution whereby students could attribute their failure, perceived or real, to the behaviour rather than to their decision to adopt that behaviour. Urdan and Midgely "believe that the primary motive for engaging in handicapping is a fear of failure and a fear of appearing stupid or less able than ... they want to appear to others." (p.119).

Mastery orientated students would be more likely to strive towards self-actualisation in their aspiration towards increased knowledge. The research reported in this thesis asked students to rate the importance of their degree classification as *very*, *fairly*, *not very* or *not at all* important. In terms of mastery and performance orientation the degree classification would be the outcome for performance orientated students while the learning from the degree would be a strong motivator for mastery orientated students (although it is likely that for many individuals there would be elements of both mastery and performance drive). The results showed that high importance was placed on the classification of degree, with almost 68% of the student sample overall rating their degree classification as very important, and no students rating it as not at all important. Since the classification of the degree is frequently a determinant of "first destination" job success, the results are not surprising. There was an interesting difference, however, between the student groups: more than 84% of psychology students rated their degree classification as very important compared to 55% of healthcare students.

The difference may be due to the expectation of job availability for healthcare graduates at the time of the survey, in contrast to the less certain situation for psychology graduates where the degree classification would be more important in a competitive situation. It should be noted that, since the time of the survey, the availability of jobs in healthcare professions has reduced markedly, and that if the survey were to be repeated the responses to this question may now be different.

Urdan and Schoenfelder (2006:331) described how, until recently, psychologists have largely accepted motivation to be an "individual difference variable," with emphasis on the socio-cognitive aspect. In challenging that view they examined the extent to which socio-contextual factors such as the learning environment could affect student motivation, either negatively or positively, and described how the "relationship between social and academic goals can be influenced by teacher policies and practices in the classroom" (p.342). They concluded that schoolchildren's academic motivation was a product of intrinsic and "situational characteristics" (p.345) and that therefore the attitudes, characteristics and expectations of the educator were influential in helping to determine the motivation of the students. This view is consistent with the work of Murdock *et al.*, cited in Anderman and Midgley (2004:502) who found that "students reported that they were less likely to cheat when they perceived that their teachers were committed and competent, and when they perceived that teachers respected students" (p.502). In the context of higher education the students in this study demonstrated a perception that academics were unlikely to investigate suspicions of cheating, and that therefore cheating was seen to be a risk worth taking. The Urdan and Schoenfelder theory of teacher influence on student motivation would be consistent with the attitudes of students in the present study. Student belief that many lecturers would not investigate suspicions of cheating could plausibly affect motivation and influence the potential for students to cheat.

The level of risk: academic investigation of suspected cheating

> The reward of a better grade or that of avoiding failure is cognitively balanced against the risks involved in being caught with plagiarism. Although fear of being caught is a strong deterrent to academic dishonesty, the estimated risks are often low.
> Szabo & Underwood (2004:181)

Almost a third of the student sample (29.6%) believed that a major reason for cheating was a lack of perceived deterrent. Analysis of questionnaire data found a significant association between student perceptions of cheating in their peers and their perceptions of the infrequency of students being found guilty of cheating. This finding was supported by student interview comments that indicated a perception that academics did not investigate their suspicions.

Roig & Ballew (1994:8) reported Forsyth *et al.*'s (1985) findings that students who cheat are "likely to engage in external attributions in an effort to excuse their behaviour". Students in the present study were in no doubt that universities had a responsibility to ensure that opportunities for cheating were minimised, and suspicions investigated rigorously. These views are consistent with Davis *et al.*'s findings (1992:19) that one of the key factors in students cheating was "condoning teachers". Students may therefore, even subconsciously, attribute cheating behaviours to the fact that they can get away with it.

Student views on the lack of enforcement of regulations on cheating were supported by five of the academics in this study and were consistent with the findings of researchers on both sides of the Atlantic. Almost half of the academics interviewed had been deterred from investigating their suspicions of student cheating, largely due to the time taken to investigate. The remaining academics stated that they almost always followed up their suspicions because of their attitudes to professionalism and the professionalism they expected from their students. Nine academics believed that their students were cheating to a much greater degree than was indicted by their university's statistics.

Barrett and Cox (2005:109) reported that 51% of academics in their sample admitted ignoring their suspicions of cheating, and highlighted one aspect of the dilemma for academics: "But plagiarism is rarely a clear-cut case of theft and there are many situations that can make academics uncomfortable". This echoes the findings of Ashworth *et al.* (1997) who identified the difficulty of defining plagiarism.

McCabe *et al.* (1993; 2001) found that academics prefer not to become involved in bureaucratic investigations of student malpractice and that observant students can take advantage of such loopholes, believing that they could otherwise be disadvantaged since their peers are doing the same. Newstead (2003) identified increasing workloads, higher staff : student ratios and the workload associated with assessment as factors in the increasing levels of stress observed in academics, all possible contributory reasons for many academics preferring not to engage in formal institutional investigations of student cheating. Hard *et al.* (2006:1076) reported that academics who underestimated the extent and frequency of cheating in their students "very rarely take action to challenge students' misconduct."

In another study, out of almost 500 U.S. university professors surveyed, 20% admitted that they had not taken action in obvious cases of cheating (Keith-Speigel *et al.*, 1998). Given the potential for student motivation to be affected by observing their tutors turning a blind eye to cheating students, Keith-Spiegel *et al.* hypothesise that "some students inclined to be honest may be faced with an unwelcome moral dilemma: should they cheat to keep up with the class or maintain their honesty and risk getting a lower grade" (p.225). Their findings included the assertion of academics in their sample that "dealing with cheating is among the most onerous tasks of the profession" (p.215) and in addition echo McCabe *et al.* (2001:222), who stated that "in such a climate, the non-cheater feels at a disadvantage."

The effect of assessment design

Of the twelve academics interviewed, ten identified written coursework submissions, such as essays and dissertations, as the assessment mode most conducive to student cheating. Within that mode, the most common methods of gaining unfair advantage were cited as collusion (n=6), insufficient acknowledgement of the copied or paraphrased work of others (n=6) and procurement, normally through purchase, of completed assessments from other cohorts (n=4). Purchase of essays from other cohorts was perceived to be common, as was purchase from a range of internet sites, yet despite this in one programme the titles of essays in consecutive years were changed rarely and then only in response to academics recognising essay answers as being the same as they had read in previous years. One academic stated: "We actually had to change it because, after six cohorts (*laughing*) all the markers were beginning to recognise it

was being regurgitated." (Academic A01). Students themselves recognised that assessment design was important in minimising opportunities to cheat:

> I think the key ... is that there are certain types of assessment in which cheating is made really difficult and I think rather than attempting to abolish cheating, because I think in certain situations, certain people will maybe cheat, I think for this particular course the fact that the practical assessments make it really, really hard to cheat shows that there is a way of assessing people without having to worry about cheating because it's not really possible to cheat ... the best way would be to have deterrents for the cases where you can't design out cheating but other than that design assessments where cheating is impossible.
>
> Student S02

This is resonant of Macdonald and Carroll's (2006) "holistic approach" to the problem, focusing on prevention rather than penalty. Kirkvliet and Sigmund (1999) also recommended straightforward solutions and found that when students were orally reminded by their lecturers that cheating of any kind was in contravention of university regulations they were significantly less likely to cheat than students who were reminded only through written handouts.

6.4 Differences between the student groups

This study compared the perceptions and self-reports of cheating in healthcare and psychology students. The results showed that there was a significant difference between the two student groups in their *perceptions* of cheating, with psychology students perceiving a greater degree of cheating in "students like them" than did healthcare students.

Self-reported cheating presented a different picture, as 22 of the possible 27 cheating behaviours showed no statistically significant differences between the student groups. Examination of the five remaining behaviours revealed that, on average, psychology students admitted to more cheating in those five aspects of coursework than did healthcare students. Despite the apparently significant result for five behaviours, on the basis of these findings it can not be assumed that psychology students cheat more frequently than do healthcare students. Firstly there was no significant difference for the majority of the 27 behaviours, and for the remaining five it is possible that psychology students were more truthful in their self-reporting

than were the healthcare students, although if that were the case the difference may have been expected to be consistent across all behaviours. The five behaviours included *alteration* and *invention of date* as well as *collaboration*, all of which would be associated with the assessment of laboratory and project work.

A subsequent review of assessment methods for the sample revealed that healthcare students have limited opportunities for data manipulation in assessments due to their limited exposure to laboratory work and practical experiments. This difference in the assessment experiences of the two student groups would account for any apparently significant difference between the groups in their self-reported use of those few behaviours.

Interviews with academics revealed that, compared to the healthcare degrees, the psychology degree provided a greater amount of both information and structured support designed to improve students' understanding of academic integrity and to reduce cheating. Despite that, there was no overall significant difference between the two groups in their self-reported cheating. This finding is consistent with the findings of Hrabek's Croatian study (2004) and Rennie and Crosby's (2001) research with Dundee University medical students, both finding levels of self-reported cheating in medical students that were not dissimilar to those reported in other subject disciplines. Hrabak reported that 94% of his sample self-reported cheating at least once in their university studies, while Rennie and Crosby reported 56% self-reporting "copying directly from published text and only listing it as a reference." Closer scrutiny shows that a definition of cheating is important in interpreting the results. Whilst 94% of Hrabak's study admitted to "cheating" at least once during their degree studies, self-reporting was in inverse proportion to the perceived seriousness of the behaviour, as has been shown by the work of Franklin-Stokes and Newstead (1995) in their own research with psychology students. For example, the behaviour reported by the highest number of Hrabak's students (89.1%) was "signing in an absent student on a class attendance list" and that reported by the fewest (0.7%) was "paying for passing an examination".

The perceived importance of the learning experience

Interestingly, there were no significant differences between the student groups in their attitudes to the importance of the learning experience, with

more than 98% of both groups rating the importance of their learning as either very or fairly important, and more than 70% of each group as very important.

In 2002 the Assessment Reform Group wrote that "the value that assessment can have in the process of learning .... has been widely recognised" (Beyond the Black Box, 2002). The similarity between healthcare and psychology students' attitudes to the *importance of the learning from their degree* was not anticipated. Jenkins *et al.* (2001:150) investigated long term effects of degrees on graduate lives; whilst the majority of graduates in their sample "admitted that course content grew less and less useful", the exceptions to this were those who needed specialist subject knowledge, in that case Geography, in their jobs. It was to be expected that students entering healthcare professions would recognise the importance of their learning to safe professional practice but it was not expected that the psychology students would demonstrate the same attitudes. This finding thus created an apparent anomaly: students in the sample confirmed the high importance of their learning experience yet several cheating behaviours were self reported by large numbers of students in both groups.

There are several explanations that could explain the apparent contradiction. Firstly, if the links between assessment and learning are not obvious to students then the loss of learning through cheating will not be appreciated: students will cheat without associating their actions with loss of learning. Students interviewed by Pennnycook did not accept that plagiarism decreased learning opportunities. One stated: "Whether I copy or not, I know the material. I don't think we should be forced to say it in our own words .... I don't think if one plagiarises, that means he doesn't learn anything .... Perhaps plagiarism is a way of learning." (p.225). Secondly, students may not recognise some behaviours as cheating (Burrus *et al.*, 2007). Thirdly, it should not be assumed that students could not learn in ways other than through assessment, and may therefore deliberately choose to cheat in assessments believing that they can learn in other ways or at other times. Fourthly, analysis of completed questionnaires showed that the highest levels of self-reporting were for behaviours that may be perceived by students as unlikely to reduce learning, such as *signing as present a fellow student on a course where obligatory attendance is required* or *paraphrasing material from another source without acknowledging the original author*. Finally, more

than 90% of the students surveyed rated *pressure to pass* as a major reason for cheating, consistent with other studies such as Davis *et al.*, (1992). At times of stress, pressure to pass may prove to be a stronger influence than the desire to learn.

6.5 The reliability of self-reporting

Whilst student self-reports of cheating have been widely used in other studies (Franklin-Stokes and Newstead, 1995; Anderman & Midgely, 2004; Marsden *et al.*, 2005), it is generally recognised that they are not a wholly reliable measure, particularly of sensitive issues. Students in the present study reported in interviews that other students would be unlikely to self-report the true extent of cheating: "I think they wouldn't admit to it, I really do, yeh, even anonymously .... So if they aren't admitting to it are they thinking ahead, thinking if I don't admit to it can I get away with it again?" Student S09.

An alternative measurement of the extent of cheating would have been to assess the number of cases that have been formally investigated for suspected cheating. According to academics in this study however, the number of cases investigated is not necessarily representative of the true extent of cheating. Academic AO8 volunteered:

> Well, in terms of numbers, the only numbers that I have got ... are the cases that we have actually detected, and we have very, very few cases picked up per year. Interestingly enough, this year we had, I think, 10 cases of collusion towards the assessment in the module that actually covered academic misconduct and introduced JISC. (*laughing*) So you know, it's like they were actually told about academic misconduct and then still colluded on the piece of work. So, those are the only sort of figures that we have, em, which run at very small numbers of students per year.

and continued:

> I think that most students are ... going to take some kind of (*pause*) they are going to think, right, I'm prepared to take some kind of a gamble in adding a bit of extra flavour to this that's not actually mine, but I'm going to proof read it, I'm going to get my flat-mate to proof read it and just see if they spot it, if they see some (*pause*) and so I think that they are a bit wilier than they might be given credit for at

> times, and there's probably quite a lot of cheating goes on but it's carefully done so it's not picked up on.
> Academic A08

Based on information obtained through Freedom of Information legislation, the Australian press reported early in 2006 that universities in Victoria had, over the previous two years, severely punished between 900 and 1000 students found guilty of cheating. Penalties ranged from fines to suspension for up to five years and, for some, expulsion (Beauchamp, 2006). Whilst the numbers of students found guilty of cheating in this instance may seem high, there is no evidence that those numbers are an accurate representation of the real extent of cheating, or that those universities' figures are typical of other institutions.

As another alternative to the use of self-reporting questionnaires Newstead *et al.* (1996) described the randomised response technique, whereby a pre-determined random event such as the tossing of a coin would determine whether respondents answered questions on, for example, their own cheating or on questions related to a different, less sensitive subject. They reported that the use of the randomised response technique had suggested that anonymous questionnaires presented a slight underestimation of actual cheating, a view consistent with that of Scheers and Dayton (1987). Kirkvliet and Sigmund (1999) used a randomised response technique to assess the probability of cheating in their students, having found that only 1.9% of their sample (n=153) self-reported cheating through anonymous questionnaires. Their mathematical formulae (logit functional forms) for calculating from responses the extent of cheating still yielded only probabilities and estimates, which calls into question any advantages over other methods of investigation.

Eysenck (1998:675) described any situation that relies on self-reporting as potentially "suffering from the problem of participant deceit", not necessarily an intentional deceit but a subconscious "protection of self-image" linked to social desirability. In the absence of a reliable means of measuring actual cheating, the anonymous questionnaire has been the method of choice for most researchers. Beck and Ajzen (1991:291) predict that, despite their inherent potential bias, reliance on self-reports as a research tool in social psychology is not likely to alter as there is no "practical alternative".

The difficulty of measuring behaviours such as cheating is summed up by Anderman *et al.* (1998, in Anderman & Midgley, 2004:514) who state that "it is difficult to measure actual cheating behaviours because the very nature of cheating precludes direct observation". Will, Eadie and Macaskill (1996:38) recommend the use of projective and enabling techniques in order to decrease the perceived threat of direct questions about sensitive subjects. Such techniques invite respondents to "ascribe behaviour to a third party" especially in situations where the behaviours and attitudes in question may be perceived as unacceptable.

After consideration of the strengths, weaknesses and lack of consensus on the merits of the methods of measurement available, it was decided to use anonymous self-reporting questionnaires that would adopt a very simple style of projective technique by asking questionnaire respondents questions about "students on a course like theirs" before requiring self-reporting of cheating behaviours. For the same reason, questions seeking reasons for cheating or not cheating used similar projecting questions.

6.6 The truth of responses

> You may need to ask yourself how engaged the respondent is. Are you really entering the personal/social life world of the participant or are you forcing him or her, perhaps reluctantly, to enter yours?
> Smith, J., 1996, in Eysenck (1998:692)

The extent to which researchers can ever really "enter the world" of an interviewee is debatable, but the closer one can appreciate the personal stories of interviewees, the closer one should come to the interviewee's truths and experiences. Hycner (1985) proposes "suspending as much as possible the researcher's meaning and interpretations and entering into the world of the unique individual who was interviewed". The ability to distinguish between personal interpretation and intended meaning is at the centre of both Hycner and Smith's proposals and is a key consideration in interpreting any responses.

Morse (1997) discusses concepts of truth in the context of generalisability. In interpreting the findings from this research it would be inappropriate to generalise from the self-selecting sample used in the interviews. It is

however relevant to acknowledge the place of truth and reality in considerations of the validity of the research and its interview data. Silverman (2001) describes O'Brien's kaleidoscope example of demonstrating the way in which researchers make use of models and theories to think about their data:

> As the tube is turned, different lenses come into play and the combinations of colour and shape shift from one pattern to another. In a similar way, we can see social theory as a sort of kaleidoscope – by shifting theoretical perspective the world under investigation also changes shape.
> (O'Brien, 1993, in Silverman, 2001: 293).

If one takes the analogy of the kaleidoscope then its many patterns could equally represent individuals and their unique perspectives, each one being 'real' at the time of its presentation to the viewer (or, in this case, interviewer) even though it may subsequently be impossible to exactly replicate any one of them. Silverman suggests the concept of "theoretically fertile research" (2001:292) that can be achieved through a broad approach to the interpretation and coding of interview data, but more importantly, through an inquiring approach that is open to suggestion rather than solely adopting a quantitative approach. That does not fully address the issue of identifying truth, but accepts the validity of interpretations; and so interview responses were treated as perspectives on reality, each perspective thus valid In its own right. Ashworth (1997:189) adopted a similar premise in his interviews with students to identify their perceptions of what constitutes cheating, taking " the individual student's expressions of attitude in the interview ... as descriptive of their perceived world, and whether the perceptions are veridical is of no concern".

Beck and Ajzen (1991:285) describe dishonesty as "typically conceptualised and measured as a broad behavioural disposition" whereas dishonest behaviour "is assessed as a single act performed in a specific situation (e.g. cheating in an exam)". If truthfulness is an aspect of honesty then, as the opposite of dishonesty, it might also be seen as a "broad behavioural disposition". The question of truth in self-reports of cheating may be separated from the tendency to engage in cheating if one accepts that the conceptual can be disaggregated from the behavioural. Even such a disaggregation offers no guarantees of honesty in responses, but not all

researchers find fault with self-reporting through questionnaires. Beck & Ajzen (1991:291) have reported that self-reports of undesirable or even dishonest behaviours can be "quite accurate," although student views expressed in interviews for this study were at odds with that view.

6.7 Reflections on objectivity

Denscombe (1998:212) recommends that "The analysis of qualitative data calls for a reflexive account by the researcher concerning the researchers' self and its impact on the research." Chapter 3 has discussed the subject of interviewer bias and the means by which it was minimised. The question of the researcher's self and its overall effect on the methods, analysis and interpretation of findings is a rather broader subject and in that context some information on, and reflection by, the researcher seems relevant.

The researcher's professional background prior to university lecturing was as a senior allied health professional. Clinical work involved daily contact with members of the public as well as with other hospital and community professionals, and a high degree of autonomy in clinical decision-making. On entering university lecturing she taught undergraduates and postgraduates in a range of modules required for registration with the professional and regulatory bodies; those subjects included psychosocial aspects of healthcare. In both clinical and university settings she was therefore aware of the concepts of stereotyping and prejudice and was determined to adopt a non-judgemental attitude to the participants and to the information gathered during the process of this research.

The sensitivity of the subject matter meant that a non-judgemental demeanor was crucial in all contact with potential participants. No assumptions of cheating or not cheating were made about questionnaire or interview participants, and interviewees were not asked about their own behaviours in assessment, although some offered unsolicited reflections on their behaviours.

The researcher had in her university work encountered examples of students apparently attempting to gain unfair advantage in assessments through a variety of means. This undoubtedly influenced her attitudes to the notion of student cheating and her aspiration of fairness of opportunity for all students, a 'level playing field' analogy. There is therefore an acknowledged

interest in providing consistency of opportunity to students, including consistency of the way in which any suspicions of cheating are dealt with, in the interests of fairness for all students.

One of the research questions of this study was to identify differences in perceptions and self-reports between healthcare students whose degree leads to registration with professional and regulatory bodies, and students studying for a degree that did not, in this case, psychology. It is likely that, despite efforts to maintain objectivity, there was a part of the researcher's psyche that expected to find a difference in favour of the healthcare students. Denscombe's assertion that "the researcher's identity, values and beliefs cannot be entirely eliminated from the process" (1998:208) is acknowledged. Evidence of this, although anecdotal, is that when no significant difference between healthcare and other students was found, the researcher was somewhat surprised at the findings.

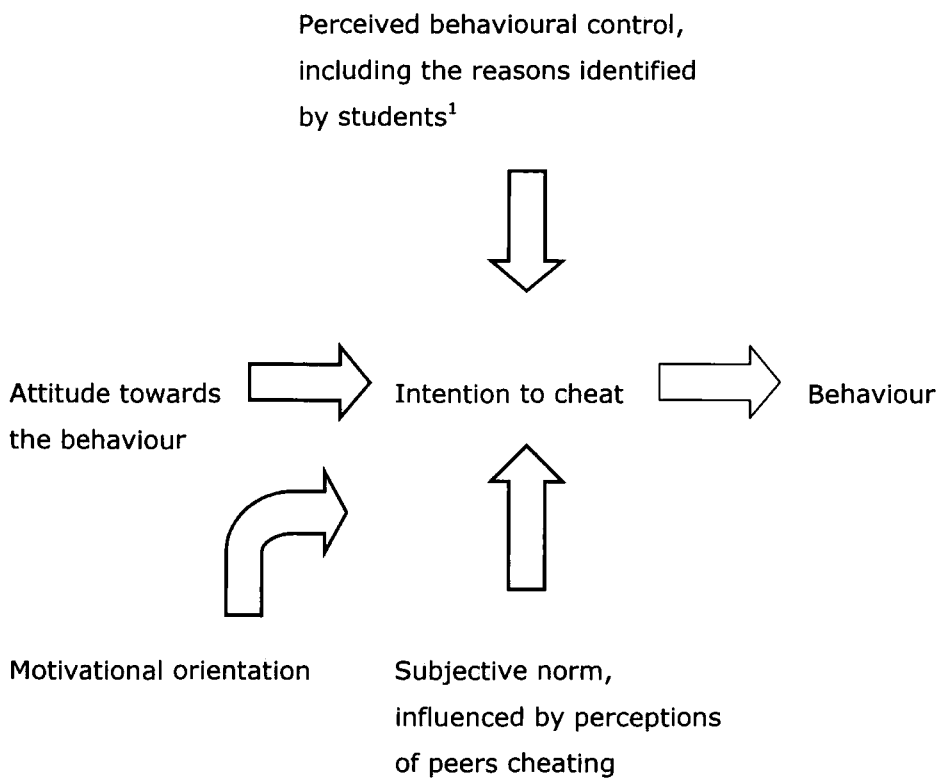
It is acknowledged that it is never possible to completely extract from the research process a researcher's inherent predispositions and prejudices. At the same time every effort was made to do so, in line with recommendations from Polgar and Thomas (1991) when they discussed the need to reflect the views of the interviewee rather than those of the interviewer and the necessity for sensitivity, objectivity and the application of good inter-personal skills in order to maximise validity.

6.8 Synthesising theories and identifying influences

Beck and Ajzen (1991) and Ajzen (1991) have written of planned behaviour and its three determinants: attitude towards the behaviour; subjective norms; perceived behavioural control. McCabe *et al.* identified the most influential factor in students' cheating as being their perceptions of the extent of peer cheating. When this finding is placed under the theoretical and metaphorical umbrella of social desirability, planned behaviour and a mastery or performance orientation to study, it is possible to identify a plausible set of contributing factors in student cheating. The effect of these contributing factors is presented in Figure 10, and is summarised as follows. According to Dweck (1986) students have a predisposition towards performance or mastery orientation to study. If students, particularly with a performance orientation, perceive their peers to be cheating to gain advantage in assessment then their attitudes and social norms would be

likely to adjust to accommodate the revised norm; they would then perceive cheating to be more socially acceptable, at least within their own social groups. If pressures of university life and assessment load are added to the perceived low risk of detection, the temptation to cheat could overcome any previous reservations, particularly if there is a perception that other students' cheating results in them gaining unfair advantage over those who do not cheat. When there is additionally a widely-held perception that academics do not have the time and resources to follow up their suspicions of cheating and the perceived risk of cheating is low, cheating may appear to be a risk worth taking, as described by Smith (2008).

Figure 10: Emotional influences on cheating behaviour



Modified from Beck and Ajzen, (1991:287)

Summary of chapter

There is evidence from this study, and others, that no single factor is responsible for student cheating. It seems likely, however, that there are

[1] Students in this study attributed cheating in *students on a course like theirs* to factors such as *pressure to pass, laziness, bad time management* and the perception that few academics would investigate suspicions of cheating.

multilayered influences that, together, provide a plausible explanation for some students choosing to cheat. In addition to the emotional and motivational influences on students depicted in Figure 10, there are influences on institutions and on academics that reflect institutional culture and attitudes towards cheating.

Higher education institutions are influenced by the effect on their reputation and income of attrition rates and league table performance if students do not complete awards due to cheating; at the same time, the credibility of awards is threatened if an institution is seen not to take seriously, and act consistently in, accusations of academic misconduct. Academics can be reluctant to formally investigate suspicions of cheating because of the workload implications, fear of litigation or denial of student malpractice. Students, in their turn, are influenced by their perceptions of academics not investigating, by perceptions of peers cheating, by personal orientations towards studying and by fear of failure. A combination of the influences summarised here, particularly a combination of influences from the three levels: institutional, academic and student, is likely to contribute to student cheating.

Building on themes that have been introduced in earlier chapters, this chapter has discussed the key findings from the present study in the context of related theories and research literature. As a result, the study contributes to the academic knowledge base of student cheating by identifying:

- links between existing research findings;
- student and academic attitudes to cheating;
- plausible combinations of factors in students cheating.

CHAPTER 7

CONCLUSIONS

The concept of cheating is emotive. This study was an exploration of perceptions, self-reports and attitudes set against the context of other research on assessment and cheating. It did not aim to make judgements about cheating behaviours or about those who willingly gave their time to complete questionnaires and to be interviewed. The findings from the study, whilst not claiming to be universally generalisable, showed a high degree of consistency with other published research. In addition, the study has added to existing knowledge in several ways, by identifying:

- a combination of behavioural and educational theories such as perceptions of peers cheating, subjective norms and motivational orientation to study which, together, could account for some students choosing to cheat;
- student attitudes to peers cheating;
- student perceptions that many academics are unlikely to investigate suspicions of cheating;
- a large degree of agreement between student and academic ratings of the seriousness of cheating behaviours;
- that no subject discipline is exempt from the potential for its students to cheat;

Silverman (2001) states that "qualitative researchers need not accept the assumption that their work can only be exploratory or descriptive". This builds on assertions by Glaser & Strauss (1967:235) that "qualitative data often result in a *de facto* conclusive analysis rather than a preliminary one". In the research reported in this thesis, statements from student interviews not only supported the findings of the questionnaires, but provided an additional dimension to the overall findings, and were in several examples consistent with the findings of other researchers. Examples included:

i) students identifying as effective opportunities for learning those methods of assessment that educationalists would classify as "authentic" (Sambell *et al.*,1997; Bourner, 2003);

ii) cheating in examinations being perceived as more serious than cheating in so-called coursework assessment such as essays (Franklyn-Stokes & Newstead, 1995; Lim & See, 2001);

iii) nearly half of academics in the sample found the burden of investigating suspicions of cheating to be too great (McCabe *et al.*, 1993; 2001; Newstead, 2003).

Findings from the study have shown high student perceptions of cheating behaviour in their peers. Individual self-reports of cheating were significantly lower, showing that very few students self-reported cheating in the behaviours rated as the most serious, such as those related to examinations. The most frequently reported behaviour, self-reported by almost 70% of students, was "paraphrasing without acknowledgement," followed by "copying material for coursework from a book or other publication without acknowledging the source", by almost 60%. Interestingly, students in interviews did not rate either behaviour as being in the most serious category.

Several previous reported studies have been based on student self-reports of cheating (Franklin-Stokes and Newstead, 1995; Hard *et al.* 2006; Burrus *et al.*, 2007). This study has shown through student comments that self-reports are likely to provide an underestimation of the extent of cheating. This is an important factor, substantiated by theories of social norms, that needs to be considered when assessing any research findings based on self-reports. If the academic community is to address the growing issue not only of plagiarism but of cheating in all its forms, it needs to take into account the degree to which student self-reports of cheating are a reliable indication of its real extent. Hard *et al.* (2006) found, as did McCabe and Trevino (1993) and McCabe *et al.* (2001), that student perceptions of their peers cheating resulted in students self-reporting more frequent cheating. Given the indications from the present study that students under-report their own cheating, it is plausible that the high student perceptions shown here offer a closer estimation of actual cheating than may previously have been considered.

The question of why students cheat has been the subject of numerous studies and almost as many potential answers. Gender, age, culture, motivation and subject discipline have all in varying ways and in different studies, been shown to be associated with cheating. This study suggests that the findings from these previous studies are not wrong, simply that as stand-alone theories they are not necessarily right. Male students may be shown to

self-report more cheating than female, but that may be due to more males than females demonstrating a performance orientation to study. Certainly, there is evidence that in subject disciplines previously dominated by males, when females study those disciplines they display similar characteristics to the male students (McCabe & Trevino, 1997). It is suggested that the reasons for cheating are complex and are not based on single theories alone, but that it may be due to a combination of study orientation, perceptions of peer behaviour and susceptibility to group norm influences. Added to this, students in the present study demonstrated a perception that academics would be unlikely to investigate suspicions of cheating, a perception substantiated by almost 50% of the academics in the study when they confirmed that they had in the past been deterred from investigating their suspicions.

Recommendations

1 Part of the problem for students is the difference between the expectations of schools and higher education. Pennycook (1996) identified from student comments that secondary school had left them ill prepared for the conventions and standards of academic writing and citation expected in higher education assessments, with one stating that "in secondary school no teacher forbids us to do something like that" (p.224). Pennycook's sample comprised Chinese students, but arguably the same could be said for the experience of many U.K. students. Part of the solution to decreasing cheating in higher education could involve a more effective communication strategy between schools and universities, and that may have already begun. Isabel Nisbet, acting Chief Executive for the Office of the Qualifications and Examinations Regulator for England (Ofqual), has stated:

> The exams regulator has been alert to the threat to confidence that plagiarism presents and has undertaken a range of initiatives. These have included developing guidance leaflets for teachers and parents on how to authenticate student's work and reviewing the fitness for purpose of unsupervised coursework in a number of GCSE subjects and replacing this with controlled assessments. There is a demand within the 14-19 sector for further support and guidance on how to effectively address issues of honesty, authority and authenticity and it is for this reason that Ofqual is working with JISC-iPAS to develop further web based guidance including case studies of good practice within the sector. (Nisbet, 2008:abstract).

Ofqual's initiatives echo part of Macdonald and Carroll's "holistic strategy" (2006), when they identified the lack of recognition by institutions of student under-preparedness on entry to H.E., and the need to "move fairly quickly to an understanding of the appropriate conventions and practices implicit in academic study in a western university" (p.236).

2 Many examples of cheating behaviour are unambiguous. This study has shown that the behaviours self-reported as most frequent were paraphrasing and copying without acknowledging the source. Other studies have shown that those two behaviours are not clearly understood by students (Ashworth et al., 1997; Ashworth, 2003; Burrus *et al.*, 2007). A clear and shared understanding of the division between acceptable and unacceptable academic writing practice needs to be a priority for institutions, and would be of benefit to students and academics alike. It would be unrealistic to expect that guidelines alone would lead to greater consistency in academics investigating their suspicions of cheating. The reasons for academics not investigating are complex, involving both perceptions and facts related to workload, concern over litigation and institutional bureaucracy. Clear, unambiguous guidance for academics would at least facilitate a greater consistency in marking practice.

3 Self-reporting questionnaires are a convenient means of conducting research into sensitive areas. This study does not recommend their discontinuation, simply that their limitations should be more frequently acknowledged.

4 Prevention is to be preferred to penalty. Information reminding students about academic integrity has been shown to be effective when repeated regularly by academics and not simply distributed as handouts in induction week. In addition, in order to raise student awareness about the number of cases of cheating that have been investigated, and the outcomes of those cases, information needs to be prominently, but anonymously, displayed in order to act as a deterrent.

Relevance of the study to higher education

Whilst it is not claimed that the findings from this study are universally generalisable, several plausible generalisations can be made, as follows.

According to academics, written assessments such as essays and dissertations provided the assessment mode most conducive to student cheating. Within that mode, the most common methods of gaining unfair advantage were cited as collusion, insufficient acknowledgement of the copied or paraphrased work of others and procurement, normally through purchase, of completed assessments from other cohorts. Purchase of essays from other cohorts was perceived to be common, as was purchase from a range of internet sites. Designing assessments to minimise opportunities for cheating was identified by students as a straightforward solution available to academics. Evans (2006) suggests that there is much that academics can do to minimise cheating by developing good relationships with students, designing cheating out of assessments and by providing clear education for students about the meaning of cheating and how to avoid it.

Academic and student perceptions were both of a greater extent of cheating than was investigated. Students believed that any self-reports represented an underestimation of the real extent of cheating. The real extent of cheating has so far proved impossible to determine.

Almost 50% of the academic sample did not always investigate their suspicions of cheating and those who did, did not necessarily follow institutional processes, preferring to override the regulations with their individual interpretations of the situations.

The distribution of information on academic integrity during induction week was judged by both students and academics to be ineffective due to the information overload suffered by students at that time. Students interviewed in the present study were unaware of how and where to access information on the avoidance of cheating.

There is evidence from this study, and more widely from other studies, that no single factor is responsible for the apparent increase in student cheating. It seems likely, however, that there are several factors that, when brought together, provide a plausible explanation for some students choosing to cheat. Students with a performance, rather than a mastery, orientation to studying, whose social norms are affected by their perceptions (or knowledge) of large numbers of their peers cheating, may initially decide to cheat in situations of particular stress such as impending deadlines or

personal difficulties. When there is additionally a widely-held perception that academics do not have the time and resources to follow up their suspicions of cheating and the perceived risk of cheating is low, cheating may appear to be a risk worth taking.

Concluding remarks

In the competitive global market that higher education has become, universities can not ignore the issue of cheating; their reputations will continue to depend on the actions they take to safeguard the validity of their assessments. Marsden *et al.* (2005:1) noted that "in the competitive tertiary market, universities can ill afford to have their reputations tarnished by reports of cheating". Therein lies the dilemma. If students perceive that many tutors turn a blind eye to cheating, and will take advantage of that situation, the extent of cheating may increase. Whether or not universities overtly address this now acknowledged problem, there is evidence that some students will take advantage if regulations and their application are perceived to be insufficient, and an institutional reputation for allowing cheating would devalue the public perception not only of future awards but also of past. At the same time, published league tables indicating the numbers of students not completing programmes of study would not be advantageous to university profiles. "Society places a huge value on academic achievement. Academic success is measured in terms of external rather than internal rewards, on assessment results and grades." (Varnham, 2001:391).

Students have a responsibility to behave with academic integrity, and academics have a responsibility to ensure that students understand, as far as possible, the difference between the acceptable and the unacceptable. Walker stated: "It is up to us to come up with a better rationale and a better way to instruct students in the nature of scholarship as an ongoing conversation, one in which they can and should take an active role". (Walker, 1998:244).

APPENDICES

INFORMATION SHEET FOR PARTICIPANTS IN PILOT STUDY

Title of research: Assessment behaviours in UK Higher Education

Purpose of research: Basis of thesis for the award of Doctor of Education, University of Durham

Researcher: Helen Smith, Principal Lecturer, Quality Review
School of Health, Community and Education Studies
(HCES),
Northumbria University

Research Supervisor: Professor Jim Ridgway,
School of Education,
University of Durham.

Approval: Approval for the study has been confirmed by the Ethics Advisory Committee, School of Education, University of Durham and by the School of [redacted] Ethics Committee, [redacted] University.

The research: I am investigating the reasons why, and the methods by which some students may gain unfair advantage in their university assessments.

Your feedback will help me to refine my questionnaire prior to its use with large numbers of students in the coming weeks. I am planning to distribute questionnaires to specific cohorts of students who are not known to me, and then to collect the responses immediately following completion. Questionnaires adapted for the purpose will be sent to academics associated with the same programmes. A small number of interviews will be conducted at a later date with volunteer students and academics. No information provided by individual students will be accessible to their academic staff.

I am conscious of the sensitivity of the subject matter and would like to stress that my purpose is to gather data, not to be judgmental in any way.

Any information you provide will be used only for the purposes of this research, will be held in the strictest confidence and you will not be identified in any way. You are free to withdraw from this research at any time.

What you are asked to do:

- Complete the questionnaire, except for question 2, and the feedback sheet.
- Return the completed questionnaire and feedback in the stamped addressed envelope provided as soon as possible; please post by 1st September at the latest.
- Please indicate on your feedback sheet if you would be willing to meet me at the University's Coach Lane Campus to discuss the questionnaire during the period 31st August – 7th September 2004.

Thank you very much for your time.

PILOT STUDY: FEEDBACK SHEET FOR PARTICIPANTS COMPLETING THE STUDENT QUESTIONNAIRE

Please answer all questions on the questionnaire except number 2. Any comments you may have on Q2 will, however, be helpful. For your information. the anonymous participants in the main study will be asked to complete *all* questions.
Your views as a current or recent student are valuable, and your constructive criticism is welcome. Continue comments overleaf if necessary.

Your responses to the following questions will be most helpful in enabling me to refine the questionnaire:

- How long did it take you to complete the questionnaire?

- How long do you estimate it would take a student to complete question 2?

- Do you think that the list of 'cheating behaviours' in Q1 is a realistic list of options? Is there anything you would add or take out?

- How clear are the questions and instructions for completion?

- Are there any areas of particular sensitivity that would lead to omissions or less than honest answers?

- Do you have any comments on the presentation?

- Do you have any further suggestions for improvement?

INFORMATION SHEET FOR PARTICIPANTS

Title of research: Assessment behaviours in UK Higher Education

Purpose of research: Basis of thesis for the award of Doctor of Education, University of Durham

Researcher: Helen Smith, Principal Lecturer, Quality Review
School of Health, Community and Education Studies
Northumbria University

Research Supervisor: Professor Jim Ridgway,
School of Education,
University of Durham.

Approval: Approval for the study has been confirmed by the Ethics Advisory Committee, School of Education, University of Durham and by the School of [redacted] Ethics Committee, [redacted] University.

The research: I am investigating the reasons why, and the methods by which some students may gain unfair advantage in their university assessments.

I am distributing questionnaires to cohorts of students who are not known to me and across two Schools in the University. Similar questionnaires will be sent to academics associated with the same programmes. A small number of interviews will be conducted at a later date with volunteer students and academics. **No information provided by individual or groups of students will be accessible to their academic staff.**

I am conscious of the sensitivity of the subject matter and would like to stress that my purpose is to gather data, not to be judgmental in any way.

Any information you provide will be used only for the purposes of this research, will be held in the strictest confidence and you will not be identified in any way. You are free to withdraw from this research at any time.

What you are asked to do:

- If you are willing, please complete the questionnaire and return it to me before you leave.
- Please indicate on the sheet following this feedback sheet, **not on your questionnaire**, if you would be willing to be interviewed in the next phase of this study later in this academic year.

Please read this:
A small number of volunteers will be needed for follow up interviews at a future date. The interviews will seek to validate the results of these questionnaires and **will not ask individuals about their own assessment conduct.** If you are willing to be interviewed in the future please provide at least two means of contacting you as requested below. Interviews will be tape recorded in order to increase the accuracy of transcription. All tapes will be held securely, used solely for the purposes of this research and destroyed at the end of the study.

If you prefer not to be interviewed do not provide your contact details.

Appendix 3

Information to interviewees

Introduction and explanation of aims of the study

Emphasise anonymity and confidentiality

Average time taken to complete interviews

Option not to answer / free to leave at any time

Data protection and destruction of tapes following completion of study

Tape recording / note taking: permission from interviewee

Travelling expenses

Strictly Confidential

The information gained from this questionnaire will be used solely for the purpose of academic research. **Please try to answer the questions honestly; except for your personal details there are no right / wrong answers.**

All responses will be kept securely and will remain anonymous: you will not be identified in any publication or other work resulting from this research, and no individual or group data will be given to your tutors. In accordance with the Data Protection Act 1998, all completed questionnaires will be destroyed on completion of this research, anticipated to be during the academic session 2005/6.

Section 1

1 The following table provides a list of actions that may be used by some students in assessments at university. For each action please put a tick ☐ in the relevant column to indicate how common a practice you perceive it to be **IN OTHER STUDENTS** studying on a course like this one.

	Very common	Quite common	Rare	Not known to happen at all
Coursework				
Allowing own assessed coursework to be copied by another student				
Copying another student's assessed coursework with their knowledge				
Copying another student's coursework without their knowledge				
Doing another student's coursework for them				
Submitting as their own a piece of work derived from another source (essay bank; former students; other)				
Paraphrasing material from another source without acknowledging the original author				
Copying material for coursework from a book or other publication without acknowledging the source				
Fabricating references or a bibliography				
Inventing data (e.g. entering non-existent results for a project)				
Altering data (e.g. adjusting data to obtain a significant result)				
Submitting a piece of coursework as an individual piece of work when it has actually been written jointly with another student or students				
Not contributing a fair share to group work				
In a situation where students mark each other's work, coming to an agreement with another student or students to mark each other's work more generously than it merits				

	Very common	Quite common	Rare	Not known to happen at all
Examinations				
Taking unauthorised material into an examination				
Using SMS mobile phone texting in an examination				
Illicitly gaining advance information about the contents of an examination paper				
Taking an examination for someone else or having someone else take an examination for them				
Premeditated collusion between two or more students to communicate answers to each other during an examination				
Copying from a neighbour during an examination without them realising				
Extracting electronic information from pocket pc or similar devices during formal examinations				
Continuing to write in an examination after the invigilator has asked candidates to stop writing				
Other				
Lying about medical or other circumstances to get special consideration by examiners (e.g. extra time to complete examination; sympathetic consideration of extenuating circumstances)				
Lying about medical or other circumstances to get an extended deadline or exemption from a piece of work				
Reducing the availability of books or journals in the library by deliberately mis-shelving them so that other students can not find them, or by cutting out the relevant chapter or article.				
Signing as present a fellow student on a course where obligatory attendance is required				
Attempting to obtain special consideration by offering or receiving favours, for example bribery, seduction, corruption				
Keeping silent about a tutor's misbehaviour or misuse of his/her position in order to get approval in a test or to gain a higher mark				

2 The following table provides the same list of actions as in question 1. **This time, for each action please put a tick ☐ in the relevant column to indicate YOUR USE of these behaviours.**

	Very common	Quite common	Rare	Not known to happen at all
Coursework				
Allowing own assessed coursework to be copied by another student				
Copying another student's assessed coursework with their knowledge				
Copying another student's coursework without their knowledge				
Doing another student's coursework for them				
Submitting as their own a piece of work derived from another source (essay bank; former students; other)				
Paraphrasing material from another source without acknowledging the original author				
Copying material for coursework from a book or other publication without acknowledging the source				
Fabricating references or a bibliography				
Inventing data (e.g. entering non-existent results for a project)				
Altering data (e.g. adjusting data to obtain a significant result)				
Submitting a piece of coursework as an individual piece of work when it has actually been written jointly with another student or students				
Not contributing a fair share to group work				
In a situation where students mark each other's work, coming to an agreement with another student or students to mark each other's work more generously than it merits				
Examinations				
Taking unauthorised material into an examination				
Using SMS mobile phone texting in an examination				
Illicitly gaining advance information about the contents of an examination paper				
Taking an examination for someone else or having someone else take an examination for them				
Premeditated collusion between two or more students to communicate answers to each other during an examination				
Copying from a neighbour during an examination without them realising				
Extracting electronic information from pocket pc or similar devices during formal examinations				
Continuing to write in an examination after the invigilator has asked candidates to stop writing				

	Very common	Quite common	Rare	Not known to happen at all
Other				
Lying about medical or other circumstances to get special consideration by examiners (e.g. extra time to complete examination; sympathetic consideration of extenuating circumstances)				
Lying about medical or other circumstances to get an extended deadline or exemption from a piece of work				
Reducing the availability of books or journals in the library by deliberately mis-shelving them so that other students can not find them, or by cutting out the relevant chapter or article.				
Signing as present a fellow student on a course where obligatory attendance is required				
Attempting to obtain special consideration by offering or receiving favours, for example bribery, seduction, corruption				
Keeping silent about a tutor's misbehaviour or misuse of his/her position in order to get approval in a test or to gain a higher mark				

3 Why do you believe **some students** adopt the actions described in the tables above? Put a tick in those columns that you believe are relevant; you may identify as many reasons as necessary.

	Major reason	Minor reason
Ready access to downloadable web based information		
Lack of perceived deterrent		
Pressure to pass		
Lack of time due to part time work		
Lack of time due to bad time management		
	Major reason	Minor reason
Ineffective study skills		
The design of the assessment enables students to gain unfair advantage		
Low confidence in own ability		
Poor health		
Lack of subject knowledge		
Lack of awareness of university regulations about cheating		
Laziness		
Peer pressure		
Desire to impress tutor		
Other		

If you have selected other, please specify what this is:

.....

.....

.....

4 **Why do you think** some students do NOT **adopt the behaviours described in questions 1 and 2? Tick as many reasons as you think apply.**

	Major reason	Minor reason
Perceived deterrent of university penalties		
Good time management		
Effective study skills		
Personal motivation		
Personal moral code		
Lack of awareness		
High confidence in own ability		
Hard work		
Lack of IT skills		
Other		

If you have selected other, please specify what this is:

.....

.....

.....

5 How commonly do you believe students are investigated for behaviours such as those listed in questions 2 and 3? Place a ☐ in one column only.

Often	Sometimes	Rarely	Never

6 How commonly do you believe students are found guilty of behaviours such as those listed in questions 2 and 3? Place a ☐ in one column only.

Often	Sometimes	Rarely	Never

Section 2: Personal details

Please answer the following questions about yourself by completing or ticking the box as appropriate.

7 What is your age? ☐

8 Are you male? ☐ female? ☐

9 How important to you is your degree classification?

very important ☐

fairly important ☐

not very important ☐

not at all important ☐

10 How important to you is the learning experience gained from studying?

very important ☐

fairly important ☐

not very important ☐

not at all important ☐

Your completion of this questionnaire is appreciated. Thank you.

Comparison of Physiotherapy and Nursing student self-reports of cheating

N Para Test Statistics(a)

	Mann-Whitney U	Wilcoxon W	Z	Asymp. Sig. (2-tailed)	Exact Sig. (2-tailed)	Exact Sig. (1-tailed)	Point Probability
allowing own cwk copied	736.000	2447.000	-1.689	.091	.102	.053	.018
copying other cwk with consent	756.000	2467.000	-1.496	.135	.134	.072	.035
copying other cwk no consent	868.000	2579.000	-1.040	.298	.541	.422	.422
personation cwk	818.000	2529.000	-1.103	.270	.350	.190	.061
plagiarism	800.000	2511.000	-1.439	.150	.171	.103	.070
paraphrasing	852.000	2505.000	-.291	.771	.779	.391	.000
partial copying	754.500	2465.500	-1.332	.183	.184	.093	.004
fabrication	799.500	2510.500	-.947	.344	.350	.181	.015
invention	701.000	2412.000	-2.015	.044	.046	.022	.003
data alteration	609.500	2320.500	-2.946	.003	.003	.001	.000
jointly writing	772.500	2483.500	-1.909	.056	.085	.047	.040
group wk non contributon	870.000	2581.000	-.322	.748	.742	.382	.034
peer overmarking	668.000	1164.000	-2.262	.024	.023	.013	.001
exam materials	837.000	2548.000	-1.488	.137	.293	.174	.174
exam texting	899.000	1395.000	.000	1.000	1.000	1.000	1.000
exam paper	868.000	2579.000	-1.040	.298	.541	.422	.422
exam personation	899.000	1395.000	.000	1.000	1.000	1.000	1.000
exam collusion	885.500	1381.500	-.453	.651	1.000	.578	.459
exam answer copying	831.000	2542.000	-1.069	.285	.298	.184	.109
exam echeating	868.000	2521.000	-.737	.461	1.000	.648	.648
exam extra writing	758.500	2469.500	-1.348	.178	.180	.088	.001
PECs sympathy	806.000	2517.000	-1.843	.065	.088	.070	.070
PECs extension	790.500	2501.500	-2.002	.045	.091	.044	.044
stealing library info	830.000	2541.000	-.850	.396	.405	.190	.027
signing others in	439.000	2150.000	-4.129	.000	.000	.000	.000
corruption favours	855.000	2566.000	-.719	.472	1.000	.659	.659
corruption silence	885.500	1381.500	-.453	.651	1.000	.578	.459

a Grouping Variable: student programme

CONTACT DETAILS OF PARTICIPANTS WHO VOLUNTEER TO BE INTERVIEWED

I am willing to be interviewed at a future agreed date and provide my contact details below:

Name: (optional)

e-mail:

Telephone

Other

Thank you very much for your time.

Perceptions and self-reports of cheating behaviours: example analyses

Wilcoxon Signed Ranks Test

Within samples: to test for differences in perceptions and self reports: examinations
Result: significant differences beyond the 0.001 value in all examination cheating.

```
NPAR TEST
 /WILCOXON=exam1 exam2 exam3 exam4 exam5 exam6 exam7 exam8  WITH ownexam1
 ownexam2 ownexam3 ownexam4 ownexam5 ownexam6 ownexam7 ownexam8 (PAIRED)
 /MISSING ANALYSIS.
```

		N	Mean Rank	Sum of Ranks
exam materials - other students exam materials	Negative Ranks	2(a)	32.50	65.00
	Positive Ranks	75(b)	39.17	2938.00
	Ties	80(c)		
	Total	157		
exam texting - other students exam texting	Negative Ranks	1(d)	21.00	21.00
	Positive Ranks	48(e)	25.08	1204.00
	Ties	107(f)		
	Total	156		
exam paper - other students exam paper	Negative Ranks	1(g)	31.00	31.00
	Positive Ranks	70(h)	36.07	2525.00
	Ties	87(i)		
	Total	158		
exam personation - oher students exam personation	Negative Ranks	1(j)	17.50	17.50
	Positive Ranks	34(k)	18.01	612.50
	Ties	123(l)		
	Total	158		
exam collusion - other students exam collusion	Negative Ranks	1(m)	26.50	26.50
	Positive Ranks	63(n)	32.60	2053.50
	Ties	94(o)		
	Total	158		

Test Statistics(b)

	exam materials - other students exam materials	exam texting - other students exam texting	exam paper - other students exam paper	exam personation - oher students exam personation	exam collusion - other students exam collusion
Z	-7.871(a)	-6.355(a)	-7.776(a)	-5.516(a)	-7.274(a)
Asymp. Sig. (2-tailed)	.000	.000	.000	.000	.000

a Based on negative ranks.
b Wilcoxon Signed Ranks Test

Correlation between perceptions and self-reports: example

```
NONPAR CORR
  /VARIABLES=cwk6 owncwk6
  /PRINT=BOTH TWOTAIL NOSIG
  /MISSING=PAIRWISE .
```

Correlations

			other students paraphrasing	paraphrasing
Kendall's tau_b	other students paraphrasing	Correlation Coefficient	1.000	.369(**)
		Sig. (2-tailed)	.	.000
		N	158	156
	paraphrasing	Correlation Coefficient	.369(**)	1.000
		Sig. (2-tailed)	.000	.
		N	156	157
Spearman's rho	other students paraphrasing	Correlation Coefficient	1.000	.414(**)
		Sig. (2-tailed)	.	.000
		N	158	156
	paraphrasing	Correlation Coefficient	.414(**)	1.000
		Sig. (2-tailed)	.000	.
		N	156	157

** Correlation is significant at the 0.01 level (2-tailed).

$r_s = 0.41$; $n=156$; $p < 0.005$. $r^2 = 0.17$ representing a large effect.

```
NONPAR CORR
  /VARIABLES=cwk7 owncwk7
  /PRINT=BOTH TWOTAIL NOSIG
  /MISSING=PAIRWISE .
```

Correlations

			other students partial copying	partial copying
Kendall's tau_b	other students partial copying	Correlation Coefficient	1.000	.404(**)
		Sig. (2-tailed)	.	.000
		N	159	159
	partial copying	Correlation Coefficient	.404(**)	1.000
		Sig. (2-tailed)	.000	.
		N	159	159
Spearman's rho	other students partial copying	Correlation Coefficient	1.000	.457(**)
		Sig. (2-tailed)	.	.000
		N	159	159
	partial copying	Correlation Coefficient	.457(**)	1.000
		Sig. (2-tailed)	.000	.
		N	159	159

** Correlation is significant at the 0.01 level (2-tailed).

$r_s = 0.46$; $n=159$; $p < 0.005$. $r^2 = 0.21$ representing a large effect.

Mann-Whitney Test: significance of differences between groups 1 and 2 in attitudes to importance of degree

Ranks

	health versus psychology	N	Mean Rank	Sum of Ranks
importance of degree	healthcare students	89	90.42	8047.00
	psychology students	70	66.76	4673.00
	Total	159		

Test Statistics(a)

	importance of degree
Mann-Whitney U	2188.000
Wilcoxon W	4673.000
Z	-3.962
Asymp. Sig. (2-tailed)	.000
Exact Sig. (2-tailed)	.000
Exact Sig. (1-tailed)	.000
Point Probability	.000

a Grouping Variable: health versus psychology

```
NPAR TESTS
  /M-W= learnimp   BY modified(1 2)
  /STATISTICS= DESCRIPTIVES
  /MISSING ANALYSIS
  /METHOD=EXACT TIMER(5).
```

INTERVIEW SCHEDULE FOR STUDENTS

Appendix 10

	QUESTION	RESPONSE
1	Of all the assessments you have done in the university, which ones (type) most helped you to learn? **Would you say that those views are shared by other students on your course?**	
2	How would you feel if you knew that another student on your course cheated and got the same mark as you or better? **Have you ever been in that situation?**	
	TAKE THE FOLLOWING THREE QUESTIONS ONE AT A TIME AND TAKE A FEW MINUTES OVER THEM. THERE IS NO RUSH. MARK EACH IN A DIFFERENT COLOUR AS INDICATED ON THE SHEET.	
3	**Here is the list of cheating behaviours from the questionnaire that 159 students completed. Are there any so called cheating behaviours that you would not class as cheating?**	GREEN
4	**Are there any behaviours that you would rate as 'not as bad as others'?** ***Should these be marked in colour on the sheet, rated or just identified?***	YELLOW
5	**Are there any behaviours that you would rate as 'worse than others'?** ***Should these be marked in colour on the sheet, rated or just identified?***	
6	**What is an acceptable level of cheating?**	PINK
7	**Do you think there are any acceptable excuses for cheating?** poor teaching; poor assessment design; PECs?	
8	**Ask if my overall findings from the questionnaire are credible**	• That there is a greater perception of cheating than is admitted • That there seems to be a hierarchy of cheating – some behaviours perceived to be very common • That pressure to pass, poor time management and laziness are seen as major reasons for cheating • That there are conflicting views on the effectiveness of university penalties as a deterrent
9	**What would be the most effective way to discourage cheating in assessments?**	
10	**What would you like to happen to students who cheat? Are current penalties about right?**	
11	**To what extent do you think cheating behaviours are accepted by students?**	
12	**Anything else to add?**	

INTERVIEW SCHEDULE FOR ACADEMICS

	QUESTION	RESPONSE
1	How are your students informed of programme or university guidelines on the avoidance and consequences of cheating in assessments?	
2	One 1997 study from the USA reported the following: of 422 students from 22 classes who completed self reports, 36 reported that they had never cheated. 91.7% reported that they had engaged in at least one type of academic misconduct during the surveyed year. How does that compare with your experience as a lecturer in UK HE? Do you have any particular cases of suspected or proven cheating that come to mind?	
3	Have you ever been deterred from following up your suspicions of student cheating? What was it that put you off?	
	TAKE THE FOLLOWING THREE QUESTIONS ONE AT A TIME AND TAKE A FEW MINUTES OVER THEM. THERE IS NO RUSH. MARK EACH IN A DIFFERENT COLOUR AS INDICATED ON THE SHEET	
4	Here is the list of cheating behaviours from the questionnaire that 159 students completed. Are there any so called cheating behaviours that you would not class as cheating?	GREEN
	Are there any behaviours that you would rate as 'not as bad as others'?	YELLOW
	Are there any behaviours that you would rate as 'worse than others'?	PINK
5	In your experience as a lecturer what are the most common methods students use to cheat?	
6	Are there any particular types of assessments where cheating is more prevalent?	
7	Do you think there are any acceptable excuses for cheating? poor teaching; poor assessment design; PECs?	
8	What would be the most effective way to discourage students from cheating in assessments?	
9	Anything else to add?	

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