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Public Evaluation of Quality Education

John D. Henderson

Ph. D. Thesis

University of Glasgow, Psychology Dept.

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Abstract

Aims of the study are to address the issue concerning public perception of quality education. A theoretical approach derived from consumer psychology is adopted, which involves application of dimensionality to schools. There is description of a model for prediction of satisfaction and quality in relation to secondary education.

After a review of issues concerning the political context, empirical research, and the characteristics of education, service quality, theories of motivation and impression formation, and definitions of satisfaction are considered. A consumer model of service evaluation is described, with implications of its relevance to education. There is an account of information gathering, by means of depth interviews and focus group discussions. This is followed by descriptions of four surveys and analyses of data. The study shows that a wide range of issues are involved in the school judgement process. A number of categories are matched with service quality dimensions proposed by Parasuraman et al. (1988). Information sources are investigated and factor analyses of data provides a group of overlapping judgement criteria, which contrasts with the SERVQUAL structure described. Findings indicate that 'Tangibles', 'Academic', 'Communication' and 'Socio-emotional' dimensions are of consequence in the school judgement process, and various features related to satisfaction are identified.

It is concluded that several criteria are taken into account in the judgement process, and a satisfaction model is additive in nature. Although there are important differences between evaluation processes in respect of education and other services, a gap definition of service quality judgement and the dimensional structure are useful. Findings are reviewed in relation to background literature and implications for school management are indicated.

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1 Introduction and Background

Objectives of the Study

There has been investigation of the attitudes of parents and children toward education, and empirical studies have suggested a number of school dimensions which were significant. Previous research showed that parents had views on issues including class size, enjoyment, opportunity for realisation of potential, the effects of factors not of school origin, and bullying. School leavers have provided opinions on school-work, discipline and the ability of teachers to keep order. A survey of children's attitudes, investigated views on where most learning occurs and ways of learning. There is evidence of support for testing and the proposal that adults should possess skills which enable them to compete in a global economy. Among factors found to affect interest in school choice were residence, having children attend private schools and concern about school quality.

Education quality from the public perspective is an important issue which has not been adequately addressed. The usual model for measurement of school performance, involves use of league tables concerning examination results and other managerial indicators. This conceptualisation neglects to give weight to several important factors affecting parental satisfaction and quality perceptions, and consequently it is subject to much criticism. However no other models have been proposed, which adequately explained education quality and the processes involved in school judgement.

Parents have the right to choose schools for their children, and movements to and from a particular institution have implications for funding. The purpose of parental choice is to improve schools by having them compete for children, but unlike selection of other services and products, there are normally few alternatives available to choose from.

Alternatively, the issue concerning judgement of education may be considered on the bases of theories of motivation and impression formation, and consumer psychology, with a focus on conceptualisation of quality. The purpose of this study is to address the question which relates to public perception of quality education, and involved processes. A theoretical approach is adopted, which includes application of dimensionality to schools derived from a general model of service quality proposed by Parasuraman et al. (1988).

Matters addressed concern school assessment dimensions; overall quality; the relationship between the conceptualisation proposed and the Parasuraman model; and description of a revised model for prediction of satisfaction and quality in relation to education. Issues related to satisfaction are identified and there is consideration of how information is combined. Study objectives are to identify relevant dimensions and information sources, and provide a model of satisfaction which combines dimensions. Another concern relates to links between quality and satisfaction.

There is exploration of judgement processes, using general populations of people who have experience of schools.

The study is about universal judgement dimensions and evaluation related to satisfaction. It does not concern social policy or class differences.

The Changing Political Context of Education

In the late 1980s and early 90s, there was a shift in political thinking about education, toward interest in quasi-market mechanisms, as a way of developing more efficient delivery of the service. Some of the earliest thinking, developed in New Zealand, was reported by Peters. In the U.K, the use of market principles has been a bipartisan policy.

Bradley et al. (1999) see the need for improvement of educational standards, to avoid economically harmful effects such as lower levels of productivity and growth, which are known to be related to an unqualified work-force. It is also recognised that level of education affects employment prospects, earnings, and opportunity to acquire vocational skills. The Labour Government views deprivation and transmission of negative attitudes concerning learning, as outcomes of poor education. Factors thought to be determinants of youth crime include poor school discipline, truancy and

exclusion. The argument is that there are economic and social benefits, to be derived from raising examination performance and improving school attendance rates.

It was observed by Peters (1992) that in the New Zealand context, economic changes and increasing demands on public services, had brought about monetary crises and the need for greater cost-effectiveness and accountability. Peters saw the emergence of performance indicators, used to measure efficiency, and the principle of market forces was adopted to promote productivity. Consequently this has had important implications for education, and Peters noted that in New Zealand there was major restructuring. Thrusts of reforms were to reduce State education department decision making, with an increase in executive power and a policy advisory function; policy control by means of charters, performance measures and national qualifications; centralisation of power with devolution of accountability to individual institutions; negotiation of teachers' conditions of employment and imposition by regulation; privatisation of support services; and the pursuit of equity issues. In Peters' view, there has been increasing commitment to quasi-market mechanisms, in the delivery of educational services.

Bradley et al. (1999) considered that election of a Labour Government in 1997, gave impetus to the debate about secondary school quality in the U.K. While introduction of Education Action Zones in deprived areas has been proposed, to extend equal opportunities, the raising of pupil performance was conceived as an outcome of improvement in individual schools, rather than resulting from general reform.

It was accurately predicted that the quasi-market in secondary education established prior to 1997, would remain largely intact. Whatever view is taken concerning the role of market mechanisms, Bradley and others verbalise a consensus position.

Empirical Research on Quality Measures

Emphasis given to education quality, induced interest in measurement and public perception of service performance. This has led to empirical research concerning opinion on educational issues.

Dealing with the American experience, Bemowski (1991a) reported that there was a dropout rate of about 25% from public high schools in the United States; and in some urban areas the rate was as high as 50%. With fifty million adults either functionally

illiterate or needing to update skills or knowledge, it was clear that reappraisal of education in the U. S. was overdue.

In another article, Bemowski (1991b) reported that the Columbia University Graduate Business School, looked for feedback from executives, recruiters, alumni and students, in order to ascertain its customers' requirements. A number of colleges and universities, in seeking to improve their performance, adopted the principles of total quality management, concerning satisfaction of their students' (customers') expectations.

Strate and Wilson (1993) report the findings of a telephone survey of 1,518 Detroit residents, concerning opinion on choice of public schools, as an alternative to the requirement that children should attend those in their neighbourhoods. Interest in choice had been stimulated by concern about the quality of public schools, decline in academic performance and educational resource allocation disparities. 77% of respondents supported choice within school districts; 61% agreed with choice across districts; and 48% thought that choice should be State wide, provided that government met costs. 55% supported tax credits, for those who chose private or parochial schools for their children. Levels of support for school choice were highest, in the area which had the largest black population, but use of control variables showed that support reflected residence and not race.

The purpose of choice is to improve schools by having them compete for children, which is a marketing approach. It was considered by the authors that support for choice was based on the belief, about whether or not it would improve schools and education. Support is also thought to reflect the value given to personal liberty by Americans, who like to make their own decisions about matters which affect their lives.

Opinions varied between areas on the quality of district schools, and there was an inverse relationship between school quality ratings and support for choice. It was suggested that those who gave low school ratings, viewed choice as an opportunity to improve education. Quality of local public schools was the most important factor, affecting whether or not consideration would be given to selection of schools outwith districts. 77% of those who gave schools poor ratings, would have considered alternatives outwith their districts; while 33% of those who rated schools excellent, would have done this.

There was a negative relationship between support for school choice and respondent age, years of education, and having children attend public schools, except for the within-district option. Support for choice was related positively with having children attend private schools.

Martinez, Godwin, Kemerer and Perna (1995) stated that few comprehensive assessments of public school choice programmes were available, but twenty years earlier The Rand Corporation study of an alternative school experiment in San Jose, revealed more involvement by high socio-economic families than others, a trend toward racially balanced schools, preference for local schools, and positive attitudes by participating parents. In this study no significant differences were found between choosing and other students, in reading attainment, perceptions of self and others, and social skills. Similar conclusions were drawn from another public choice programme in 1992, also in California.

Since 1979, the right to make school placing requests has been available in the U.K. Martinez et. al. referred to a Willms and Echols study of parents in Scotland, which showed that those with a high socio-economic status were more likely than others, to exercise choice and select schools with children from a similar background. After controlling for family characteristics, aptitude test scores, and school socio-economic composition, changes in test scores of children who attended schools outwith their localities, did not differ from others.

With reforms failing to improve attendance and performance, a number of thematic schools were operated in New York. There was a decrease in dropout rates and performance on tests improved. Martinez et. al. also adduced a study of the Minnesota open enrolment option implemented in 1990. It showed that rural families and those with high socio-economic status, were more likely to change schools than others, although less than 1% of those eligible took part. The authors noted in 1995, that magnet schools were the most common choice option, and on average they enrolled 20% of high school students in large urban districts. They had a mix of students from across attendance zones, who generally had higher levels of skills, than others at average district schools. However they did not offer open admission, and there was under-representation of low-test-score and bilingual students, and those who were black or Latin, or from low income families.

Proponents of the issuance of vouchers for private education, thought that choice should extend to schools outwith the public system. It was claimed that this would

provide a wide range of options, and ensure competition with public schools. Other authors cited, asserted that private school parents were better educated than others; they valued education more and gave greater attention to learning; and they had more stable homes. Therefore private schools enjoyed the advantages which were concurrent with these factors, such as parental influence encouraging children to learn, and the contextual effect of a student body which valued education more than others, and had higher aspirations.

Martinez et. al. reflected on whether the issuance of vouchers to all, would maintain or lessen private school advantages in these respects; and whether private school choice would exacerbate or reduce socio-economic and academic segregation. However other authors referred to, hotly contested the proposal that institutional characteristics explained the superior performance of private schools.

It was predicted by those who supported the right to choose schools, that parents would match their children's strengths with particular programmes, should schools offer a range of curricula. Increased parental involvement would make schools more responsive, and lead to improved learning. But opponents took the view, that most parents would not choose in ways that were likely to increase children's academic opportunities. It was thought that evaluation of school quality, would be most difficult for those who had limited education; and choices made would increase social stratification.

Two questions addressed by Martinez et. al, concerned identification of those who would take advantage of a voucher system, and what factors affected choice. It was important to know how much parents who had different levels of income, were willing to pay for choice, and the reasons for selection of private schools. Referring to Becker, who argued that educational achievement was influenced by the amount of time and money parents invest in children, and there was a trade-off between quality and quantity, Martinez et. al. inferred that parents who had few children spent more resources than others for educational objectives, and that introduction of partial vouchers would have discriminated against children with several siblings. Further research quoted, indicated that parents invested more time and money on each child, when they had fewer children than others, and there was more spacing between them. Becker's contention that parents make choices from educational alternatives to acquire "merit goods", including religious, ethical and ethnic mores and values, is interpreted as suggesting that parents may accept the higher costs of private schooling, even without an expectation of better academic quality.

The Milwaukee Voucher Program enacted in 1989, paid all expenses for students who attended private schools. Low-income public school students were provided with vouchers, to allow them to attend non-sectarian private schools. During the first two years of the programme, 75% of participating students were black, and 20% were Latin; and early findings revealed that most students entering the programme, were characterised by low academic achievement and discipline problems. Compared with public school low-income families, those participating were more likely to be headed by a single parent, and receiving A.F.D.C. or general assistance. Yet choice parents had higher levels of education, and were more involved with their children's schools than others. The most important reasons for participation given by parents, concerned educational quality and disciplinary environment. However there was little change in student achievement.

Another study quoted, estimated the impact of school vouchers, and suggested that about 15% of students would transfer from public to private education. In simulations, private school enrolment increased with parental income and education, and there was a fall in the proportion of highly motivated students attending public schools, particularly in poor communities.

Martinez et. al. concluded, that the evidence suggested that choosing families tended to be better educated, and more positive about and more interested in their children's schools.

The authors examined public and private school choice in Texas, to identify choosing families, and how they differed from one another, and from families whose children remained in attendance zone public schools. The low income population studied, was largely Latin. Partial scholarships were offered by the Children's Educational Foundation, to those who wished to attend a private school or a public school in another district.

Surveys of families showed that the probability of being a choosing family was positively associated with parents' education, family income, two-parent household, and number of children in the family. Choosers valued education more than materialistic goals, including income and employment; and religious and ethnic values and traditions were more important than to others. Choosers were more involved in their children's education, and students from choosing families achieved higher scores than others on tests.

Private school choosers had higher education than public school choosers, and mothers of those who attended private schools, were less likely to work outside the home. It was reported that on other socio-economic and demographic characteristics, public and private choosers resembled each other more, than either resembled non-choosing families. However private school choosers give most emphasis to religious and ethnic values. This is particularly apparent in religious attendance, with most resemblance between public school choosers and non-choosers.

Private school choosers were found to be most likely to help their children at home with educational activities. They contact their children's schools and become involved in school activities, more often than others. Non-choosers were more likely than public school choosers, to provide help at home and contact schools. Martinez et. al. associated differences in parental involvement, with the presence of private school students in lower grades. Private choosers showed dissatisfaction with public schools, but public choosers rated their children's attendance zone schools higher than non-choosers. This was interpreted as evidence of public choosers taking advantage of an educational opportunity, rather than escaping from the problems of attendance zone schools. In contrast, private school choosers wished to leave the public system, and the scholarships provided opportunities.

The authors concluded that there was a demand from low-income, inner-city, minority families, for alternatives to attendance zone schools. Public and private choosers had much in common, and participation was affected by the education of mothers and parental expectations concerning children's education. Most students participating in the programmes were female; and there was a positive relationship between participation, and parental involvement in children's education. Being Latin indirectly influenced choice, through a negative effect on the education of mothers.

Strategies for the improvement of public schools in the U.S. were outlined by the Bush administration. As accounted by Elam et al. (1991), these included parental choice of schools, to develop accountability and competition; national tests of achievement; standardised school reports, providing comparable information on progress; and extra payments to teachers for merit, teaching core academic subjects, working in dangerous settings, and mentoring new teachers. Other proposals included extension of the school day and year; establishment of standards of vocational skills; and the setting up of skill centres in communities.

A poll of public opinion on these suggestions, showed that 62% of people supported the principle of permitting students and parents to choose schools in their communities. More than two-thirds of those polled, favoured paying more for teaching which was particularly effective; a majority agreed to extra payment for teaching in hazardous situations; and support was given to proposed rewards for mentoring. 81% of people wanted public schools to conform to common standards of achievement and targets; over two-thirds approved of mandatory use of a national curriculum; and 77% approved of standardised national tests of academic achievement. 51% gave approval to extension of the school year. However, Elam et al. reported that only 39% of respondents thought that extra payment for teaching core subjects was appropriate; less than half wanted the school day lengthened by an hour; and there was opposition to optional extension of the school day or year, with parents bearing the extra cost.

A System 3 Scotland Survey (1996), showed that although rated positively, quality of education and teaching were thought to be declining. Perceived causal factors were reduced funding; inadequate resources; and large classes, associated in part with discipline problems.

This substantive study of attitudes toward education, based on a survey of 1071 adults, was followed up by an in-depth investigation using focus groups. It is acknowledged that many teachers provide a stimulating learning experience, but most parents are not envious of their task. Parents associate class size, with the ability of teachers to give children adequate individual attention. Remuneration and status are not perceived to be commensurate with the professionalism of teachers in general.

Although enjoyment is important, parents want children to fulfil their potentials, and not be held back by disruptive behaviour. While standards of discipline are taken into account when teachers are judged, it is recognised that some individuals may be disruptive despite any action taken. Parents and home environments were blamed for behavioural problems. It was thought that bullying and playground violence had become more prevalent. Therefore there was a desire for more action to deal with such problems.

Another study reported by McBain (1996a), concerned school leavers' views on several issues. Opinion was positive about school-work, discipline and the ability of teachers to keep order; but McBain also included that according to the Chief Schools'

Inspector, nearly half of schools in England and Wales were failing their pupils, and this was put down to poor teaching.

A MORI survey, edited by Greany (1998), concerned the attitudes to learning of more than four thousand children aged eleven to sixteen years, who attended Welsh and English schools. When asked where they learned most, 78% indicated classes, and 50% thought that viewing television was an important learning medium. 32% overall, and 45% of younger pupils chose libraries as places associated with learning most, and computers and newspapers were important sources of learning to only 27% and 24% respectively. There was preference for learning in groups, but practical activities, use of computers and learning from teachers were less popular. Learning silently (11%), by reading (14%) and thinking (12%), were not much preferred. An increase in educational visits was supported and 32% of participants wanted more work experience placements. Approximately one third indicate that there should be focuses on things individuals have facilities for; a similar proportion think that their schools should provide help with planning for the future; and 96% of respondents agree that learning is likely to help them acquire satisfactory employment.

77% of respondents consider that unsatisfactory teaching is a problem. Other factors related to difficulties with learning are: feeling unhappy; teachers who fail to understand how individuals learn; having many other things to think about; and insufficient opportunities to learn things of interest. School and home environments are thought to make it difficult to learn, by only 26% and 13% respectively. Although 80% of children like learning, half of secondary pupils enjoy learning at school, but 16% do not. 22% find learning boring. Over ninety per cent acknowledge that learning occurs every day, but 70% maintain that individuals must want to learn and that they cannot be forced. The findings show differences in attitudes associated with gender, age and ethnic background, with girls, ethnic minority and younger children, most positive about learning.

While summed data in studies of public views provide information on overall trends, differences between groups are apparent; and attitudes on a wide range of questions, implies that the issue of education is not narrowly defined.

Inspections of schools in Scotland showed that there was much good practice, as well as some poor quality and unsatisfactory management. McBain (1996b) reported that among strengths identified were broad curricula, good standards of achievement in certain areas of the primary curriculum, and learning and teaching in later

secondary stages. Improvements were necessary in English language and areas of mathematics, in primary education; and in secondary, the first and second year curricula were not meeting requirements.

The views of parents, pupils and inspectors are useful for identifying features perceived positively, as well as areas which need to improve. Unfortunately, researchers have employed a range of methods, with inconsistent definitions and measurement of quality. Consequently, it is difficult to compare results across studies.

Performance Indicators and Management

Quality concerns have been approached in two quite different ways. Boulding et al (1992), observed that in the 1980s, quality became a corporate priority. There was concern about the international competitiveness of American industry. Attempts were made to link quality images with corporate names, and the issue was dominated by a management perspective. A popular definition of quality was efficient processes, with emphasis on quality control and statistics. The management perspective places emphasis on measurement of quality, by means of performance indicators, and there is target setting etc. For instance, Croxford (1999a) gave a critical account of the Scottish Office Education and Industry Department method of target setting, based on school performance comparisons, using aggregate data.

Peters (1992) reported that while management functions with accountability, at the level of individual institutions, was seen as desirable, executive power, regulation and the advisory function were centralised. This structure is subject to executive monitoring, by means of a range of performance indicators. Rather than seeking popular opinion, the approach is based on a managerial definition of quality. This is evident in the rationale of a publication by MacKay (1999), concerning quality assurance in educational psychology services. In the preface, Fairweather referred to well received documents, which recognised the role of performance indicators in procedures to ensure high quality service organisation, planning and development. She viewed MacKay's publication as a response to this. A Steering Group had ensured that the views of 'key professionals' were taken into account, in devising performance indicators, and it was thought that use of these would be helpful in maintaining and improving service delivery. MacKay acknowledged that quality services meant that they were valued by parents and young people, in addition to

meeting statutory functions, promotion of educational authority policies, and assisting teachers to meet special educational needs. Twenty performance indicators were devised, and these were grouped under four areas: management, leadership and quality assurance; resources; ethos; and service delivery.

Other monitoring mechanisms are school inspection reports, with use of distinctive criteria; and the views of teachers' professional organisations on wider issues, including staffing, pay and conditions of service, as well as matters relating to what is considered to be good practice generally. Mechanisms used include academic output measures, such as performance of institutions on national tests. Publication of these stimulate market forces, given parental right to choose schools; with movement between institutions having implications for rolls, related funding and staffing.

Public attitude surveys provide information and feedback on popular feeling, regarding for example, proposed development and changes in the way services are delivered. But interpretation of judgements is not a straightforward process, as quality criteria vary between population segments. For example, employers are likely to be interested in development of vocational skills, mathematics, reading and vocabulary. Kang and Bishop (1986) found positive impacts of such high school courses, on earnings and time spent working.

At that time, the reform of secondary schools in the U.S. was deemed necessary to improve work-force productivity. Excellence in education, it was predicted, would have beneficial effects, by ensuring that all young people had functional literacy; improving academic and vocational preparation; and by raising employability skills. The authors observed that many states had adopted recommendations to increase courses in English, mathematics, science and social science, necessary for high school graduation.

These achievements might also be thought important by parents, particularly when schooling is regarded as functional and related to future employment. Indirect evidence of this is provided by the Elam et al. (1991) Gallup Poll, showing overwhelming public support for tests in English, mathematics, science, history, geography, problem-solving, and writing on a topic. There is also a strong positive response to the proposal that adults should, among other things, possess skills which enable them to compete in a global economy. However emphasis may be placed on other dimensions. Satisfaction judgements are based on things liked and perceived as useful, including how well children's individual needs are met; if they are happy

and treated with empathy; appropriateness of values being transmitted; the widening of experience; and opportunity for learning how to relate well to others in the general community.

An alternative approach to the management view is derived from consumer psychology, with a focus on what people perceive as quality products or services. Service quality perceptions is the subject of an organised body of research, exploring psychological processes by which consumers come to make judgements about product or service quality. The work of Parasuraman has induced interest in consumer perception of the quality of services, ranging from banking to airlines. However, initially interest was in perceptions of product quality, and Schiffman and Kanuk (1987), explained that consumer judgements of quality were based on informational cues associated with products.

Cues intrinsic to products, are specific characteristics, such as size, colour, flavour and fragrance. But use of intrinsic cues does not necessarily lead to rational choice, and the authors note that attention is often given to physical characteristics which are not related to quality. Cues extrinsic to products, include promotional message, store image, brand reputation and price. Although price is given attention, there is a tenuous relationship with quality. It is believed that when consumers have little product information, or they are not confident about making a choice, price is a substitute indicator.

Hartline and Jones (1996) cite evidence that intrinsic cues are relatively more important, if they strongly predict quality; when consumers search for inherent features prior to selection; and during product consumption. Extrinsic cues are more important, if it is time-consuming or not easy to evaluate intrinsic signs; when they are absent before purchase; and should assessment of quality be difficult. Intrinsic cues are believed to be generally more important in assessment of quality, unless these attributes are not easily evaluated. This usually happens before products are chosen, if consumers have little experience of them, and it also occurs when there is judgement of service attributes. It is thought that owing to the intangible nature of services, extrinsic cues are more often used.

In modern times there is perhaps less direct interaction with products, and movement toward more use of extrinsic cues. Increasingly, merchandise is packaged when supplied, and ordered from catalogues or through the internet. The public has less

knowledge of recently introduced innovations, such as new fabric fibres, and most people know little about advances in electronic technology.

Services have become an increasingly important sector of the economy, but related intrinsic cues are inaccessible. Unlike products, services are perishable and intangible, while provision and consumption occur simultaneously. The issue of consumer psychology and services is addressed in more detail later.

Limitations of Managerial Performance Indicators

There are problems with the use of existing quality indicators, such as academic output, surveys of public opinion, school inspection, and teachers' views, which tend to be rigidly defined, and address exclusive concepts. Assumptions about what is desirable are largely derived from the emphases of bureaucracy, based on accepted systems and accounting biases, with particular attention given to expenditure, truancy and school examination performance.

While indicators may be useful for resource allocation, and process and quality management, it is not obvious that parents employ these. Nor are dimensions described, of interest to parents as consumers. Consequently, Bradley et al. (1999) see the economist perspective of educational outcomes as a function of expenditure, staffing levels, teacher experience, pupils' prior attainments, peer pressure, and family characteristics. Factors associated with efficiency are competition between schools, low pupil-teacher ratio, spending on books and equipment, girls' only schools, high unemployment, and a middle-class population.

Croxford (1999b) was critical about SOEID information publications, which were unclear in terms of audiences and purposes. In her opinion, the data provided on examination results, post-school destinations, truancy, and school costs, were irrelevant to parents in need of detailed advice about local schools, to inform choice. Research cited by her, showed that parents received insufficient information, necessary for choosing schools. Findings suggested that they were most interested in school proximity, and issues related to discipline and social factors. Because parents were concerned with choice in local contexts, Croxford expressed the view that information might be more locally based. In her view, parents should receive advice regarding curricula, ethos and discipline, and there needs to be consultation

with their representatives and boards, concerning the nature of information to be provided.

Differences were reported between groups of parents, with respect to their sources of information. High socio-economic status parents were more likely to use advice from teachers and head teachers, and information obtained at school meetings or during visits. Other parents relied more on what was said by friends, neighbours, acquaintances, and children.

Croxford identified three audiences for statistical information, to serve different purposes and needs. The first audience is government and education authority administrators, who are concerned primarily with quality assurance, and they require information about value-added on the basis of prior educational attainments. Another audience is school management, with needs concerning self-evaluation and development planning, related to monitoring of pupils' attainments. Requirements include comparative information on progress in areas of the curriculum, and analysis of pupils' characteristics. The third audience is parents. Croxford proposes that the purpose of information for this group is to inform school choice. Comparable particulars about local schools are needed, such as curricula, ethos and discipline.

Segments of the public, including parents, employers, teachers and taxpayers in general, use information for different purposes, and information needs vary because they do not use the same judgement criteria. Quality indicators which are not sensitive to this diversity are therefore biased; and there is overestimation of the usefulness of pass rates on tests, for evaluation of school quality.

While parents are consumers of statistical information, it is clear that performance indicators are also needed by those who deliver the education service, in order to effect improvement. Ideally, the same statistical information would be used by both groups, but there is evidence that parents are more interested in local issues. It is necessary however, to consider the benefits and limitations of performance indicators from a management perspective, including the school as a local managerial source.

Some of the early mooted indicators such as league tables have had mixed effects. Publication of league tables, Croxford (1999b) stated, was based on the premise that publicity would stimulate improvement, but the effect on schools has been detrimental. They may be misleading regarding relative school effectiveness, and

there is a demoralising effect on teachers, who work in socially deprived areas with poor academic achievement.

Value-added is a more sophisticated concept than examination results, accounting for school achievement between Standard and Higher Grade levels, and performance of intraschool departments. Croxford cited research which identified information necessary for value-added measurement; namely data on individual pupils; pupil intake factors including attainment, gender, socio-economic status and first language; school characteristics, such as socio-economic environment and size; varied outcome measures; statistical sensitivity to data biases; and examination of the progress of various groups, with for example, account taken of baseline attainments.

However Croxford quoted evidence that value-added assessment of general attainments were not very helpful to schools. In contrast, information on pupils' attitudes to school ethos and discipline was more useful. In Croxford's view, the value-added approach would be useful for schools, if used to monitor the progress of individual children. This would enable them to direct support to pupils in most need of it, and allow appraisal of the effectiveness of teaching approaches. Such an approach has been employed in the Aberdeen schools' Early Intervention Programme.

Croxford reported that self-evaluation by schools, and development planning, have been seen as a route to improvement. These steps should assist schools to set improvement targets. In order to undertake this process, schools require statistical data about the curriculum and pupil attainments. Croxford maintains that available statistical information such as standard tables, is inadequate for the purpose of informing school self-appraisement; and data should permit assessment of how efficiently children's particular needs are met.

She considers that reliable research is required, for the development of performance indicators and target setting. In her view, pupil-level data suitable for analysis should be gathered; with improved assessment techniques and monitoring, in order that the relative progress of individual children may be evaluated and tracked, to detect under achievement and inequality.

Policy makers must be statistically numerate, in Croxford's opinion, as consideration of the validity of school performance indicators used is necessary; and qualitative

evidence should be taken into account to advance understanding. Partnership between schools, education authorities and government administration, was seen as a prerequisite of improvement. Croxford questions the usefulness of examination pass rates as school performance indicators, although administrators require data on educational attainments, and it is suggested that collection of information about the progress of individual pupils facilitates school self-evaluation and planning. She addresses parents' needs only in terms of informing school choice, but the scope of significant factors is widened to include curriculum, ethos and discipline.

Willms (1997) found evidence that while chosen schools had better unadjusted examination results than those assigned, and higher mean socio-economic status, parents were less interested in educational matters including teaching methods and examination results, than discipline, reputation and proximity. Academic quality was not the main influence on school choice, and there was interest in social atmosphere. Several studies referred to by Willms, indicate that school performance is related to collective properties. This is known as the contextual effect, which children may benefit from. By selecting schools on the basis of high social class intake or good attainment levels, parents improve children's prospects through contextual effect benefits.

Boulding et al. (1992) saw the reliance by management on processes and internal measures, giving way to a customer perception approach. It is customers' perceptions rather than managers', which are salient in marketing terms. A limitation is that no emphasis is placed on measurement of the relative importance accorded by parents, to these and other indicators; and there are unanswered questions about what information different groups find most helpful.

Critical Review of Method

There is an assumption that what is presently measurable is important to all audiences, but education is multidimensional and the relative significance of various aspects is unclear. Inattention to the difference between measurement of school performance on an individual component such as examination results, and judgement of overall quality based on collective properties, is a theoretical weakness. While much emphasis is on examination performance by schools, there is no research evidence indicating that this is the principal means by which quality is rated by consumers.

Willms asserted that some research has raised questions about the application of marketing approaches to education. In his view school performance is contingent on pupil characteristics, but Willms does not believe that the market principle concerning consumers choosing from many alternatives, applies to education. It is not possible for all children to attend the best schools, judged in terms of any criteria.

The National Consumer Council (1992) which assessed the effectiveness of services, published a response to the Government white paper 'Choice and Diversity - a new framework for schools', which placed emphasis on the role of the inspectorate in the identification of schools 'at risk'. The N.C.C. supported the commitment, to tackling what was described as 'the problem of failing schools.' In the view of the N.C.C, consumer choice is necessary for efficiency in a market economy. However, there is recognition that public sector services offer less opportunity for choice. There is a limit to the capacity of popular schools, and overcrowding might undermine the features which are desirable; while other schools may be left with uneconomic surplus places. It is also recognised that for many parents, particularly those in rural areas, there is no choice.

The performance indicator approach is eclectic, and it is not derived from existing literature on quality issues, consumer psychology or service theory. For example, Hackett (1998) quoted MacBeath, who asserted that by 'rubbishing' education research, the chief inspector of schools had undermined efforts to effect improvement. OFSTED was said to have lost the trust of many working in schools, education authorities and universities. Croxford (1999a) reports that the method of target setting used by the SOEID, does not have any features of good practice identified by research. Measurement of school performance is based on inadequate methods, and information produced is unreliable. The approach does not address the separate issues of cues used to judge performance, quality as an essence, and how people combine information on different dimensions. All of these matters feature in consumer and social psychology of judgement and cognition.

There has been no effective separation of the differing interests of administrators and consumers. The assumption is that quality indicators of importance to management, are also significant to parents. Although there is an extensive literature on consumer evaluation of private sector services, in practice this is not affecting the education quality debate.

Characteristics of Education as a Service

Hanson (1992) analysed the marketing concept; illustrated its application to school systems; and proposed that private sector marketing strategies, were a means of increasing the effectiveness of school-community exchanges, and the productiveness of working relationships. The author's view is that because schools have to resolve problems of the type also found in private sector organisations, they should use marketing techniques. Steps involved in school marketing were described by Nuttall (1992). This he regards as necessary, in a climate with competition, and the object is to make a school more attractive to parents than alternatives. An effective procedure, involves researching a school and the market; identification of the purpose and goals of the school; implementation of a strategy to fulfil the purpose and achieve goals; and reviewing progress and making appropriate changes.

Although there is a current view among policy makers in education, that education at all levels should be seen as a service comparable in many respects with the range of private sector services, in terms of organisation, delivery, client satisfaction, funding, and even the fee for service relationship, it has to be stated that the idea is relatively new, and for those familiar with the history of education provision, counter-intuitive. Historians of education acknowledge the role of the State in the establishment of mass education, as a project based on maintenance of economic competitiveness, and incorporation of the urban population into national and imperial goals. Stephens (1998) observed that in the late nineteenth century, there was a great increase in Government control of education. The schooling of the masses was seen as a means of promoting social order, against a background of crime, poverty and social unrest. In addition, there was recognition of the threat of commercial competition from countries which were benefiting from State education, and a belief that Prussian military success was related to compulsory schooling. The State took responsibility for training the masses for the labour market, and for subjectship. Some degree of coercion was seen as necessary and for the good of the recipient, with training and discipline a core component of the education process. The Victorian statesman, Robert Lowe, quoted by Simon (1994), expressed the received function of popular education at that time: The lower and higher classes, he proclaimed, required different forms of education. Lowe reasoned that if the former needed education which qualified them for the power which had passed to them, the latter required superior education and cultivation which preserved their position, and allowed assertion of their superiority. He avouched that educational change had to be under political control, and objectives included deference by the masses to the higher

classes. While such functions, particularly citizenship, are less to the fore in debate, they are crucial. More than a century has passed since Lowe enunciated established values, and Simon in 1994, viewed the main contemporary function of education as perpetuation of existent social differences. The State still identifies economic competitiveness as a goal of the education system, and rather than citizenship, there is social inclusion, but the consumer services model in education, is only loosely related to these concerns.

Models of Consumer Behaviour

Schiffman and Kanuk (1987) state that models of consumer behaviour tie together knowledge about consumers and choice processes, and they provide a framework for consumer research. Several models of consumer behaviour are described.

The Howard-Sheth Model

This model distinguishes among three levels of learning: The first, known as extensive problem solving, concerns limited consumer knowledge about brands. Initially, the buyer has no preference among brands, and there is a search for information about alternatives. Another level, known as limited problem solving, concerns partially established beliefs about brands. The consumer is unable to fully assess brand differences and arrive at a preference. Comparative information is sought, although choice criteria are likely to be defined. Level three, is described by Schiffman and Kanuk as routinised response behaviour. There is well established consumer knowledge about brands, enough experience to avoid confusion, and predisposition toward selection of a particular product. At the extensive problem solving stage of decision making, much information is required prior to purchase, and decisions are made slowly. Characteristics of the limited problem solving stage, are a need for a moderate amount of information prior to purchase, and speed of decision is moderate. At the routinised response behaviour stage, little information is required prior to purchase, and decisions are made quickly.

Input variables consist of physical brand characteristics; verbal or visual product characteristics, which the marketer furnishes in the form of information; and a stimulus from the social environment of the consumer. All stimuli provide inputs to the consumer, concerning product class or brands. Schiffman and Kanuk explain that the central component of the model consists of variables assumed to operate, when the

consumer contemplates a decision. Howard and Sheth treat them as abstractions, not operationally defined or measured directly. Certain variables are perceptual, and concern information processing. Examples given are the occurrence of stimulus ambiguity, when a consumer is unclear about the meaning of information, and perceptual bias, if information is distorted in order to fit needs or experiences. Learning constructs serve the function of concept formation. The category includes consumer goals; information about brands; criteria for evaluation of alternatives; preferences; and purchase intentions. Linkages between variables give the model distinctiveness.

A series of outputs are indicated, which correspond in name to some perceptual and learning construct variables, such as attention, brand, comprehension, attitudes and attention, in addition to actual purchase. Exogenous variables are not directly a component of the decision-making process in the model presented, but as the consumer is subject to the influence of external variables, there is expectation that they affect segmentation by the marketer. Among exogenous variables are: purchase importance, consumer personality, time constraints, and financial status.

Schiffman and Kanuk noted that in order to develop understanding of relationships between the variables, Howard and Sheth promoted testing of the model with data on consumer decision making. The initial test concerned the instant breakfast market, and findings suggested that consumers were systematic in their use of information, and in establishment of attitudes about brands. Another test focused on automobile purchase decisions. From analysis of data, it was concluded that informal influence, particularly information provided by friends, was more critical than that obtained from advertisements. While advertising was a relatively ineffective information source, it had a limited impact on comprehension of features of motors and purchase intentions.

The Nicosia Model of Consumer Decision Processes

The Nicosia model concerns relationships between firms and potential customers. There is communication in two directions by means of advertising by the organisation, and through purchase response. The model is interactive, with both parties exerting influence on the other through their action or inaction. Four fields in the model are: the span between a message source and consumer attitude; search and evaluation; purchase; and feedback. (Table 1)

Table 1

Fields of the Nicosia Model

of Consumer Decision Processes **(Schiffman and Kanuk 1987)**

Field 1: Consumer Attitude Based on Messages from a Firm

This field is divided into two sub-fields. The first includes features of the firm's marketing environment and communications which affect consumer attitudes, including: product attributes; the competitive environment; characteristics of relevant media; choice of a copy appeal; and target market characteristics. The second sub-field concerns consumer characteristics, such as personality and experience, which mediate reception of promotional messages. Output of field 1 is an attitude toward the product, based on interpretation of a message.

Field 2: Search and Evaluation

The second field concerns a search for information, and evaluation of a firm's product in comparison with alternative brands. Output is motivation to select the firm's product.

Field 3: The Act of Purchase

In this field, motivation towards the firm's product, results in actual purchase from a particular retailer.

Field 4: Feedback

The final field consists of feedback from the purchase experience to the firm, in the form of sales data, and to the consumer in the form of experience. Experience with the product affects consumer attitudes, and predispositions concerning future messages from the firm.

The Sheth Family Decision-Making Model

In contrast to a focus on individual consumer decision making, there is the Sheth family decision-making model. The model depicts separate psychological systems, representing distinct predispositions of the father, mother and other family members. Separate predispositions induce family buying decisions, either individually or jointly determined. Factors which influence whether purchase decisions are made autonomously or jointly, are social class, lifestyle, role orientation, family life-cycle stage, perceived risk, product importance, and time limit. The model suggests that joint decision making tends to prevail in newly married circumstances, and close-knit and middle class families, with few prescribed family roles. It also predicts that in relation to product-specific factors, there is greater prevalence of joint decision

making when there is much perceived risk or uncertainty, when a purchase is considered important, and when there is sufficient decision making time.

The Engel-Kollat-Blackwell Model of Consumer Behaviour

Schiffman and Kanuk also describe the Engel-Kollat-Blackwell model of consumer behaviour, which consists of four sections as shown in Table 2.

Table 2
Sections of the Engel-Kollat-Blackwell Model of Consumer Behaviour (Schiffman and Kanuk 1987)

1. Decision Process Stages

The central focus of the model is on five decision process stages: problem recognition, search, alternative evaluation, purchase and outcomes. Which stages feature in a purchase decision, and how much relative attention is given to each stage, is a function of perceived extensiveness of the problem-solving task. In extending problem-solving, the consumer is assumed to traverse all five stages; but in routine problem-solving, it is assumed that external search and alternative evaluation are not required.

2. Information Input

Data from marketing and other sources feeds into the information-processing component of the model. Information filters through memory, and has influence at the problem recognition stage of decision-making. There is a search for external information when additional information is required in order to reach a choice, or if there is dissonance caused by failure of a chosen alternative to meet expectations.

3. Information Processing

This section of the model consists of consumer exposure, attention, comprehension/perception, yielding/acceptance, and the retention of marketing and other information. Before utilisation of a message, there has to be exposure, information-processing, interpretation, persuasion, and transfer to long-term memory via sensory memory and short-term memory.

4. Variables Influencing the Decision Process

The final section relates to individual and environmental influences, which affect all five stages of the decision process. Among individual characteristics are motives, values, lifestyle and personality; and social influences are culture, reference groups, and family. Situational factors, including financial status, are additional influences on the decision process.

The Bettman Information-Processing Model of Consumer Choice

A cognitive and information-processing perspective, is provided by the Bettman model of consumer choice. Schiffman and Kanuk explain that there is portrayal of the consumer, as having limited information processing capacity. When choosing, the consumer rarely undertakes very complex analyses of alternatives. Typically, there is use of heuristics. Simple decision strategies assist arrival at a choice, through avoidance of assessment of all information about every alternative. There are seven basic components of the model:

1. Processing Capacity

This component of the Bettman model is based on the premise that there is limited information processing capacity. To avoid complex computations and extensive information processing in relation to choice, there is use of strategies to simplify the process. The process capacity component influences other components of the model. This has implications for the types and scope of choice strategies, used in evaluating and choosing from alternatives. It affects allocation of limited processing capacity, and facilitates selection of simple choice precepts for adjustment to constraints.

2. Motivation

As consumer choice in terms of the model, is conceived as purposeful, motivation is central. Motivation affects the direction and intensity of choice, and stimulates a search for information required for evaluation of alternatives and to exercise choice. Motivation provides momentum by means of the hierarchy of goals mechanism, which is a dynamic force in the form of intermediate sub-goals, leading to a desired end state. The mechanism is consistent with the limited capacity premise, suggesting that as experience is gained in an area of choice, employment of an elaborate hierarchy of goals is not necessary for arrival at a decision. Acquired experiences come to provide the basis for employing less demanding decision rules. Therefore the goal-hierarchy mechanism channels efforts in choosing.

3. Attention and Perceptual Encoding

Schiffman and Kanuk report that these components are closely tied and influenced by the goal hierarchy. The Bettman model conceptualisation includes voluntary

attention, which is conscious allocation of processing capacity to goals; and involuntary attention, which is a more automatic response to disruptive events, such as conflicting views and newly acquired complex information. Each distinctive type of attention influences progress in attaining goals and choice. Perceptual encoding is an extension of the attention component, accounting for the process through which stimuli which have been attended to are organised and interpreted. It may also provide insights about the need for more information.

4. Information Acquisition and Evaluation

In the context of the model, the consumer makes an external search, while available information is judged inadequate. There is evaluation of acquired information, and its usefulness is assessed. Additional information continues to be acquired, until all that is relevant has been obtained, or it is perceived that more effort would be uneconomical.

5. Memory

This is the component of the model, through which all information passes. It is explained that memory is where internal search begins, for information on which choice is based. If there is insufficient internal information, the consumer undertakes external search. As part of the dynamics, there is either short-term or long-term storage of information.

6. Decision Processes

Various types of choices are usually made, in conjunction with fulfilment of particular components of the model, such as choice of goals and information to be acquired. Schiffman and Kanuk state that a particular form of choice is made during the decision processes component. This component deals with the application of heuristics in evaluation of alternatives and selection among them. It is emphasised that heuristics employed are influenced by individual and situational factors. Therefore it cannot be assumed that a specific decision rule is consistently applied in various contexts by an individual, or by consumers in relation to a particular situation.

7. Consumption and Learning Processes

The consumption and learning component concerns future utilisation of experience, after choice and consumption of a product. Consumption experience provides information for application to future choice situations, and a basis for development of heuristics.

Scanner and Interrupt Mechanisms

Throughout the model there are scanning and interrupting mechanisms, which receive messages from the environment. While the scanner is constantly open to information, the interrupt mechanism deals with messages which interfere with progress in choosing. It is believed that the scanner is receptive to information, and the interrupt mechanism deals with messages forced on the consumer. Both mechanisms are thought to be capable of delaying achievement of goals associated with particular choice processes, and of diverting attention to different areas of choice.

Specific Problems of Consumer Choice in Education

With divergence between the characteristics of education and private sector services, there has to be caution about making comparisons. Even casual empiricism shows that among dimensions which differ are frequency of use; length of relationship; temporal duration; customisation of delivery; communication between provider and customer; and impact on life experience. Some relevant dimensions have been introduced by Parasuraman et al. (1988) in the study of service quality factors, although the purpose was to produce an instrument with a suitably validated factor structure, for measuring service quality. It is clear that Parasuraman believes that services vary in significant ways, and private services differ in terms of the importance of long-term relationships between suppliers and consumers. Parasuraman et al. (1993) state that the items in their instrument are a basic framework which underlies service quality, and this may be supplemented according to the context. In another article Parasuraman et al. (1994a) cited several studies which have employed the instrument. These cover contexts such as physicians in private practice, carriers, an accounting firm, and banking.

Compulsory education for children aged five to sixteen years, requires that it is in constant use by them during this period, whereas a private sector service such as property insurance is used infrequently by customers, with claims perhaps being made in the event of storm damage. Unlike places which offer regular purchases and short-term relationships, such as restaurants and public houses, schools offer a long-term contract which should not involve repeatability; and in this respect, schooling is more analogous to university education, trade union representation, and financial services. Certain services offering occasional use, may be categorised in the middle range, and examples of these are motor vehicle maintenance, optology and dentistry. Temporal duration is another significant issue. Education is a slow, cumulative and lengthy process, with a school day of over five hours. In contrast, a quick dental examination may be carried out within twenty minutes. The temporal dimension invites judgements about what schools and other service providers, such as garages and dentists, may be like over several years. Consumers are interested in issues such as change in the nature of services provided over time, and the period over which providers are likely to continue operating.

An unusual aspect of the educational service relationship, is that parents want to influence the method and content of delivery. A central feature of certain services, including education, medical treatment and motor maintenance, is communication between the provider and customer. Mittal and Lassar (1996) propose that personalisation is a determinant of service quality, and this requires interaction. The authors recognise that the empathy dimension of the Parasuraman instrument touches upon personalisation. Communication is usually verbal, and often in written form, such as information booklets and reports. But personal advice and dialogue is not associated with many services, including entertainment, spectator sports and gambling facilities.

Another issue relates to the impact of services on life experience. Stephens (1998) observed that the historic development of mass literacy conferred by schools, brought opportunity for personal and material advancement. While consumption of education might be seen as an investment, and therefore related to employment and income, consumption of other services are much less significant in this regard. This leads to the concept of investment differentiating education from other services. In the context of all advanced economies, consumption of education augments the human capital of the receiver: increasing employment opportunities and lifetime income. Secondary education, or high school attendance in the U. S, is sufficient to increase employment opportunities, but more critically, it increases the chance of

higher education, which may produce substantial lifetime economic returns. These returns are of importance to the individual, his family, and society at large, in terms of the beneficial effect on national output. Few other services have these features; but perhaps medicine and transport, which protect economic productivity, have similar though less pervasive effects. Finally, national investment in education implies that its consumption has critical implications for society. Stephens (1998), in his study of the development of education, referred to the view of some employers and governing circles, that the economy required a better educated work-force; and Simon (1994) noted that during the nineteenth century there was development of educational structures, to meet pressures brought about by occupational and political change, and to stabilise the emergent order. While services in general may have the potential to exploit people, interfere with freedom, and affect the environment, none equal education, in terms of its profound effect on the economic and social structure.

The perceived investment in education is partly driven by the State. This is effected through State policies which allow grant aided schools, charitable status, public funding, national examinations, and monitoring by the inspectorate. Related to this perception is a belief that educational provision is relevant to other economic policy decisions made by Government. i.e. It is assumed that the State will either directly employ doctors, teachers and nurses, and to a lesser extent lawyers, engineers and architects, or that it will at least create an environment such as a high technology value added economy, which demands specific skills. e.g. The Irish State supported the training of computer scientists, and also encouraged inward investment of software manufacturers, which would offer employment. All modern states act in this way, whatever the variation in liberal economic rhetoric, and it is likely that the attitudes of education service customers are influenced by State involvement. Finally, education has multiple stake-holders: children, parents, employers, and educational institutions, and the next stage of the hierarchy includes the State, employers in the system, and society. Other services also have several stake-holders, including consumers, managers/employees, the community and the environment, and private shareholders, but the interests of stake-holders are less pervasive in their implications, as the investment aspect is less significant. The concept of educational investment, includes an expectation that the State will at least guarantee the environment, in which qualifications accredited by it are likely to give a return. Therefore it is not viewed in the same way as a caveat emptor investment gamble in the stock exchange, but something closer to a promise, if not a contractual guarantee. Perhaps the purchase of a pension investment is the closest model.

With respect to public education, parents are unlikely to consider more than a few options. In practice, school choice is limited, with disincentives such as cost implications of selecting schools at a distance, number of children, increased travel and safety issues, and child care arrangements. However this does not suggest that parents are unable to exercise choice. Willms (1997) reported that almost 90% of Scottish parents did not make a placing request for a school, and this indicates that fewer than 10% requested a non-designated school placement. Those in large cities were most likely to choose, owing to the availability of more options. There may also be restricted choice, with respect to other public services such as libraries, sports facilities and hospitals, but in contrast, services provided by medical practitioners, legal firms &c, are usually easily available from a range of sources.

Public schooling is free at the point of consumption, unlike many other services, including transport and entertainment. While payment for these may be variable, viz. first or second class travel, private school fees are not subject to additional charges for superior service.

In most cases those who select services also consume them, but schooling chosen by parents, is used by their children. However the purchaser and consumer distinction is not peculiar to education, and is found in the product sector. ex. gr. Automobile fleet managers purchase motors for use by others, and parents buy clothing for children. While children may not actually pay for things, Schiffman and Kanuk (1987) cite evidence that they exert influence on family purchase decisions. This has implications for quality judgement, a crucial feature being the relationship between the purchaser and consumer, and the degree to which the former is influenced by, and feels obliged to respond to the latter. In selecting education services, parents have to attend to their school quality judgement, as well as what they believe is relevant in their child's experience for that judgement. This is not inconsistent with the consumer psychology approach, but it introduces an unusual complexity.

A feature which is not unique to education, but possibly of more importance in this context, is the role played by other consumers in setting the tone for the service. An alternative way of conceptualising this, is that group factors are sometimes taken into account, in the judgement of what constitutes a service. e.g. Parents often take into account neighbourhood, social and religious factors. The school climate is determined by pupil characteristics, and the peer group affects what is provided. There are parallels with other service contexts, such as golf clubs, shops, hospitals,

athletic facilities and health clubs. Schiffman and Kanuk show that products have to be altered or reformulated and promoted differently, in order to be acceptable in various cultural environments. Markets have therefore been segmented, as values, beliefs and customs, vary among populations.

Many services vary in terms of their dependence for delivery, on an individual or an organisation. For instance, while an individual barber is able to provide a haircut, secondary education is provided by several specialist teachers, who depend on the support and resources available from school organisations. This suggests that the education structure is more analogous to a system such as railway organisation, than private tutoring for example, and it requires a level of skill not essential for delivery of many other services. These factors make it difficult for parents to judge how good education services are.

Public education and private sector services have roles in satisfying public needs and demands. The education administration literature suggests that there is public interest in the performance indicator criteria provided by school league tables. In contrast, marketing theory has been developed in the private domain, and while it cannot be assumed that principles apply in the same way to public education services, it is legitimate to investigate the extent to which existing theory may be applicable and useful. Recently there has been convergence between the financial aspects of choice in private and some public services, and the payment of fees in higher education moves the service relationship closer to charges for private contracts. How far this convergence might develop, is yet to be determined.

The Special Role of Communication and Information Flow in Education

A feature of education which makes comparison with other services difficult, is the special role of communication and information flow. Parasuraman et al. (1988) devised a service quality scale, which subsumes communication in the assurance dimension. It is an important aspect of some private sector services, but it has a crucial role in education, which has a temporal duration of many years, and separation of customer and recipient. Education is almost intangible. It is provided behind closed doors, and the process is not obvious. There are unreliable witnesses, namely children, and quality is difficult to gauge from available measures. Parents require dialogue with teachers and children, in order to make quality judgements; yet despite the pivotal role of communication in education, access to information is

sporadic, intermittent and effortful. What is available may be bureaucratic and consequently constructed, or obtained by word of mouth, making it prone to subjectivity and group conformity effects. Parents have access to management indicators and league tables, and social representations of what determines a good school, or how well a school is performing.

Information should satisfy the needs of parents and children, who are not concerned with successful schools which are unavailable, or advice on the performance of children relative to others. But they need to know the potentials of children; their academic progress, perhaps monthly; and the notional state of children day by day. Information about the trajectory of a school and its likely situation over five or six years, is useful. Parents require notification about policy decisions regarding issues such as school repair, changes in staffing, and new housing developments in the catchment area. There should be easy access to this kind of information, and it is proposed that word of mouth exchanges are often about such subjects.

Summary

Owing to the perceived need for economies and increased efficiency in the delivery of public services, there is interest in quasi-market mechanisms, measurement and public perception of performance. Empirical research showed support for school choice and there has been investigation of public opinion on a range of issues, including achievement, curricula, testing and discipline. However, results across studies are not easily compared, on account of the variety of methods applied, with inconsistent definitions and measurement of quality.

The issue of quality has been approached from a managerial perspective, with an emphasis on measurement of quality by means of performance indicators. Another approach derived from consumer psychology, has a focus on what individuals perceive to be quality products or services.

Use of managerial performance indicators in an educational context, with emphases on expenditure, truancy and examination performance, has limited value. Inattention to the difference between measurement of school performance on an individual component such as examination results, and judgement of overall quality based on collective properties, is a weakness. In contrast, issues concerning cues used to

judge performance, quality as an essence, and how people combine information on different dimensions, all feature in consumer and social psychology.

There are several models of consumer behaviour, which provide a framework for consumer research. For example, the Nicosia model concerns relationships between firms and potential customers. The Howard-Sheth model distinguishes among levels of learning, and the Engel-Kollat-Blackwell model relates to decision process stages, information input and processing, and variables which influence the decision process.

With divergence between the characteristics of education and private sector services, there has to be caution about making comparisons. There are for instance, differences in relation to compulsory use, temporal duration, effect on the economic and social structure, and the role of communication and information. Nevertheless, Parasuraman et al. have introduced dimensions which are relevant, in the study of service quality factors, and items in their instrument are a basic framework which may be supplemented according to the context.

2 Service Quality and Related Factors

Services, Providers and Consumers

Schiffman and Kanuk (1987) enumerated one category of service providers, as individuals and organisations seeking to earn a profit. Among those are lawyers, car wash firms, and restaurants. The other category consists of organisations which are not run for profit, including hospitals, museums, and charities; and also Government agencies such as departments of consumer affairs, motor vehicle bureaus, and postal services. The authors observe that individuals consume services for personal use, including haircuts, medical examinations, and accountancy, while services such as insurance and laundry are used to benefit assets and possessions. Services are also consumed by organisations: employment agencies, syndicated information, and cleaning.

Schiffman and Kanuk show that product and service characteristics differ. Unlike manufactured goods, services are intangible, and they are often associated with companies which provide them. Services are simultaneously produced and consumed, and there tends to be a production orientation rather than a consumer orientation. Service providers are more likely than manufacturers, to innovate without first determining acceptability among consumers. There is less standardisation in services than with products, and quality may be inconsistent because services are labour-dependent. Skilled services such as medicine are not provided easily, with guarantees of professional consistency. Services are perishable and cannot be stored. Those which are available but not consumed, are therefore lost.

Although market planning has been similar for manufactured goods and services, Schiffman and Kanuk observed that manufacturers have generally been quicker to adopt and develop marketing orientations and strategies. In the authors' view, as many service companies have been started on the basis of a skill or technical product, there was a focus on technological development rather than on customer satisfaction. In certain cases, service provision is subject to Government regulation or

governed by associations. Strong competition in the service economy has made providers sensitive to the importance of marketing. Such strategies are visible in deregulated industries such as banking and railways, and when standards are altered, such as in law, accounting, and medicine. Marketing is seen as the key to profitability and survival.

Judgement of Quality

Consumer research provides strategic service marketing principles. A useful step in the development of a theory of what efficient education means, might be to consider the psychological processes by which people make judgements about products and services in general, and to contrast this with how education is perceived. Initial definitions of service quality focused on some absolute judgement of quality; such as an absolute judgement of a meal, or shop service etc. It became evident that service quality involved the concept of fitness for purpose. Therefore quality fast food is not the same as haute cuisine, while each may excel in a different niche. Schiffman and Kanuk regard the positioning of a product in the mind of the consumer as likely to be more important than its actual characteristics, in terms of its ultimate success, but it is acknowledged that the positioning of services is problematic. Creation of a service image may be difficult on account of the intangibility of services relative to goods. Promotion is particularly important, owing to the perishable nature of services. And because services are produced and consumed simultaneously, consumers tend to identify services with providers. Image is seen as significant in service differentiation, and an objective is to relate an image with a particular name. Regarding services, the argument is an extension of the fitness for purpose judgement, with respect to manufactured products. However, when judgements are viewed as relative to purpose, the issue of expectations arises. This leads to the gap theory, that quality judgement varies, according to the difference between expectation and actuality. Brown et al. (1993) stated that a measure of this sort developed by Parasuraman et al, has been cited widely in the marketing and retailing literature, and its use in industry has been widespread. Despite the popularity of the gap model, there is still a debate about whether absolute judgement of quality remains the dominant conceptualisation. These issues are related to the question concerning the difference between satisfaction and quality judgements.

A Behavioural Process Model

Boulding et al. (1993) developed a behavioural process model of perceived service quality. Perceptions of service quality dimensions were viewed as a function of expectations of what will and should transpire in a service encounter, in addition to the customer's most recent contact with the delivery system. It is proposed that perceptions of quality dimensions are the basis of quality perception, which predicts behaviour. Expectations are believed to be updated when information about services is received through word-of-mouth, company communication, and contact with a firm's or its competitors' service deliveries.

Boulding et al. used data from two studies. A laboratory study involved hotel service encounters, with manipulation of expectations and delivered service, and there was a field study concerning the service quality of an educational institution. The researchers acknowledge that quality assessment involves multiple abstract dimensions. It is assumed that service quality is perceived in terms of five dimensions identified by Parasuraman et al: reliability, assurance, responsiveness, empathy, and tangibles. It is also surmised that expectations of what will and should happen, are in terms of these dimensions. Although quality is multidimensional, consistent with previous findings, the authors suggest that reliability is the most important dimension, in determining overall perceptions of service quality. They believe that the various quality dimensions are averaged, and produce an overall assessment.

Will expectations, known to be affected by word-of-mouth communication and expert information, were found to have a positive effect on quality perceptions, while should expectations, affected by information about competitors and word-of-mouth to a lesser degree, had a negative influence; and the effect of these expectations on behavioural intentions was observable. Should expectations, it is suggested, do not go below prior levels, but they increase when the most recent delivered service exceeds the prior should expectation. There is an increasing difference between current service perception and prediction of future service, as expectations rise.

It was concluded that the model was robust with regard to differing analytic approaches, methods of data collection, and service settings. Tse and Wilson's earlier work cited, provided analogous findings: Will expectations and actual product performance are positively related to perceived performance, while there is a negative relationship between customer expectations on what would be desirable and performance.

Quality and Service Recovery

Kelley and Davis (1994) provide evidence that service quality has a direct effect on service recovery expectations. Previous research had suggested that perceptions of quality were multidimensional, but service recovery and associated expectations being distinct, had not been considered among dimensions. Recovery involves activities performed when initial service delivery is perceived to be unsatisfactory. One perspective quoted, is that information related to service delivery is organised around knowledge structures. Positive experiences and effective recoveries, should give rise to optimistic expectations for service delivery. Conversely, negative experiences and poor recoveries should produce pessimistic expectations. When situations activate knowledge structures, expectations are produced. As perceptions of service quality are the basis of delivery predictions, it is argued that they influence service recovery expectations. On the basis of equity theory, the authors predicted a relationship between levels of perceived service quality and commitment to organisations. Evidence cited to support this were a known relationship between quality and customer retention and behaviour beneficial to a firm.

Kelley and Davis obtained data from members of a health club, who were active participants in the process of service delivery. Items in the SERVQUAL instrument devised by Parasuraman et al, pertinent to a health club, were included in the quality measure. The 30-item scale had a Likert-type format, ranging from 'One of the Worst' to 'One of the Best'. Findings indicated relationships between perceived service quality, and service recovery expectations, customer satisfaction, and organisational commitment. Customers who considered that a superior level of service quality was being delivered, probably had higher expectations for recovery after service failure; and those who received higher levels of service quality were more committed to the organisation.

As customers do not always have experience of failure-recovery, on which expectations are based, service quality perceptions are antecedents of recovery predictions. It may be inferred that response to failure is similar to performance associated with service delivery, although firms do not necessarily respond effectively to deviations from routine processes. Kelley and Davis acknowledge that standardisation is a method for providing higher levels of perceived service quality, but customers may anticipate superior recoveries.

Assessment of Quality Criteria

McKeever (1996) described an opinion survey, which concerned quality-based aspects of an educational psychology service in Northern Ireland. The pilot survey was intended to complement quality-oriented initiatives, including business and work plans, specifying target response times; production of handbooks describing services; staff induction; and annual professional development meetings. It was designed as a consumer satisfaction rating, and the views of schools and parents were obtained. Quality criteria for working with schools concerned adherence to referral response targets; prompt response to messages from schools; making arrangements to see children; keeping to appointment times; giving sufficient time for assessment; exchange of information with school staff; provision of advice; and written communication of agreed action. Quality criteria for working with parents concerned appropriate identification; explanation of the educational psychologist's role and the purpose of consultation; seeing children promptly after referral and adherence to response targets; informing parents of arrangements to discuss assessments and interventions; keeping to appointment times; listening to parents' views; explaining the nature of children's difficulties and proposed action; clarifying arrangements for case reviews; keeping written records of interventions, and provision of reports; and providing cards, enabling parents to contact the psychologist. The views of consumers were measured against these criteria. Forty-nine questionnaires were returned by schools, and seventy-seven were obtained from parents. The response rates were 66% and 57% respectively.

It was reported that responses from schools and parents were very positive, indicating a high rating concerning quality of service. 87% of head teachers thought that advice provided had practical value, and 90% responded favourably in relation to reports. However 56% were less than satisfied with the frequency of visits by psychologists. Comments by head teachers generally related to service delivery or staffing levels, and there was concern about the delay between referral and intervention. Although parents' comments about the quality of service were positive, there was evidence of some concern about waiting periods after referral.

McKeever expressed the view that the pilot survey provided quantifiable feedback, on the quality aspects of an educational psychology service. It was expected that information from surveys would provide quality-based performance indicators, complementing those already employed. The author considered that the method

introduced the use of service quality criteria, which were evaluated by the survey. In his view, this facilitated quality development. Involvement of individual educational psychologists in satisfaction ratings, was thought to make them conscious of quality-related aspects of the service they provided. Service quality criteria developed, were specific to a Northern Ireland educational psychology service. However criteria may be developed to suit the circumstances of any psychological service.

Steenbarger and Smith (1996) consider that assessment of client satisfaction, outcomes, and performance on quality dimensions, permits documentation of counselling effectiveness. There are increasing demands for accountability with respect to counselling services, and the article reviews quality dimensions and assessment methods. Steenbarger and Smith regarded health care quality as multidimensional, covering counselling outcomes, client satisfaction, and adherence to recognised standards of service delivery. There was operationalisation of quality by the National Committee for Quality Assurance, through data collection, according to a particular format. Among behavioural health care dimensions were access and availability; an ongoing quality improvement programme; provider credentialing; client satisfaction; and writing of protocols. The authors viewed client satisfaction as the most common measure of counselling quality. However they caution that satisfaction surveys are of questionable value when inadequately normed and standardised. Use of instruments developed for practice settings were seen as preferable. For example, the Client Satisfaction Questionnaire-8, assesses general approval of services, and may be adapted to school and other settings. The Health Outcomes Institute questionnaire assesses satisfaction, and it is appropriate for individual consultations in schools. While satisfaction measures assess the extent to which clients feel they have benefited, they do not indicate actual improvement. In contrast, outcome measures assess changes which occur during counselling. Domains sampled include functional status, or the degree of impairment in global and dimensional terms. Assessment areas are self-management; work, school or household functioning; intimate relationships; social functioning; family functioning; and health and grooming.

It was reported that the purpose of establishing standards of care, was to provide more uniformity in service delivery. Standards may be clinical protocols governing delivery of care, and practice guidelines. Quality assessment regarding standards, is accomplished through performance indicators; and almost all aspects of counselling practice may be graded. Standards-based evaluations may be defined flexibly and implemented according to the requirements of professionals.

In the opinion of Steenbarger and Smith, quality assessment can facilitate professional development, enabling practitioners to build on strengths and remediate weaknesses. To assist processing, scannable forms and computer administration have been used. As many clients terminate counselling, often there is no opportunity for administration of outcome measures. Consequently, questionnaires may be administered at intervals to ensure that data are obtained. It has been reported that success in quality improvement was greatest, when professionals were involved in designing assessments and guiding the use of data. Assessment of satisfaction, outcomes and performance, may be a single event. Alternatively it might be continuous, resulting in a process which involves delivery, evaluation, modification and redelivery. The total quality management approach is mandated by the National Committee for Quality Assurance in accreditation guidelines, and is increasingly a feature of health care organisations. From a survey of organisations which successfully implement quality improvement programmes, several common elements are shown in Table 3.

Table 3

Elements in Quality Improvement Programmes (Steenbarger and Smith 1996)

1. Leadership

Organisations developing successful TQM programmes make quality an overarching priority, involving individuals at all levels in quality improvement efforts and developing mechanisms for formally recognising and rewarding the achievement of quality goals.

2. Systems Thinking

The ongoing review and modification of services permeates the entire organisation and is embedded within the work flow of all individuals. A focus on process management allows enterprises to assess and modify relationships among providers of services and between providers and consumers.

3. Commitment to Data Collection And Analysis

Quality goals are quantified through bench marking studies, providing norms that guide the organisation's self-assessments and that anchor and align the goals of participating individuals.

Counselling organisations which develop quality improvement programmes, often establish committees: These oversee efforts and recommend change. A multidisciplinary group is typically involved. Steenbarger and Smith report that issues

entail the choice of data to be obtained; mechanisms for collection, collation and distribution of information; and education of staff in relation to quality assessment. There is also redesign of counselling processes, in the light of data obtained. Implications include improvement in appraisal of services and approaches, for particular problems and clients; process management, such as bench-marking of counselling processes; and integration of qualitative and quantitative methods. As databases become broader, increasingly sophisticated questions may be addressed, and it is thought that investigations might improve the cost and quality of counselling services. In conclusion, the authors express the view that assessment of client satisfaction, outcomes and performance on quality dimensions, allows effectiveness to be documented.

Emotions, Attribution and Perception

Chebat et al. (1995) investigate how emotions and attribution impact on perceived service quality. Do moods of consumers, affect the cause to which waiting is attributed? Causes are either internal concerning employees, or external and related to the service delivery process. The attribution process is thought likely to influence judgement of service quality. If it is considered that personnel or the firm is responsible for delay, and not something outwith their control, the delay is symptomatic of poor quality, as has been previously proposed. It is known that consumers react emotionally to time given in service contexts, and this study examines the impact of mood on assessment of quality. Three relationships tested were mood-attribution, attribution-perceived quality, and mood-perceived quality.

Earlier studies showing that mood affected cognitive processes related to social judgement, focused on attribution to others versus attribution to self. In contrast, the focus of marketing research is attribution to others versus environment. Chebat et al. propose that waiting consumers may deliberate three attributional issues, each associated with dimensions of Weiner's model, as shown in Table 4.

Several studies cited, show that there is more satisfaction with services when causes are internal. If service failure is stable or under company control, there are negative emotional or behavioural reactions. One study provided evidence that happy subjects made more judgements than sad subjects, about person description. Evidence provided, indicated that evaluation was enhanced by a positive mood.

Table 4

Attributional Issues **(Chebat et al. 1995)**

1. Locus of Causality

Who is responsible for the waiting time? The cause may be internal (e.g. an employee), or external (a high number of clients).

2. Stability

Is the waiting duration usual? The cause is either constant or variable. For Example, the consumer's experience of waiting, affects expectations and judgement of waiting time.

3. Controllability

Might the waiting time be reduced? A controllable cause may be affected by a factor or persons. For instance, an employee's desire to serve clients quickly, may reduce the waiting time.

The experimental methodology involved exposure to a sad or happy mood video presentation, followed by a video of a bank employee serving a client. A part of the Parasuraman et al. SERVQUAL questionnaire, was used to assess perception of service quality. The Russell Causal Scale, was used to assess attribution of the episode.

Results confirm previous findings, showing that pleasure impacts on two service quality dimensions: personnel empathy and assurance, and consumer mood appears to affect the interpersonal aspect of the service. Attribution also affects perceived quality. It is suggested that consumers search for causes and their stability, in relation to events. There may be toleration of episodes which personnel are not responsible for, and those which do not recur. Only relational aspects of the service involving empathy and assurance, are thought to be affected by the attribution process, as there is an assumption that personnel are responsible for incidents. It is concluded that service quality is assessed in terms of the process and what is received. How services are delivered, impacts on those who receive them and other observing consumers.

The Impact of Goals and Communication Style

Wong and Tjosvold (1995) examined the impact of a co-operative or competitive orientation and a warm or cold communication style, on evaluation of service quality.

Quality was viewed as an indistinct and subjective construct, and its evaluation was based on myriad criteria including cost, physical characteristics, verbal reports, image and performance. It had been argued that intangibility associated with services, compelled reliance on surrogate indicators such as equipment and environment. Simultaneous production and consumption, frequently necessitates the presence of a provider during consumption. Production and marketing processes are highly interactive and service classification is often based on this. It has been proposed that services were differentiated on extent of customer involvement. Intangibility makes conscious evaluation and quality comparisons difficult. Without tangible cues for customer evaluation, providers may have difficulty understanding how their services are evaluated and perceived. Previous research cited, implied that the service provider had a central role in communicating quality. It is also known that services which require high customer contact are more difficult to control. Quality occurs during service delivery and usually through interaction between the provider and customer.

The theory of co-operation and competition was used to investigate the link between organisations and customers. Co-operation and competition concern how individuals believe that their goals are interdependent. Wong and Tjosvold acknowledge the view that dynamics and outcomes of interaction are affected by the belief that goals are co-operative or competitive. Co-operation is defined as belief that goals are positively related. Individuals encourage and value the effectiveness of each other, and personal attainment may depend on others acting effectively. When it is believed that goals are competitive, personal attainment makes the achievement of others less likely. If an individual succeeds, others fail. Those competing believe that they are successful when others are ineffective. Conversely, they are less likely to be successful, when others are productive. In contrast, there is independence when people consider that their goals are unrelated. No relationship exists between the attainments of individuals.

It is argued that it is in the self-interests of those who co-operate, to want others to be effective. Effective actions may substitute for others; work is divided to realise common objectives; others and their effective actions are valued; individuals help others to be effective; and there is obstruction of the ineffective actions of others, which are not in their mutual interests. Promotive interaction is induced by co-operative goals. There is sharing of information; acceptance of the perspectives of others; effective communication and influence; resource exchange; mutual support and assistance; open discussion of opposing ideas; high quality reasoning; and

constructive management of conflicts. It has been demonstrated that interaction promoted task completion, problem solving, reduced stress, attraction, stronger work relationships, and confidence in collaboration. Competition is known to induce oppositional interaction. Individuals are suspicious, and they discourage and interfere with the effectiveness of others. Those who have independent goals are disinterested and indifferent. In general, the impact of independence is less powerful than the effect of competition. Relative to co-operation, competition and independence restrict information and resource exchange; distort communication; and escalate or avoid conflict. These effects usually interfere with productivity and intensify hostility.

There is research evidence that co-operative and competitive dynamics generalise to organisations such as a hospital, an engineering department, a computer support service, an educational institution, and a public health agency. Theory suggests that service providers and consumers are interdependent, and affect goal attainments of each other. Providers' outcomes include satisfaction, financial gain or loss, stress, inconvenience, and embarrassment. Customers' outcomes include receiving services, increased confidence in organisations, disillusion with organisations, and anger. The perception of co-operative, competitive or independent goal interdependence, is expected to affect the dynamics and outcomes of service encounters. Wong and Tjosvold consider it likely that interactions engender combinations of these goals, but dominant interdependences are expected to affect the dynamics and outcomes. Although co-operative goals are useful, service organisations have competitive goals with customers. The aim of maximising price opposes low cost, which benefits consumers. Expectations of customisation places additional demands on service providers. And when a party does not depend on the other, there are likely to be individualistic goals. For example, high demand may induce indifference toward a potential customer. Based on such views, the goal orientation communicated by organisations, is expected to affect service quality evaluations. Research findings suggest that co-operative goals can contribute to positive evaluations of companies, by strengthening relationships, morale and effectiveness. Other effects also included were task completion, positive feelings, constructive interaction and work relationships, and effective problem solving. It was proposed that co-operative goals promoted profitability.

There is acknowledgement that the style or manner by which a person communicates, can influence interaction outcomes. Styles are manifested by tone of voice, facial expression, distance from the addressee, and personal warmth. Behaviours considered warm are friendly tone, smiling, spatial closeness, and eye

contact. In contrast, crisp tone, stern expression, distance, and avoidance of eye contact, are considered to be cold behaviours. It has been found that warm individuals were judged better than cold persons, on willingness to compromise, in agreement, and making effort to understand others. In addition, there is evidence that the warmth or coldness of a leader, affects employee perception, relationships, and task performance. Employees were more open, motivated to work, attracted to and satisfied with a warm leader, than were employees of a cold leader. Such findings suggested the importance of non-verbal communication, in the interaction between service providers and customers. It is proposed that the warmth or coldness of communication may alter responses to an organisation's co-operative, competitive, and individualistic orientations. Service providers whose competitive behaviours are communicated coldly, intensify their objectives. But competitive and warm providers may confuse customers, in relation to intentions, as verbal and vocal information are not in accord.

The Wong and Tjosvold experiment involved a story which concerned student bank loans. Having read this, participants were interviewed about credit, with warmth or coldness communicated through voice, facial expression, posture and eye gaze. There was a post experiment questionnaire and participants provided ratings of the session.

Findings showed that high-quality company service was attributed more to co-operation than competition and independence. Bank quality was lowest in the competitive context. It was reported that the goal context affected perceptions of bank service quality, and interacted with representative communication style. There was an association between warm and co-operative representatives, and perceived high quality bank service. Warmth and coldness respectively enhanced and reduced bank service quality, in co-operative and competitive contexts, but coldness enhanced bank quality in the independent context. With respect to service provided by the representative, quality was highest in the co-operative condition. The bank representative quality was perceived to be higher in the competitive condition than in the independent condition. When results were analysed by goal context and communication style, only the representative communication was significant. Overall, participants attributed higher quality in the warm condition. They had positive feelings toward the bank, when it was co-operative, and less positive feelings when it was indifferent to their interests. Goal orientation did not significantly affect confidence in dealing with the bank, patronising it in future, satisfaction with the interview, positive feelings toward the representative, liking the representative, and willingness to be

interviewed by the representative in the future. When results were analysed by goal context and communication style, these variables were reported to be significant on the main effect style but not context, with the exception of patronising the bank. Warmth enhanced confidence in dealing with the bank, satisfaction with the interview, positive feelings toward the representative, and willingness to be interviewed again. Context and style interaction produced a high likelihood of patronising the bank in the co-operative-warm condition, and there was less likelihood in the co-operative-cold condition. Results signify that customers differentiate between personal characteristics of the service provider and bank policies. Excepting confidence in dealing with the bank, patronising it in future, and feelings toward the bank, questions pertained to the representative. Warmth and coldness affected satisfaction with the interview, feelings toward the representative, and willingness to be interviewed in the future.

It is concluded that customers distinguish between company service and the person who provides it. Communication style contributes to judgement of the service quality offered by the provider. In contrast to cold individuals, those considered warm were perceived to offer personal quality and they engendered more satisfaction. Warm individuals were viewed more positively, and they were more likely to secure repeat interviews. Goal orientation had less impact on these outcomes. The authors suggest that the impact of communication style, may be related to a perception that warmth and coldness are expressions of personality. Warmth or coldness affected judgements of service quality, how well the representative was liked, satisfaction and desire to be interviewed in future. Goal context was found to impact on customer evaluation and feelings with respect to service quality; and goal interdependence of the organisation with the customer, was reported to be a more important factor than communication style in determining quality. Analogous with service provider quality, factors which related specifically to the bank were affected by the goals of the organisation. Communication style contributed to confidence in dealing with the bank in the future.

The service provider was important in suggesting satisfaction, but communication style was insufficient to affect judgement of overall quality. Warmth or coldness was insufficiently salient to influence overall quality. Means of dependent variables for the co-operative condition were higher than those for the independent and competitive conditions. However significant means for independent and competitive conditions indicate that they contribute to quality. It is suggested that individualistic and competitive behaviours are typical and expected. Wong and Tjosvold cite

Parasuraman et al, who propose that quality judgement depends on perception of performance in the context of expectations. The Wong and Tjosvold study indicates that how organisations perceive goals with customers, guides conduct of business and relationships with customers. If goals are perceived as co-operative, there are attempts to satisfy the needs of customers, and quality service is provided. In contrast, when goals are perceived as competitive, there are attempts to maximise interests at the expense of customers, and service is rated poorly.

Finally, the study demonstrates that goal interdependence between organisations and customers, is important for understanding service quality evaluation. Warmth and coldness of providers were found to be antecedents to quality. The authors maintain that service quality is enhanced through provider interpersonal skills, and co-operative goals with customers.

Perceived Fairness and Service Quality

Andaleeb and Basu (1994) addressed the question of service quality, with regard to automobile service and repair. Costs are often high, and the services being technical and complex, are not easily monitored or evaluated by customers. Customers may feel vulnerable, owing to uncertainty associated with outcomes relative to inputs. Those who have higher levels of knowledge might feel less vulnerable, and fairness may be less important. The authors introduced perceived fairness as an independent construct, and examined its affect on judgement of service quality in the context of technical complexity and customer knowledge. In place of the expectancy disconfirmation approach, there was examination of how satisfaction depended on perception of actual service.

It was first necessary to identify factors which possibly influenced judgement of service quality, in relation to automobile service and repair. On the basis of previous research and experience of service and repair, Andaleeb and Basu expected that the SERVQUAL dimensions were useful, with fairness as a separate factor. To confirm this, there was a focus group interview, and important items were identified. A questionnaire was prepared to measure, in relation to recent experience of a motor service facility, five factors: perceived fairness, empathy, responsiveness, reliability and convenience. There was also measurement of satisfaction with the service, and intention to reuse the facility. 550 questionnaires were distributed and there was a response rate of 24%.

Results indicated that all five factors affected evaluation of motor service and repair. The impact of perceived fairness is moderated by self-assessment, regarding knowledge of service and repair, and technical complexity. When customers lack knowledge, the importance of fairness increases with technical complexity. Fairness is the most important predictor of service quality, if the customer lacks knowledge about a technically complex service. There was evidence that although significant, responsiveness and convenience were less important than fairness, empathy and reliability, and it was proposed that they were perhaps more peripheral to the core service.

The Effect of Ambient and Social Attributes

Baker et al. (1994) addressed the question concerning how elements of retail store environment, influenced quality inferences. It is known that features including colour, lighting, style and music may affect decision making and environment provides cues about service quality. Merchandise and service quality evaluations, are inputs into the decision-making process; and the literature suggests linkages between store environment, merchandise and service quality, and store image. It was proposed that inferences about merchandise and service quality, were based on environmental factors. Evidence cited suggested that when consumers had incomplete information about merchandise or service quality, they tended to found decisions on inferences based on various cues. The store environment offers stimuli which may act as cues, to consumers who require this heuristic. An example given, is that thick carpeting, low-level lighting and muted, fashionable colours, may lead to the inference that a store offers high quality merchandise or service. Merchandise and service quality are thought to be components of the decision-making process. Several environmental attributes may affect inferences about merchandise and service quality. Baker categorised these into three groups: ambient, design and social factors. As the store environment entity consists of multiple elements, it is likely that inferences are based on combinations of elements. Ambient factors were defined as non-visual, including temperature, lighting, music and scent. Design factors are functional and aesthetic, such as layout, comfort, privacy, architecture, colour, materials and style. The social factor concerns people within the environment. Elements include the number, type and behaviour of customers and sales personnel.

The experimental method employed by Baker et al, involved simulation of a shopping experience by means of video, with manipulation of ambient, design and social factors, which achieved prestige-image and discount-image conditions. Having viewed the video, subjects completed a questionnaire developed to measure merchandise and service quality, and store image. Results suggested that the relationship between store environment and image, was mediated by merchandise and service quality inferences. The study confirms that ambient and social attributes provide cues which are the basis of quality inferences, however design factors do not have a significant effect. This implies that regardless of design, quality inferences may be improved by upgrading ambient and social features. When ambient, design and social elements agree, consumers are able to make quality inferences. However, irreconcilable features may give confusing messages about the quality of merchandise or services.

A Hierarchical Factor Structure

Dabholkar et al. (1996) proposed a factor structure to show dimensions important to retail customers. This was based on retail and service quality literatures, and three qualitative studies. The retail literature focus on service quality at the integrated or attribute level, does not address questions at a factorial level. It had been suggested that important experiences included interactions with employees, ease in moving around the shop, and quality and availability of merchandise. However Dabholkar et al, believe that there may be overlap between broad categories concerning in-store experiences and merchandise, and that they encompass more than one dimension. The conception of service quality at an integrated level, inadequately signals discrete, critical dimensions. While it is useful to identify salient attributes, there is little evidence which suggests how these combine into critical dimensions. Studies cited showed that SERVQUAL has not been successfully adapted to retailing.

Qualitative research methodology adopted by Dabholkar et al, involved interviews and tracking customers through shops. It was discovered that customers were concerned about layout, in relation to moving about and finding things; treatment by employees, in terms of helpfulness and being comfortable; ease of obtaining exchanges, refunds and resolving of problems; policies regarding merchandise quality; parking; acceptance of credit cards; appearance of the store and facilities. The service and anything delivered, were expected to be good. Combining findings from the qualitative research, retail literature and SERVQUAL, a hierarchical factor

structure was suggested by the authors. Five dimensions and several sub-dimensions are proposed, as shown in Table 5.

Table 5
Hierarchical Structure
for Retail Service Quality **(Dabholkar et al. 1996)**

Dimension	Subdimensions	
Physical aspects	Appearance	Convenience
Reliability	Promises	Doing it right
Personal interaction	Inspiring confidence	Courteous/Helpful
Problem solving		
Policy		

Physical aspects encompasses the appearance of facilities and convenience in relation to layout. Reliability is viewed as a combination of keeping promises and doing it right, which incorporates availability of merchandise. Personal interaction consists of two sub-dimensions which relate to employees inspiring confidence and being courteous. Problem solving concerns handling of returns, exchanges and complaints. It relates specifically to dealing with problems. The fifth dimension pertains to aspects of service quality which are directly influenced by policy. For example, customer evaluation of business hours, is viewed in relation to responsiveness of policy to needs. Other reported criteria were credit policies and availability of parking.

Seven department stores were involved in the study, and there was a sample of 227 respondents. The measure of retail service quality consisted of seventeen SERVQUAL items, and eleven developed from the literature review and qualitative research. Adults entering, who had previously shopped at the stores, were asked to complete the questionnaire.

To test the proposed Retail Service Quality Scale, data was factor analysed. Findings indicate that the five basic dimensions are suitable for measuring retail service quality. Customers evaluate quality on these, and also view overall quality as a higher order factor, with meaning common to all dimensions. A second study using the same instrument, provided cross-validation for the five basic dimensions.

Summary

Services are provided by profit making organisations, and others such as Government agencies, which are not run for profit. Certain services are used by individuals, and some are consumed by organisations.

The characteristics of products and services differ. Unlike manufactures, services are intangible; simultaneously provided and used; and they cannot be stored.

Initially, definitions of service quality focused on an absolute judgement. Service quality involves the concept of fitness for purpose. Therefore it is possible for niches to exist, in which particular types of service may excel. When judgements are viewed as relative to purpose, the issue of expectations arises, and gap theory indicates that quality judgement varies according to the difference between expectation and actuality. A measure of this sort developed by Parasuraman et al, has been cited widely. Perceptions of service quality have also been viewed as a function of expectations, regarding what will and should transpire in a service encounter, in addition to the customer's most recent contact with the delivery system. It is believed that perceptions of quality dimensions are the bases of quality perception.

Research findings suggest that there are a number of factors associated with assessment of service quality. Among these are the process and what is received; co-operation; fairness; and ambient and social attributes.

Dabholkar proposes a factor structure to show dimensions which are important to retail customers, and it is believed that overlap between broad categories is possible.

3 Theories of Motivation and Impression Formation

There is suspicion of what is viewed as imposition of inappropriate marketing principles such as competition, on the public education service, but there is no relationship between this debate and the study. As a history of research in the general field of consumer perception exists, the theory is adopted as a means of exploring public perception of educational issues. Tybout and Artz (1994) note that there is increasing interest in consumer psychology, which explores areas such as information processing, judgement and decision making. Research draws on the theories and methods of cognitive and social psychology; but consumer research is based on economics and sociology, as well as psychology. The general consumer psychology approach is appropriate for exploring educational issues, which are related to these fields.

The issue of how school judgements are formed may be approached, by examination of empirical research on quality measures. Models of perceived service quality have been proposed, but no equivalent theory specific to education has been developed. Therefore it is valid to consider the extent to which these are useful in this context. Other important issues related to questions about consumer behaviour and how services in general are evaluated, concern needs, drives and psychological processes which govern impression formation. This is acknowledged by means of a review of literature on motivation and person perception.

Motivation

Schiffman and Kanuk (1987) explain that acquired needs are learned in the context of environment and culture, being an outcome of a subjective psychological state, and relationships with others. Parents probably judge services in terms of how well they are perceived to satisfy needs.

Motivation may be regarded as a driving force which impels individuals to action. Schiffman and Kanuk described the process in terms of tension produced by an unfulfilled need; a resultant driving force; and conscious and unconscious striving to fulfil the need, through behaviour perceived as appropriate for this purpose. Goal selection and actions to achieve goals are regarded as outcomes of thinking and learning. Needs gratification and tension reduction, is dependent on action taken. The authors affirm that there may be several goals for particular needs; and prevailing values, personal experience and goal accessibility influence choice. Goals have to be physically and socially accessible. A person's self-perception is likely to influence the selection of goals, therefore it affects judgement. This implies that services may be perceived in terms of how congruent they are with an individual's self-image, and there is probably more satisfaction with those which match than with others.

Motivation is either positive or negative, with drives toward or away from conditions. Positive drives are known as needs, wants, or desires, and negative drives are fears or aversions. Schiffman and Kanuk acknowledge that researchers distinguish between rational and emotional motives, the assumption being that emotional criteria do not maximise satisfaction. However it is assumed that consumers select alternatives which from their own perspectives, maximise satisfaction, and assessment of satisfaction is a personal process based on individual needs and learning. This suggests that services are assessed according to how well they are perceived to meet the particular needs of individuals, and that the process is based on differing judgement criteria. It had been proposed that the rational nature of motivation was obscured by emphasis on needs, and that consumers acted consciously to maximise gains. Administrators who agree with this might attempt to identify problems people experience with available services, rather than try to ascertain motives.

Needs constantly change, in response to conditions, the environment, interaction and experience. When goals are realised, new ones are conceived. People continue to strive for old goals when they are not attained, or substitutes occur. Complex psychological needs are seldom met. Certain needs are temporarily satisfied, and individuals strive to meet them more fully. Therefore it is likely that services are not always judged favourably, on account of their inability to completely satisfy complex goals. People who do not reach goals sometimes lower aspiration levels.

Schiffman and Kanuk propose that the effects of success and failure on goal selection, have implications for marketing. Goals should be attainable and consumers must not be promised more than products deliver, as there is evidence that there is less satisfaction than warranted, with products which fail to live up to expectations. Dissatisfaction is a consequence of unrealistic expectations. Therefore when communications create expectations, this has implications for subsequent levels of satisfaction, which influence evaluations. When goals are not achievable, attention may be directed to substitute targets. These might dispel tension and become primary goals. This also has implications for satisfaction and judgement, and the devising of strategies which may affect judgement.

Inability to achieve a goal often leads to frustration. Schiffman and Kanuk explain that the frustrating situation may be redefined, in order to protect self-image and self-esteem. There are several defence mechanisms which are potentially related to judgement of services: Some individuals have resorted to aggression, which has resulted in destructiveness and boycotts by consumers. Rationalisation concerns redefinition of situations through ideation of reasons for unattained goals. Alternatively it may be decided that the goals are not worth pursuing. Sometimes people react to frustrating situations by acting immaturely, and this is known as regression; or frustration may be resolved by withdrawal, and rationalisation of the action. In contrast, projection is redefinition of situations by blaming others for personal failure. Autism in this context, refers to thinking dominated by needs and emotions outwith reality, which enables individuals to reach a state of imaginary fulfilment of needs. Another defence mechanism is identification with others or relevant situations, and overcoming frustration by adopting observed courses of action which seem effective in similar circumstances. Finally, repression of unsatisfied needs avoids frustration and tension, as they are not in consciousness.

In the view of Schiffman and Kanuk, there are limitless ways of redefining frustrating situations, to preserve self-esteem from anxieties which result from failure. According to their experiences, there is a tendency for individuals to develop particular ways of dealing with frustration, and it is therefore proposed that this happens in relation to expectations and judgement of services.

The authors believe that a goal is selected to fulfil several needs, but one of these is prepotent. Thus a service may be judged in relation to achievement of a goal which satisfies various needs. It is not possible to accurately infer motives from behaviour. People who have different needs may seek to fulfil them through the same goals; and

those who have the same needs may try to satisfy them by means of different goals. Arousal of motives may occur through internal or external stimuli. People living in a complex and varied environment experience more opportunity for need arousal, than those who live in poor or deprived circumstances. When unfulfilled needs result in frustration, antisocial defence mechanisms such as aggression may occur. The behaviourist philosophy perspective regarding motive arousal, which Schiffman and Kanuk describe, concerns response to external stimuli. In contrast, the cognitive school suggests that behaviour is directed at goal achievement. Needs and experiences are reasoned, categorised and transformed into attitudes and beliefs, which predispose individuals to behaviour. These assist the satisfaction of needs and affect how it is achieved.

The authors' review includes a section, on attempts made to list human needs. These tend to be too long for the purpose of marketing, but those which are limited and generic, and subsume detailed needs, are more useful. In one example, needs were grouped into three categories: Affectional needs concern the formation and maintenance of good relationships with others. Ego-bolstering needs concern enhancement of personality: to achieve, to have prestige and dominate. Ego-defensive needs relate to protection of the personality: to avoid harm, anxiety and ridicule; and to maintain prestige. Although it has been suggested that need priorities are based on personality, experience, environment etc, another view is that most individuals have similar priority rankings with respect to basic needs. If this is true, it indicates that services including education, may be expected to satisfy certain common high priority needs, and judgement is likely to be affected by the degree to which the needs have been satisfied.

A hierarchy of human needs proposed by Maslow, which the authors describe, has five levels. The most basic level is physiological, concerning food, water, air, shelter etc. In a service context, these are related to tangible, observable features. Another level in Maslow's hierarchy, is safety and security needs, which consists of protection, order and stability. Next is social needs, concerning affection, friendship and belonging. The fourth level concerns ego needs, such as prestige, success and self-respect. Finally there is the need for self-actualisation or self-fulfilment. According to the theory, when individuals satisfy lower level needs, higher level needs emerge. The lowest level of needs unsatisfied, motivates behaviour. However as no need is ever totally satisfied there is some overlap between levels. In the view of Schiffman and Kanuk, the theory indicates that behaviour is motivated by dissatisfaction. The authors regard the theory as useful for understanding consumer motivation, and

suitable for application to questions concerning promotion of various products and services. Therefore it is potentially useful in the context of education, and an interesting and important implication, is the possibility that more than one need level may be addressed simultaneously. However the theory is not empirically testable, as a measure of need satisfaction which activates a higher level in the hierarchy does not exist.

It has been suggested that there is a trio of basic needs. These are subsumed in Maslow's hierarchy, and have particular relevance with respect to consumer motivation: needs for power, affiliation and achievement. Power needs concern a desire to control the environment; affiliation needs relate to friendship and acceptance; and achievement needs are associated with personal accomplishment. One study cited, showed that dominant needs were possibly related to career progress. Power was dominant for partners in an accounting firm; affiliation was dominant among accountancy undergraduates, high school seniors and air force cadets; and achievement was dominant for air force officers and M.B.A. students.

The Perceptual Process

Person perception is defined by Hellriegel et al. (1992), as the process by which there is attribution of characteristics to individuals. The general process of perception concerns selection and processing of information, and follows a sequence which involves observation, selection, organisation, interpretation, and response. Perceptions of persons are often always influenced strongly by first impressions, known as a primacy effect. There is evidence that over time there is less emphasis on behavioural details for impressions, and increasing reliance on personality and traits. Factors which affect person perception are characteristics of the target individual and perceiver, and context of perception. Hellriegel et al. describe the process of perception as involving a range of cues, including appearance, facial expressions, age, gender, voice, personality traits, behaviour etc, but only certain cues contain important information. Implicit personality theories may affect how others are viewed, treated, and remembered. Although grouping of characteristics and traits helps us to organise perceptions and understand our world, implicit personality theories may produce perceptual error. The authors note that how others are perceived, is partially determined by our own personality traits, values, moods, experiences, etc. The traits and behaviour of a target person are interpreted according to our own experiences, attitudes and values. Situations also affect

perception, and may be important for understanding primacy effects. An example is the differing effect on assessment by an individual, of a person met for the first time, when he is accompanied by a person respected or disliked by the individual. Initial perceptions may alter through interaction in various settings, permitting a more accurate understanding, but first information received often continues to affect impressions.

Hellriegel et al. also give an account of how the perceptual process may produce errors of judgement. Individuals differ in terms how accurate their judgements of others are, and people may learn to develop assessment accuracy. It is known that perceptions are more accurate when there is avoidance of generalising from a single trait to a constellation; assuming that a particular behaviour occurs in every situation; and overreliance on physical appearance. Accuracy is also improved when a perceiver is aware of the biases of situational features and his own characteristics. Errors in person perception have been classified as follows: Perceptual defence is defined by the authors as a tendency for people to protect themselves from ideas, objects and situations, they find threatening. Ways of viewing the world may be resistant to change. People perceive what is supportive and tend to ignore disturbing things, which is a defence mechanism. Another perceptual error is stereotyping, or the assignment of attributes to a person on the basis of a category in which he has been placed. According to the nature of the categories, a person is perceived as owning positive or negative attributes, and there may be failure to recognise characteristics which distinguish him as an individual. The halo effect is described as a process of global evaluation, based on a single impression, favourable or otherwise. Perceivers do not attend to attributes which should be considered, in the formation of an accurate impression. Projection is explained as a tendency for individuals to project personal feelings, tendencies and motives into judgement of others. This may be true of undesirable personal traits, which individuals do not recognise in themselves. Finally, expectancy effects are the extent to which expectations bias perception of events, objects and people. As experience and learning are important to the perceptual process, therefore people often expect things to occur or others to have particular attributes. Such expectations may affect perceptions of reality.

Attribution

Interest in causal attribution extends to virtually all judgement in a social context. Ajzen and Fishbein (1983) note that it is possible to classify judgements in terms of three broad categories. These are, prediction of events; categorisation of individuals in terms of groups, attitudes, personality, or other dispositions; and explanation, which concerns causes or reasons for actions and events. Unlike some other investigators, the authors consider that many social judgements are of tangential relevance. The main issue addressed by attribution theory relates to dispositions, which permit coherence in observed behaviour. Ajzen and Fishbein explain that in attribution research, having received information about the behaviour of a target, circumstances and effects, participants are typically asked to specify causes or draw inferences. Causal attribution concerns dispositions used to explain behaviour, and are a subset of the class of judgements which involve explanation. Dispositional attributions are based on inferences drawn from behaviour, about the target person or environment, and are a subset of the class of judgements which involve categorisation.

Attempts to find explanations or to draw inferences from observed behaviour, may be viewed as a search for hypotheses which might provide answers. People are unable to formulate hypotheses about causal or dispositional properties, which the authors describe as not being part of their cognitive repertoires, and there is evidence that even those which are, may not be accessible. Available dispositions set broad limits on possible hypotheses, and only those potentially capable of providing an answer to an attributional question, are likely to be considered. Analysis of the attribution process must address factors which influence availability of dispositional hypotheses and their perceived relevance. Having formulated hypotheses, observers usually look for additional information to evaluate the validity of these, account being taken of available and relevant evidence. Attributional judgements are arrived at through evaluation of the consistency of relevant evidence with the hypotheses. Consistent evidence is likely to augment confidence in the validity of hypotheses, and inconsistent evidence is likely to diminish confidence.

Attributions are important in the process of person perception. Hellriegel et al. (1992) explain that attributions about causes of behaviour, may influence judgements about the characteristics of an individual. Attributions made by employees and managers about causes of behaviour, are important in understanding behaviour in organisations. A manager may try to improve available instruction, if he believes that

a task is not performed correctly, owing to a lack of employee training. Alternatively, the manager may be displeased if it is believed that insufficient effort by the employee is responsible for mistakes. It is explained that people make attributions in order to understand the behaviour of others, and to make sense of the environment, but conscious attributions are not made in all circumstances. Causal attributions are often made when a perceiver is asked a question about the behaviour of someone; should there be an unexpected event; if the perceiver depends on another person for a desired outcome; and when there are feelings of failure. Causes of observed behaviour are inferred, and this largely determines reactions. Perceived causes are results of the amount of available information, and how it is organised; beliefs ; and perceiver motivation. Information and perceiver beliefs are contingent on experience and influenced by personality. Often, internal and external causes are distinguished. Assigned causes give meaning to the event, and permit understanding of consequences for the perceiver. Consequences of the attribution process are perceiver behaviour in response, impact on feelings, and expectations in relation to events or behaviour.

The authors refer to a model proposed by Kelley, for explanation of how people determine reasons for the behaviour of others. In terms of the model, in making attributions, people focus on consensus, the extent to which others in the same situation behave similarly; consistency, the extent to which the target person behaves in a similar way, when in the same circumstances on other occasions; and distinctiveness, the extent to which the perceived person acts in the same manner in various situations. When there is high consensus, consistency and distinctiveness, behaviour tends to be attributed to external causes. In contrast, if consensus and distinctiveness are low, behaviour tends to be attributed to internal causes. Other combinations of high and low consensus, consistency and distinctiveness, do not always clearly indicate internal or external causes. When consistency is low, a perceiver may attribute the behaviour to either or both internal and external causes.

Fundamental attribution error is explained as a known tendency to underestimate situational or external causes of behaviour, and overestimate personal or internal causes. In organisations, employees tend to assign blame for political behaviour, conflict, or resistance to change, to involved individuals, and the effects of situational dynamics are unrecognised. However there may be cultural differences in the fundamental attribution error, and there is evidence that in India, the more common attribution error is overestimation of situational or external causes of behaviour. Hellriegel et al. also cited a study which showed that supervisors were more likely to

attribute high performance of valued members of their work group, to internal causes; and effective performance of lower status employees, was less likely to be attributed to internal causes. Ineffective performance by low-status employees was more likely to be attributed to internal causes; and ineffective performance by high-status employees was less likely to be attributed to internal causes. Individuals often attribute success or failure to ability, effort, task difficulty, and luck. While causal attributions of ability and effort are internal, attributions of task difficulty and luck are external. Research quoted, showed that when poor performance was put down to a lack of effort, feedback messages from managers were more likely to be punitive or negative. If lack of ability was thought to be the reason for poor performance, message content focused on instructions for improvement. When poor effort was perceived as the explanation, message content stressed orders to be followed. Therefore attributions influenced the nature of communication.

A self-serving bias is the tendency for individuals to attribute personal success to internal factors, and failure to external factors. This creates problems for appraisal of performance. The tendency for others to be blamed for personal failure is associated with difficulties concerning effective performance, and establishment of good interpersonal relationships.

Hewstone and Antaki (1989) observed that the self-serving bias has been extended to the study of intragroup and intergroup relations. There is evidence that members of successful groups assume more responsibility for group performance than members of a group which fails; while differing explanations may be given for success and failure by members of an ingroup and outgroup. Intergroup attribution involves attributing the behaviour of a person not only to individual characteristics, but to intentions associated with the group he is a member of. This process preserves stereotypes of ingroups and outgroups. Hewstone and Antaki argue that attributions made for behaviours and social conditions characteristic of ingroup and outgroup members are often ethnocentric, in the sense that individuals favour members of their own groups. It has been suggested that intergroup attributions may serve specific functions for members of majority and minority groups. They may be used to justify intergroup divisions, and there may be a role in the development, maintenance or reduction of intergroup conflict.

The Schema Concept

Assumptions about others enable us to function, Fiske and Taylor (1984) maintain. Although accumulated knowledge about categories of people, does not provide a full account of the particular characteristics of any individual, it promotes efficiency and adaptiveness in social cognition. A schema is defined as a cognitive structure which represents knowledge about a concept or stimulus. Information is stored in an abstract form; and prior knowledge permits categorisation of new data, making it intelligible. The schema concept concerns theory-driven cognitive processes, with a focus on how prior concepts govern perception of new data. Fiske and Taylor explain that schemata are theories which determine how people take in and make inferences about data. Perception, memory and inference are processes guided by social schemata. There is a focus on how information is represented in memory, and how it is assimilated with existing knowledge. The principle is that people simplify and interpret, in terms of a general case. Schemata involve knowledge of congruent information, and therefore what is incongruent or irrelevant. The theory is based on an assumption that perceivers construct reality, by creating meaning and augmenting it with data. The authors noted that Gestalt psychology provides that perception is constructive and mediated by interpretation, according to context.

Social schema research concerns organised prior knowledge, which enables the individual to operate in a highly complex social world. Fiske and Taylor outline social schema research groups, and their respective focuses.

Person schemata usually studied, are personality traits and goals, which determine information consistent with an individual or type of people. Goals or situation-specific intents are a joint function of goals situations suggest, and how the goals fit those who are in a situation. Research shows that a person-in-situation category is accessible to memory. As it suggests specific behaviour, the schema is easily accessible, and it is useful for predicting the behaviour of a person in a particular setting. Trait and goal schemata activate relevant and consistent information. Researchers cited, showed that social prototypes allowed categorisation by the family resemblance criteria; and that there were categorisation levels. Lower levels in the categorisation hierarchy provide more specific detail, and higher levels have fewer details which are necessarily characteristics within a category. There is less overlap between higher level than between lower level categories. When a target person has been categorised, unobserved but category-consistent attributes may be ascribed.

Schema-driven inference in certain circumstances, also leads to assumptions about similarity on objectively unrelated attributes.

Previous interpersonal experiences may have a powerful influence on behaviour and construal of social information. Baldwin (1992) views the internal representation of relationships an appropriate issue for social cognitive analysis, focusing on how information about interpersonal experience is perceived, interpreted, stored, and recalled. The relational schema is in Baldwin's words, based on the notion that people develop cognitive structures representing regularities of interpersonal relatedness, the assumption being that there is development of models of relationships, which act as cognitive maps. It is hypothesised that cognitive structures include images of self and others, with scripts for anticipated patterns of interaction, derived from previous experiences.

It is observed by Baldwin, that many models of person perception place emphasis on the perceiver's cognitive structures or schemas, in forming impressions of others. Studies show that schemas focus attention on certain information; there is interpretation of ambiguous information in ways consistent with expectations; information gaps are filled with default or expected values; and there is preferential recall of information consistent with or relevant to the schema.

Data Sampling

Fiske and Taylor (1991) observe that when a social perceiver decides what information is relevant to an inference, a process which may be biased by pre-existing theories, the data has to be sampled. When people describe information on available samples, their accuracy in estimating frequencies is reasonably good, when there is no influence of prior theories or expectations. Extreme examples within a sample may also interfere with estimates. Small unrepresentative samples are often generalised from, and resultant estimates are poor. There is evidence that social perceivers believe that use of an aggregate to predict a single event, is more reliable than use of an event to predict an aggregate. Such perceptions are mistaken, as neither is more reliable. When gathering a sample, individuals may ask friends and acquaintances for their opinions, forgetting that this is not random, as members of such a group probably hold similar views. However biased sampling is acceptable in certain circumstances. One study quoted, indicated that information about the typicality of a sample was not always used. Regression implies that when information

is limited and unreliable, prediction which is less extreme than the data on which it is based, is likely to be most accurate. Fiske and Taylor also described the dilution effect. This concerns the dilution of diagnostic information with non-diagnostic information, which produces less extreme inferences.

Expectancies

Jones (1990) notes that when a person observes or interacts with another individual, he has expectations about the other person's likely actions. Expectancies are important features of person perception. When a person is seen in a situation, there is an attempt to co-ordinate observed actions with those which are expected. Expectancies are the product of experience. They involve knowledge of situational requirements and how people generally behave in particular contexts. In addition there are differentiated concepts about how various kinds of people behave in certain situations. Citing Kelley, Jones explains that expectancies have different forms of representation: consensus, or expectancies about others; distinctiveness, which is expectancies about situations; and consistency, described as expectancies about behavioural stability. The most obvious source of perceiver expectancies is consensus, while distinctiveness implies knowledge of the previous response of a target, to entities which were similar to one currently encountered. Consistency information concerns observation of target response to a particular entity over time. Expectancy concepts are an approach to addressing the question which concerns development of understanding, about dispositional tendencies of others. Expectancies are assumed to be related to perceiver experience, and two types of prior experiences have been distinguished. One of these, known as category-based expectancies, concerns experiences with categories of people, relating to gender, age, socio-economic status, ethnic group etc, about which everyone has expectancies, varying in clarity and detail. Jones also describes target-based expectancies, which relate to prior experience or information about the person being assessed. Category-based expectancies are subdivided into dispositional and normative variations. The former concerns a belief that group members share certain dispositions, and are extrapolations from experience with members of the category to which a target belongs. Jones explains that dispositional expectancies are triggered when category members are encountered. When multiple schemas are activated by a target, the expectancy is a complex function of combined and interacting dispositional and situational expectancies. Normative expectancies are situation bound, with consideration of social rules and sanctions. There are expectations about

behaviour, and social penalties when rules are not adhered to. For Jones, a key feature of category-based expectancies is their probabilistic nature. The extent to which expectancies are probabilistic is important, as disconfirmed expectancies may be considered irrelevant for further judgement.

Srull (1981) suggests that similar processes are involved in remembering information about persons and other targets, therefore it is possible to apply theoretical principles derived from the person perception literature, to questions concerning how judgements are made with respect to school and other issues. The methodology of experiments described by Srull involved providing a description of an individual or group to create an expectancy, followed by further congruent or incongruent information. Results show that there is better recall of items which are incongruent with prior expectancies, than those which are congruent.

Group Bias

Citing a number of researchers, Simon and Mummendey (1990) show that there is evidence that outgroups are viewed as more homogeneous than ingroups, and that the effect may depend on factors, including particular characteristics and the relative size of the ingroup. It is likely that an ingroup is viewed as more homogeneous, on dimensions which are relevant to ingroup identity. Research also indicates that in particular, majority group members are inclined to show the outgroup homogeneity effect, and minority groups frequently perceive more ingroup than outgroup homogeneity. It is proposed that reversal of perceived relative homogeneity is due to stronger social identification with a minority group. Simon and Mummendey suggest that perceptions of relative ingroup-outgroup homogeneity may be influenced by implicit assumptions about relative ingroup size, and that ingroup members tend to overestimate the size of their group. Therefore when explicit information about relative ingroup size is absent, members might view their group as a majority, and ascribe more homogeneity to the perceived minority outgroup.

Simon and Mummendey confirm through a study, that in the absence of information about group size, group members view their own group as a majority, and perceive more outgroup than ingroup homogeneity. They also demonstrate that this effect does not occur when there is known numerical equality of ingroup and outgroup. For both the ingroup and outgroup, there is a higher homogeneity rating on an intragroup similarities scale than on an intragroup difference scale, which seems to confirm the

hypothesis that more attention is given to common features in judgements of similarity, than in judgements of difference.

Fifteen subjects in the no information condition perceived the ingroup as a minority, but there was no ingroup homogeneity effect. While it was noted that this appeared inconsistent with previous research cited, it was thought that findings were affected by different methodological features. It is suggested that being assigned to a small minority constitutes one psychological situation, with implications for behaviour or perception, and another is voluntarily adopting membership of a group consisting of more than a third of the population.

Simon and Mummendey consider that the findings indicate that majority members in particular, are inclined to emphasise the individuality possible within ingroups, and ascribe uniformity and predictability to outgroups. They also propose that the outgroup homogeneity effect often depends on the implicit, but not necessarily accurate assumption, of majority group membership. Another quoted study showed that irrespective of whether the ingroup or outgroup was described as more homogeneous, the ingroup was always perceived as the majority.

Another study by Lindeman and Koskela (1994) predicted that ingroup and outgroup biases among minority and majority members, depended on dimensions employed and on perceived control of group membership. Social Identity Theory predicts that when inferior group members accept inferior status, ingroup bias does not occur. When they regard their status as unstable, group members are expected to enhance group positive distinctiveness, by adopting superior group characteristics, or by comparing the ingroup and outgroup on positively-valued dimensions. Members of a superior group are assumed to be less discriminative than inferior group members. When group status is not secure, the Theory indicates that superior group members intensify distinctions by discriminating between themselves and inferior group members. However Lindeman and Koskela report that research shows that the effect of perceived changes of group status on intergroup comparisons, is less straightforward than the Theory predicts; and both inferior and superior groups may simultaneously favour the ingroup and outgroup, although inferior and superior groups may grant outgroup favouritism in different ways. For example, a review cited suggested that ingroup favouritism was shown more by lower status groups on irrelevant attributes, and more by higher status groups on relevant attributes.

There is evidence that majority group members and superior status groups show similar patterns of evaluation. A study quoted suggested that the majority favoured the ingroup on important dimensions, and the outgroup on second class dimensions. Minority members favoured the ingroup, on dimensions important to the minority only or important to both the minority and the majority. Findings also indicated that minority members favoured the majority on dimensions thought to be important to the outgroup. Generally the minority was shown as more competitive than the majority. Lindeman and Koskela stated, "Assuming that the dimensions that were regarded as important either to the ingroup or to the outgroup can be characterised as relevant comparison dimensions, the results of Mummendey and Simon indicate that both majority and minority members discriminate against outgroup on relevant dimensions." Lindeman and Koskela proposed that results obtained with status groups may not be generalisable to minority and majority groups, or that discrepancy in results might be caused by the different ways of determining comparison dimensions.

The purpose of the Lindeman and Koskela study was "to clarify the role of dimensionality in minority and majority comparisons". It was expected that majority members would show ingroup favouritism on task-relevant dimensions, and that minority members would show ingroup favouritism on task-irrelevant dimensions.

The authors note that there is volitional control when group membership is based on permeable group boundaries; but impermeability of boundaries is an uncontrollable reason for group membership. Attribution theory indicates that a determinant of emotions, motives and behaviour, is perception of individual control. It is assumed therefore that intergroup behaviour is subject to beliefs about the permeability of boundaries. Social Identity Theory predicts that permeable boundaries permit movement between groups, and this encourages interpersonal behaviour. In contrast, impermeable group boundaries lead to group rather than individual based behaviour. It has been shown that members identified less with groups which had permeable boundaries, than with those which had impermeable boundaries. Lindeman and Koskela propose that minority and majority members who are able to control their group membership by leaving a group, do not manifest group-based competition. A second hypothesis is that when boundaries are permeable, minority and majority members discriminate less against outgroups, than when boundaries are impermeable. However the authors are aware that group members sometimes try to intensify a sense of group membership, despite a possibility of mobility between groups. In these circumstances superior and inferior group members discriminate

more against the outgroup, than in uncontrollable settings. It is assumed that as there are cognitive alternatives to the actual outcome, superior group members intensify their actions to enhance group superiority. It is expected that inferior group members enhance the positive distinctiveness of their group, because the outgroup superiority is no longer perceived as an acceptable objective reality.

Assignment of individuals into a minority or a majority may create a sense of group membership, and possibly induces intergroup behaviour, and there are indications that minority members in particular identify with their groups, although boundaries are permeable.

The Lindeman and Koskela study findings confirm that minority group members are more discriminatory than majority members, and suggest that lower-status groups manifest more ingroup bias on irrelevant attributes, while higher-status groups show more bias on relevant attributes. Multidimensional evaluations found with status groups may also be found among minority and majority members. Findings suggest that inferior group members may accept the status of a superior group on one dimension, and seek positive distinctiveness for their group on another dimension. Superior groups may also be fair and discriminative. Controllable majority members do not show ingroup favouritism, and irrespective of the availability of the option to leave a group, minority members enhance ingroup favouritism. When boundaries were permeable, majority members showed indifferent attitudes toward the minority. A change in condition from uncontrollable to controllable, eliminated majority members' ingroup favouritism on task-relevant dimensions and outgroup favouritism on task-irrelevant dimensions.

The controllable minority discriminated more than the uncontrollable minority, and the uncontrollable minority did not compete on task-relevant dimensions with the majority. When group boundaries were defined as a function of opinion, Lindeman and Koskela reported that the minority maintained its positive image based on an irrelevant dimension, but enhanced the positive distinctiveness of the ingroup by favouring it on task-relevant dimensions. Assignment of individuals to a majority group with permeable boundaries, does not induce intergroup behaviour, but assignment of individuals to such a minority group, activates intergroup behaviour and enhances social competition among group members. Despite the possibility of movement from minority membership to majority, minority members identify with their group and discriminate against the outgroup. Findings suggested that more social competition was shown by the minority than by the majority. The authors caution that

ratings made by the uncontrollable minority and the controllable majority cannot be reliably compared, nevertheless minority and majority members rated the ingroup and outgroup differently, in controllable versus uncontrollable conditions, and on relevant versus irrelevant dimensions.

Illusory Correlation

McConnell et al. (1994b) addressed the issue of illusory correlation in group perception, concerning erroneous judgement of relations between information categories. Earlier research cited, demonstrated that co-occurrence of distinctive stimuli resulted in overestimation of the frequency of these pairings. It was reasoned that distinctive pairs were processed more thoroughly than others. Another study quoted, demonstrated that relative to others, there was overestimation of minority group undesirable behaviour and more negative evaluation. In terms of a distinctiveness-based interpretation, there is more extensive encoding of infrequent or otherwise salient items, which are more accessible when there is memory-based judgement. McConnell et al. address the question concerning whether illusory correlation is formed when stimuli are presented, or if there is a post-encoding process. They propose that group target illusory correlation formation, is based on continuous processing of information. Rather than information being stored unaltered, it is reviewed and assimilated to new information. Information which was not initially distinctive may become distinctive and receive further processing. As additional data is acquired it is considered in relation to previous information. Therefore group representations and representations of individual behaviours, reflect a series of behaviours, regardless of the distinctiveness of any category of items when first presented. However the authors caution that no definitive conclusions may be drawn about the generality of post-encoding processing, as initial representations at times, are unaffected by subsequent information.

Integration of Information

In their review of work on impression formation, Harvey and Smith (1977) include the suggestion by Bruner and Tagiuri, that it is possible on the basis of limited information to form integrated views of others, as perceivers have an implicit theory of personality. The theory concerns associations between traits. Implicit theories of personality assist people to make rapid overall assessments of others, based on

limited information. However this may lead to erroneous views. Referring to the views of Kelly on personal construct psychology, Harvey and Smith note that people differ in the constructs they assign to others. Traits which combine to form constructs for individuals may be quite different. Various studies cited, provide evidence of primacy effects on judgement of a person, when there is serial presentation of information, although recency effects obtain under certain conditions.

The practical focus of the research concerns how people judge school quality. Links made to the literature reviewed, relate to judgement of products and services, attitudes to target objects, and judgement of people in the context of person perception research. These share a view of the target as a unified entity. However a school is an organisation with internal dynamics and conflicts, which do not always have a common purpose or message. While naturalistic person perception often involves information gathered during a single temporal episode, this is rarely the case in perception of organisations. Although integration of information from various sources and across temporal episodes, may be a feature of naturalistic perception, impression formation is often based on direct observation over a short time span, or is accomplished through the availability of written information about the subject. Impressions concerning organisations, are formed on the basis of observation over several episodes. Therefore experiments which relate to organisational impression formation, should focus on the integration of information. In this context, several documented phenomena involved in the integration of information, have emerged through traditional person perception research. These are the primacy/recency effect, central traits, and averaging. The phenomena are derived from attempts by perceivers, to form coherent impressions of targets. Data is structured around information previously available, and possibly central traits. However these phenomena are only likely to be activated if targets are assumed to be coherent, and when there are attempts to integrate information as it becomes available, usually in the course of a brief temporal episode. These features are known as target entitativity and on-line processing. Conversely, in some circumstances targets are not expected to show consistency or coherence, and there is no attempt to form an integrated impression as information is gathered. In such cases information has to be retrieved from memory, for the purpose of forming an overall judgement. This is known as memory based judgement. Research by Hamilton and Sherman (1996) highlight situations in which expectations vary about degrees of target coherence. The phenomenon known as group entitativity, is a valid focus of research in its own right. Although originating in the study of groups, Hamilton and Sherman's work has relevance for research in the field of organisational perception. The key idea is that in

reality, groups are not always coherent, or seen or assumed to be coherent. This has implications for information processing, attribution and social inference.

How Information is Assembled

Experimental studies provide evidence that impressions about coherent targets are formed on-line, as information is gathered. This process involves attention directed to each example of a category and computation of a moving average or total, analogous to adding a column of figures. Ideally the impression of a whole set should be a genuine average. However it is subject to certain cognitive distortions, including primacy and central trait effects Most judgements in person perception and many experiments involve on-line processing, in relation to single targets, behaviours and traits attached to these, and instructions to form impressions. In contrast, impressions are memory based with an associated recency effect, with respect to less coherent targets. Memory based judgements do not involve formation of coherent impressions and averaging. In memory judgement, all relevant behaviours may not be recalled, or behaviours recalled may not be related to original targets. Judgements are subject to recency effects, and exemplar behaviours which come to mind. Therefore judgements are overinfluenced by salient and possibly extreme exemplars. High entitativity targets include individuals, and possibly small structurally coherent groups. Alternatively, low entitativity targets are more likely to be large, diverse and non-coherent groups or organisations.

The Judgement Process

An individual is aware when it is necessary to form an impression of a target. Behaviours and traits are easily inferred. The task is given full attention and the judgement is stored. Alternatively, the individual does not attempt to form an impression of a target which has unclear boundaries. e.g. A group member or who is attached to an organisation. Behaviours are weakly associated with targets. e.g. Determining who is responsible for an occurrence. The individual may be given a target group after the event. e.g. A judgement might be requested on experience of members of a target category. Companies often have customers who form an impression post hoc, when asked to draw on evidence about a target. Such judgements are expected to show recency and salience effects.

Entitativity

Some targets are coherent, while others are diverse, with no supposition of coherence. Persons are often considered entitative, though not invariably, and some groups are regarded as having more coherence than others. Hamilton and Sherman (1996), address the question concerning how group entitativity is perceived. In their view, there are various routes to perception of coherence in groups, and it is suggested that common fate, interdependence and organisation, are important cues to entitativity. On-line processing is associated with judgement of entitative targets. Inferences are frequently made spontaneously with observation and learning. Perceivers seek to understand core dispositions, and as information is processed, it is used to infer traits on-line. However memory based processing may occur when attributes are weakly related to targets; if information is obtained intermittently over a period; should the perceiver be under cognitive load; and when attributes are not considered relevant for impression formation.

It may be possible for organisations to manipulate levels of perceived coherence. For example, branches of chain stores, supermarkets, and fast food restaurants, are usually very similar with respect to size, layout, range of products available, and staff characteristics. Traditionally, the livery of buses, trains, aircraft and ships, were standardised by individual companies, and staff were provided with uniforms. The purpose presumably, is to present a unitary and coherent image, which implies consistency and encourages predictability and consumer confidence in what is provided. This widespread phenomenon, also observable in education, probably promotes a sense of security. School entitativity is particularly noticeable in the private sector, and is furthered by limitations on size, intake diversity, number of pupils, and age range. Strict discipline, parental involvement, evidence of uniform and staff dress code, also contribute to a coherent image. However it is possible that negative entitativity may characterise poor education and other services.

It is predicted that judgement of high entitative schools tends to be on-line, and judgements of low entitative schools are likely to be memory based.

Judgement of the Changing School

Schools may improve or deteriorate. Parents might attribute change to various factors; e.g. improved morale, staff changes, better leadership. If a target for

judgement is a person, there is understanding of attributional and inference consequences. If the target is a group, Hamilton and Sherman's work indicates that entitativity has implications. It is argued that levels of perceived target entitativity affects attribution and social inference. Hamilton and Sherman have not explored the attributional consequences of entitativity, therefore the theory of social information processes phenomena holds. If a target is assumed to have low entitativity, information when gathered on-line is not combined, and stored as individual pieces of data. When high entitativity is assumed, on-line information is combined and a coherent impression produced. This is illustrated by Central Trait Theory:

Central Trait Theory

Harvey and Smith (1977) referred to the adage that first impressions are important; and judgement of others based on limited information, had been the focus of research. Bruner and Tagiuri (1954) suggested that an implicit theory of personality permitted people to form integrated views, on the basis of limited information; and Asch (1946), discussed how impressions of individuals were formed without much basic knowledge. Impressions are unified, yet an overall view may be formed from many diverse characteristics. Asch was interested in the principles which governed the process. A series of experiments were conducted and several interesting points were raised by the author: a) Impressions are formed of persons as units, through traits. b) There is interaction of traits which are associated with an individual, and their relation is perceived. c) The traits structure themselves in an organised system, with some characteristics being central. d) Individual traits are parts of a whole; therefore a change in one affects others. e) Traits relate to entire persons, not particular areas of personality, and each represents the individual. f) The character of a trait develops, according to the environment. Asch considered that the processes were probably not specific to impressions of persons; and he proposed that further investigation might determine if these kinds of processes operate in other areas, such as formation of views of groups, and relations between persons.

(Asch observed that not all qualities were given equal weight in the judgement process, and when 'warm' or 'cold' was included in a list of person characteristics, there was a consistent and different effect on overall impression formation. Stapel et al. (1997) recognise that it is not always easy to form impressions of individuals, as information may be interpreted in different ways, according to accessible constructs. When there is activation of a trait concept, this may serve as an interpretation frame,

and judgement of a person is in the direction of activated information. If there is activation of a person exemplar, this acts as a comparison standard. Should the standard be extreme, judgement shifts from the activated information.)

Acceptance of the stable personality essence of an individual, should activate a primacy effect and on-line processing. Therefore persons cue a judgement process which starts with perceived characteristics, and subsequent information is fitted to the theory. Organisations such as schools probably have different degrees of entitativity, and this has consequences for impression formation strategies. It also determines if on-line processing occurs.

If a school is a unitary construct, it is appropriate to consider if evaluation processes are similar to those activated in person judgement, and whether central trait concepts which influence overall assessment are identifiable.

Group Entitativity

McGarty et al. (1995) note that the actions of groups of people maximise similarities and differences. Conformity involves matching behaviour with ingroup norms, which are in part defined in contrast to the norms of other groups. Objects of social perception are not invariant, and change qualities in ways which are categorically meaningful. Therefore the authors viewed the entitativity of groups as perceptual and behavioural properties. They reason that a principal difference between the categorical perception of social and non-social objects, is that only social objects are able to regulate their characteristics and achieve entitativity. It is suggested that four variables impact on entitativity: group size, extremity, intraclass variability, and diversity.

The paradigm for a judgement task involved presentation of stimuli, representing the position of group members on an attitude scale. Groups varied in terms of size, variability, extremity and diversity. Subjects were asked to rate the attitudes of the group members for consistency, a concept related to entitativity.

Results indicate that consistency judgements are affected by size and diversity, and also variability. In summary, McGarty et al. report that perceived consistency increases with size and decreases with variability and diversity.

The assumption of the authors is that when subjects make an entitativity judgement, the process involves differentiation of figure from ground, and they address questions which concern extent of group coherence. McGarty et al. propose that when there is a decision about stimulus group entitativity, the implicit null hypothesis is that any pattern is a product of random variation. A comparison was made between entitativity judgement and inference processes in attribution theory, the target being the nature of a group rather than an individual's behaviour. It is explained that a number of factors may affect decisions about how meaningful patterns are; and knowledge of a group is an important determinant of whether it has an entity. A possible basis suggested for decisions concerning the informativeness of stimuli patterns, in addressing questions about group entity, is the likelihood of such patterns. This is helpful for making decisions about the meaning of patterns. The authors hold that expectancies about the likelihood of a pattern, are often based on social norms developed from social interaction, and it is unnecessary to assume that they have been determined by direct experience.

It is considered that diversity is generally associated with large groups. High diversity in a small group is unlikely, while low diversity in a large group is also unlikely. McGarty et al. assert that when stimuli do not show a positive relationship between the size of two groups and their diversities, this indicates that they are distinct, or different entities. They state that perception of entitativity is governed by the ratio between group size and diversity. When diversity is constant, entitativity increases with group size. No direct relationship exists between variability and group size.

The authors think it plausible that previous expectations about large and small groups, impact on subjects' estimates of likelihood. As a rule more small groups tend to be extreme; therefore people develop the expectation that minorities are more extreme than majorities. Since minorities are less diverse than majorities, this suggests that they have entitative characteristics and expectations are affected.

Research by Hamilton and Sherman (1996) indicates that the expectations of perceivers vary, about the degree of unity and coherence which exists among members of different groups, and a continuum is proposed. Groups high in perceived entitativity have unity and coherence, and there is consistency among members.

Hamilton and Sherman propose that there is less perceived unity in groups than is expected of individuals, and impression formation processes are likely to differ, according to differences in assumed unity among group members and in individuals.

There may be differences in inference processes, consistency expectations, and organisation of information. Although it is believed that the basic processing system does not vary, processing differences produce dissimilar perceptions of groups and individuals. Since inferences and evaluative judgements about individuals are made on-line, there is a primacy effect. The earliest information generally has most impact, and as information is acquired about the target, an overall impression develops. In contrast, less coherence in groups than individuals, makes perceivers less interested in dispositions derived from an on-line process, and it is suggested that judgements of groups are based on information from memory. McConnell et al. (1994a) suggest that the absence of on-line processing results in poorer memory for groups, and recency effects for recall.

While processing associated with individual and group targets, generally differs according to these principles, McConnell et al. (1994a) observed that in certain cases judgements about individuals are memory-based, and judgements concerning groups are formed on-line. Should there be expectations of unpredictability and inconsistency in relation to an individual, judgement is likely to be memory-based. Conversely, when there is group coherence and consistency, processing should be on-line. It is also possible to induce on-line and memory-based judgements by means of processing objectives, for both individuals and groups.

Although in general, individuals are expected to have greater entitativity than groups, McConnell et al. (1997) provide evidence that information processing is similar for both targets, when entitativity expectancies are similar. The authors acknowledge that 'Social perception involves the goals, knowledge, and abilities of observers, as well as the nature of the targets they encounter and evaluate.' Information processing about social targets varies, according to goals for understanding. Memories and judgements vary, as a function of whether the target is an individual or a group. It is proposed that expectations about target entitativity account for differences in the processing of information concerning individuals and groups. Several factors affect the extent of a target's perceived entitativity. Among components of entitativity are Gestalt principles such as similarity and proximity; organisation among elements of social entities; interdependence among entities; and expectations of behavioural consistency. Perceivers have different expectancies associated with individuals and groups, in respect of entitativity. More unity and coherence is expected in relation to the behaviour of individuals, than group targets. Coherent impressions of individual targets are formed as behaviours are processed, therefore impressions are formed on-line. Early information is better recalled and is particularly influential. Active

integration of behaviours at encoding results in associative links, providing relatively good recall. In contrast, judgements of group targets are memory-based, as behaviours are not integrated to form coherent impressions and judgements are made when required. Information is encoded but not integrated, and a lack of elaborative encoding provides relatively poor memory of behaviours. Recall is better for recent information, and there is a relationship between available information in memory and judgement.

While there are different expectancies concerning the entitativity of individuals and groups, there are exceptions. For example, it may be difficult to form an integrated impression of a moody and impulsive individual whose behaviour is often spontaneous. McConnell et al. proposed that in the absence of behavioural coherence, judgement is memory-based. Conversely, close-knit groups such as religious sects, are expected to be highly entitative. Members may behave similarly and consistently in various situations; therefore there should be integrative processing of behavioural information, resulting in on-line impression formation. The authors believe that processing of information about individuals and groups, is influenced by expectancies regarding target entitativity. Similarity and behavioural consistency are components of targets expected to demonstrate high levels of entitativity. Greater entitativity is expected for individuals, than for group targets. Therefore there is more integrative processing and on-line judgements, in relation to individual targets, but specific expectations of entitativity may alter default strategies.

McConnell et al. predict that target entitativity is affected by manipulations of perceived similarity and consistency. It was expected that there would be integrative information processing and on-line judgements, in relation to groups and individuals thought to be high in entitativity. In contrast, non-integrative processing and memory-based judgements were expected, in relation to group and individual targets thought to be low in entitativity. The authors proposed that such findings would evince, that expectancies of entitativity were a determinant of information processing strategies used in impression formation; and the hypotheses were tested by means of two experiments.

Results support the contention that expectations about the entitativity of targets, are determinants of the way information is processed and used in impression formation. In conditions which produced greater perceived entitativity, there was evidence of integrative processing and on-line judgement. Greater recall and primacy effects, and absence of memory-judgement correlations, supported the hypothesis. In conditions

which produced little expected target entitativity, there was poor recall, recency effects, and memory-judgement correlations. This is consistent with disruption of ability to form elaborative and organised impressions, and provides less integrative processing and memory-based judgement. Reported results reaffirmed differences between individual and group targets, in terms of recall, primacy-recency effects, and memory-judgement correlations.

In the second experiment, manipulation of unity and coherence expectations showed that processing and evaluation, relied more on expectations of entitativity than on individual and group entities. Anticipation of high entitativity targets was associated with integrative processing, such as better recall, primacy effects, and absence of memory-judgement correlations. There was no evidence of illusory correlation with respect to individual and group expectancies. Anticipation of low entitativity targets was associated with less integrative processing, such as inferior recall, absence of primacy effects, and positive memory-judgement correlations. There is evidence of bias against minorities regardless of target, which is memory-based illusory correlation. McConnell et al. propose that there is a continuum, ranging from on-line to memory-based judgement.

High entitativity indicates on-line, coherent, central trait based resolution of ambiguity, and attribution to dispositional causes is hypothesised. Low entitativity suggests the opposite. Groups and organisations vary in assumed entitativity. Therefore it is valid to ascertain in terms of the theory, the perceived coherence of schools, as this may contribute to an appreciation of judgement processes in educational contexts.

The issue of perceived coherence is not clear cut, and investigation of how entitativity might affect school judgement is required. It is known that targets vary in degrees of coherence. Group targets may be on an entitativity continuum, and there are varying levels of perceived consistency in relation to groups and individuals, with implications for how information is processed. Another complication is that entitative targets may be subject to on-line processing, in some circumstances. This may be predicted if attributes are weakly linked to targets, when they occur over time. It is also possible, should perceivers be under cognitive load, and in cases when attributes are considered irrelevant for impression formation.

Some organisations appear more entitative than others, therefore it is valid to consider characteristics which might contribute to entitativity: smallness, low diversity, uniform, common goals, interaction and mutual esteem between individuals, and

particular visible features. In relation to schools, entitativity possibly involves smallness; pupils and teachers from similar backgrounds; common attitudes; a restricted age range; dress codes; limited choice of subjects etc.

Exploration of what entitativity means in the context of education might address a number of empirical issues: What makes a school entitative? Do levels of entitativity vary? Do entitative schools attract on-line processing? Are there advantages and disadvantages associated with levels of coherence?

Summary

Issues related to questions about consumer behaviour and how services are evaluated, concern needs, drives and psychological processes which govern impression formation. This is acknowledged by means of a review of literature on motivation and impression formation.

Motivation may be viewed as a driving force which impels individuals to action, with goal selection and actions being outcomes of thinking and learning. Self-perception influences choice of goals and therefore it affects judgement. There are drives toward conditions known as needs and wants, and negative drives are fears or aversions. A distinction is made between rational and emotional motives, and it is assumed that consumers select alternatives which maximise satisfaction. When goals are realised, new ones are conceived. Complex needs are seldom met and if goals are not attained, aspiration levels may be lowered. When they are not achievable attention might be directed to substitute targets.

Person perception concerns selection and processing of information, which involves observation, selection, organisation, interpretation and response. Characteristics of the target individual and perceiver and the context of perception, have an effect. The traits and behaviour of a target person are interpreted according to personal experience.

Causal attribution relates to dispositions used to explain behaviour. Dispositional attributions are based on inferences drawn from behaviour about a person or an environment. Attributions are made by people, to understand behaviour and to make sense of the environment.

Schemata are theories which determine how people take in and make inferences about data. There is an assumption that perceivers construct reality, by creating meaning and augmenting it with data.

After a social perceiver decides what information is relevant to an inference, the data has to be sampled. When people describe information on available samples, accuracy in estimating frequencies is reasonably good, if there is no influence of prior theories or expectations. Extreme samples and small unrepresentative samples, may interfere with estimates.

Expectancies which are the product of experience, are important features of person perception; there is a group bias effect; and illusory correlation theory indicates that group representations and representations of individual behaviours, reflect a series of behaviours, regardless of the initial distinctiveness of any category of items.

The focus of this study concerns judgement of school quality. Links are made with the literature relating to motivation and judgement of persons, with a view of the target as a unified entity. However a school is an organisation with internal dynamics which may not share a common purpose. Although integration of information from various sources is a feature of perception, impression formation is frequently based on observation over a limited time-span, or accomplished through written information. Impressions concerning organisations are formed on the basis of observation over several episodes.

Phenomena involved in the integration of information are the primacy/recency effect, central traits and averaging; and associated with these are target entitativity and on-line processing. Conversely, when targets are not expected to show coherence, judgement is memory based. There is scope for research in relation to questions about the implications of entitativity in an educational context.

4 Consumer Satisfaction and Related Factors

Definitions of Satisfaction

Stallard (1996) states that while satisfaction appears to be useful for evaluating outcome and monitoring service quality, methodological shortfalls limit the conclusions of studies. His analysis is largely based on information from other sources cited. Evaluation of mental health services led to increasing interest in assessment of consumer satisfaction, which was highlighted as an objective of health care, a determinant of quality and an indicator of outcome. Studies are typically based on single events with use of questionnaires, and high levels of satisfaction are invariably reported. There is professional fear that dissatisfaction might be revealed, and that consumer responses may be ill-considered. It has been argued that effectiveness was the only determinant of success, and satisfaction was unimportant. Satisfaction data has been thought of as having little use, being a measure of therapist transference. Although there is recognition of the validity of these perspectives, they do not invalidate consumer views.

Satisfaction has been viewed as the discrepancy between expectations and experience. But Stallard reports that the concept of expectations includes simplistic and more complex unitary models. It has been suggested that experience based norms were more appropriate than expectations, for comparison with experience. Some authors have proposed multiple encounter models. Michalos, quoted, suggested the multiple discrepancy theory, and argued that the gap between perceived achievement and aspiration, was a significant determinant of satisfaction. Others found little evidence to support the theory. A criticism of gap theories concerns the nature of expectations. Is it possible to have realistic expectations of services with limited contact? When there is no standard against which to assess quality, anything received may be considered satisfactory. When unaware of alternatives, consumers may have low expectations and be satisfied with little.

Stallard quoted a definition by Lebow, that satisfaction was the extent to which treatment gratified the desires of clients. Satisfaction has been thought of as a derived concept, subject to varying definitions over time. There have been attempts to identify the components of satisfaction. While some believe that it is unidimensional, the majority suggest a multidimensional model and identify a range of factors, which include general satisfaction. It was reported that Larsen et al. had identified nine possible determinants of satisfaction, in relation to mental health services, including surroundings, support staff, type of service provided, treatment staff, service quality, amount of service, general satisfaction, and procedures. Other researchers found a single general satisfaction factor. Stallard reported that Love et al. had identified seven factors, but others found four. Although several specific factors differed, a general satisfaction factor was common. Elbeck and Fecteau, cited by Stallard, identified two key factors: Supportive care with good staff-patient relationships; and maintenance of behavioural autonomy. Stallard maintains that determinants of satisfaction are multidimensional and context-specific. Services vary and consist of shared and unique elements, which are not assessable by means of general satisfaction instruments.

Assessment Methods

Various methods employed to assess satisfaction were reviewed by Stallard, and the most common was use of questionnaires. Other techniques involve focus groups; semi-structured interviews; and suggestions boxes. Irrespective of method, Stallard observed that there has been bias toward identification of satisfaction and validation of current practice; with less emphasis on identification and eradication of causes of dissatisfaction. He recommends increased use of open-ended questions which tend to elicit more critical comments, and routine analysis and reporting, concerning areas of dissatisfaction. The function of satisfaction data is determined by who commissions research, and their purposes. There may be interest in the views of clients; compliance rates; and performance of clinicians. Data might be used to assess aspects of care. Assessment of satisfaction is important for three reasons, as shown in Table 6.

There have been some empirical studies of consumer and referrer satisfaction, with respect to health services. These indicate that there is a high level of satisfaction. The relationship between client and therapist is important, and there is a significant

correlation with satisfaction. However there is dissatisfaction about available information and involvement of patients in making decisions. Unfortunately there are

Table 6

Reasons for Assessment of Consumer Satisfaction **(Stallard 1996)**

1. Client Satisfaction is a Key Objective

A requirement of any encounter with an agency, is a subsequent sense of satisfaction. A prerequisite for treatment success is minimal satisfaction, as clients have to be satisfied and attend sessions. Important outcomes and goals of mental health interventions, are assessment of therapeutic change and satisfaction with the process through which it was achieved.

2. An Index of Outcome

Satisfaction is an outcome indicator and is useful for assessment of services. It is known to be related to client ratings of improvement and treatment compliance.

3. Quality Assurance and Service Improvement

An aim of consumer research is to make services more acceptable to users, and encourage better use. Users have a particular perspective on the treatment process and patterns of communication. Satisfaction surveys are a means of assessing and monitoring quality, and allow comparisons with other services

doubts about validity. There is no standard for assessment of satisfaction, although questionnaires may cover all relevant and important issues. It has been argued that surveys reflected the beliefs of researchers about what patients thought, and there was potential for distortion. In assessment of satisfaction with general practitioner services, there has been exploration of construct validity, concerning theoretically expected relationships between satisfaction and other measures. One study cited, showed a relationship between individuals who had changed their G.P. and dissatisfaction. While it is thought that this concept may not be applicable to mental health services for several reasons, identification of constructs whereby satisfaction may be assessed against objective criteria, would be useful.

Difficulties in assessment of reliability have been associated with changes in satisfaction, which is frequently affected by outcome. Therefore differences in findings may not be explained by the reliability of questionnaires. Quantifiable data are obtained from fixed choice questions, but it is reported that they are more likely to generate favourable responses; eliminate any, other than satisfied/dissatisfied; and

may lead to acquiescence. In contrast, open questions permit consumers to identify areas of services important to them. Focusing on episode-specific satisfaction provides specificity, useful for identification of service aspects which need to be addressed. Alternatively, assessment of general satisfaction does not provide detailed information about areas which require improvement. Stallard questioned the representativeness of selective sampling and low response rates. Blanket surveys minimise bias, and good response rates are necessary to eliminate respondent and non-respondent differences. Studies vary in terms of the time at which satisfaction is assessed. This has occurred during treatment and two to three years after termination of contact. The time at which assessment of satisfaction takes place, has implications for findings. For example, it has been suggested that people are perhaps reluctant to be critical when receiving treatment, as they fear that this may affect their care. With longer post-treatment time scales there is more probability of recall bias, forgetting, and likelihood of change in services.

Groups and Levels of Satisfaction

Stallard noted that satisfaction studies often did not indicate the clients who were satisfied with particular interventions. There has been failure to specify client groups and the nature of interventions provided. It is known that client groups do not have the same level of satisfaction. One study showed that adolescents were less satisfied with an assessment service than their parents. Older people may be more satisfied with health care services, but vocal groups and those who are better educated, are likely to be more critical. There is also evidence that in respect of primary health care, women are somewhat less satisfied than men. Another study showed that relatives of patients, were more satisfied with community-based than hospital services. Stallard also cited findings, that there were comparable levels of symptom morbidity and patient satisfaction, in both community and hospital locations. Some evidence suggested that patients were more satisfied with detoxification in a community-based unit, than that provided in a psychiatric unit. Increased satisfaction with community placements, was expressed by patients who had been in hospital. Finally, greater satisfaction was expressed by general practitioners who had access to a community-based psychiatric service, than those who used a hospital service. Hence specification of treatment, patients and delivery setting is required, in order to ascertain the acceptability of interventions to particular clients.

Stallard maintains that it is important to address the question, concerning satisfaction levels of survey respondents and non-respondents. There are implications for interpreting results and implementation of change. It has been reported that respondents tended to have longer treatments, more interventions judged to be successful and mutual termination of therapy. This suggested that non-respondents were more dissatisfied. A more recent study indicated that non-respondents had fewer appointments, and were less likely to have continued with therapy. They evaluated the service more negatively, and differed in sources of dissatisfaction. It is therefore concluded that a focus on data provided by questionnaire respondents positively skews results, and does not identify sources of dissatisfaction specific to non-respondents. For this reason, the views of non-respondents have to be pursued. Despite methodological variation, consumer surveys tend to produce high levels of satisfaction, and negative views are overshadowed. As a minority are dissatisfied with aspects of services, it is felt that there should be emphasis on discovering sources of dissatisfaction.

Repeated within-service studies have been considered useful, for ensuring quality and assessment of change. The initial survey may be used to identify areas which require change, and provide a base-line against which future performance might be measured. Differences in satisfaction may be used, to identify improvement in quality targets. The majority of studies had been single events and did not permit within-study comparisons. There are difficulties associated with interpretation of one-off satisfaction results and use of locally constructed questions, which render data almost meaningless.

In Stallard's view, conceptual models and determinants of consumer satisfaction are unclear. The debate about application of this approach to mental health care, is likely to continue.

Study of Parental Satisfaction

A small scale empirical study of satisfaction expressed by parents, whose children attended a hospital child development centre, was reported by Wood (1996). The centre provides assistance to parents, community health staff and other agencies. There is multidisciplinary assessment of pre-school children with special needs, treatment, reviews and liaison with other agencies. Among areas investigated were the quality of assessment and review meetings; help provided in respect of benefits;

quality of communication; and what forum parents used to express views. A questionnaire was prepared and participants were interviewed.

Over 87% of participants were satisfied with initial assessment, and several comments referred to thoroughness. Approximately 61% said that they were satisfied with recommendations, and only 3.2% were dissatisfied. Most dissatisfaction was expressed in relation to the area of benefits, and over 55% of parents felt that advice was inadequate. Many parents were satisfied with the service which had been provided by a social worker. Two families required help from the interpreter service, and satisfaction was expressed. There was a high level of reported satisfaction regarding helpfulness to children. Most participants felt that they had been given clear explanations of their children's conditions. Two of the dissatisfied parents said that no written information had been received, and one was unhappy about an indelicate explanation of a condition. Transport and waiting facilities were rated satisfactory by the majority. The final category invited comments, and almost half expressed general satisfaction and praise for staff.

Results reinforce the view that parents express more satisfaction, when they are kept informed about developments, and treated as valued members of the team that works with children.

Non-Linear Relationship with Behaviour

Oliva et al. (1992) examined the issue of satisfaction in the context of customer service. It is known that there can be a non-linear response to service increments, and satisfaction and dissatisfaction thresholds do not necessarily occur at the same point. A catastrophe model was employed to describe a service loyalty customer response surface; and using a service-quality data set, the authors demonstrated how to estimate such a model and interpret results.

The response function which links investment in service satisfaction to customer response, may not operate as assumed, on account of underestimation of the complexity of the relationship. Coyne, cited, stated that links between satisfaction and behaviour were not always easily discerned, as the relationship was non-linear and involved two thresholds. Behaviour lags behind satisfaction and dissatisfaction with a transaction is not likely to result in a customer switching loyalties, especially when switching barriers are high. Oliva et al. acknowledge that non-linearity coupled with

multiple thresholds is problematic. In addition, it is suggested that the non-linearity phenomenon is ubiquitous and several anecdotal examples are given: Consumers prefer low service establishments, such as self-service petrol stations. They are ambivalent about service enhancement, including software upgrades. There is loyalty to relatively deteriorating service. Despite service improvement, discontent may persist. Rapid shifts between loyalty and disloyalty occur.

The authors acknowledge that several satisfaction and service quality frameworks, provide a basis for understanding how non-linearities and thresholds may have a role in customer response to service delivery. These are based on the expectancy-confirmation framework, suggesting that satisfaction is a function of the degree to which expectations match service performance. And satisfaction is thought to be an antecedent of quality judgement and loyalty. Evidence was also reported of a relationship between satisfaction and repurchase intention. Oliva et al. propose that the satisfaction-loyalty relationship is both linear and non-linear, according to the customer involvement level. It had been suggested that there was an association between involvement or commitment and loyalty. Higher level involvement in the specifics of a purchase is related to increased loyalty, the assumption being that the purchase is satisfactory. When it is unsatisfactory, after a lapse there should be disloyalty or switching. A characteristic of involvement is resistance to belief change, owing to investment in the process. Therefore there has to be repetitive or extreme dissatisfaction, to effect change. It is proposed that commitment and satisfaction are not linearly related to loyalty, for the following reasons: 1) Commitment with dissatisfaction results in switching, and satisfaction without commitment should result in loyalty. 2) Dissatisfaction followed by attainment of a threshold of satisfaction results in loyalty; and alternatively, satisfaction followed by breach of a threshold of dissatisfaction, results in switching.

Oliva et al. presented a framework linking cost-related involvement, satisfaction and loyalty. Concepts used, concerned loyalty and its antecedents: commitment and satisfaction. Expectancy disconfirmation concepts and quality judgements at the attribute level, were assumed to be incorporated in the satisfaction response. It was believed that a three dimensional model was a likely explanation for the relationships proposed, and the observations of others.

The authors associate moderate transaction costs, with effort expended by purchasers to obtain a service or product, and who require satisfactory performance. High transaction costs were associated with a heavy investment in the purchase

process. Among high involvement goods and services are houses, motors and medical care. A great deal of time, effort and money are involved in transactions, and services are usually important. Customer satisfaction is a latent unidimensional construct on a continuum, with multiple indicators. Involvement and satisfaction level leads to loyalty or switching, with a possible response lag. A single unsatisfactory transaction does not necessarily result in switching.

The Rust and Zahorik Framework

Rust and Zahorik (1993) described a mathematical framework for assessment of customer satisfaction, and which satisfaction elements have most impact. Scepticism about the value of service quality, makes it important to quantify the impact of satisfaction on financial measures, to give more emphasis to customer satisfaction and service quality programmes. The authors acknowledged previous measurements of satisfaction and service quality, which were dependent on judgement against a standard and disconfirmation of expectations. Dissatisfaction may be a consequence of service which is inherently inadequate, or at a level which no longer meets expectations. Models were based on links between satisfaction, service quality and other measures. For example, researchers cited, showed how service quality and behavioural intentions were predictable by satisfaction and service attributes; and that service changes affect attitudes. There has also been examination of the relationship between satisfaction and profits. Rust and Zahorik maintain that it is necessary to understand the chain of effects, from resource allocation to satisfaction, to profitability.

It is considered that the value of consumer satisfaction is based on the relationship to choice and market share. The model of satisfaction and loyalty developed, which may be aggregated to predict market level effects of service quality improvements, is based on various assumptions: Satisfaction toward service elements, produces satisfaction on fewer but broader loyalty factors. Propensity to be loyal, is a result of satisfaction on loyalty factors. Thirdly, loyalty is a probabilistic process, which is based on propensity to be loyal.

Satisfaction and Commitment

Kelley and Davis (1994) provide evidence that customer satisfaction has an indirect effect on service recovery expectations. There is a known link between customer satisfaction and commitment. Levels of satisfaction are related to repeat purchase behaviour, and service organisations increase customer retention through satisfaction. Findings cited, also indicated that employee satisfaction was an antecedent to organisational commitment. Customer satisfaction has generally been measured through single items, but Kelley and Davis acknowledged that Oliva et al. (1992) used a five-item scale, and a similar approach was adopted. Operationalisation of satisfaction, incorporated disconfirmation of expectations in the satisfaction response. Satisfaction was measured by means of an eleven-item scale, ranging from 'Very Dissatisfied' to 'Very Satisfied'. Findings suggested that satisfied health club members were more committed to the organisation.

School Choice and Satisfaction

Goldring and Shapira (1993) acknowledge the view that parental satisfaction increases, when school choice is available. The purpose of their study was to examine the relationship between choice and satisfaction with schools. It had been assumed that parents who chose schools were satisfied with them. The rationale is, that there is an attempt to maximise satisfaction through weighing of alternatives in conjunction with values and preferences. Theory implies that parents take into account values and the needs of their children. There is articulation of preferences; a search for schools which provide congruent programmes; weighing of costs and benefits; and with information, consideration of alternatives. Investment occurs in relation to choice and its link to satisfaction. This includes time, energy and costs. It is assumed that those who invest in the education of children by choosing, view their choices favourably. Even when there are no visible reasons for an association with satisfaction, parents may justify their choices and investments by viewing schools favourably and indicating satisfaction. It is suggested that parental involvement and empowerment influences satisfaction, by helping parents to obtain programmes congruent with needs and reasons for choice. Proponents of choice predicted that it would make schools more open to parental involvement and encourage support. This might produce more satisfaction, but there is a view that choice and involvement may be in conflict, as chosen schools are often outwith the neighbourhood

community. In practice, having made choices, parents are not always involved. However it is unclear if uninvolved parents are less satisfied than others.

Relationship with Involvement, Compatibility and Climate

Goldring and Shapira quote Raywid, who states that dissatisfaction keeps pace with powerless, therefore parental empowerment can be crucial. An account of the Alum Rock experiment which involved school choice, showed that an increase in parental satisfaction was not accompanied by a sense of more empowerment. Parents were satisfied on account of increased alternatives; but subsequent to choosing, school-parent relationships continued as before. While it was argued that parental involvement and empowerment were possibly factors in explanation of satisfaction, the issue of consensus or congruence was also important. This was explained in terms of perception of the compatibility of a school with expectations. The cause of dissatisfaction might be related to a lack of congruence between expectations, and the chosen school programme. School-parent relationships may be affected by choice. Although choice is insufficient to increase satisfaction, it may act as an impetus with other roles for parents.

A questionnaire was developed for the Goldring and Shapira study. Four schools involved were described as speciality, public, elementary schools of choice. 337 parents participated, which was a response rate of 40%. However the authors cautioned that questionnaires were possibly returned by the most involved or satisfied parents. Levels of satisfaction were obtained on eight areas: academic, social, citizenship, general school atmosphere, values, educational philosophy, developing individual potential, and the curriculum. General satisfaction, socio-economic status, parental involvement, empowerment and compatibility were measured. Results indicated that in general, parents were very satisfied with schools. The socio-economic status as measured by level of education, was quite high. There was a low level of parental involvement in school activities. Empowerment was perceived as low to moderate in extent, and parents did not consider that they were full partners in decision making. Most parents perceived programmes as compatible with goals and reasons for choice. Intercorrelations of variables indicated that satisfaction was moderately associated with involvement. Regression analysis showed that satisfaction with schools, was associated with levels of compatibility, empowerment, and involvement, which had the strongest effect. There was an inverse relationship between satisfaction and education: More satisfaction was

associated with lower levels of parental education. In total, the variables accounted for 20% of explained variance in relation to satisfaction. Findings also indicate that for parents with high-school education, satisfaction and involvement are associated. For parents with higher levels of education, satisfaction was related to empowerment, and also compatibility and involvement. All parents were more satisfied when frequently involved in school activities, while high socio-economic status parents were most satisfied when schools were compatible with choice, and there was opportunity for empowerment.

Griffith (1996) tested the effects of school climate, school-parent communication, and parent empowerment, on parental involvement and satisfaction. Previous findings lead to the prediction that empowerment of parents and good communication should induce greater involvement and satisfaction. Hence, empowerment and communication may be conceived as antecedents of parent involvement and satisfaction.

It was reported that communication and climate showed the strongest direct effects on parental satisfaction, followed by empowerment. Information about children's progress and a positive school social climate were associated with satisfaction. The conclusions were consistent with previous findings.

The Theory of Planned Behaviour

Franzoi (1996) describes the theory of planned behaviour, which is based on the belief that before acting, individuals give rational thought to consequences of behaviour. If as proposed, behaviour is intended to achieve outcomes, perhaps this has implications for achievement of satisfaction, in service contexts. Franzoi explains that attitudes, subjective norms, and perceived behavioural control, influence intentions, which are the most immediate causes of behaviours. Therefore this process may also explain parental actions, intended to achieve satisfaction.

According to the theory, beliefs and evaluations about the consequences of behaviour, are the bases of attitudes. Accordingly, attitudes toward behaviours might be predicted by learning what are believed to be the consequences of particular behaviours, in educational and other service contexts, and by determining evaluations of such beliefs. Therefore certain behaviours in relation to education are believed to have positive consequences i.e. satisfaction.

A subjective norm was defined as perception of social pressure, in relation to performance of behaviour. Subjective norms are products of perceived expectations and motivation to conform. For this reason, a subjective norm about school choice might be determined by the views of significant others. For example, the opinions of acquaintances and friends, may have influence. Research cited, has shown that operationalisation of attitudes and subjective norms, resulted in a high correspondence between intention and behaviour. Their contribution is affected by particular attitudes, contexts and populations.

In some situations, behaviours are believed by individuals to be beyond their control. The concept of perceived behavioural control, concerns perception of how easy it is to perform behaviours. When it is believed that as a consequence of poor ability or resources, there is little control over performing behaviours, intentions to perform them are probably weak, notwithstanding attitudes and subjective norms. Therefore having considered difficulties associated with changing schools, parents probably lack confidence in their abilities to do this.

Criticisms of the theory of planned behaviour, relate to the assumption that behaviour is rational. One criticism questions the attitude, intention, behaviour sequence, which does not account for attitudes and resultant behaviour in the absence of thought and planning. An example of this is when people automatically send children to local schools, without considering an alternative.

Behaviours which occur through habit, are not accounted for by the theory of planned behaviour. It is explained that in such cases, there is no assessment of attitudes and norms, planning and conscious intention. Behaviour is performed without thought. There is evidence that in addition to subjective norms and attitudes which predict behavioural intentions, habit determines behaviour. It is noted that habit may limit the likelihood of rational action.

The planned behaviour model has implications for understanding processes which lead to actions, in an educational context, which may be related to achievement of satisfaction. Behaviour and outcomes are a consequence of either rational or unthinking strategies.

Empowerment and Communication

Sparks et al. (1997) acknowledge the proposal that empowerment of staff to deal with service failure, is a method of recovery and ensures more customer satisfaction. There was investigation of the effect on customer evaluation, of the degree of employee empowerment and communication style. Service encounters were considered central to determining satisfaction levels and perceptions of quality, and it had been reported that service provider behaviour potentially influenced satisfaction and service quality judgements. What matters is the subjective meaning given to behaviours. It is known that the provider's ability to respond when there is service failure, affects customer satisfaction and quality evaluation. Rapid recovery may help restore satisfaction. Therefore the service encounter and the provider's behaviour, are sources of satisfaction and dissatisfaction, and affect perceptions of service quality. Procedural justice theory suggests that levels of satisfaction, are related to procedures and strategies used by providers in producing an outcome. One of these concerns giving customers the opportunity to present information, which is pertinent to decision-making. If procedures are perceived to be arbitrary or unfair, such as those which do not consider customer input, there are feelings of limited control and low levels of satisfaction.

Full empowerment permits the service provider to make decisions and solve problems quickly. As decisions are not made remotely, customers should feel respected and have some subjective control over the resolution of complaints. In terms of procedural justice theory, staff empowerment should increase satisfaction through the influence it has on perceptions of fairness, control and self-worth.

Limited empowerment permits staff to make controlled decisions. Problems may be dealt with within the limits of alternatives prescribed by the organisation. Consistency is provided and previous research cited, suggests that this may be a basis for judgements about fairness. It had been noted that customers preferred to be knowledgeable about what may be expected of a service organisation. They are more likely to return to firms which deal with complaints, through reference to policies which support procedural acts of recovery. Notwithstanding advantages associated with limited empowerment, there are reduced feelings of individualisation, perceived control, and procedural fairness. Korsgaard et al, cited, maintain that in terms of the principles of procedural justice, limited empowerment may produce lower levels of satisfaction, owing to a lack of consideration and reduction of the customer's sense of control. Customers possibly consider that problems are subject to application of a

formula, and if they feel unheard there may a negative response, on account of frustration.

Employees who are not empowered have to refer to superiors for advice, when dealing with complaints. A more individualised solution is offered than permitted by the limited empowerment alternative, and solutions may have greater consistency in comparison with those provided by full empowerment. The approach tends to shift evaluation from the service provider to a remote decision maker, who may act favourably. It is argued therefore, that while customer control is limited in relation to interaction with the provider, this may increase through involvement of a decision maker. When individuals accepted that they did not always have control in interactions, it has been proposed that justice was evaluated with regard to opportunities for presenting to another party. The response to an employee who is not empowered may be favourable, when consideration and control in subsequent interaction with a supervisor is proffered. However, the time required for solutions to be found, may produce frustration.

Sparks et al. argue that differing levels of empowerment probably have implications for assessment of fairness, consistency, speed and uniqueness, with regard to solutions offered. And such service attributes are thought likely to be reflected in satisfaction ratings.

Empowerment gives staff the opportunity to make decisions which may promote recovery from service failure. How this authority is exercised and how providers relate to customers, may determine satisfaction levels. Employees who are not empowered, may reduce dissatisfaction by being friendly and showing empathy. In contrast, empowered employees who are impersonal, might not satisfy customers. It has been argued that how a decision was communicated, had implications for levels of satisfaction.

The experimental method involved showing subjects taped scenarios, depicting service failure. In each case a customer voiced dissatisfaction to the provider, who assumed full, limited or no empowerment to solve the problem, in terms of compensation, and information was communicated in an accommodating or underaccommodating manner. Subjects were then asked to complete satisfaction and service quality ratings.

The Sparks et al. study provided evidence that when there was accommodating communication, full empowerment resulted in more satisfaction than did no empowerment or limited empowerment. No significant difference was found between limited empowerment and no empowerment, on satisfaction. When there was underaccommodating communication, full empowerment and no empowerment resulted in greater satisfaction than did limited empowerment. No significant difference was found between full empowerment and no empowerment on satisfaction. Customers were more satisfied with service providers who had full and limited empowerment, when there was accommodating communication. When the provider was not empowered, no significant difference was found between accommodating and underaccommodating communication, on satisfaction.

It was concluded that how information was presented, had a direct and interactive effect on customer satisfaction and service quality judgements.

Summary

Although satisfaction is useful for monitoring service quality, methodological shortfalls limit the conclusions of studies. Satisfaction may be viewed as the discrepancy between expectations and experience. However there has been criticism of gap theories, in relation to the nature of expectations, and definitions of satisfaction have varied over time. Various methods have been used to assess satisfaction, including the use of questionnaires, focus groups and semi-structured interviews. Satisfaction studies often do not specify satisfied clients, and it is known that client groups do not have the same level of satisfaction.

There can be a non-linear response to service increments, and satisfaction and dissatisfaction thresholds do not necessarily occur at the same point. The response function which links investment in service satisfaction to customer response may not operate as assumed, on account of underestimation of the complexity of the relationship. Links between satisfaction and behaviour are not always easily discerned.

Dissatisfaction may be a consequence of service which is inadequate, or at a level which no longer meets expectations. There is evidence which suggests that customer satisfaction has an indirect effect on service recovery expectations, and there is a known link between satisfaction and commitment. Goldring and Shapira

report associations between satisfaction with schools and compatibility, empowerment and involvement. Another study showed relationships between parental satisfaction, and school climate and communication.

The theory of planned behaviour has implications for understanding processes which lead to actions in an educational context, which may be related to achievement of satisfaction.

There is evidence which suggests that in the context of service failure, fully empowered employees produce more customer satisfaction than those who have less empowerment, when the communication style is accommodating. It was concluded that how information was presented, had an effect on satisfaction and service quality judgements.

5 Distinguishing Quality and Satisfaction

The Transaction-Specific Focus

Teas (1993) acknowledged that most consumer satisfaction research had been based on the transaction-specific focus, with satisfaction specified as a function of disconfirmation of expectations, defined as performance forecasts. Parasuraman et al, cited, using this conceptualisation and assuming that perceived service quality was a global judgement, viewed quality as a function of satisfaction. But other evidence quoted, suggested that the causal linkage was possibly in the opposite direction. One perspective is that quality is the capacity of a product to produce satisfaction, implying that satisfaction is a function of quality. Global performance had been specified as a predictor of satisfaction, and there was use of a performance norm concept as a comparison standard. In such models, performance minus norm disconfirmation predicts consumer satisfaction.

The author thought it possible to integrate the causal perspectives, through specification of two perceived quality concepts: transaction-specific and relationship quality, and to specify perceived transaction-specific quality, as the transaction-specific performance component of satisfaction models. An implication is that transaction-specific satisfaction, is a function of perceived transaction-specific performance quality. Teas believes that if perceived relationship quality is assumed to be similar to the Parasuraman et al. perceived service quality concept, or to the Oliver base attitude level, transaction-specific satisfaction may be viewed as a predictor of perceived long-term relationship quality.

Attitude and Transitory Judgement

Cronin and Taylor (1994), stated that the literature showed an apparent consensus regarding a distinction between service quality and satisfaction: Service quality is a long-term attitude but consumer satisfaction is described as a transitory judgement

based on a specific service encounter. The distinction is said to be reflected in the conceptual domains of relevant constructs. Quality perceptions reflect evaluation of a service encounter at a particular time, while judgement of satisfaction is experiential, involving a process and an end state, and reflecting emotional and cognitive elements. It is believed that satisfaction judgements degenerate over time, into overall service quality evaluations. Disconfirmation and satisfaction judgements are process constructs and rely on experience of a service encounter, unlike performance perceptions which are not thus constrained. The distinction was reported to be consistent with a cited comparison of consumer satisfaction and quality paradigms.

The authors agreed with Parasuraman et al. (1994b) who suggested that the direction of the service quality and satisfaction relationship was in question. Consumer satisfaction appeared to have more frequently than service quality, a statistically significant effect on purchase intentions. Therefore satisfaction was thought to be a richer construct for prediction of purchase intentions.

Cronin and Taylor (1992), investigated the conceptualisation of service quality, and relationships between quality, consumer satisfaction and purchase intentions. The authors are sceptical of the theory that perception of quality, may be regarded as the difference between expectations and actual service performance, as there is little theoretical or empirical evidence to support this. Service quality has been thought of as a type of attitude, related to satisfaction, but it was suggested that quality and satisfaction were distinct constructs. It is explained that being an overall evaluation, perceived service quality differs from satisfaction, which is specific to transactions. Citing Parasuraman et al. (1988), Cronin and Taylor state that in measurement of perceived service quality, the comparison level is what a consumer *should* expect, but in measurement of satisfaction, comparison is what *would* be expected.

The 1992 study by Cronin and Taylor was based on data from 660 personal interviews, concerning service quality provided by banking, pest control, dry cleaning and fast food firms. Conclusions suggest that service quality should be measured as an attitude; service quality is an antecedent of consumer satisfaction; and satisfaction has a stronger influence than service quality on purchase intentions. Therefore the authors believe that emphasis should be placed on customer satisfaction, rather than solely on service quality. It is argued that while customers do not necessarily select the best quality service, convenience, cost or availability, perhaps enhance satisfaction without affecting quality perceptions. The study also provides evidence,

that items defining service quality vary among industries. Cronin and Taylor consider that quality definitions of high involvement services, such as health care and financial advice, might differ from definitions of low involvement services, including fast food and dry cleaning.

Relationship Between Quality and Satisfaction

Consideration had been previously given to the service quality-satisfaction relationship, but Kelley and Davis (1994) noted discrepancy. While the nature of quality had been consistently thought of as cumulative, conceptualisations of satisfaction had varied. In some instances it was viewed as transaction-specific and an antecedent of service quality; but it had also been conceptualised as cumulative and a consequence of perceived quality. Kelley and Davis, consistent with Cronin and Taylor (1992), considered that perceived service quality and satisfaction were cumulative, and both studies indicated that quality is an antecedent of satisfaction.

In response to the Cronin and Taylor (1992) article, Parasuraman et al. (1994b) state that the empirical basis for their view that service quality leads to customer satisfaction is questionable, owing in this case to problems with measures and analysis. Parasuraman et al. acknowledged a lack of consensus about the causal link between the constructs. While service quality researchers often suggest that customer satisfaction leads to service quality, this does not correspond with the causal direction indicated in models specified by customer satisfaction researchers.

An Integrative Framework

Parasuraman et al. (1994b) noted that Teas (1993) had suggested that the explanation for conflicting perspectives were the global attitude focus of service quality research, and the transaction-specific focus of customer satisfaction research. The authors believed that an integrative framework which reconciled the perspectives was required to enhance understanding of their interrelation. A key notion is that service quality and customer satisfaction, may be examined from transaction-specific and global perspectives. On this basis and incorporating product quality and price, which are potential antecedents of satisfaction, Parasuraman et al. propose a transaction-specific conceptualisation of interrelationships between the constructs,

and a global framework which reflects an aggregation of multiple transaction evaluations.

The transaction-specific conceptual model is based on the assumption that overall satisfaction is a function of the assessment of quality and price, which is consistent with the causal direction often specified in satisfaction research. As almost everything marketed possesses service and product attributes, and is on a tangible to intangible dominant continuum, there are service and product quality evaluation antecedents. In assessment of satisfaction, the model suggests that generally there is consideration of both service and product features. Parasuraman et al. state that an important area for research, is the roles of service and product quality and price evaluation in determination of transaction-specific satisfaction.

A global framework concerns overall impressions about an organisation, which are formed from aggregation of transaction experiences. Global impressions are assumed to be multifaceted, consisting of overall satisfaction with a firm, and overall perception of service and product quality, and price. Parasuraman et al. explain that the framework indicates that service quality and customer satisfaction constructs may be examined at transaction-specific and global levels. The framework is also consistent with the conception, that satisfaction with specific transactions is an antecedent of perceptions of overall quality. Transaction, in the context of the framework, may represent a complete service experience, or components of an interaction between a customer and a firm.

Simultaneous Examination of Quality and Satisfaction

Iacobucci et al. (1995) noted that both service quality and satisfaction had been defined similarly, as a comparative function between expectations and actual performance. The authors questioned the use of quality and satisfaction interchangeably, as if they were essentially a single construct. They and other researchers cited, were interested in how the constructs differed. Service quality had been described as a more general and long-term evaluation, while satisfaction in contrast was viewed as relatively specific and short-term. However some research suggests that the quality judgement is more specific and a component of satisfaction. It was regarded as important to determine if distinctions were also recognised by consumers.

Two studies are described, in which there is simultaneous examination of quality and satisfaction, in order to show purchase attributes which serve as differential antecedents. In the first study, participants were directed to evaluate an encounter recalled, in terms of quality and satisfaction. Some participants were asked to describe a high quality service encounter, which they were dissatisfied with; and others were invited to describe a low quality service deemed satisfactory. Findings indicate that service recovery is more clearly an antecedent of satisfaction judgement than of quality. Expertise had a greater effect on quality perceptions than on satisfaction. In contrast, incompetence abetted low quality judgements, and had less impact on dissatisfaction. Pleasant environments were less critical to quality than satisfaction. In the second study, the stimuli were brief scenarios which participants evaluated in terms of quality or satisfaction. It was found that meeting expectations and timeliness, improved ratings of satisfaction more than quality. Although price had no impact on satisfaction, it was found to serve as a cue to judgement of service quality. Information about improvement in an aspect of a service which was not visible had no impact on judgement of satisfaction; but information about a poor aspect resulted in more negative perceptions of quality.

The authors speculate that quality factors are primarily under management control, while satisfaction factors impact on experiential aspects, from the consumer perspective. Therefore management tries to provide a high-quality service, and customer experience affects perception of satisfaction. Distinction between the constructs would be based on quality within the management domain, and satisfaction as an evaluative reaction of customers. It is suggested that quality differs from satisfaction, when management is out of touch with customers. A 'high-quality' service may be provided, which fails to satisfy customers, because its properties are of no consequence to them.

Construct Distinction

Spreng and Mackoy (1996) acknowledge the need for greater understanding of the relationship between perceived service quality and satisfaction and how they differ. The authors quoted Parasuraman, who defined perceived service quality as a global judgement or attitude, relating to service superiority, but a definition of consumer satisfaction was less clear. Although there was no clear consensus view, most definitions involved evaluative, affective or emotional response. With respect to both satisfaction and service quality, there had been emphasis on the assumption that

comparisons were made between product or service performance and a standard. It is maintained that the distinction between perceived service quality and satisfaction, is that differing standards of comparison are used: the satisfaction standard being what the customer believes will happen, and the service quality standard being what it is thought should be provided. Oliver, cited, argued that the antecedents of satisfaction were disconfirmation of expectations and perceived quality, and the antecedent of quality perceptions was disconfirmation of ideals. Constructs are distinct, partly on account of the use of differing standards. It is claimed that satisfaction with low quality is possible, if performance exceeds what is predicted. However there are limitations to Oliver's model. While it is suggested that satisfaction is only related to disconfirmation of ideals via quality perceptions, Spreng and Mackoy note that there is evidence that ideals or desires are important as an antecedent to satisfaction. Contrary to an extensive literature, Oliver specifies that perceptions of performance are not influenced by expectations.

The purposes of the Spreng and Mackoy study, were to assess the distinction between perceived service quality and satisfaction, and to observe the effect of different comparison standards. Results indicate that service quality and satisfaction are distinct constructs, and that they have different antecedents. As Oliver proposes, disconfirmation of expectations does not impact on perceived quality. Contrary to his model, satisfaction is influenced by desires congruency, which supports other research findings showing that desires congruency is an antecedent of satisfaction. Although there was no direct effect of disconfirmation of expectations on service quality, Spreng and Mackoy did not believe that expectations were unimportant in relation to perceived quality. The effect of expectations was found to be indirect, through perceived performance. While there is a positive indirect effect of expectations on perceived quality, the indirect effect of desires is negative, as there is no significant relationship between desires and perceived performance. Implications of these findings and the literature, are that desires congruency and predictive expectations are antecedents of satisfaction. Results also show that expectations have a significant influence on perceptions of performance. However, the authors note that expectations have a negative effect on satisfaction, through disconfirmation, and a positive effect on satisfaction and perceived quality, through perceived performance.

A study by Taylor and Baker (1994), assessed the relationship between service quality and consumer satisfaction, in the formation of purchase intentions. A review of literature indicated relative consensus that service quality and consumer satisfaction

were separate, but closely related constructs. Satisfaction was initially conceptualised as the consumer fulfilment response, but it had been argued further that it was not limited to satiation, and it could be described in terms of a process. Satisfaction is influenced by positive and negative affective responses, and cognitive disconfirmation. Several elements were previously identified, which distinguished service quality from consumer satisfaction, as shown in Table 7.

Table 7

Elements Which Distinguish Service Quality from Consumer Satisfaction **(Taylor & Baker 1994)**

1. The dimensions underlying quality judgements are rather specific, whereas satisfaction can result from any dimension (whether or not it is quality related).

2. Expectations for quality are based on ideals or perceptions of excellence, whereas a large number of non-quality issues can help form satisfaction judgements (e.g. needs, equity, perceptions of 'fairness').

3. Quality perceptions do not require experience with the service or the provider, whereas satisfaction judgements do.

4. Quality is believed to have fewer conceptual antecedents than does satisfaction.

There was conflicting empirical evidence cited, which indicated that consumer satisfaction mediated the relationship between judgements of service quality and purchase intentions; or alternatively, judgements of service quality, mediated consumer satisfaction judgements and behavioural intentions. In addition, there has not been agreement on the conceptual nature of the relationship between service quality and satisfaction. In the view of Taylor and Baker, the perspective of the best explication available is that "quality is only one of many potential service dimensions factored into consumer satisfaction constructs". It had also been suggested that satisfaction may have reinforced quality perceptions. More recently however, there was support for the position that service quality and consumer satisfaction had both global and encounter-specific forms.

The Taylor and Baker study demonstrates that conceptualisation of satisfaction and service quality acting jointly to affect purchase behaviour, increases ability to explain more variance in purchase intentions. Satisfaction appeared to moderate the service quality and purchase intention relationship. It is also apparent that the positive effect

of service quality on purchase intentions is increased, when satisfaction is greater. However the data did not support the hypothesis in a health service sector, and this was interpreted as indicative of variation across services, of the service quality and consumer satisfaction relationship.

Summary

Teas suggests that if perceived relationship quality is similar to the Parasuraman perceived service quality concept, transaction-specific satisfaction may predict perceived long-term relationship quality. There is an apparent consensus that service quality is a long-term attitude, but consumer satisfaction is a transitory judgement based on a specific service encounter.

The direction of the service quality and satisfaction relationship was in question, but satisfaction was thought to be a richer construct for prediction of purchase intentions. It was proposed that conflicting perspectives concerning the causal direction between the constructs, might have been accounted for by the differing focuses of service quality and customer satisfaction research. Parasuraman et al. believed that an integrative framework which reconciled the perspectives was necessary, to further understanding of their interrelation.

The use of quality and satisfaction interchangeably as if they were a single construct, has been questioned. It is thought that quality factors may be primarily under management control, and satisfaction factors impact on experiential aspects, from the consumer perspective. There has been an assumption that comparisons were made between performance and differing standards, in relation to service quality and satisfaction. The service quality standard relates to what it is thought should be provided, and the satisfaction standard concerns what the customer believes will happen.

Spreng and Mackoy concluded that service quality and satisfaction were distinct constructs with different antecedents, and several elements which distinguished the constructs have been identified.

6 Evaluation of Education

Review of Literature

In order to develop a methodology for investigation of how education is evaluated, a review of the consumer literature in this field is appropriate. This is necessarily a complex issue as products have many features, and it may not be clear which are significant in the judgement process. For example there are many computer benchmarks such as RAM, operating system, ROM facility, and monitor and keyboard characteristics. Likewise, motor vehicles have a wide range of specifications, including torque, compression ratio, transmission, gross weight, fuel consumption, and maximum engine speed. By analogy, empirical studies have suggested a number of individual school dimensions.

For example, an article by Echols et al. (1990) examined school choice in relation to characteristics which included mean attainment, pupil socio-economic status, and school history. Chosen State schools tended to be pre-1965 certificating schools, with above average attainment and pupil socio-economic status.

The authors maintain that by telling parents that school standards vary, and their choices contribute to improvement, Government affects the incidence and consequences of parental choice. Previous research cited, showed a relationship between the exercise of choice and the distance between home and school. The incidence of choice diminishes as the distance of alternative schools increases. Victorian and Edwardian schools, at the time of the study, generally had above average attainments in public examinations, and in the 1980s, parents disproportionately selected such schools. Superiority in the case of Victorian schools, was related not only to individual pupil characteristics, but also to the school history, and a higher than average level of pupil socio-economic status. This is known as the contextual effect on attainment.

Factors related to school choice indicated by this study included availability of options; and older, often prestigious schools, with above average attainment and socio-economic status for their communities. However the authors were careful to point out that their analysis had not adequately addressed the spatial and potentially multilevel process of choice, and it was acknowledged that many factors were involved. There was caution about drawing conclusions regarding parents' reasons and processes of choice, on the basis of their data, but they were aware of earlier studies, which showed that reasons for choice were most related to educational processes, and an atmosphere supportive to the well-being of children.

Another study by Hunter (1991), explored the bases on which almost 300 parents of secondary pupils, had chosen their children's schools. It is considered that choice of secondary school is of special interest, as most parents during this period have contact with a greater number of schools, than at any other time in their children's schooling. The study was also of particular interest, as it took place in inner London, a location offering a wide choice of types of school within travelling distance of most homes.

Other studies cited, investigated features of schools preferred by parents, which included good discipline and teaching. However Hunter speculates that school characteristics which influence choice, may differ in practice from expectations of a good school. In two studies parents were asked why they had chosen a particular school, and which reasons for choice were most important. Priority in both cases was given to school reputation, discipline and proximity to home. Other important factors were children's preferences and the presence of siblings or other relatives; and between a fifth and a quarter of parents had deliberately chosen single-sex schools.

Hunter found that school aspects most often given as reasons for choice were: good discipline, an emphasis on examination results, single-sex status, and proximity to home, but priorities varied according to ethnic group. There are similarities between the findings of this study, and several others quoted. Although school reputation and children's happiness have emerged in other research as important, such general features were deliberately excluded from Hunter's study, as she was interested in a detailed profile of school characteristics which influenced choice. Nevertheless, some other general features were identified, which affected choice. Although only a minority included them among the four most important choice factors, over 75% of parents took into account: understanding and friendly teachers; a friendly school, welcoming to parents; and a good atmosphere. Hunter concluded that generally, parents more

easily cited relatively concrete factors as the most important reasons for choice. It appears to be less easy, for them to provide a more detailed description of the school ethos.

Good examination results were viewed as the most important outcome of schooling, and as evidence that children had received sound education. There was an indication that many parents were selecting schools which offered a traditional style of education, similar to what they had experienced themselves. Hunter's analysis suggested that when choosing a school, certain parents did not give priority to educational practices which were developed during the previous two decades.

The study also indicated sources of information which parents found useful, for assessing examination performance, discipline, general atmosphere and other school characteristics. Given the importance placed on parental choice of school, Hunter states that parents must have access to relevant and factual information on which to base decisions. Parents usually used several sources of information about chosen schools, such as reading area booklets and school handbooks. When asked to rate information sources, the highest proportion of parents thought that attending school open days or evenings, was useful when making a choice. This provided parents with the opportunity to judge school atmosphere, and find out about discipline standards in chosen schools, through observation or by asking questions; but Hunter did not find a clear basis, on which assessment of academic performance was made. She cited an earlier study showing that parents' views on secondary schools, were not strongly related to their children's examination performance, despite concern expressed about examination results. Although school league tables based on examination performance and pupil characteristics, were being published in the press, few parents reported using these. The extent to which parents relied on personal judgement or the views of others, when choosing schools, was unclear. Most parents participating in Hunter's study had spoken to other parents or children, when making choices, to help them identify good and bad schools, and many found this a useful supplement to publications and visits.

However it is not known, if the school evaluation process depends on the existence of a number of discrete identifiable features, which are subjectively important, and how these might be combined. Another question concerns the use and weighting of information sources. The literature concerning consumer judgement of other services, indicates salient factors and processes, which have implications for

development of a general theory, and this might be applied to questions about how schools are evaluated.

The service quality literature relating mainly to the private sector, has a long history. But this has not been exploited by educational theorists. The public sector focus on quality measurement, places emphasis on use of performance indicators. But there is another historical strand, in the private sector approach to assessment of product and service quality. Early studies were concerned with dimensions of service quality and measurement. Theoretical questions addressed the issues of universality of dimensions, and the role of expectancies in judgement.

Cronin et al. (1992) recalled the suggestion of Woodruff et al, that expectations were based on experience with specific types of service providers. There was also reference to a proposal by Parasuraman et al, that improvement in perceived service quality increased satisfaction, but this was overtaken by more recent evidence, indicating that satisfaction was an antecedent of quality.

The SERVQUAL Scale

Boulding et al. (1992), acknowledged that great significance was placed on quality, in the previous decade. However, the concept was unclear at that time. It came to be realised that consumer perceptions, not mangers', were what counted for the purpose of marketing, and quality measures based on this principle were developed. Quality is now thought of as related to customer satisfaction and opinion. The Report referred to the Gaps Model, as an early example of emphasis placed on customer perceptions. This model defined service quality, as the difference between expectations of a service, and what was provided, with the size of the difference inversely related to quality.

Parasuraman et al. (1988), described the development of an instrument for assessing service quality. The construct measured by the SERVQUAL scale involves perceived quality. This differed from objective quality, defined by other studies cited. Perceived quality is conceptualised as a type of attitude related to satisfaction, resulting from comparison between expectations and perceived performance. The authors acknowledge earlier work showing that consumers do not think of quality in the same way as researchers and marketers, who use a conceptual definition, which makes a distinction between mechanistic and humanistic quality. Mechanistic quality

is described as an objective feature of an event; and humanistic quality, involving a subjective response and being relativistic, differs between those making judgements. There are a number of approaches to the definition of quality, which may be product and manufacturing based (objective), and user based (perceived). Some authors named, thought of quality as an overall evaluation analogous to attitude.

In their exploratory research referred to, Parasuraman et al. used focus group methodology. Participants were or had been consumers of the following services: banking, credit card, securities brokerage and product repair and maintenance. Issues addressed included the meaning of quality in the context of particular services; service characteristics which projected a quality image; and criteria used in the evaluation of service quality. Quoting their own previous work, Parasuraman et al. acknowledge that compared to goods quality, service standard is an abstract concept, owing to intangibility, heterogeneity and inseparability of production and consumption. Other evidence cited, suggested that the quality of articles could be measured by indicators such as durability and defects, but according to the authors, it was measurement of consumers' perceptions, which permitted assessment of service quality. The exploratory research, indicated that service quality was an overall evaluation and assessment criteria fitted several dimensions. The SERVQUAL scale which was developed, could be used to provide an overall measure of service quality across the various dimensions.

In the Parasuraman et al. model, quality was defined as the discrepancy between perceptions of services offered by a particular firm, and expectations about firms offering such services. But development was in the context of expectations, not gaps, as the main issue in question concerned dimensions of quality judgement.

The authors' previous research, referred to, and factor analysis of data, showed that service quality criteria employed by consumers, fitted ten potentially overlapping dimensions. These were 'Tangibles', 'Reliability', 'Responsiveness', 'Communication', 'Credibility', 'Security', 'Competence', 'Courtesy', 'Understanding/knowing the customer', and 'Access'. The SERVQUAL scale derived from these, consists of five dimensions (Table 8).

The researchers maintain that the SERVQUAL scale has good reliability and validity, and it is designed to be suitable for use across many services. The instrument may be adapted to suit the characteristics or research requirements of individual

Table 8

SERVQUAL Dimensions (Parasuraman et al. 1988)

Tangibles:	Physical facilities, equipment and appearance of personnel
Reliability:	Ability to perform the promised service dependably and accurately
Responsiveness:	Willingness to help customers and provide prompt service
Assurance:	Knowledge and courtesy of employees and their ability to inspire trust and confidence
Empathy:	Caring, individualised attention the firm provides its customers

organisations. In the prediction of overall quality, it was found in the 1988 study, that 'Reliability' was the most critical dimension, followed by 'Assurance'. 'Tangibles' was more important for banking than the other services, and the reverse was true with respect to 'Responsiveness'. Although significant, 'Empathy' was the least important dimension in the four cases.

The model has been applied to or used as a basis for measuring quality in health, public recreation and higher education services. (See Parasuraman et al, 1994a) For example, de Ruyter et al. (1997) merged service quality and satisfaction concepts in an integrative model, and empirically tested it in a health care setting. A chiropractic clinic in the Netherlands was selected. SERVQUAL items for expectations and perceptions were adapted for the setting, and to measure disconfirmation, participants were asked to indicate if the service accorded with their expectations in terms of the five quality dimensions of the gap model. Ranking in terms of importance of SERVQUAL dimensions, provided an order lead by 'Empathy' and closed by 'Tangibles'. Almost 83% were satisfied with the service outcome, and just over 91% were satisfied with the delivery process. The most significant negative disconfirmation score at 6.7%, was assigned to 'Empathy', and 'Assurance' obtained the highest positive disconfirmation score of 71.8%. The findings suggest that service quality may be regarded as an antecedent to satisfaction. Perception of performance

is the best indicator of quality and it also has a significant effect on service satisfaction. However the authors acknowledge that perceptions of low service quality might also result in satisfaction. Convenience, price and availability may enhance satisfaction, and not affect perception of service quality.

Critical Evaluation of SERVQUAL

Brown et al. (1993) reported that SERVQUAL had been used as a basis for measurement of service quality offered by hospitals, a dental school clinic, a business school centre, a tyre store, a business school placement centre and real estate brokers. Although the measure is popular, the authors note that several analysts suggest that it has serious shortcomings, and they have reservations about its usefulness. One issue is that although designed as a generic measure which can be applied to any service, for use, SERVQUAL must be adapted for individual services, which may require addition of items or changes in the wording. It is also claimed that more than the five SERVQUAL dimensions are necessary; item-factor relationships are unstable; and measurement of expectations is problematic. Finn and Lamb's work, referred to, suggests that the model is not appropriate for retail settings, and refinement is required for particular companies and industries. Other research quoted, indicates that SERVQUAL is outperformed by its perceptions component, and therefore the disconfirmation paradigm is thought to be inappropriate for measurement of perceived service quality.

It was considered by Brown et al. that there were potential problems with the SERVQUAL conceptualisation of quality as a difference between expectations and perceptions of a service, and a non-difference score conceptualisation of SERVQUAL facets was explored.

Owing to issues raised, the efficacy of the model was in question. Firstly, does the difference score give extra predictive value? Secondly, which factor is the best predictor of overall quality judgement, and is it general to all services? Thirdly, is the factor structure stable across services? If not, SERVQUAL may need to be adapted for specific services. Fourthly, expectations are underexplored. It is not known how they are formed and developed, and how they are best measured. The service judgement as an end product, is confused with the process based on cues, information sources etc. e.g. In the context of banking, what constitutes quality tangibles? The link between quality and satisfaction is undertheorised in the model.

Parasuraman et al. (1994b) cited Cronin and Taylor (1992), who concluded that in service quality research, measurement of customer perceptions without expectations was sufficient. It was also concluded that service quality did not influence purchase intentions. They stated that there was little evidence to suggest that the expectations-performance gap, was a valid basis for measuring service quality. In addition, it was implied that focus group research carried out by Parasuraman et al, suggested attributes of service quality and not the expectations-performance gap formulation.

In response, Parasuraman et al. maintained that such conclusions were unwarranted, and emphasised that their research supported the definition of service quality in terms of the discrepancy between expectations and perceptions. They noted that Cronin and Taylor appeared to have discounted conceptual work in the literature, and other research which supported the disconfirmation of expectations conceptualisation. Parasuraman et al. considered that some of the Cronin and Taylor citations were questionable, when used to support the contention that performance-based quality measures were superior. It is pointed out by Parasuraman et al, that there is theoretical support for the view that assessment of stimuli occur, relative to norms. Studies cited by Cronin and Taylor concerned the function of expectations, performance and disconfirmation in attitude formation. The relevance of their arguments concerning SERVQUAL is debatable, the explanation being that only service quality is measured, without regard to the formation process. Parasuraman et al. question an interpretation of their work by Cronin and Taylor, which mistakenly attributes to them the view that higher levels of perceived quality results in increased customer satisfaction, when they actually argue the opposite.

In the opinion of Parasuraman et al, Cronin and Taylor do not justify their claim that the marketing conceptualisation and measurement of service quality, are based on a flawed paradigm, and that a performance-based measure is superior to SERVQUAL. Cronin and Taylor argue against the structure of SERVQUAL, inferring that items are unidimensional. However, Parasuraman et al. questioned the accuracy of how findings pertaining to SERVQUAL were depicted, as possible intercorrelations among latent constructs were not allowed for by Cronin and Taylor; and their assertion that almost all items loaded predictably on a single factor was also in doubt. Parasuraman et al. state that consistency of findings by researchers in differing contexts, provides indirect but strong evidence of the multidimensional nature of service quality. There were inconsistencies and problems of interpretation, which reiterated the inadequacy

of the Cronin and Taylor measures and structural model test, yet claims were made by them about the direction of cause between service quality and satisfaction.

Although Parasuraman et al. acknowledge that the practice of measuring only perceptions is common, this does not necessarily indicate that performance-based measurement is superior to disconfirmation methods. They had previously demonstrated that quality measurement which used expectations, yielded better information than methods based only on perceptions; and feedback from companies indicated that disconfirmation measures produced more diagnostic information. When the SERVQUAL scale was administered to customers of five companies, in each case scores exhibited greater variation across dimensions than perception scores only. This suggests that SERVQUAL may be superior in relation to specification of deficient areas.

Teas (1993) acknowledged that concepts examined in research, have involved gaps which highlighted factors potentially affecting service quality. In particular, a concept which has received attention, was the gap between expected and perceived service, as proposed by Parasuraman et al. This is operationally defined as a perceptions minus expectations measure. However Teas questions the validity of the gap concept and measurement framework, owing to problems concerning conceptual and operational definitions of the expectations concept; and resulting ambiguity in relation to the theoretical justification and interpretation, of the perceptions minus expectations perceived quality framework.

The author reported that Parasuraman et al. had defined perceived quality as a global evaluation relating to service superiority. Perceived quality is conceptualised as the degree and direction of discrepancy between perceptions and expectations. In the marketing literature, perceptions are defined as beliefs about the service received, and expectations are defined as the desires of customers, or what a provider should rather than would offer. It had been emphasised that expectations in the service quality literature, represented what providers should have offered, and this was different from its use in the consumer satisfaction literature. It had also been noted that the service expectations concept, was intended to measure normative expectations, and these represented ideal performance. The gap concept representing comparison with a norm, differs from the traditional disconfirmed expectations model, as it does not represent a difference between predicted and received service. When the norm is exceeded there is high quality, and failure to reach the norm means that there is low quality. Being a measurement specification,

in which perceived quality equals perceptions minus expectations, the model is not predictive.

Teas demonstrates that the Parasuraman et al. definition of expectations, may be incompatible with other conceptualisations of the ideal standard. A criticism concerns the failure of Parasuraman et al. to specify clearly the interpretation of the ideal standard they adopt. It is shown that conceptualising expectations as ideal standards is questionable, and there are theoretical and definitional problems. Carman, cited, provided evidence that the SERVQUAL dimensions were not generic as suggested. The validity of an expectations measure is questioned, when expectations are not well formed. In addition, research by Teas indicated incongruity between conceptual and operational definitions of the original SERVQUAL measure. Findings showed that a significant part of the variance in responses to the scale, could be put down to variance in interpretations of questions asked. The original and revised SERVQUAL expectations are characterised by operational definition problems, involving issues such as operationalising the perceptions minus expectations framework for inexperienced consumers; variance in respondents' interpretations of the original scale; and the meaning of the revised SERVQUAL concept of essential features.

It is concluded that what the SERVQUAL expectations concept represents, is conceptually unclear. The conceptualisation of an ideal standard suggests an attitudinal model ideal point interpretation. However Teas states that in terms of this interpretation, it is theoretically unsound to assume that levels of performance which exceed the ideal standard, result in higher perceived quality than result from levels which meet the ideal standard. On the basis of definitional frameworks suggested in the service quality literature, Teas found it difficult to envision definitions of the SERVQUAL original expectations concept, which were compatible with the mathematical properties of the perceptions minus expectations measurement specification, and the assumption that the measure was conceptually differentiated from the disconfirmed expectation concept in consumer satisfaction models.

Teas concludes that the SERVQUAL expectations measures lack discriminant validity, regarding concepts of attribute importance, classic attribute ideal-points, and performance predictions. Findings indicate that a significant amount of the variance of expectations measures may be put down to misinterpretations of the question, and without correction of this measurement validity problem, it is difficult to test the framework. Findings also indicate that attribute weighting in SERVQUAL models, does not improve their validity.

In response, Parasuraman et al. (1994b) addressed several issues raised. Teas believed that increasing perceptions minus expectations scores did not necessarily relate to higher levels of perceived quality, as implied by the SERVQUAL framework. However, Parasuraman et al. maintained that the perceptions minus expectations specification was problematic, for certain attributes in some conditions. The specification is meaningful, when a service feature assessed is a vector attribute, with an ideal point at an infinite level. Higher performance is always better, with vector attributes. Parasuraman et al. state that most of the twenty-two SERVQUAL items, are likely to be considered vector attributes by customers. The perceptions minus expectations specification may be problematic, in the case of service attributes which are classic ideal point attributes, with ideal points at finite levels. When performance exceeds a finite level, it becomes less acceptable; but the authors reason that how an expectation norm is interpreted, affects the extent of a potential problem.

Teas suggests two interpretations of the expectation norm, which are useful for assessment of the meaningfulness of the perceptions minus expectations specification: a classic attitudinal model ideal point, and a feasible ideal point interpretation. In terms of the classic ideal point interpretation of an expectation norm, the perceptions minus expectations specification is meaningful, when perceptions do not exceed expectations, but a problem arises when perceptions exceed expectations. The feasible ideal point was defined as best performance in ideal circumstances. From a customer perspective, the feasible ideal point cannot exceed the classic ideal point, as the expectation norm and the classic ideal point are specified by customers. As the feasible ideal point represents the possible level of service provided by the best company, service which exceeds that level should be viewed favourably. However, the customer would be unhappy with a level of service beyond the classic ideal point.

Several questions were raised by Teas, about the operationalisation of the expectations measure. Owing to a concern about the use of 'should', Parasuraman et al. developed a revised expectations measure. Teas was not convinced that this was an improvement, but Parasuraman et al. found misleading, his argument concerning essential attributes. The approach adopted by Teas to explore the issue concerning congruence between conceptual and operational definitions of expectation measures, was commended by Parasuraman et al, but his interpretation of the results of content analysis was questioned. Conclusions were problematic in relation

to the congruence of feasibility and excellence norm concepts, and the variance in the SERVQUAL expectations measures.

Teas considered if an alternative evaluated performance specification, was superior to the perceptions minus expectations approach. Despite its empirical superiority over other models, Parasuraman et al. remarked on deficiencies, including a questionable assumption that without exception, service features are classic ideal point attributes. The authors suggest that a better specification would assume that some features are vector attributes and others are classic ideal point attributes. It is proposed that in data collection and analysis, perceptions, comparison standards and views on service features as vector and classic ideal point attributes should be ascertained.

In conclusion, Parasuraman et al. maintain that although their approach to assessment of service quality may be improved, abandonment and replacement by alternatives proffered is unwarranted. They doubt the severity of concerns raised and the alleged superiority of other approaches.

Teas (1994) responded to the issues raised by Parasuraman et al. (1994b), and stated that conclusions reached by Parasuraman et al. (1994b), regarding the Teas evaluated performance and normed quality models, were incorrect. Parasuraman et al. (1994b) and Teas (1993), note that under certain conditions, the SERVQUAL perceptions minus expectations model is problematic. The suggestion by Parasuraman et al. (1994b) that the problem may not be very severe, raises concerns. It was suggested that the Parasuraman et al. focus on development of a revised model to address problems, signified that the issues were sufficiently significant to warrant this response. Teas (1994) is critical about the argument that the twenty-two SERVQUAL items are likely to be considered vector attributes, as measures should not be used to justify theory. He noted that other items had been used by researchers, for measurement of the service expectations concept. Although Parasuraman et al. (1994b) had concluded that the feasible ideal point could not exceed the classic ideal point, Teas (1994) did not agree and described a situation to demonstrate his point.

Teas (1993) had addressed the question which concerned the impact of interpretation of the expectation measure, on meaningfulness of the perceptions minus expectations specification. In response to this issue and problematic situations, Parasuraman et al. (1994b) had developed what was described as the

SERVQUAL restricted re-expression of the Teas normed quality model. However Teas (1994) believed that the definitional ambiguity problem remained unresolved. Multiple definitions and measurement operationalisations led to a loosely defined expectations norm concept, which was open to many interpretations.

It was considered that the Teas evaluated performance and normed quality models suggested a better method of measurement. Development of a normative expectations scale and corresponding instructions is feasible, permitting the assumption that an extreme/non-extreme response may be interpreted as meaning that the attribute is a vector/non-vector. Parasuraman et al. (1994b) and also Teas (1994), acknowledge criticism of the use of difference scores, and they accept that the issue should be addressed further. With respect to the Teas perceived quality models, Teas (1994) considered that it would be useful for there to be examination of an alternative to separate measurement of model variables. Teas (1994) notes that difference scores in the three components of the SERVQUAL revised model may be eliminated, by rearrangement of terms in the expressions. Alternative ways of expressing SERVQUAL models, were suggested means of testing hypotheses without use of difference scores. Regression procedures might be used to examine the extent to which normative expectations explain variance, beyond that accounted for by perceived performance.

The contribution that Parasuraman et al. had made to the literature was acknowledged by Teas (1994). Their identification of quality gaps which potentially affect perceptions is useful, and as gap situations are expected to occur in settings other than services, extension of the framework is potentially a way of linking marketing and production quality perspectives. Models specified by Teas (1993) were viewed by Teas (1994) as useful in the development of an integrated product perspective of quality. As a result of the debate, important questions have been raised, concerning conceptual and operational definitions of perceived quality.

Cronin and Taylor (1994) responded to issues raised by Parasuraman et al. (1994b) about the relative efficacy of performance and perceptions minus expectations measurement of service quality, and demonstrated that major concerns expressed by Parasuraman et al. were unsupported. Their criticism of SERVPERF, the Cronin and Taylor performance based measure of service quality, lacked substance. Although Cronin and Taylor (1992) maintained that performance minus expectations was inappropriate for measurement of service quality, they did not discount expectations in research, and they did not actually suggest that service quality failed

to affect purchase intentions. Cronin and Taylor (1992) found a statistically significant effect in relation to three industries, but results indicated that satisfaction exerts a stronger influence than service quality on purchase intentions.

Cronin and Taylor (1994) acknowledged that SERVPERF was one of several challenges to SERVQUAL and emerging literature had supported the performance based paradigm. They reported that perceived summary disconfirmation judgement, was a sufficient causal agent for satisfaction. When expectation and performance data are available, it is possible to infer disconfirmation through arithmetic means. Tests of this inferential measure, including a summary measure, show that the summary measure mediates the inferential measure effect on satisfaction. As the SERVQUAL gap measure is analogous to the inferential disconfirmation measure, it is viewed by Cronin and Taylor (1994) as an incomplete form of the summary comparative judgement in quality decisions. Therefore generalisation of the satisfaction paradigm to quality evaluation, based by Parasuraman et al. (1988) on qualitative evidence provided by focus groups, might reflect ambiguity in the literature concerning the distinction between service quality and satisfaction. Cronin and Taylor (1994) express the view that ambiguity in the literature relative to these constructs may reflect ambiguity in understanding by managers and consumers, of the distinction between service quality and satisfaction. However it was noted that this ambiguity was not evident in the consumer satisfaction literature. There was increasing criticism of the five-dimensional conceptualisation, and the authors asserted that there was little if any theoretical or empirical evidence, which supported the relevance of the expectations minus performance gap as the basis for service quality measurement. It was stated that the SERVQUAL scale measured neither service quality nor consumer satisfaction. Emerging literature supported performance-based measures of quality, and the SERVPERF scale as the exemplar of service quality operationalisation. Cronin and Taylor (1994) cited evidence of failure to fit a five-factor structure to SERVQUAL items, with respect to several services.

SERVPERF had greater construct validity, based on a literature review, and the measures exhibited convergent and discriminant validity. On the basis of a review of literature, Cronin and Taylor (1994) concluded that SERVQUAL did not exhibit construct validity. It was apparent that service quality measures exhibited a factor structure which varied across services. The authors reported evidence that the SERVPERF scale exhibited the factor instability inherent in SERVQUAL difference scores across services. While Cronin and Taylor (1994) acknowledged the

contribution to service quality research made by Parasuraman et al, they were unconvinced that expectancy disconfirmation, which was developed to explain satisfaction judgements, could be extended to measurement of quality perceptions.

Application of SERVQUAL to Education

Despite its drawbacks, the line of research begun by Parasuraman et al, has the advantage of focusing on consumer perceptions, rather than those of managers. Its theory of consumer judgement is more highly developed than alternatives in the education literature. All of the SERVQUAL dimensions are potentially relevant in relation to education quality, but there are reservations. Firstly, dimensions are only relevant when variability is associated with target schools. It is possible that tangibles are viewed as causally relevant for some services, such as food preparation; but in respect of education it may not be central or variation is possible. For example, in relation to arts based subjects, attractive accommodation is an advantage; but for science education, computing facilities and good labs. may be essential. Other questions concern differing values placed by individuals on various dimensions, and variation among abilities to judge dimensions such as the role of perceived fairness. Finally, the judgement process is complex in the sense that individuals make evaluations in the context of groups and communities.

Competition in higher education requires assessment of the quality perceptions of customers, and Ford et al. (1993) apply the SERVQUAL instrument, in a study of the views of business students in the U. S. and New Zealand. Nineteen statements, representing the five SERVQUAL dimensions and concerning aspects of service quality, were used to gather information on perceptions of what an excellent school of business delivers; and the same items were employed, to obtain ratings of the actual quality of service provided by the schools attended by the respondents. The focus of the analysis was on gaps between the sets of items.

Ford et al. conclude that the SERVQUAL model is suitable for application to a university setting. Responses across the nineteen items were compared for significant differences. The U. S. sample rated items related to the Tangibles dimension as more important in an ideal university, than did the New Zealand sample; but the New Zealand students rated their university on these items as better than expected, while the U. S. students rated their university as below expectations. It was reported that respondents in both countries had greatest difficulty with the

Reliability dimension, which was followed by the Empathy, Responsiveness, and Assurance dimensions. There was examination of the rank orderings of the importance of the dimensions, as indicated by the students. The analysis showed that Tangibles was the least important of the five dimensions. Both samples rated their universities poor across the more important dimensions, when comparing them with an ideal university. Greatest discrepancies were in the Reliability dimension, which was the second most important. It was concluded therefore, that the business schools were not fulfilling student expectations.

Combining Information and Social Perception

Although the study of school judgement is mainly an empirical educational research question, also within the domain of consumer psychology, there are underlying questions derived from the wider psychology of social cognition. The issue concerning how judgements are formed about schools or other organisations, may be addressed by extension of person perception theory. This is not analogous to formation of a judgement about a category of people, such as stereotyping, group categorisation and inter-group perception, as the target entity is a unitary concept. Studies of perceived group entitativity may be relevant, however the most characteristic feature of the judgement, is that the organisation/school is viewed as a unit. For this reason, a good starting point is the theory of person judgement.

The person perception literature raises several key issues: relevant dimensions of the target, to which the perceiver attends; information gathered, which is relevant to these dimensions, such as aspects of behaviour and emotional expressions; the role of expectancy, prejudice etc, which affect the search for and interpretation of behaviours; the mode of combining congruent and contradictory information, key traits, and weighting or averaging models; the relative role of on-line and memory based judgement; inference mechanisms, or how individuals go beyond available information, which is related to the above; and the role of group influence on all of the above.

Group Based Effects

There is an assumption that individuals who use performance indicators published by management, employ the data to make judgements. But it is known that group

effects pervade judgement relative to emotionally driven conformity; anchoring effects; construction of social representations &c. The theory on group conformity, decision making and social representation, is important in the consumer psychology literature on word of mouth effects. Therefore it is proposed that through interaction, a group determines the characteristics of what is perceived to be a model school.

Griffith (1997) examined the extent to which perceptions of school social environment were group-based. Statistical procedures were used to assess whether measurements of school social environment showed group consensus; and whether relations between school social environment and parent satisfaction and student enjoyment of class activities, were related to school membership. Employing scales of school social environment, Griffith obtained the perceptions of 26,904 students and 33,153 parents of students who attended 122 elementary schools, in a large suburban school district. Previous research had contributed to the measurement and conceptual development of school social environment, but more consideration needed to be given to the approach adopted to assess group-level effects of school climate, and group-level effects on relations between school climate measurements and other variables, such as student satisfaction and achievement. Griffith reasons that in order to address the school climate issue, data collected from students and parents concerning a school's social environment, should show consensus in their perceptions of the school. Previous studies of school climate often did not have empirical evidence for their level of analysis. Therefore Griffith, citing Anderson, recognised that there were problems about knowing when to aggregate data, and when to make appropriate individual-level and group-level inferences. To facilitate a solution, the author asked two questions: To what extent do individuals in a group, have similar values on measurements of school social climate; and to what extent do class and school membership account for relations among variables? According to Griffith, the first question requires statistical procedures which differentiate group membership, based on an individual's score; and the second question requires procedures, which show the extent to which group membership affects relations between variables.

It was reported that the within and between analysis of variance, had been used widely for assessment of conceptual and statistical viability of individual-level versus group-level analyses. The procedures proved valuable in determining the appropriate level of analysis for organisational culture; sales performance; and the relation of performance to merit raises. In the author's view, these statistical procedures are suitable for educational research, particularly in studies which examine

measurements of constructs, organisational in nature. It is explained that the approach "decomposes a linear relationship between two variables and expresses it in terms of a variance-covariance matrix, specifying the amount of variance in one variable and the amount of covariance between the two variables attributable to each level of analysis considered."

A given purpose of the study, was to examine whether traditional measurements of school social environment showed greater within-school than between-school consensus. It was anticipated that scales which more directly assessed school attributes, would exhibit greater within-school than between-school agreement. For parents, these scales included 'School Climate', 'School Safety', 'School-Parent Communication', and 'School Empowerment of Parents'. For students, scales included 'School Facilities', 'School Staff Helpfulness', and 'School Safety'. It was expected that 'Diversity of Friendships' would show greater within-school than between-school consensus, as racial/ethnic diversity among student friendships was thought to correlate with the composition of the school population. Another purpose of the study was to explore which school-level social attributes, best predicted parents' overall satisfaction with schools, and students' enjoyment of class activities.

Regarding the extent of parents' and students' agreement concerning perceptions of school social environment, analysis of the data indicated that the standard for consensus was met by two of the parent scales, namely 'School Safety' and 'Parent Involvement', and three student scales, namely 'School Staff Helpfulness', 'School Safety', and 'Diversity of Friendships'. As anticipated, student scales which assessed school-level attributes had greater within-school consensus. These were 'School Staff Helpfulness', 'School Safety', and 'School Facilities'. 'Diversity of Friendships' exhibited more within-school consensus than between-school consensus. Regarding which aspects of school social environment were related to parent satisfaction and student enjoyment of activities, analysis suggested that some aspects of parental satisfaction resulted from social climate, and other aspects resulted from individual differences. The relations of 'Parent Overall Satisfaction' to 'School Climate', 'School -Parent Communication', and 'School Empowerment of Parents', were reported to be group or school based rather than non-group or non-school based. The relations of 'Parent Overall Satisfaction' to 'School Safety' and 'Parent Involvement', were individually or subschool organisational unit based. Griffith found that for students, the relations of 'School Staff Helpfulness' and 'Diversity of Friendships' to 'School Enjoyment', were explained best by aggregate scores; and there were similar findings with respect to the relations of 'Student-Teacher Relationships' and 'Academic

Instruction' to 'Student Enjoyment'. The relations of 'School Facilities' and 'School Safety' to 'Student Enjoyment', were explained by individual student perceptions, or other within-school groups not considered in the analysis. It was noted that while school membership accounted for more covariation, between 'Parent Overall Satisfaction' and several scales as well as 'Student Enjoyment' and several scales, than did within-school identity, the moderate within-school bivariate correlations suggested a group parts effect. i.e. Within-school organisational entities such as classrooms, may also have accounted for covariation among the variables.

It was concluded that parents and students shared perceptions of the environment, as measured by scales which assessed school attributes; and parent satisfaction and student enjoyment were partly based on group perceptions of how well schools functioned overall. High parent personal satisfaction was associated with perceptions of positive school social climate, and schools informing and empowering parents regarding their children's education. Permeability of a school's organisational boundary was thought to be key to parent satisfaction. The author referred to three aspects of organisational boundaries in open systems, which were relevant to the findings. First there is organisational entry, which is parents' experiences as they enter schools, such as reception by office staff, and interest and co-operation of principals. Another aspect is output, or information provided about the academic progress of children. The third aspect is input, which concerns use of parents as resources, through invitations to attend activities, help in classrooms, and assist in policy development. Most effective schools were characterised by open climates, with genuine interactions among principals, staffs, parents and students. Schools in which there was open communication, collaborative working relationships with parents, and positive and understanding attitudes, had been viewed as having high levels of parental involvement and satisfaction. The Griffith study showed a slight positive correlation between 'Parent Involvement' and 'Parent Overall Satisfaction', when the data were grouped by school, and a slight negative correlation when analysed by individuals. This is interpreted as suggesting that parents who are involved and satisfied tend to be grouped by school, but those who are involved and dissatisfied are dispersed among schools.

Scales which assessed more global aspects of schools, were found to correlate most with 'Student Enjoyment', as the organisational level of analysis was the school. It was reported that scales correlated with 'Student Enjoyment' at the school level, included 'School Staff Helpfulness', and 'Diversity of Friendships'. The results which pertained to diversity, were in part a consequence of school population,

accompanying or in place of a school climate conducive to friendship diversity. Researchers cited, conceived decrements in student satisfaction as the initial stage of disenchantment, and subsequent alienation and disengagement from school. Negative school experiences are frequently linked with social-psychological consequences, such as discouragement, low self-esteem, alienation, and poor academic performance. Therefore contextual variables, including a safe, caring, and supportive classroom social environment, could offset the negative effects of general life conditions and negative school experiences, on student satisfaction and performance. The Griffith (1997) study, indicated that the extent of emotional and instrumental support provided, led to student enjoyment of learning. Perceptions of the quality of interpersonal relationships with school office staff and teachers, were relative to overall enjoyment. Student perceptions of the quality of academic instruction, were also related to overall satisfaction. There is evidence that the classroom and school social environment provide crucial linkages between individual students and schools, among students, and between school staff and students.

The study has substantive implications for school social environment research. Griffith cautions that without statistical procedures, necessary to demonstrate that measures are valid for the assessment of attributes which a majority place emphasis on, estimation of perceptual consensus is methodologically unsound. Variability in conclusions regarding school social environment issues are likely, when studies employ different measures, and there is diversity in the characteristics of respondents and organisations involved. Griffith (1997) cited James, who detailed problems with the 'perceptual measurement-organizational attribute' approach, which described numerous school climate studies. This involves the averaging of individual perceptions, concerning a social entity, to provide its climate. Among problems specified were discrepancy between the actuality and perceptions of a social entity, and individual perceptual variation.

Education and Image

All forms of consumption are in part, about image or prestige. Schiffman and Kanuk (1987) view self-image, a product of background and experience, as unique to individuals. Products having symbolic value, are evaluated by consumers on the basis of congruence with self-image; and preference is given to manufactures which are thought to enhance or preserve this perceived status. The authors report that retailers select models who reflect a shop's image, as well as the self-image of

customers. They also observed that female models adopted stances and appearances congruent with issues such as equal opportunities, self-assurance, and athleticism. It is believed that identification with a model is related to selection of an item displayed; and that consumers who have a particular self-image tend to patronise shops which project a corresponding image. Other questions addressed by researchers concern how consumption is related to ideal self-concept, or how individuals would prefer to think of themselves, and expected self-concept, which is how they expect to see themselves at a future time.

Education has self-presentational aspects, such as manifestation of parental satisfaction about children and the schools they attend; and use of school image by former pupils, to compensate for actual educational achievement. Schooling is also utilised as a way of constructing social identity and networks, for future exploitation. What these attributes share are associated judgements based on school reputation and other issues, which are not central to quality in education.

School Choice as Gain Theory

Among sources of influence in attitude formation, Schiffman and Kanuk (1987) included personal influence. Attitudes are acquired through contact with relatives, friends, and admired and respected individuals. For example, by observing the preferences of others who are influential, children adopt corresponding attitudes. Producers of television advertisements are aware that messages have most impact, when delivered by an attractive model, a respected newscaster, or a well-known millionaire (Fiske and Taylor, 1984). Alternatively, impact is heightened when a communicator is very similar to audience members; but persuasion is partly affected by analysis of the reason for advocacy of a position. A message does not have impact, if it is constrained by a situation or it fails to validly represent the truth. Messages are more persuasive when they are independent of dispositional and situational pressures.

School reputation and actual quality in education, depend on a population of interested parents and diligent pupils, who influence general attitudes. If committed parents maintain their involvement, this should assist a school to motivate pupils, and generate a good atmosphere, educational achievement and a positive reputation. When such parents abandon schools, there is likely to be a change in attitudes and decline, and policy makers may cut losses. Therefore appraisal of a school is

comparable with judgement of market shares for example, in the sense that evaluation is influenced by what others think and do.

Target Setting and Ambitions for Children

Empirical evidence suggests that parents are not entirely unrealistic, in their expectations of children's academic success. Targets tend to be slightly in excess of their own achievements. They are also aware that coping with life involves a more broad set of life skills, than academic success alone. This implies that they wish schools to provide a wide range of experiences.

Parents set achievement targets for themselves and their children in similar ways. Such targets have high, medium or low levels of attainment and probability of success. From the study of achievement motivation, it is known that most people set realistic goals, with a reasonable chance of success and a moderate likelihood of failure, although there are extremes in the distribution. Therefore most parents set realistic achievement goals for their children and schools. Parents require a broad definition of success. Whether this is theorised in terms of socio-biology or cultural norms, goal setting is a multidimensional entity and there is general agreement about what it entails: freedom from hunger, disease, oppression, and social exclusion; an acceptable, well paid and possibly fulfilling occupation; stable relationships, and avoidance of unhappiness and personal loss. Education is expected to help children achieve multiple targets, through the development of a capability to acquire qualifications; business and financial faculties; artistic and sporting abilities; awareness of moral/religious codes; social skills; and personal qualities, including tolerance of deferred gratification, endurance, persistence, recovery from setbacks, and personal organisation. Many of these qualities are relevant to career development, as well as general life adjustment.

Although intuitive, these beliefs are supported by the literature on control attributions, learned helplessness and self theory. It has been argued that since failure occurs frequently, learning to cope with it is an important life goal. Therefore it is unlikely that academic success narrowly defined, is parents' sole ambition for their children.

Implications for What Parents Want from Schools

Schools offer opportunity for development in many fields: social, artistic, technical and academic. It is generally accepted that all children do not show the same level of potential in different areas. There are individual differences, and wide variation in patterns of strengths and weaknesses, reflected in educational attainment profiles. Some children excel in sport but are not academically inclined, while others evince the opposite. Certain individuals are capable in a few particular ways, but some show promise in many areas. There are related internal and external factors which affect achievement, such as general or specific difficulties often with a familial basis, and experiential background, which is frequently associated with socio-economic status. Certain children have physical or sensory impairments, and some have medical conditions, with implications for special arrangements and adaptations in order that their educational needs are efficiently met. Despite these differences, parents are concerned that children should be helped to realise their potentials. This might include vocational qualifications; development of personal and social skills; and advancement of sporting or aesthetic abilities. Realisation of potential may be facilitated through avoidance of bullying; tobacco, alcohol or drug abuse; and disaffected peer group pressure.

Multiple Goals

White (1982) gave an account of the theory, that education has intrinsic aims. Educational achievement, knowledge and skills attained are viewed as having intrinsic values. But there are differences in emphasis. The concepts of knowledge, aesthetic appreciation and creativity may be included, and there is a distinction between the value placed on possession or pursuit of knowledge. Another view is that education should promote the well-being of an individual, in terms of preparation for life or a route to an occupation. Garforth (1985) believes that prescription of educational aims is open to anyone. Therefore there are a number of views about the role of education, but these are not necessarily exclusive, as education may be regarded as concurrently fulfilling more than a single purpose. Multiple goal formation is a complex issue. There are implications for academic, personal and social achievement, in perceived roles of education, such as the pursuit of knowledge, personal well-being and preparation for employment.

Parents are interested in the balance given to various educational goals, and there is appreciation of individual differences, which imply that all children do not require identical goals to meet their needs. Achievement is monitored over time, and there is identification of failings in the system. e.g. Issues such as peer group problems, bullying etc, are seen as critical, while failure to keep up with workload may be critical in the medium term. Too much emphasis on sport is likely to be remedial. As goals are often related, a number of issues have to be addressed simultaneously.

In order to facilitate the achievement of a set of multiple goals, parents may exert influence on schools, according to how it is thought these might be best achieved. Should a parent wish his child to excel, a competitive strategy may be favoured, with assessment based on achievement comparison; but this is an extreme position and probably unusual. The equal opportunities philosophy makes it untenable for schools to promote individual success in this way; and in any case, children do well in an environment which provides for achievement by all, since relative success has worth, only in a general context of good attainment levels. Therefore a parental focus on the high achievement of one child, without regard to overall school performance, would not be helpful to anyone. In contrast, a co-operative strategy aimed at achievement for all, is paradoxically best for every pupil, and parents may in this context try to negotiate with schools, for the benefit of individual children.

Summary

Empirical studies have suggested a number of individual school dimensions, but it was acknowledged that many factors were involved in the choice process. Among those related to school selection are availability of options; older, prestigious schools with above average attainment and socio-economic status; educational processes; supportive atmosphere; discipline; teaching; school reputation; and proximity to home. However, the choice process is complex and Hunter speculates that characteristics which influence selection may differ from expectations of a good school.

While significance was placed on quality, the concept has not always been clear. With the realisation that consumer perceptions were what counted for marketing, quality measures based on this principle were developed. The construct measured by the SERVQUAL scale, involves perceived rather than objective quality, and is conceptualised as a type of attitude related to satisfaction, resulting from comparison

between expectations and perceived performance. The scale consisting of five dimensions, may be used to provide an overall measure of service quality. It is suitable for use across many services, and it may be adapted to suit the characteristics of individual organisations.

Owing to critical reviews, the efficacy of SERVQUAL was in question, but Parasuraman et al. addressed theoretical issues raised. They maintain that although the approach might be improved, there is doubt about the severity of concerns and alleged superiority of alternatives. Despite drawbacks, the focus of the Parasuraman et al. research is on consumer perceptions, and the theory is more highly developed than others in the education literature. While all SERVQUAL dimensions are potentially relevant in relation to education quality, there are reservations.

Although the study of school judgement is primarily an educational research issue, there are underlying questions derived from the psychology of social cognition. The question which concerns how judgements are formed about schools, may be addressed by extension of person perception theory.

A study by Griffith indicates that parental satisfaction and student enjoyment, are partly based on group perceptions of how well schools function overall. Parental satisfaction is associated with a positive school climate, information available and empowerment. Permeability of the organisational boundary of a school, is thought to be key to satisfaction.

As consumption is in part about image or prestige, products having symbolic value are evaluated on the basis of congruence with self-image. Education has self-presentational aspects and is used to construct social identity, but these issues are not central to quality. There are a number of sources of influence in attitude formation. School reputation and actual quality in education, depend on interested parents and diligent pupils who influence attitudes. People are aware that a broad set of life skills is necessary, which implies that they wish schools to provide a range of experiences. Most parents set realistic achievement goals for children and schools, and they require a broad definition of success.

Various perspectives exist on the role of education, with implications for goal formation. Education may be regarded as concurrently fulfilling more than one purpose, and there is interest in the balance given to various goals. Individual differences imply that all children do not require identical goals to meet their needs.

Achievement is monitored and failings in the system are identified. Parents may exert influence on schools, according to how it is thought multiple goals are best achieved.

7 Depth Interview and Focus Group Study

Introduction

While the service quality literature contains information about the development of a theory of consumer preference, judgement, and ways of conceptualising and addressing consumer issues, the focus in the education evaluation literature is much narrower, being largely based on surveys of opinion, quality indicators and targets. Issues of interest and concern to customers have been identified, and there are models of decision making processes, but there remains much scope for the development of a theory of how education is judged. For this purpose, the tested methodology of general consumer research was employed. The depth interview technique described by Schiffman and Kanuk (1987) was adopted, to investigate topics of public interest regarding education. This is a non-structured extended interview session with an individual, who is encouraged to talk about a particular subject. Another approach described by the authors is the focus group, which is similar to the depth interview, but the principles of group dynamics produce useful insights, which individual interviews may not provide. This method was also used, and groups of people were invited to discuss educational issues.

Participants

A series of focus group discussions and individual interviews were held, for investigation of parents' perceptions of quality issues in education. Therefore it was particularly appropriate to seek the views of parents who had children of school age, The study was intended as a preliminary to a more broadly based attitude survey on the same issues. Parents in Glasgow and Ayrshire were approached personally and invited to participate, with recruitment taking place in schools during open evenings, and at other times. Others were contacted through a parents' network and two participants were university employees. This method resulted in group size variation and individual interviews, owing to the availability of volunteers; but this was not a random sample and perhaps slightly biased towards more involved parents.

Fifty-eight adults took part. Fifty-five people, were parents of children who attended local authority schools, and three did not have children of school age. Interviewees were parents from either rural or urban areas in west-central Scotland. About two thirds of participants came from small communities and the others resided in built up areas. Focus groups varied in size, from two participants to fourteen, plus facilitators i.e. the writer and supervisor. Two people took part in two groups and there were five individual interviews. In total, there were twenty-two discussion sessions, with 50% of these containing at least four participants. The approximate total and mean duration of sessions, were twelve hours and thirty minutes respectively. Interviews took place in schools or at Glasgow University.

Themes

The topics chosen to be explored were derived from quality concerns, which figured in the literature of education and services in general. Among general service quality issues are: expectations, perceptions, tangibles, reliability, responsiveness, assurance and empathy. Education management places importance on performance indicators, such as examination pass rates, comparisons and statistics; leadership; teaching standards; and funding. And from the customer perspective we find themes such as: good schools, needs, discipline, curricula, information channels, social development and outcomes. There is a focus on quality indicators such as: features of an academic school; information sources for quality; feedback on children; tangibles, including quality of buildings; and responsiveness, or the ability of schools to respond quickly and flexibly, and to effect repair and customise teaching quality.

Discussion was structured by facilitators, who introduced broad themes and encouraged participants to develop them. Facilitators did not raise specific issues such as teacher qualifications, but prompted the question of what makes a good teaching staff. Topics were not discussed over extended periods, and several faded within ten minutes. Usual focus group procedures were followed, with all present having the opportunity to give their views. At the end of sessions participants were thanked and confidentiality was observed. All discussions were recorded on audio tape.

Methodology

Illustrative comments from parents follow, to show how the method works, and systematic analysis is reported later. The method is to introduce broad themes including, what schools might do to improve, if it would be helpful for schools to find out parents' views, and if schools are responsive enough to parents. Monitoring themes are introduced by direct questions such as, "If you wanted to find out about your child's progress, who would you ask?" There were also development questions. Among these are, "Do you think schools should try to give parents more information?" At times, prompts were used. For instance, when the issue in question concerned how a parent would judge a school, opinion was sought on the use of specific information sources, including the school handbook, speaking to other parents, children and neighbours. Another strand addresses the issue of what a parent would do if worried about something. This is introduced with the question, "If you happened to be worried about something, who would you speak to about it?" This was developed by, "If you brought this to their attention, but the problem persisted, what would you do then?" With respect to certain issues, the concept of a time-scale for school response was suggested. For instance, there is a feeling that investigation and resolution of a school problem might take months or years. In most cases, difficulties require long-term solutions, however it is thought that bullying is an issue which might be resolved quickly.

Focus groups develop their own sets of norms. In this case the groups generally resisted domination by any one person, and followed the rule of most people saying something. In one case there was a tendency for an individual to dominate strongly, but this was unique to that group. There was also evidence of the emergence of consensus on certain issues. Quality issues considered important by some, were discussed, without judgement of particular schools. There may have been private disagreement about the relative importance of issues, but in practice this did not occur in the context of public discussion. This is a methodological feature of focus groups and it emerged in the study. Discussion focused on areas of agreement and consensus, and issues which were of moment to a minority or on which there may not have been agreement, tended not to receive much consideration. Group data represents issues which most participants view as important, but topics of interest to group minorities, including policy on school uniform, and drug abuse and education, are not identified. Some subjects were discussed infrequently, while others elicited a degree of participation, with the dynamics of groups focusing attention on topics of

common interest. For example, a child observing someone in possession of a knife was mentioned, but not taken up by the group.

It is possible that certain topics are subsumed in more general issues. For example, concerns about the need to be sensitive to individual requirements, might be related to the larger question of responsiveness. Similarly, children's happiness may arise within the broad issue of understanding/knowing the customer. The strengths and weaknesses of the focus group method have to be acknowledged. Advantages include exposure of novel issues and access to the specifics of linguistic expression; but pressure towards conformity and codes of self-presentation, are weaknesses. Therefore there must be caution about literal interpretation of apparent agreement and volume of discussion.

Analysis

Taped interviews, which in total went on for twelve hours, provided a general view of topics given attention and opinion. There was development of a list of discussion categories, providing an inclusive account of what was covered. A two hour sample of interviews was codified in one minute segments, using fine grain categories derived from statements and comments interviewees provided in the course of discussion, and responses to questions and issues raised by the facilitator, and these were then summarised in terms of broad dimensions. The use of these categories is necessary, firstly to catalogue participants' points and remarks, as a general guide to opinion and issues of interest; and secondly, to permit estimation of relative salience of themes, in terms of their recurrence in the dialogue.

Origins of Categories

Focus group methodology was adopted to elicit quality perceptions and criteria. Categorisation is therefore based on themes and subthemes which occur in the quality literature in general, including service responsiveness, empathetic approaches, assurance, reliability and tangibles. Among themes found in the educational quality debate were academic achievement, curriculum content, school choice and parental involvement. Fine grain analysis developed from the discussions, including bullying, discipline, and speaking to teachers, were chosen to reflect quality concerns. Consequently, the categories were derived from the quality literature and issues raised in discussion. But aspects of the discussions concerning

specific concerns were not codified. Therefore for example, it was irrelevant whether or not there were complaints about bullying in particular schools. Complaining was not codified; but as a quality indicator, bullying was codified.

Fine grain categories, are listed in Table 9.

Table 9

Fine Grain Categories

Information Source	Child's progress	Discipline
Curriculum	Moral/religious education	Children's happiness
School choice	Accessibility	External influence
Interaction	Issues of concern	School repair
Personal experience	Bullying	School reputation
School responsiveness	Parental involvement	Individual needs
Staffing	Academic achievement	Relationships
Social skills	Funding	Facilities
School atmosphere	Primary/secondary transfer	Resources
Transport	Social dimension	School autonomy
Management	Encouragement	Child development
Community	Satisfaction	School board
School standard	Problem solving	Hazards
Vandalism		

Forty categories largely account for the content of discussion, and these are expanded in Appendix A. There were topics which might have been considered quality issues, which either did not arise or were seldom mentioned, and did not raise discussion. e.g. drugs, uniform, school league tables, policy issues, publications, teaching standards. It is possible that individuals may not wish to publicly discuss issues of personal concern.

Statistical Treatment of Findings

Interrater reliability on assignment is high. Two raters were employed. There was a twenty minute training period, in allocation of each unit of discussion to a fine grain category. Errors were corrected and explanations were given. After the training, raters were asked to code a set of one minute segments. Twenty, one minute segments were codified by allocation to one or more of the fine grain categories. For each segment a cross tabulation table was constructed, showing if the two raters

agreed on allocation to a category, e.g. academic achievement. This requirement was somewhat weaker than the ideal, as allocation of segments to more than one category was possible. Therefore there had to be agreement on at least one of the categories, to which a segment was allocated by raters. A summary 2 x 2 table was produced for all twenty segments, which showed the number of times the raters concurred on allocation to categories. Allocation of each one minute segment to a given category was highly reliable (kappa = .7).

Four fifteen minute samples taken from interviews, were codified. The samples included a number of subjects who were interviewed individually or as part of a nominal group session, subject to fluctuation in attendance. Disagreement on development and discarding of subjects was noted, and topics occurring alone were ignored. Empirical correlation of categories provided higher order classes, these being compared with quality dimensions, and there was examination of fine grain categories which tended to occur adjacently.

Each minute unit taken from interview time samples was codified, often using more than one fine grain category; and a 40 X 56 grid was produced. This table provides a record of content assigned to categories, in each minute unit. The relationship between categories and time, may be expressed by a non-parametric correlation between variables. Application of Multivariate Analysis is a mechanism for the identification of higher order dimensions from the data. Another method for allocation of fine grain to coarse grain categories, is systematic coding with dimensions identified by Parasuraman et al. (1988).

Results

Course grain analysis of topics did not indicate differences on account of group size and urban or rural background, but there was unequal emphasis placed on subjects. The fine grain categories were allocated to the Parasuraman et al. (1988) service quality dimensions, as shown in Table 10. This was subject to an interrater reliability study. i.e. There was judgement about whether categories were examples of 'Tangibles', 'Responsiveness', or any other dimension. This is really an a priori decision process, as there is an irreducible subjective element. But it may be used as an indicator of the time given to quality dimensions by the sample, and their importance in studies of the public view of services.

Table 10

Service Quality Dimensions and Related Categories

Tangibles	Facilities	School repair
	Resources	Funding
Reliability	Personal experience	Problem solving
	Child development	Curriculum
Responsiveness	School responsive	
Communication	Interaction	Information source
Credibility	Satisfaction	Staffing
	School reputation	
Security	Bullying	Discipline
	Hazards	Vandalism
Competence	School Standard	Management
	School autonomy	School board
	External influence	
Courtesy		
Understanding/	Relationships	Parent involvement
Knowing the	Community	Social dimension
Customer	Children happy	Atmosphere
	Encouragement	Individual needs
	Issues of concern	Social skills
	Moral/religious ed.	Progress
	Academic ach.	Pri./Sec. transfer
Access	School choice	Transport
	Accessibility	

Allocation of fine grain categories to quality dimensions was reliable. Only a few fine grain categories did not achieve high interrater reliability in their assignment. (i.e. above .7) 'Child development' and 'Personal experience' produced more disagreement in allocation to the 'Reliability' theme. As a fine grain category, 'Staffing' fitted 'Credibility' broadly, but with some disagreement.

Occurrence of Discussion Topics

The time given to 'Tangibles', 'Responsiveness' and the other dimensions, should be interpreted with caution, however it is a prima facie measure of consensus on subjects worth discussing. Consistency in time spent on dimensions, is also of

interest, and data is combined to provide the estimated proportion of time given to quality dimensions, as shown in Table 11. The groups of topics, with high proportions of discussion time, were associated with the 'Communication' and 'Understanding/knowing the customer' dimensions, followed by categories related to 'Reliability' and 'Security'.

Table 11
Occurrence of Topics
Related to Quality Dimensions

Order	Dimension	Count	Time
1	Communication	37	27%
2	Und./knowing customer	34	25%
3	Reliability	23	17%
4	Security	13	10%
5	Responsiveness	10	7%
6	Competence	7	5%
7	Tangibles	5	4%
8	Access	4	3%
9	Credibility	3	2%
10	Courtesy	0	0%

There was some similarity in the priority across interview samples, 'Communication' and 'Understanding/knowing the customer' issues being often discussed, and not much emphasis on 'Access' and 'Credibility'. The order of themes were ranked 1 - 10, and calculation of average rankings indicated that 'Communication' was an important dimension. This suggests that main concerns about service quality in schools, at least expressed in the interviews, surround issues such as interaction and availability of information, through speaking with teachers about children's progress or other concerns. There is also an indication that parents speak to each other, children and neighbours, about school issues. Communication also takes the form of school reports, and monitoring children's homework may be an indicator of progress. Interest is evident in other information provided and wider school matters. 'Understanding/knowing the customer', was another major dimension identified by the analysis. Among related issues is interest in children's progress, which may be assessed by what teachers say or things to be done at home, and a perceived need for poor progress to be remedied. There is recognition of the need for positive

relationships between children and teachers. Another issue included in this dimension is how concerns might be dealt with. For example, an approach to a teacher or a parent, acting with a group of concerned parents, and perhaps finding another school. The 'Reliability' dimension covered perceptions about curriculum content. There appears to be some demand for a broad experience, including a foreign language, art, music, educational visits and sport, as well as traditional subjects such as reading, writing and counting. A related issue is child development. Also within the 'Reliability' dimension is problem solving in relation to individual or whole school matters, which involves expectations of action by the school and a time-scale. Another issue interpreted as related to reliability, is parents' own experience and anecdotal evidence, which is significant to them. For instance, a parent recollected how she had been split up from friends at school, and another mentioned that some children had not settled at school.

It is estimated that categories within the 'Communication' and 'Understanding/knowing the customer' dimensions, in total account for about 50% of discussion time given to main issues. Among topics which arose were speaking to teachers and neighbours; monitoring homework; teacher-pupil relationships; and parents acting individually or as members of a group, when there are concerns. However the discussion estimate is only indicative, as in many of the time segments there are more than one theme. For the purpose of Table 11, when more than a single theme occurred in a time segment, they were allocated to appropriate categories. Therefore the table exaggerates the dominance of 'Communication' themes which occur most frequently, but fine grain and cluster analyses clarifies this issue. These taken together, broadly produce a higher level theme concerning the monitoring of overall school experience, which is not narrowly defined, with interest in relationships, children's progress, moral/religious education, and several other aspects.

Nature of the Language Used

The labels given to higher order dimensions, disguise the precise language which parents use to discuss issues. This is not a thesis in discourse analysis or social representations, nevertheless it is important that there is sensitivity to the particularities of language; and the categories are illustrated by selected quotes from the dialogue.

The issue concerning sources of information, arose several times in the course of the interviews. One strategy parents use for finding out things, is to speak directly to people, and language used in relation to this includes, "I'm speaking to the teachers regularly", "If I was moving into the area of a chosen school, probably the best people to ask would be neighbours", "I would go along and talk to the head teacher", "parish priests", "members of the community school boards", "our daughter tells a lot", "by going to the school and talking", "learn a lot better if you ask the teacher". But comments illustrate that parents have means of gathering information, other than through conversation. For example, "on a daily basis virtually monitoring them, monitoring homework", "mainly by letter", "she's coming home with the work to do at home, and obviously if that's happening on a regular basis you're going to wonder why, and you're going to find out", "I've been in the school a few times", "If it was primary one, you would wait for a couple of reports". These comments illustrate that information gathering tends to be an individual activity, and parents are interested in whole school matters as well as their children's progress.

A related issue, communication, also featured in the discussions. Examples of the kind of language used were, "I know practically all the members of staff", "mair contact", "I'd come doon and say to her teacher", "we're aware we can come up and speak to a teacher at any time". Communication occurs through acquaintance and verbal interaction between parents and teachers. Approaches to teachers may occur when parents wish to bring concerns to their attention.

Sometimes people refer to significant personal experiences, when discussing educational matters, and this occasionally occurs in the course of the discussions. Among such comments were, "ye ken exactly everythin' that's goin' on", "the teachers didnae have the same time as whit they have here", "when a child came out the school, it was a school's responsibility tae the child got home". There may be a fairly strong tendency to refer to personal experience in connection with school issues, since everyone becomes involved in some capacity.

Discussion

The discussion proceeds under three headings. Firstly, the reliability and validity of the course grain categories: in particular, the relationship to the dimensions described by Parasuraman et al. (1988). Secondly, any differences between the focus groups or depth interviews, categorised as urban, rural and group size. Thirdly, the volume of

time given to discussion of both course and fine grain categories. This is used as a measure of the perceived importance of issues described. It may also be used to indicate the appropriateness of the Parasuraman et al. dimensions, for the study of school quality perceptions.

Analysis of the discussion indicated that categories were reliable and valid. There was not much discussion about the condition of school buildings, but there appeared to be some concern about the prospect of children using public transport. However, responsibility for tangibles did not seem to be placed on schools, and parents did not indicate that this issue was related to school choice. 'Reliability' covers a linked set of issues concerning academic standards, child development and social skills. Academic attainment and personal adjustment are viewed as inextricably linked. There is parental preference for a model of development which schools might facilitate. This should include basic literacy and numeracy; co-operativeness; rejection of bullying; and social interaction. Academic and social linkages are also apparent in the value placed on children being taken places, such as a farm; the teaching of manners, with parental involvement; religious instruction; and achieving the adjustment from primary to secondary education.

'Reliability' topics did not include discussion of things such as staff quality, failing teachers, professional qualifications, or educational theory. Participants did not complain about their children's schools; although there was some acknowledgement that their own experience was limited. The 'Competence' dimension is related to organisational guarantees, and issues such as devolved powers; systems including primary-secondary transfer; and management. Good discipline, a 'Security' issue, is not an end in itself, but may be viewed as something which facilitates the functioning of the school. It is possible that there is a bias towards non-contentious and socially acceptable discussion in this context; at times related to experience and remembered events.

Although the emphases of discussion were unequal, coarse grain topics did not indicate differences on account of group size and urban or rural background. This suggests some general stability in subjects which arise. Time given to discussion of categories allocated to service quality dimensions, indicated perceived importance of issues. Issues covered by the 'Communication' and 'Understanding/knowing the customer' dimensions were most often discussed. Emphases appeared to be on interaction; availability of information; children's progress; relationships; and dealing with concerns. The next most important dimension in terms of discussion time, was

'Reliability'. This covered issues relating to the curriculum, child development, and problem solving. It is estimated that discussion of issues associated with these three dimensions, accounts for approximately 70% of the time.

While it was possible to allocate categories to dimensions proposed by Parasuraman et al, they were not covered by the SERVQUAL scale. Although considered suitable for use in many service contexts, the scale may be adapted. Therefore the general service quality structure is appropriate in educational contexts.

It is likely that specification of desirable school attributes, involves the facility to promote realisation of a child's potentials, in respect of academic and social skills. In order that this may be achieved, the specification may include attributes such as a safe environment; sympathetic and approachable staff; well qualified teachers; good buildings and equipment; and reasonable peer group discipline. It is suggested that the process of evaluation involves comparison between the specification or dimensions, and actual school attributes.

What is the nature of the judgement or choice rule? There are several possibilities: School rejection might be the outcome, if there is failure to reach an acceptable threshold on a criterion. A second suggestion is summation of scores on all criteria. A third possibility, is a high score on any particular dimension. Another possible definition is judgement based on meeting thresholds and summation of scores on all criteria. Parents are likely to make judgements on the basis of how good a school is perceived, in relation to meeting the particular needs of children. The studies concern absolute judgement of schools. While information is not combined arithmetically, traits are viewed as interrelated.

Relevant questions about the issue of school evaluation processes, concern identification of criteria used, and how information relevant to criteria is obtained, although the range of sources is unlikely to be extensive.

Interlinking of Discussion Topics

Some topics were interlinked in discussion or followed sequentially. There is evidence of interlinkage in content analysis, when more than one category is codified for a given time segment. There is a tendency for certain topics to recur together, being mentioned, raised or addressed in the discussion. Table 12 lists such categories, with

a count of the times they interlink within one minute segments, during the four fifteen minute samples. There is some additional evidence of this occurring across adjacent time segments.

Table 12

Concurrent Occurrence of Categories

Categories	Count
Interaction/Issues of concern	8
Information source/Interaction	7
School responsiveness/Problem solving	5
Interaction/Personal experience	4
Interaction/School responsiveness	4
Interaction/Child's progress	4
Personal experience/Issues of concern	4
School responsiveness/Bullying	4
Interaction/Problem solving	4
Information source/Child's progress	3
School responsiveness/Issues of concern	3
Interaction/Bullying	3
Interaction/Children's happiness	3
Interaction/External influence	3

Owing to the dominance of 'Communication' issues in the discussions, it is obvious that the 'Interaction' category should co-exist with other codings. 'Interaction' arises most frequently in conjunction with 'Issues of concern', 'Information source' and 'Problem solving'. For example, 'Interaction' and 'Issues of concern' tended to recur together, within one minute limits, and the 'Interaction' category most commonly recurred in proximity to other issues.

Also apparent, was the use of personal experience exemplars, with some evidence of participant reasoning about school events, in the context of episodes from parents' own, or their children's lives. Official information and policy did not appear to be significant in the content.

Among questions addressed was, what parents did when they were worried about something. Responses suggest that they speak to teachers, members of school

boards, education authority officials or local politicians. The implication is that parents wish teachers to listen and be responsive to them, when there is reason for concern.

Cluster Analysis

Cluster analysis is the statistical technique which allows groupings of entities, in terms of proximity on multidimensional measures. It shows entities which are close, and thus form clusters in multidimensional space. In this case, the entities are fine grain categories. However many of these occurred very infrequently, and a subset of fine grain categories which occurred in more than three time segments was chosen. This provided a`subset of fine grain coding categories. There was cluster analysis, with the subset of fine grain categories as entities and the fifty-six time segments as observations, using joining tree clustering, a single linkage amalgamation rule and Euclidean Distance. Therefore the clusters represent the grouping, i.e. interlinkage of topic themes (fine grain categories) in time.

Table 13 shows the 3 Cluster Solution. The first cluster is comprised of seven categories, which are directly related to the core educational experience provided by schools. Issues included are curriculum content; adults' recollections about their school-related experiences; pupil progress; particular concerns; the happiness of children; influences from outwith schools; and relationships within them. Cluster 2 concerns the availability of information and interaction with teachers; while categories in the third cluster suggest a connection between the problem of bullying, school response and finding solutions to problems.

Table 13

Statistical Cluster Analysis 3 Cluster Solution

Variable	Distance	Variable	Distance
Cluster 1		**Cluster 2**	
Curriculum	.276642	Information Source	.306186
Personal Experience	.307226	Interaction	.306186
Child's progress	.298807		
Issues of concern	.374575	**Cluster 3**	
Children's happiness	.247436	School responsiveness	.251976
External influence	.294508	Bullying	.263523
Relationships	.242226	Problem solving	.263523

Other cluster solutions are provided in Appendix B. There are similarities in the group structures of the various solutions; and in summary the groups relate to features central to the educational experience; sources of information and interaction; and problem solving.

Summary

The study described, concerned investigation of issues which interested parents, based on topics arising in the background literature. Information was obtained by means of a series of interviews and focus group discussions.

About forty categories were derived from issues raised and the literature. Groups of topics with high proportions of discussion time were associated with the 'Communication' and 'Understanding/knowing the customer' dimensions. Parents speak with teachers and others about children's progress and school issues. There is interest in what teachers say and recognition of the need for positive relationships. The 'Reliability' dimension covers perceptions about curriculum content and problem solving. There is preference for a model of development which schools might facilitate, including basic literacy and numeracy, co-operativeness and social interaction.

To promote the realisation of children's potentials in respect of academic and social skills, desirable school attributes may include a safe environment, sympathetic staff, good buildings and equipment, and peer group discipline.

It is suggested that the school judgement rule may possibly involve reaching a threshold on a criterion; summation of scores on criteria; a high score on a particular dimension; or meeting thresholds and summation of scores on all criteria. Parents are likely to make judgements on the basis of how good a school is perceived, in relation to meeting the particular needs of children.

Some topics were interlinked in discussion, or followed sequentially. Owing to the dominance of Communication issues, it is obvious that the Interaction category should co-exist with other codings. There also was use of personal experience exemplars, and reasoning about school events in the context of episodes from parents' own or children's experiences.

When concerned about something, parents speak to teachers, education officials, politicians, etc. The implication is that parents wish teachers to listen and be responsive.

The group structures produced by cluster analysis relate to features central to the educational experience, sources of information and interaction, and problem solving.

8 Exploratory Survey of School Perceptions

Introduction

The opinion survey, Schiffman and Kanuk (1987) report, is the most commonly used method, for the investigation of consumer attitudes. There are various types of scales employed in consumer research. Of these, the Likert scale is used most often, as it is easy to prepare and not complicated. Likert scales measure agreement with statements about the subjects under investigation. Schiffman and Kanuk also describe the semantic differential scale, which invites evaluation of concepts, often on 5-points between antonyms. Another approach, using rank-order scales, involves ordering items in terms of particular criteria.

Among educational researchers quoted, a number have used survey data. For instance, Martinez et al. (1995) mailed questionnaires to families and they also carried out a telephone survey. Strate and Wilson (1993) used data from the Detroit Metropolitan Area Public Policy Survey; and Echols et al. (1990) made use of information from the Scottish Young People's Survey. Such examples demonstrate that surveys may be conducted by different means, and directed at various populations. These studies concern issues related to school choice, but surveys address many educational questions, and are often carried out on behalf of various organisations, such as newspapers, teachers' unions and other agencies. Among examples is an I.C.M. poll of public opinion carried out for The Scotsman, reported by Kirkup (1998). This large-scale survey provided information on views about taxation in relation to the funding of education; teacher effectiveness; relative standards of national systems; and fee-paying. The Educational Institute of Scotland commissioned a System 3 Scotland (1996) study of attitudes, and a survey of the general population, furnished opinion on matters such as factors which undermined the quality of education and teaching. A MORI survey of pupils commissioned by the Campaign for Learning, was reported by Greany (1998). The poll addresses questions such as where most learning occurs; preferred ways of learning and support for changes.

This well established means of gathering data for research purposes was adopted. A survey was conducted, to investigate if there was a typology in dimensions by which school impressions were formed, and to determine if there was variation in priorities between groups.

Questionnaires

Instruments were prepared, to obtain information about how secondary schools were judged. A five point very low to very high scale was used. Parents were invited to indicate the extent to which various information sources had been used, when they were forming judgements about secondary schools their children attended, or schools they wished them to attend. They were also asked to indicate on the scale, how much faith they had in the accuracy of each source. Parents were then invited to rate the secondary schools their children attended or would attend, and teachers were invited to rate their own schools, on fifty-three items which were based on significant school features, mainly derived from the education literature. These included characteristics such as adequacy of accommodation; teacher capability; provision for slow learners; availability of information; discipline; cleanliness of building; staffing; supervision; facilities; and staff-pupil relationships. Respondents were given the opportunity to add a feature not included, and to specify the four most important items.

Ideally, there should be a balance of positive and negative items in such an inventory, to control for response bias. However, in practice negative questions were not easily devised.

The structures of the three questionnaires are similar, with a common list of fifty-three characteristics on which schools are judged, and a short section inviting all participants to list the four most important characteristics. Only teachers are not asked to indicate use and perceived accuracy of information sources. Of twelve information sources given, eleven were common to primary and secondary parents' questionnaires, and both groups were invited to specify another source. Owing to the differing characteristics of the groups of participants (primary and secondary parents and teachers), there was some variation in the short explanatory introductions to the questionnaires and sections therein, with the exception of the part which concerned selection of the most important school characteristics. The secondary parents' questionnaire is provided in Appendix C.

Participants

As the general focus of this study concerned opinions on secondary schools, it was appropriate to target parents with some knowledge of a secondary school. Therefore questionnaires were sent to parents who had children at the secondary stage. They were also sent to parents with children at the upper primary stage, who were likely to have given some thought to the secondary schools their children would transfer to. In addition, it seemed useful to target secondary teachers, some of whom were parents, to obtain their views.

Owing to the distribution methods these were usually completed by parents at home, and by secondary teachers at school.

The return rate varied between the three groups and was estimated at 20% overall. Data was obtained from 195 returned questionnaires. Eighty-seven were from parents with children at the P.6 or P.7 stages, and seventy-one were returned by parents who had children at the S.1 to S.4 stages. Thirty-seven questionnaires were returned by secondary teachers.

Statistical Treatment

The first focus of the analysis is on secondary parents' use of information sources, when forming judgements about secondary schools, and also ratings of individual source accuracy. Using data from primary and secondary parents and teachers, mean ratings of schools on the fifty-three dimensions are compared, and significant individual items are identified.

Factor analysis, a statistical technique often used in psychological research, was adopted to make the volume of data manageable, and facilitate its interpretation. Kline (1994) provided a description of the technique and a discussion of its application: The purpose of factor analysis is to simplify complex sets of data, and it is often applied to correlations between variables. A factor is defined as a construct of the relationships between a set of variables, and factor loadings are the correlations of variables with a factor. Analysis of the data provides a number of factors, which are interpreted from coefficients or factor loadings, and meanings are validated against external criteria. Loadings above 0.6 are usually regarded as high, and those above 0.3 are moderately high. Child (1970) views factor analysis as a method of

classification of environmental attributes, which makes the world intelligible. The technique is explained as resembling the cataloguing of similarities and differences, and when a group of variables has much in common, a factor may be said to exist. Kline takes examples of its use in various fields, to address broad questions about relationships between important variables. In exploratory analysis, the purpose is to investigate the field, to identify main constructs. The approach has many applications. It was employed to clarify which variables were and were not associated with academic success, at primary school level. Kline explained that the factor analysis administered for the Plowden report, which involved a large number of variables, answered several questions concerning the determinants of academic success. These were identified by examination of the variables which loaded on factors. This example illustrates how the technique may be used to provide a solution to a very complex problem, which involves many variables.

Correlations between ratings indicate related information sources, when secondary parents rate sources, and aspects of schools which are associated, when primary and secondary parents and teachers rate target schools. The number of target schools is less than the number of raters/participants, however the target population of schools is large. Therefore intercorrelations may be considered as correlated dimensions, existing in the average or composite school and not any individual example. It has to be noted that the sample of schools is restricted to the public school sector, and excludes private institutions. Mean ratings of ten information sources and schools on fifty-three dimensions were obtained from the returns. Participants selected four dimensions considered most important, and percentages of respondents who chose particular items were calculated. Information source data and ratings of schools on twenty-nine dimensions were factor analysed.

School Information Sources

Means for use of information sources and their perceived accuracy, are shown in Table 14. Information sources which had the highest overall means for use were 'Meetings', 'What your child says', 'School handbook' and 'Teachers (secondary)'. These sources also had relatively high mean ratings for perceived accuracy. Informal sources such as 'Your child's brother or sister', 'Other children' and 'Your own experience as a pupil', received generally lower ratings in respect of use and accuracy. It is possible that the type of information provided by established school

sources and children themselves, is of most interest to parents, and in contrast, there may be less notice taken of information which other children provide.

Table 14
Information Sources

Source		Mean Used	Std. Dev.	Mean Accuracy	Std. Dev.
1	Meetings	3.60	1.46	4.05	0.95
2	What your child says	3.70	1.07	3.63	1.02
3	Your child's brother or sister	3.30	1.36	3.33	1.31
4	School handbook	3.52	1.30	4.00	1.10
5	Teachers (secondary)	3.50	1.21	3.95	1.05
6	Head teacher (secondary)	3.14	1.48	3.95	1.31
7	Viewing classwork	3.38	1.45	3.81	1.19
8	Other children	2.17	1.34	2.54	1.32
9	Visits to school	3.45	1.33	3.94	0.99
10	Your own experience as a pupil	2.84	1.38	3.11	1.39

Factor Analysis of Information Source Ratings

Factor 1A

Table 15
High Loadings on Factor 1A

Variable		Loading
U1	Meetings	.643
U4	School handbook	.722
U5	Teachers (secondary)	.837
U6	Head teacher (secondary)	.756
U7	Viewing classwork	.675
U9	Visits to school	.797

Secondary parents' sources used data were factor analysed by means of principal components, using Varimax rotation. The first two significant factors were used to summarise the inventory.

High loadings on Factor 1A, are shown in Table 15. Questions with highest loadings concern teachers and school visits, and all items relate to information sources which are usually made available by schools. This suggests that secondary parents often rely on and show interest in the official information which schools provide, through interviews, handbooks, and viewing classwork.

Factor 2A

Questions with high loadings on Factor 2A are shown in Table 16. In this case, items relate to informal information sources, three of which concern children. This indicates that parents are interested in things said by children, and issues they consider important. Parents are also able to reflect on personal experience. Factor 2A is quite distinct from 1A, demonstrating two criteria which affect information search.

Table 16
High Loadings on Factor 2A

Variable		Loading
U2	What your child says	.571
U3	Your child's brother or sister	.669
U8	Other children	.779
U10	Your own experience as a pupil	.569

Discussion

Data obtained from secondary parents, concerning information sources used, indicated that three of the four means of obtaining information rated most highly, were school based, and the other item concerned things children said. These sources also had high mean ratings for accuracy. Factor analysis of sources used data, suggests that there are formal and informal means of obtaining information. This implies interest in information provided by schools and issues given weight by children.

School Ratings on Dimensions

Questions on which schools achieve highest mean ratings are listed in Table 17.

The two items which received highest mean ratings were 'Head teacher and staff easily approachable' and 'Provision of reports about progress'. These and questions 5, 46 and 41 concern communication and there are several items which relate to aspects of the academic function of schools, including 'Good academic curriculum',

Table 17
Questions with High Mean Ratings

Variable		Mean	No.	Std. Dev.
7	Head teacher and staff easily approachable	4.18	187	0.94
6	Provision of reports about progress	4.03	186	0.97
3	Capable teachers	3.91	189	0.83
5	Information about progress easy for parents to obtain	3.89	189	1.08
27	Good academic curriculum	3.87	185	0.88
18	Effective head teacher	3.87	187	1.14
38	Highly qualified teachers	3.86	184	0.89
52	Is where children's friends are	3.75	183	0.99
46	Good academic reputation	3.75	184	2.52
37	Assessment based on tests and examinations	3.74	185	0.89
41	Information about the curriculum easily obtainable	3.72	184	1.04

'Good academic reputation' and 'Assessment based on tests and examinations'.

Items on which schools receive lowest mean ratings are provided in Table 18.

'No bullying', 'Adequate supervision outwith the classroom', 'Building in good repair', 'Clean toilets with no graffiti', 'No class disruption', 'Pupils in uniform' and 'Pupils smartly dressed', may be related to school discipline.

Findings suggest that participants tend to give schools higher ratings on communication and academic issues, than on discipline and associated matters, and the observed differential is evidence of reasoned discrimination.

Table 18

Questions with Lowest Mean Ratings

Variable		Mean	No.	Std. Dev.
50	Pupils in uniform	2.73	184	1.43
28	No bullying	2.73	181	1.14
35	Parental involvement in extra-curricular activities	2.74	180	1.20
29	Adequate supervision outwith the classroom	2.75	181	1.18
20	Adequate funding	2.85	178	1.08
43	Flourishing school clubs	2.89	180	1.23
49	Pupils smartly dressed	3.05	184	1.21
47	Small classes	3.05	183	1.14
15	Building in good repair	3.08	184	1.10
14	Clean toilets with no graffiti	3.10	176	1.17
9	No Class disruption	3.20	184	0.99

Discussion

On some dimensions mean school ratings are high, but on others ratings are lower. In general ratings are high on approachable and capable teachers, but lower on pupil dress, funding and building maintenance. While only descriptive, mean ratings indicate what participants like and dislike with respect to schools judged. Findings suggest that participants look favourably on several observed aspects of schools, which are central to the educational process. However lower ratings do not indicate that they like other things, some of which are supportive of a satisfactory experience. Ratings provide clear evidence of judgement discrimination, based on knowledge and opinion on many educational issues.

Significant Individual Dimensions

Participants were asked to choose four of the fifty-three questionnaire dimensions, which they considered most important. Percentages of 195 respondents choosing these, are provided in Table 19. 'Good discipline' and 'Positive staff-pupil relationships', with 31% and 24% respectively, were the dimensions which were given highest priority. 'Effective head teacher', 'Good teaching practices' and 'Good academic reputation' were each selected by 18% of respondents. Next in order of importance, were 'Good academic curriculum', 'Well motivated pupils' and 'Capable

teachers'. Overall, these dimensions concern relationships, atmosphere and academic issues, which are central to the educational process.

Table 19
High Priority Dimensions

Variable	Resp.
8 Good discipline	31%
32 Positive staff-pupil relationships	24%
18 Effective head teacher	18%
26 Good teaching practices	18%
46 Good academic reputation	18%
27 Good academic curriculum	17%
23 Well motivated pupils	15%
3 Capable teachers	14%
30 Happy children	12%
38 Highly qualified teachers	12%
48 Modern equipment	12%
34 Good atmosphere	10%

Quality Dimensions in School Judgement

A main focus of the thesis is to explore dimensions, which underlie judgement of quality in educational services. The questionnaire was designed to measure perceptions of secondary schools, with reference to issues in the service quality and school evaluation literatures. Fifty-three items covered a wide range of questions, relating to staff-pupil relationships, parental involvement, academic achievement, information about the curriculum etc. Participants included parents and secondary school teachers, and almost two hundred were returned.

Analysis of School Ratings on Twenty-Nine Questions

Data from ratings of schools on twenty-nine school dimensions, were factor analysed by means of principal components, using Varimax rotation. The first five significant factors were used to summarise the inventory. Questions with high loadings on various factors, are shown in Tables 20 - 24.

Factor 1B

Items with high loadings on Factor 1B, are provided in Table 20. All questions included have loadings above 0.3. Those with highest loadings are 'Good academic achievement by pupils' and 'Good academic reputation', and others shown are also closely related to the academic function of education. Some issues such as organisation, teacher qualifications and uniform, although more peripheral to the academic question are probably related.

Table 20
High Loadings on Factor 1B

Variable		Loading
21	Good organisation	.411
23	Well motivated pupils	.685
27	Good academic curriculum	.684
36	Good academic achievement by pupils	.808
37	Assessment based on tests and examinations	.632
38	Highly qualified teachers	.418
40	Special provision for the more academic pupils	.656
41	Information about the curriculum easily available	.375
45	Good relationship between the school and community	.358
46	Good academic reputation	.790
50	Pupils in uniform	.459

Factor 2B

Questions in Table 21, relate to communication. While approachable teachers and sensitivity to parents' views are associated with the nature of communication, items also concern reports, advice about progress, and availability of information about the curriculum.

Other issues relating to accommodation and organisation, while not central to communication, may be facilitative.

Table 21

High Loadings on Factor 2B

Variable		Loading
1	Adequate accommodation	.503
5	Information about progress easy for parents to obtain	.790
6	Provision of regular reports about progress	.694
7	Head teacher and staff easily approachable	.614
21	Good organisation	.459
22	Good communication with pupils	.361
31	Good facilities	.348
32	Positive staff-pupil relationships	.319
37	Assessment based on tests and examinations	.340
41	Information about the curriculum easily obtainable	.653
42	Sensitive to parents' views	.530
45	Good relationship between the school and community	.334

Factor 3B

In contrast, questions with significant loadings on Factor 3B, shown in Table 22, are visible school characteristics. Features contributing to the general state include cleanliness and building repair, facilities, accommodation and behaviour of pupils. Organisation may be inferred from such observable characteristics.

Table 22

High Loadings on factor 3B

Variable		Loading
1	Adequate accommodation (not overcrowded)	.495
12	Good behaviour of pupils	.479
13	General cleanliness of building	.811
14	Clean toilets with no graffiti	.644
15	Building in good repair	.855
21	Good organisation	.406
31	Good facilities	.604

Factor 4B

Questions loading on Factor 4B largely concern the nature of relationships between teachers, children and the community, which is central to another distinct school evaluation criterion. Sympathetic teachers, absence of bullying, and adequate supervision are all directly related to the construct; while behaviour, state of toilets and evidence of uniform may be indicators.

Table 23

High Loadings on Factor 4B

Variable		Loading
11	Teachers respond sympathetically to pupils' anxieties	.432
12	Good behaviour of pupils	.366
14	Clean toilets with no graffiti	.387
22	Good communication with pupils	.302
23	Well motivated pupils	.332
28	No bullying	.792
29	Adequate supervision outwith the classroom	.758
30	Happy children	.581
32	Positive staff-pupil relationships	.522
33	Harmonious relationships between pupils	.685
45	Good relationship between the school and the community	.474
50	Pupils in uniform	.486

Factor 5B

Items with significant loadings on factor 5B, relate to well qualified and capable teachers. Questions include aspects of professional competence, such as being approachable, sympathetic, organised and sensitive to parents' views. Associated with these are positive relationships and good behaviour by pupils.

The professional role covers a wide range of organisational and interpersonal matters, with implications for outcomes in the school context, and to an extent this is reflected by the questions with loadings on this factor; however it is not clear why the clean toilets item occurred. In order to be able to make a school judgement on this basis, individuals require knowledge of the complex nature of the role of teachers.

Table 24

High Loadings on Factor 5B

Variable		Loading
3	Capable teachers	.703
7	Head teacher and staff easily approachable	.464
11	Teachers respond sympathetically to pupils' anxieties	.651
12	Good behaviour of pupils	.416
14	Clean toilets with no graffiti	.324
22	Good organisation	.536
30	Happy children	.394
32	Positive staff-pupil relationships	.533
38	Highly qualified teachers	.613
42	Sensitive to parents' views	.445

School Evaluation Criteria

Factor Analysis of school ratings on dimensions, provides evidence of various criteria taken into account in the school evaluation process, and these are listed in Table 25. Percentage of variance accounted for by factors is also given. 'Academic achievement' accounted for the greatest percentage of variance, but no single factor dominated. The five factors accounted for 64% of total variance, leaving 36% unexplained.

Table 25

School Evaluation Criteria

Factor	Criterion	Variance
1B	Academic achievement	16%
2B	Good communication	13%
3B	Observable features	11%
4B	Positive relationships	13%
5B	Competent teachers	11%

Questions Loading on More than One B Series Factor

A number of items on which schools were rated, showed considerable factor purity, loading significantly on single factors. Of the twenty-nine dimensions, seventeen

Table 26

Questions Loading on More than One B Series Factor

		Factors				
		1B	2B	3B	4B	5B
Variable		**Loadings**				
1	Adequate accommodation (Not overcrowded)		.503	.495		
7	Head teacher and staff easily approachable		.615			.464
11	Teachers respond sympathetically to pupils				.432	.651
12	Good behaviour of pupils			.479	.366	.416
14	Clean toilets with no graffiti			.644	.387	.324
21	Good organisation	.411	.459	.406		
22	Good communication with pupils		.361		.302	.536
23	Well motivated pupils	.685			.332	
30	Happy children				.581	.394
31	Good facilities		.348	.604		
32	Positive staff-pupil relationships		.319		.522	.533
37	Assessment based on tests	.632	.340			
38	Highly qualified teachers	.418				.613
41	Information about the curriculum	.375	.653			
42	Sensitive to parents' views		.530			.445
45	Good school-community relations	.358	.334		.474	
50	Pupils in uniform	.459			.486	

have appreciable loadings on more than one of the five factors, as shown in Table 26. It is probable that these questions are psychologically meaningful but complex, in the sense that they have consequence when impressions are formed on the bases of two or three criteria. For instance, 'Adequate accommodation (Not overcrowded)' had loadings on Factors 2B (Good communication) and 3B (Observable features); and 'Teachers respond sympathetically to pupils' anxieties' was found to load on Factors 4B (Positive relationships) and 5B (Competent teachers). Among other questions loading on more than one factor, are 'Head teacher and staff easily approachable' and 'Positive staff-pupil relationships'. This suggests that certain features, having relevance when impressions are formed on the basis of different

criteria, may have particular significance in the impression formation process. Nine of these questions load on Factor 5B (Competent teachers), nine load on 4B (Positive relationships), and ten load on 2B (Good communication). These may be particularly important in judgement processes, although questions occurring in 1B and 3B which concern academic and visible features, also load on other factors. Items which occurred in more than one factor, with loadings above .58, concerned pupil motivation, assessment, approachable teachers, curriculum information, clean toilets, facilities, children's happiness, sympathetic response to pupils and teacher qualifications. This overlap of items among factors, may signify that all of the issues covered, are significant in the process of quality evaluation.

Analysis of Data Provided by Secondary Parents

Another factor analytic study was done, using Exploratory Survey data only from the seventy-one secondary parents' ratings of schools on dimensions. There are two reasons for this: It is useful to ascertain if identified factors are stable in a subset of the data. More importantly, a purpose of the factor analytic study is to relate the various quality dimensions to overall satisfaction.

This subset allows prediction of satisfaction among secondary school parents. However the limitations of using a smaller sample have to be acknowledged. Several items in the questionnaire which did not load significantly in the factor analysis of data provided by primary and secondary parents and teachers were removed. Data were analysed by means of principal components, Varimax normalised. The first three significant factors were used to summarise the inventory. Statistical multiple regression provided correlations between an overall satisfaction item in the questionnaire and each factor, and percentage variance was explained.

Factor 1C

Items with the most significant loadings on Factor 1C are listed in Table 27.

Among those central to the academic issue are 'Good academic curriculum', 'Special provision for the more academic pupils' and 'Good academic reputation'. 'Homework several times each week' and provision for academic pupils, had the most significant loadings, at .803 and .833 respectively. Other items such as 'Highly qualified teachers' and 'Pupils in uniform', may also be related to the central construct.

Table 27

High Loadings on Factor 1C

Variable		Loading
27	Good academic curriculum	.627
38	Highly qualified teachers	.693
39	Homework several times each week	.803
40	Special provision for the more academic pupils	.833
43	Flourishing school clubs	.626
46	Good academic reputation	.548
48	Modern equipment	.319
50	Pupils in uniform	.581
53	Provides the right peer group for children	.656

Factor 2C

Questions in Table 28, relate to school discipline. Items with highest loadings were 'Good behaviour of pupils', 'No class disruption' and 'Good discipline'. Other questions which concern cleanliness and building repair, are probably outcomes related to pupil behaviour. Matters such as approachable staff, school clubs,

Table 28

High Loadings on Factor 2C

Variable		Loading
7	Head teacher and staff easily approachable	.413
8	Good discipline	.743
9	No class disruption	.787
12	Good behaviour of pupils	.828
13	General cleanliness of building	.707
15	Building in good repair	.718
43	Flourishing school clubs	.391
46	Good academic reputation	.345
50	Pupils in uniform	.390

academic reputation and evidence of uniform, may be associated with good discipline. Therefore the discipline issue is fairly complex, demonstrated by the range of items which occurred.

Factor 3C

Items with significant loadings on this factor are shown in Table 29. These concern availability and communication of information, about progress made by children; the academic reputation of schools; and the nature of curricula. Reports and approachable teachers facilitate the availability of information. This confirms that secondary parents as a subgroup of the entire sample, also placing importance on information provided, may adopt this as a means of school evaluation.

Table 29
High Loadings on Factor 3C

Variable		Loading
5	Information about progress easy for parents to obtain	.897
6	Provision of regular reports about progress	.905
7	Head teacher and staff easily approachable	.766
27	Good academic curriculum	.382
46	Good academic reputation	.362

Multiple Regression Correlations

Table 30 shows multiple regression correlations between overall satisfaction, and Factors 1C, 2C and 3C, and the percentage variance explained for each factor.

Table 30
Regression Summary for Dependent Variable: Satisfaction (C Series)

Factor	Criterion	Corr.	Var.
1C	Academic	.601	36%
2C	Discipline	.306	9%
3C	Communication	.408	16%

Multiple regression correlations between overall satisfaction and Factors 1C, 2C and 3C, are .601, .306 and .408 respectively. The academic issue is clearly the strongest predictor of satisfaction.

Variance explained for each factor is 36%, 9% and 16% respectively. The academic issue accounts for slightly over a third of the variance, while the others make an independent contribution. The total variance explained by the 'Academic', 'Discipline' and 'Communication' factors, is 61%, leaving 39% unexplained.

Questions Loading on More than One C Series Factor

Items on which schools were rated by secondary parents mainly showed considerable factor purity, loading on a single factor.

Of the eighteen items five have significant loadings on more than one of the three factors, as shown in Table 31. This indicates that these questions have consequence when impressions are formed on the basis of differing criteria. For example, 'Good academic reputation' had loadings on Factors 1C (Academic), 2C (Discipline) and 3C (Communication). 'Head teacher and staff easily approachable' was found to load on 2C (Discipline) and 3C (Communication).

It is possible that questions with significant loadings on more than one factor are particularly significant in the judgement process.

Table 31

Questions Loading on More than One C Series Factor

	Factors		
	1C	2C	3C
Variable	**Loadings**		
7 Head teacher and staff easily approachable		.413	.766
27 Good academic curriculum	.627		.382
43 Flourishing school clubs	.626	.391	
46 Good academic reputation	.548	.345	.362
50 Pupils in uniform	.581	.390	

Discussion

The Meaning of Factors

Factor analysis was used in the Plowden study (see Kline, 1994), to answer questions about determinants of academic success, and in this case the technique was applied to identify school judgement criteria. The literature acknowledges that the concept of service quality is not absolute, and fitness for purpose affects evaluation. If different groups do not share one view of the aims of education, the concept of fitness for purpose is likely to vary; and this suggests that there is likely to be more than a single quality education judgement strategy. The analysis produced five factors, providing evidence of several determinants. In summary, the first of these concerns academic achievement, which is monitored by management and published, and stimulates market forces. The second factor concerns school information and communication as a salient issue, and Croxford (1999b) identifies parents as an audience for statistical data. The third factor concerning observable features, is similar to the tangibles dimension in the SERVQUAL scale, which may be applied to many services. Mittal and Lassar (1996) view personalisation, which requires interaction, as a determinant of service quality, and the fourth factor relates to positive relationships. Finally, the fifth factor concerns professional competence and related effects. This may be viewed in relation to the proposal by Boulding et al. (1993), that expectations about what a service provider will and should furnish, in addition to actual experience, affects perceptions of service quality dimensions.

The intangibility, heterogeneity and inseparability of production and consumption which Parasuraman et al. (1988) associates with services generally, and makes quality an abstract concept, are apparent also with respect to education, and evidenced by the nature of the factors. Boulding et al. (1993) recognise that service quality is multidimensional, and factor analysis of obtained data confirms this. The authors view the reliability dimension as the most important driver of quality perceptions. This possibly corresponds with academic achievement in the educational context, while it only accounts for 16% of the B series total variance. Issues raised by the five factors, which account for 64% of the variance, are recognisable in previous research findings reported in the literature, albeit in other contexts. This tends to suggest that there are universal judgement criteria, and that a general measurement scale as proposed by Parasuraman may be applied to a wide range of services.

Most items loading significantly on more than one factor occur in Factor 5B, 'Competent teachers'; perhaps suggesting that these items are relevant for judgement on the basis of differing criteria, and that aspects of professional competence have general significance.

Comparison Between Analyses of Total Data Set and Subset

Factor analysis of data obtained from seventy-one secondary parents produced three factors, which in total accounted for 61% of the variance. The most important of these relates to the academic issue, and accounts for 36% of total variance. Another factor concerning communication and information, includes three questions which also occur in the communication factor 2B. There was an additional factor which concerned discipline, but this accounted for only 9% of the variance. In each case there was a significant correlation with satisfaction. Over 50% of the variance was accounted for by the 'Academic' and 'Communication' factors, and these also occurred in the analysis of data provided by the three groups of participants. Therefore there is an observable similarity in the factor structure of both samples. Identified factors are stable in a subset of the data, which indicates that there are several clear criteria in the process of judgement.

Prediction of Satisfaction

Identification of factors which imply school judgement criteria, does not address the central question of how quality assessment occurs. Therefore it is also necessary to investigate if these are related to satisfaction, which is closer to the quality construct. It was reasoned that information about both judgement criteria and their relationship to overall satisfaction, would be helpful for understanding quality judgement. Correlations between satisfaction and the three factors derived from the secondary parents' data, were significant. A correlation of .601 was obtained with respect to the 'Academic' factor and this was the strongest predictor. With a correlation of .408, 'Communication' was the next most significant predictor of satisfaction; and 'Discipline' was third, with a correlation of .306. As the factor structure seems stable and there is evidence that judgement criteria are related to satisfaction, these outcomes may be important for development of a theory of how education quality is assessed. The implications are sufficiently significant to warrant further investigation using other populations, to confirm the findings.

When considered a function of quality performance, the satisfaction construct might be useful for development of a gap model of quality expectations:

Quality dimensions may be identified as the terms D_1, D_2, D_3, D_4 etc.

Computation for each dimension should proceed thus:

$$(P - E)_{D1}$$
$$(P - E)_{D2}$$
$$(P - E)_{D3}$$
$$(P - E)_{D4}$$
etc.

The formula for the above is:

$$\sum_{D_1}^{D_n} (P - E)$$

Each dimension is weighted differently. For each individual:

$$S = W_1 (P - E)_{D1} + W_2 (P - E)_{D2} \text{ etc.}$$

It is necessary however to acknowledge various problems associated with the gap model conceptualisation. For example, in a cross-sectional study, there may be exaggerated judgement of performance, and post hoc rationalisation and dissonance, although effects are unlikely to be large. Evaluation of quality is contaminated by expectancy judgement, as these are not separately measurable. When performance and expectancies are both high, or there is good performance and limited expectancies, the gap model becomes meaningless. For some quality dimensions, rather than a continuous function there may be a threshold, beyond which there are no additional benefits. In the occupational satisfaction literature, this effect is apparent in relation to hygiene factors. Finally, weightings of academic and personal dimensions may differ.

Summary

A survey was conducted to investigate any typology in dimensions, by which school impressions were formed. Parents were asked to indicate the extent to which information sources were used, when judgements were formed about secondary

schools, and the perceived accuracy of these sources. Parents and teachers were asked to rate their schools on significant features, and to specify the most important items.

Information sources which had high mean values for use and perceived accuracy were 'Meetings', 'What your child says', 'School handbook' and 'Teachers (secondary)'. Factor analysis of data shows that secondary parents are interested in official and informal sources of information.

Questions on which schools had high mean ratings concerned communication and the academic function. Ratings were weaker on discipline and associated matters. There is evidence of judgement discrimination, based on knowledge and opinion on many issues.

A main focus of the study is to explore dimensions which underlie judgement of quality in education. Analyses of data provides evidence of various criteria taken into account in the school evaluation process. Judgement criteria indicated are 'Academic achievement', 'Good communication', 'Observable features', 'Positive relationships' and 'Competent teachers'. The academic issue is the strongest predictor of satisfaction and it accounts for a significant proportion of the variance, while others make an independent contribution.

Although a number of items on which schools were rated, showed factor purity by loading significantly on single factors, several had appreciable loadings on more than one factor. It is probable that such questions are psychologically meaningful but complex, in the sense that they have consequence when impressions are based on two or three criteria. Features which have relevance when impressions are formed on the basis of different criteria, may have particular significance in the impression formation process.

The concept of service quality is not absolute and fitness for purpose affects evaluation. If different groups do not share one view of the aims of education, it is likely that there is more than a single education judgement strategy.

The factor structure covers issues which are recognisable in other research findings, suggesting the existence of universal judgement criteria. This indicates that a general measurement scale as proposed by Parasuraman, is tenable.

Information about judgement criteria and their relationship to satisfaction, is helpful as an approach to understanding quality judgement. The factor structure seems stable, and implications are sufficiently significant to warrant further investigation to confirm the findings.

9 Survey of School Perceptions

Introduction

Analysis of the Exploratory Survey data provides evidence of the existence of several school judgement criteria, which relate to academic achievement, communication and information, visible features, relationships, professional competence, and discipline. Factor analysis of data provided by secondary parents produced three factors, which accounted for about 60% of the variance and each had a significant correlation with satisfaction. Several items occurred in more than one factor, which indicated some overlap between the various constructs. These initial findings are indicative of criteria on which quality judgements are based. However there are shortcomings which have to be addressed: For example, such findings require validation on different samples. There is a need to expand the list of questions, to cover all issues. In order to investigate the nature of the quality judgement process, it is necessary to identify and confirm the predictors of satisfaction, by statistical means.

For these purposes there was a short pilot study, based on an extended inventory of questions; and this was followed by a major survey, with data provided by 189 participants.

Pilot Survey

Questionnaire

An instrument was developed to explore the significance of a wide range of educational issues, in the context of schools. Participants were invited to rate a known secondary school, on the fifty-three dimensions from the Exploratory Survey, and an additional forty-six, in terms of how true each was of the school. In addition there is an overall satisfaction question, and respondents are asked to indicate how happy they would be to send their child to the school.

As with the Exploratory Survey, there are difficulties in relation to devising negative items; although it is acknowledged that a balance of positive and negative questions are useful, to control for response bias.

All ratings were on a five point scale, ranging according to the item, from 'Not at all true' to 'Very true of school', 'Very dissatisfied' to 'Very satisfied', or 'Very unhappy' to 'Very happy'. Subjects were also given the opportunity to provide an additional school feature, and a brief description of the school rated. The questionnaire is reproduced in Appendix D.

Participants

Most questionnaires were distributed to and completed individually by Glasgow University summer school students. Therefore there was a slight middle-class bias and this was not a random sample. Although dissimilar to the parent and teacher samples obtained previously, in the sense that participants tended to be younger, single people with more recent personal experience of secondary education, the sample was also considered useful in relation to the investigation of school judgements.

There was a very high return rate, estimated at above 95%, as questionnaires were completed when distributed at the university and then collected. Data were obtained from fifty-seven questionnaires.

Results

Description of Schools Rated

A general profile of schools judged by participants, was obtained from their secondary school descriptions. Although not all were described, a significant proportion of comments indicated that they were typically in the public sector; situated in urban or town environments; and that they were medium or large in size. There were few additional school features suggested, and these covered issues such as pupils made to feel like children; race, religion and gender; help for failing pupils; and self-development.

School Ratings on Dimensions

Descriptive analysis of data focused on identification of attributes which had greatest mean ratings, and were most true of schools, relative to other items. Features most characteristic of schools with mean ratings, are provided in Table 32.

The survey shows that schools are rated highly on features such as providing homework, formal testing, academic achievement, and career guidance, which suggests an academic orientation and preparation for post-school activity. High

Table 32
High Ratings of School Attributes

Variable	Mean	No.	Std. Dev.
37 Assessment based on tests and examinations	3.98	56	0.80
39 Homework several times each week	4.11	56	1.02
42 Sensitive to parents' views	3.21	56	0.97
54 Career guidance available	3.93	56	0.94
55 Helps with career planning	3.82	56	0.95
63 A high percentage of pupils achieve Standard Gr./G.C.S.E.	3.88	57	0.98
74 Homework regularly marked and returned	3.95	56	0.82
80 Tries to improve academic standards	3.91	55	0.95
82 Encourages pupils to identify with school	3.87	55	0.93

ratings of schools on questions 42, 54, 55 and 82, concerning sensitivity to parents' views, assisting with career planning, and encouraging pupils to identify with the school, also indicates that participants are positive about aspects of communication.

Questions on which schools are rated least strongly, are shown in Table 33. In contrast with those rated highly, this group concerns discipline related issues, such as class disruption, state of toilets and bullying. Low ratings of schools on streaming and separate education in some subjects for boys and girls, suggests that there is not much focus on providing classes which specifically cater for ability groups, and genders.

Table 33

Low Ratings of School Attributes

Variable	Mean	No.	Std. Dev.
9 No class disruption	2.55	56	1.13
14 Clean toilets with no graffiti	2.47	57	1.24
28 No bullying	2.52	56	1.13
35 Parental involvement in extra-curricular activities	2.61	56	1.06
73 Pupils are streamed at a later stage	2.68	56	0.94
76 In some subjects, separate education for boys and girls	2.45	56	1.40
89 Discipline is not a core concern	2.55	55	1.18
90 Casual staff dress	2.42	55	1.12
93 Tends to provide for better off pupils	2.34	56	1.18

Discussion of Pilot Survey

Secondary schools rated on the dimensions were typically in the public sector, medium or large, and situated in towns. Therefore descriptive analysis findings should be interpreted as reflecting views on the performance of this particular school category. As this type of profile is typical of most secondary schools, conclusions are likely to be generalisable.

The inventory was extended, and although respondents had the opportunity to add additional school dimensions, few were obtained. It was therefore assumed that most significant issues had been included.

As in the Exploratory Survey, on some dimensions mean school ratings are high, but on others ratings are lower. School ratings are relatively high on academic and career oriented issues, and communication, but lower on discipline and catering specifically for differing abilities through streaming, and boys and girls. Mean ratings indicate that participants like academic aspects, and this corresponds with a similar Exploratory Survey finding. Respondents looked less favourably on school discipline and addressing the particular needs of differing groups.

The descriptive analysis indicated that participants had and were able to express views clearly, about these questions.

Third Survey of School Perceptions

There is a question about the stability of factors with new samples. Some questions were highly intercorrelated, or they did not relate to any particular factor. Therefore a subset of questions was used to improve the factor structure.

To confirm the factor structure, there was analysis of schools' ratings on thirty-seven questions which did not overlap. In addition there was analysis of ratings on 102 dimensions.

Questionnaire

The questionnaire used in the 'Pilot Survey', with additional items, was adopted for gathering data. This included the same ninety-nine dimensions, plus a satisfaction question and an invitation for participants to specify another dimension. In addition there are questions on location; the extent to which schools do what is claimed; opportunity for children to have good peer groups; importance of convenient location of schools; the effect of the head teacher in determining school success; and how happy participants would be to send their children to schools rated. Participants were asked to give a brief description of schools rated on each dimension. Ratings were on a five point scale.

As in the 'Pilot Survey' questionnaire and for the same reason, negative items were not included, although it is accepted that a balance of positive and negative items are useful. The questionnaire is reproduced in Appendix E.

Participants

As it was not always easy to obtain permission to send questionnaires to parents, university undergraduates were asked to speak to relatives and friends from a range of backgrounds about the survey, and by this means an opportunistic but less than ideal sample, was obtained. People whose children attended private schools were not included. Participants were given questionnaires, which were completed at their homes or workplaces, usually on an individual basis. Data gathered in accordance with the British Psychological Society ethical guidelines on research, was obtained from 189 of the returned questionnaires.

Analysis

Thirty-seven significant dimensions were selected, and data derived from school ratings on these was factor analysed by means of principal components, Varimax normalised. The first six significant factors were used to summarise the inventory. Statistical multiple regression provided correlations between the safe environment, discipline not a concern and overall satisfaction questionnaire items, and each factor. Percentage variance is explained.

Factor 1D

Questions which occurred in Factor 1D concerned relationships, communication, approachable staff and sympathetic response. Items with highest loadings were

Table 34
High Loadings on Factor 1D

Variable		Loading
3	Capable teachers	.718
5	Information about progress easy for parents to obtain	.324
7	Head teacher and staff easily approachable	.765
11	Teachers respond sympathetically to pupils anxieties	.638
19	Adequate staffing	.616
21	Good organisation	.662
22	Good communications with pupils	.730
28	No bullying	.352
30	Happy children	.421
32	Positive staff-pupil relationships	.714
33	Harmonious relationships between pupils	.361
38	Highly qualified teachers	.532
42	Sensitive to parents' views	.337
45	Good relationship between the school and the community	.477
56	Provides an individualised atmosphere	.529
59	Avoids pupil anonymity	.578
68	Teaching generally well organised	.508
97	Assists ability to relate to others	.574

'Capable teachers', 'Head teacher and staff easily approachable' and 'Good communication with pupils'. The central issue appears to be quality of communication, and related items include absence of bullying, children who are happy and good school-community relations.

Factor 2D

Questions with appreciable loadings on Factor 2D are related to the academic function. Items with highest loadings are 'Good academic achievement by pupils', 'Good academic reputation', 'A high percentage of pupils achieve Standard Grades (General/Credit) or G.C.S.E', and 'A high percentage of pupils achieve Highers or A Levels'. Assessment, academic achievement and reputation, and well qualified teachers, are all directly associated with the academic issue; and good pupil behaviour, positive relationships, adequate supervision and uniform may be supportive of achievement. Although certain parents may be concerned primarily with school judgement in these terms, there are possibly many other school features which are viewed as facilitative of academic achievement, which is the central issue.

Table 35
High Loadings on Factor 2D

Variable		Loading
8	Good discipline	.302
12	Good behaviour of pupils	.513
19	Adequate staffing	.306
29	Adequate supervision outwith the classroom	.401
33	Harmonious relationships between pupils	.335
36	Good academic achievement by pupils	.826
37	Assessment based on tests and examinations	.529
38	Highly qualified teachers	.439
46	Good academic reputation	.750
50	Pupils in uniform	.630
63	A high percentage of pupils achieve Standard Grades	.830
64	A high percentage of pupils achieve Highers	.845
68	Teaching generally well organised	.393

Factor 3D

Several items with appreciable loadings on Factor 3D, relate to visible aspects, including 'General cleanliness of building', 'Building in good repair' and 'Good facilities'. Tangible and visible features is a relatively straightforward criterion, however what is observed may be interpreted as indicative of school performance generally, or in specific ways.

Table 36
High Loadings on Factor 3D

Variable		Loading
13	General cleanliness of building	.821
14	Clean toilets with no graffiti	.780
15	Building in good repair	.787
21	Good organisation	.397
31	Good Facilities	.646

Factor 4D

Items loading on this factor, relate to reports and availability of information about children's progress and the curriculum. Questions with loadings above 0.7 were 'Information about progress easy for parents to obtain' and 'Provision of regular reports about progress'. Sensitivity to the views of parents, may qualify the type of information required. It is possible that school judgements are made on the basis of the nature of information and its availability.

Table 37
High Loadings on Factor 4D

Variable		Loading
5	Information about progress easy for parents to obtain	.794
6	Provision of regular reports about progress	.723
41	Information about the curriculum easily obtainable	.677
42	Sensitive to parents' views	.670

Factor 5D

Items with highest loadings on this factor are 'No bullying', 'Harmonious relationships between pupils' and 'Stops pupil cliques dominating'. Other issues relate to behaviour, supervision and children's happiness. Therefore the central construct concerns behaviour and relationships, which some people take into account in the judgement process.

Table 38
High Loadings on Factor 5D

Variable		Loading
12	Good behaviour of pupils	.310
28	No bullying	.604
29	Adequate supervision outwith the classroom	.448
30	Happy children	.553
33	Harmonious relationships between pupils	.582
37	Assessment based on tests and examinations	-.355
79	Stops pupil cliques dominating	.710
97	Assists ability to relate to others	.374

Factor 6D

The questions which occur in Factor 6D, generally concern and affect the quality of education provided, and cover a range of issues. Items which had highest loadings were 'Adequate accommodation (Not overcrowded)' and 'Good size'. Other matters

Table 39
High Loadings on Factor 6D

Variable		Loading
1	Adequate accommodation (not overcrowded)	.728
2	Good size	.782
40	Special provision for the more academic pupils	.452
41	Information about the curriculum easily obtainable	.308

which arose included provision for academic pupils and availability of information about the curriculum. The criterion is based on a number of differing features, which possibly contribute to overall quality.

Factor analysis of Third Survey data provides evidence of six factors shown in Table 40, and labelled 'Relationships, 'Academic', 'Visible features', 'Information', 'Discipline' and 'Accommodation '.

Table 40
School Evaluation Criteria

Factor	Criterion
1D	Relationships
2D	Academic
3D	Visible features
4D	Information
5D	Discipline
6D	Accommodation

Questions Loading on More than One D Series Factor and Discussion

Most items on which schools were rated showed factor purity, loading on single factors. Of the thirty-seven questions, fourteen have appreciable loadings on more than one of the six factors and these are shown in Table 41. For example 'Adequate supervision outwith the classroom' has loadings on Factors 2D and 5D, suggesting that this issue is significant, in relation to two criteria. 'Good behaviour of pupils' loads on Factors 2D (Academic) and 5D (Discipline), and this too appears to be an important consideration in the process of evaluation. Ten of the questions loading on more than one factor occur in Factor 1D, which indicates that while these issues have general significance, the 'Relationships' factor on which they cluster may have a degree of central importance.

The first five factors in the D series concern communication, academic, information, relationships and observable features. There is a noticeable similarity with the B and C series factors, which are derived from other data sets. The B, C and D series share factors which relate to academic issues; the B and C series share communication factors; the B

Table 41

Questions Loading on Multiple D Series Factors

	Factors					
	1D	2D	3D	4D	5D	6D
Variable	Loadings					
Information about progress easy to obtain	.324			.794		
Good behaviour of pupils		.513			.310	
Adequate staffing	.616	.306				
Good organisation	.662		.397			
No bullying	.352				.604	
Adequate supervision outwith the classroom		.401			.448	
Happy children	.421				.553	
Harmonious relationships between pupils	.361	.335			.582	
Assessment based on tests and examinations		.529			-.355	
Highly qualified teachers	.532	.439				
Information about curriculum easily obtainable				.677		.308
Sensitive to parents' views	.337			.670		
Teaching generally well organised	.508	.393				
Assists ability to relate to others	.534				.374	

and D series share factors concerning relationships, information and visible features; and the C and D series share discipline factors. Despite differing surveys, populations and size of data sets, analyses show tendencies for similar factor structures to occur. This implies that there are identifiable criteria for school judgement, and these are related to quality assessment.

While many questions show factor purity by loading only on single factors, a number have loadings on more than one factor, which suggests that they are psychologically meaningful, but complex. These items have consequence when judgements are made on the basis of differing judgement criteria, and are therefore significant in the process of evaluation. In the various series, a number of questions were found to have loadings on particular factors. For example, in the B and D series of factors which were derived from the Exploratory Survey and Third Survey data, a significant proportion of questions had loadings on the academic and relationships factors. Such individual factors sharing several questions with others, may have a degree of central importance.

McBain (1996b) reported that school inspections showed variable standards, however the emphasis was on issues related to curricula, achievement and teaching. While these are important management concerns, school judgement on this basis is too narrowly defined as it does not account for other significant issues. Ford et al. (1993) state that the SERVQUAL model can be applied to a university setting, and it is proposed that a similar multidimensional approach, accounting for the various factors which are implicated in the school judgement process, would be more appropriate.

Prediction of Safe Environment, Satisfaction and Discipline Not a Concern

Ratings were used for measurement of the role of factors explaining satisfaction. Several questions occurring in more than one factor, were shared among 'Relationships', 'Academic' and other factors, which accounted for significant percentages of variance in the analyses of data. This indicates that the relationship issue among others is important, and may be implicated in the process of quality judgement. Therefore it is useful to investigate by means of multiple regression, the perception of quality, in terms of the degree to which each Third Survey factor predicts safe environment, discipline not a concern and satisfaction.

Multiple regression provided correlations between satisfaction, safe environment and discipline not a concern ratings as dependent variables, and factors and individual questions as predictor variables.

Regression Summary

Table 42

Regression Summary for Three Dependent Variables (D Series)

	Correlation			
	Environment	Discipline	Satisfaction	
Factor				**Var.**
Relationships	.253	.114	.521	17%
Academic	.256	-.302	.352	13%
Visible Features	.329	-.011	.170	9%
Information	.066	.125	.077	8%
Discipline	.269	.023	.295	7%
Accommodation	.011	-.077	.093	5%

Table 42 shows multiple regression correlations between safe environment, discipline not a core concern and satisfaction, and all factors. The percentage variance explained for each factor is also given. Correlations between environment, Factors 1D, 2D, 3D, 4D, 5D and 6D, are .253, .256, .329, .066, .269 and .011 respectively. Correlations between discipline and these factors, are .114, -.302, -.011, .125, .023 and -.077 respectively. Correlations between satisfaction and the six factors are .521, .352, .170, .077, .259 and .093 respectively. Variance explained for each factor is 17%, 13%, 9%, 8% 7% and 5% respectively. The total variance is 59%, leaving 41% unexplained.

Safe Environment as Dependent Variable

Table 43 shows multiple regression results with 'Provides a safe and secure environment' as the dependent variable, and factor, 'Deals promptly with disciplinary problems' and 'Discipline is not a core concern' values as predictor variables.

Multiple R^2 = .555, F(8,169) = 26.30, p < .001. N = 178.

Table 43

Regression Summary for Dependent Variable: Safe Environment (D Series)

	Beta	St. Err. of Beta	B	St Err. of B	t(169)	p-level
Intercpt			2.833961	.284439	9.963346	.000000
QUESTION 87	.263583	.065251	.241944	.059895	4.039493	.000081
QUESTION 89	-.032050	.060485	-.029416	.055515	-.529878	.596892
FACTOR 1D	.252552	.055641	.262342	.057798	4.538982	.000011
FACTOR 2D	.255573	.058557	.265480	.060826	4.364545	.000022
FACTOR 3D	.328798	.052726	.341543	.054770	6.235998	.000000
FACTOR 4D	.065826	.052256	.068378	.054282	1.259680	.209522
FACTOR 5D	.268901	.052701	.279325	.054744	5.102365	.000001
FACTOR 6D	.010508	.051619	.010916	.053620	.203574	.838931

Question 87 (Deals promptly with disciplinary problems) and all factors (Relationships, Academic, Visible features, Discipline) with the exception of 4D (Information) and 6D (Accommodation), are significant predictors of 'Provides a safe and secure environment'.

Discipline Not a Core Concern as Dependent Variable

Table 44 shows multiple regression results with 'Discipline is not a core concern' as the dependent variable, and factor and 'Deals promptly with disciplinary problems' values as predictor variables.

Multiple $R^2 = .279$, $F(7,170) = 9.42$, $p < .001$. N = 178.

Significant prediction of 'Discipline is not a core concern', is indicated by values on question 87 (Deals promptly with disciplinary problems); and factor 2D (Academic).

Table 44
Regression Summary for Dependent Variable:
Discipline Not a Concern (D Series)

	Beta	St. Err. of Beta	B	St. Err. of B	t(170)	p-level
Intercpt			3.425807	.292209	11.72382	.000000
DISC. PROB.	-.339742	.078530	-.339772	.078537	-4.32627	.000026
FACTOR 1D	.114135	.070008	.129174	.079233	1.63030	.104889
FACTOR 2D	-.301603	.070556	-.341344	.079853	-4.27467	.000032
FACTOR 3D	-.011283	.066852	-.012770	.075661	-.16877	.866174
FACTOR 4D	.124961	.065565	.141427	.074204	1.90590	.058350
FACTOR 5D	.023136	.066803	.026185	.075605	.34634	.729519
FACTOR 6D	-.077118	.065186	-.087280	.073775	-1.18305	.238441

Satisfaction as Dependent Variable

Table 45 shows multiple regression results with satisfaction as the dependent variable, and factor, 'Pupils are streamed according to ability at an early stage', 'Provides a safe and secure environment', and 'Deals promptly with disciplinary problems' values as predictor variables.

Multiple $R^2 = .546$, $F(9,159) = 21.27$, $p < .001$. N = 169.

Factors 1D, 2D, 3D and 5D are significant predictors. There is some missing data, therefore deals with disciplinary problems etc, do not emerge as predictor variables independently of major factors. In terms of individual correlations, satisfaction correlates with safe environment and discipline. However question 84 (Provides a

Table 45

Regression Summary for Dependent Variable: Satisfaction (D Series)

	Beta	St.Err. of Beta	B	St. Err. of Beta	t(159)	p-level
Intercpt			3.266246	.435440	7.50102	.000000
STREAMING	-.005860	.057470	-.006515	.063888	-.10197	.918911
SAFE ENV.	.110613	.080915	.141224	.103308	1.36703	.173546
DISC. PROB.	-.098785	.071103	-.115534	.083159	-1.38932	.166679
FACTOR 1D	.520552	.060857	.681843	.079713	8.55370	.000000
FACTOR 2D	.352288	.061969	.469269	.082547	5.68490	.000000
FACTOR 3D	.169574	.062473	.226215	.083341	2.71434	.007374
FACTOR 4D	.077392	.054363	.102152	.071756	1.42361	.156519
FACTOR 5D	.295165	.058989	.403212	.080582	5.00376	.000001
FACTOR 6D	.093437	.054046	.127969	.074020	1.72884	.085778

safe and secure environment) and question 87 (Deals promptly with disciplinary problems) correlate with Factors 1D (Relationships), 2D (Academic), 3D (Visible features) and 5D (Discipline). These concerns are seen as related to multiple dimensions of the school. Factors 1D, 2D and 3D predict deals with disciplinary problems, and deals with disciplinary problems and factors predict safe environment.

Values on Factors 1D (Relationships), 2D (Academic), 3D (Visible features) and 5D (Discipline) show significant prediction of satisfaction. The best predictor of satisfaction is Factor 1D (Relationships).

Analysis of Ratings on 102 Questions

There was further exploration of the factor structure, through analysis of school ratings on 102 dimensions. Data derived was factor analysed by means of principal components, Varimax normalised. The first six significant factors were used to summarise the inventory.

Factor 1E

Forty-two questionnaire items had significant loadings on Factor 1E. Those with highest loadings tend to concern aspects of relationships. For example, questions 32 (Positive staff-pupil relationships), 22 (Good communication with pupils), and in this context 26 (Good teaching practices), relate to the relationships/communication

Table 46

Loadings >.5 on Factor 1E

Variable		Loading
3	Capable teachers	.606
5	Information about progress easy for parents to obtain	.570
6	Provision of regular reports about progress	.544
7	Head teacher and staff easily approachable	.666
9	No class disruption	.536
10	Children do not feel like failures	.612
11	Teachers respond sympathetically to pupils' anxieties	.671
18	Effective head teacher	.608
19	Adequate staffing	.511
21	Good organisation	.609
22	Good communication with pupils	.719
25	Pupils' work prominently displayed	.509
26	Good teaching practices	.724
28	No bullying	.507
30	Happy children	.620
32	Positive staff-pupil relationships	.739
33	Harmonious relationships between pupils	.625
35	Parental involvement in extra-curricular activities	.562
38	Highly qualified teachers	.598
41	Information for parents about curriculum easily obtainable	.653
42	Sensitive to parents' views	.655
45	Good relationship between the school and the community	.550
51	Effective parents'/parent-teacher association	.570

issue. Certain questions are central to the relationships issue, and others are related to it, or may be interpreted as supportive. Items with high loadings included 'Capable teachers', 'Head teacher and staff easily approachable', 'Children do not feel like failures', 'Teachers respond sympathetically to pupils' anxieties', 'Effective head teacher', 'Good organisation', 'Happy children', 'Harmonious relationships between pupils', 'Information for parents about the curriculum easily obtainable' and 'Sensitive to parents' views. Other items which concern the relationship issue include 'No bullying', 'Good relationship between the school and the community' and 'Provides the right peer group for children'.

Table 47

Significant Loadings <.5 on Factor 1E

Variable		Loading
4	Special provision for slow learners	.356
8	Good discipline	.441
12	Good behaviour of pupils	.491
13	General cleanliness of building	.307
14	Clean toilets with no graffiti	.393
24	Staff smartly dressed	.475
29	Adequate supervision outwith the classroom	.490
31	Good facilities	.389
34	Good atmosphere	.366
36	Good academic achievement by pupils	.478
37	Assessment based on tests and examinations	.377
39	Homework several times each week	.327
40	Special provision for the more academic pupils	.462
43	Has flourishing school clubs	.461
46	Good academic reputation	.430
47	Small classes	.302
49	Pupils smartly dressed	.356
53	Provides the right peer group for children	.476
69	Innovative teaching	.308

Factor 2E

Questions with highest loadings on Factor 2E are 'School responds to pupils as individuals', 'Develops children's self-confidence', 'Assists ability to relate to others', 'Provides comfortable environment for all', 'School helps with individual problems', 'Teaches social skills' and 'Helps pupils to relate to people from different backgrounds'. These relate to the development of social competence. Other items with appreciable loadings include 'Provides an individualised atmosphere', 'Avoids pupil anonymity', 'Innovative teaching', 'Stops pupil cliques dominating', 'Gets pupils to pull together for school interests', 'Provides a safe and secure environment', and 'School does what it says it does'.

Table 48

High Loadings on Factor 2E

Variable		Loading
54	Career guidance available	.414
55	Helps with career planning	.481
56	Provides an individualised atmosphere	.575
57	Good curriculum spread	.320
58	A range of subjects available	.301
59	Avoids pupil anonymity	.584
62	Offers a range of extra-curricular activities	.386
66	Staff includes many young and energetic teachers	.385
68	Teaching generally well organised	.443
69	Innovative teaching	.549
71	Staff regularly attend courses to upgrade teaching	.439
78	Provides comfortable environment for all	.688
79	Stops pupil cliques dominating	.510
80	Tries to improve academic standards	.323
81	Initiates policies to improve academic standards	.368
82	Encourages pupils to identify with school	.440
83	Gets pupils to pull together for school interests	.595
84	Provides a safe and secure environment	.545
86	Attracts pupils from a range of backgrounds	.435
87	Deals promptly with disciplinary problems	.467
88	Tolerant discipline regime	.483
92	Provides for pupils from less well-off backgrounds	.323
94	School responds to pupils as individuals	.760
95	School helps with individual problems	.698
96	Develops children's self-confidence	.747
97	Assists ability to relate to others	.767
98	Teaches social skills	.681
99	Helps pupils to relate to people from different backgrounds	.674
101	School does what it says it does	.560

Factor 3E

Items with most significant loadings on Factor 3E are 'A high percentage of pupils achieve Standard Grades (General/Credit) or G.C.S.E.', A high percentage of pupils achieve Highers or A Levels', 'Many pupils go on to college or university', and 'Tries to attract and keep academic pupils'. These items are central to the academic question. Other items with appreciable loadings include 'Good academic achievement by pupils', 'Good academic reputation' and 'Tends to provide for better off pupils'.

Table 49

High Loadings on Factor 3E

Variable		Loading
9	No class disruption	.332
12	Good behaviour of pupils	.358
20	Adequate funding	.331
36	Good academic achievement by pupils	.515
46	Good academic reputation	.519
49	Pupils smartly dressed	.453
50	Pupils in uniform	.440
63	A high percentage of pupils achieve Standard Grades/GCSE	.656
64	A high percentage of pupils achieve Highers or A Levels	.745
65	Many pupils go on to college or university	.737
68	Teaching generally well organised	.411
80	Tries to improve academic standards	.450
84	Provides a safe and secure environment	.454
85	Tries to attract and keep academic pupils	.670
86	Attracts pupils from a range of backgrounds with varying abilities	-.355
87	Deals promptly with disciplinary problems	.333
89	Discipline is not a core concern	-.306
90	Casual staff dress	-.392
91	Formal staff dress	.447
92	Provides for pupils from less well-off backgrounds	-.531
93	Tends to provide for better off pupils	.562
100	School located in a good area	.492

Factor 4E

Questions with high loadings on Factor 4E are 'Adequate accommodation', 'General cleanliness of building', 'Building in good repair', and 'Good facilities'. These relate to visible aspects of the school environment.

Table 50
High Loadings on Factor 4E

Variable		Loading
1	Adequate accommodation (not overcrowded)	.654
2	Good size	.574
12	Good behaviour of pupils	.329
13	General cleanliness of building	.630
14	Clean toilets with no graffiti	.503
15	Building in good repair	.666
19	Adequate staffing	.333
20	Adequate funding	.445
31	Good facilities	.622
47	Small classes	.424
48	Modern equipment	.575

Factor 5E

Table 51
High Loadings on Factor 5E

Variable		Loading
37	Assessment based on tests and examinations	.461
39	Homework several times each week	.426
44	Has competitive team sports	.549
46	Good academic reputation	.313
49	Pupils smartly dressed	.450
50	Pupils in uniform	.473
52	Is where children's friends are	.394
67	Staff includes high percentage of mature, experienced teachers	-.414
89	Discipline is not a core concern	-.327

Questions with most significant loadings on Factor 5E are 'Assessment based on tests and examinations', 'Has competitive team sports', 'Pupils smartly dressed', and 'Pupils in uniform'. These broadly relate to a general and positive school experience, as do other questions which concern homework and children's friends. Several items also load significantly on Factor1E and/or Factor 3E, which concern relationships and academic issues.

Factor 6E

Items with significant loadings on Factor 6E are 'Good curriculum spread', 'A range of subjects available', 'Specialist music facilities', and 'Support for learning in advanced computing'.

Table 52
High Loadings on Factor 6E

Variable		Loading
54	Career guidance available	.438
55	Helps with career planning	.414
57	Good curriculum spread	.482
58	A range of subjects available	.489
60	Specialist music facilities	.522
61	Support for learning in advanced computing	.534
62	Offers a range of extra-curricular activities	.396
66	Staff includes many young and energetic teachers	.378

Other items concern career issues, extracurricular activities and youthful teachers. The overall focus is on the nature of the curriculum and support.

Questions Loading on Multiple E Series Factors

Most items on which schools were rated showed factor purity, loading on single factors. Of the 102 questions, twenty-eight have appreciable loadings on more than one of the six factors and these are shown in Table 53. For example 'Good behaviour of pupils' has loadings on Factors 1E, 3E and 4E, suggesting that this issue is significant in relation to three criteria, confirming the D Series evidence that this is an important consideration in the process of evaluation. 'Good academic reputation' and

'Pupils smartly dressed' also had significant loadings on three factors. A significant number of the questions loading on more than one factor occur in Factors 1E, 2E and 3E which indicates that while these issues have general significance, the factors on which they cluster may have some central importance.

Table 53

Questions Loading on Multiple E Series Factors

	Factors					
	1E	2E	3E	4E	5E	6E
Variable	**Loadings**					
No Class disruption	.536		.332			
Good behaviour of pupils	.491		.358	.329		
General cleanliness of building	.307			.630		
Clean toilets with no graffiti	.393			.503		
Adequate staffing	.511			.333		
Adequate funding			.331	.445		
Good facilities	.389			.622		
Good academic achievement by pupils	.478		.515			
Assessment based on tests and examinations	.377				.461	
Homework several times each week	.327				.426	
Good academic reputation	.430		.519		.313	
Small classes	.302			.424		
Pupils smartly dressed	.356		.453		.450	
Pupils in uniform			.440		.473	
Career guidance available		.414				.438
Helps with career planning		.481				.414
Good curriculum spread		.320				.482
A range of subjects available		.301				.489
Offers a range of extra-curricular activities		.386				.396
Staff includes many young, energetic teachers		.385				.378
Teaching generally well organised		.443	.411			
Innovative teaching	.308	.549				
Tries to improve academic standards		.323	.450			
Provides a safe and secure environment		.545	.454			
Attracts pupils from a range of backgrounds		.435	-.355			
Deals promptly with disciplinary problems		.467	.333			
Discipline is not a core concern			-.306		-.327	
Provides for pupils from less well-off backgrounds		.323	-.531			

Discussion of E Series Factor Structure

Factors were identified in the analysis of Third Survey data. 102 questions were used, and information was provided by 189 participants. The factors covered issues such as peer and teacher-pupil relationships and communication; development of social competence; academic achievement; visible aspects of the school environment; the general educational experience; and the nature of the curriculum and support available. This broadly corresponds with the B, C and D Series factor structures emerging from other data sets, populations and differing surveys, and confirms the existence of particular identifiable criteria, which may be implicated in the school judgement process.

Although many questions had significant loadings on single factors, a number of them were found to load on more than one factor, a feature which was also evident in other analyses. These issues have consequence when differing judgement criteria are used, and indicate that there is a degree of overlap between factors. This also suggests that judgement is not based on a discrete single criterion, and it is therefore more likely to involve more than one issue.

Analyses of Combined Exploratory Survey and Third Survey Data

There is investigation of the degree to which a number of key questions in the surveys, predict discipline and social skills, which are issues associated with school atmosphere. Multiple regression summaries follow, using combined data from the Exploratory Survey and Third Survey.

Good Discipline as Dependent Variable

Table 54 shows multiple regression results with 'Good discipline' as a dependent variable, and question values as predictor variables.

Multiple $R^2 = .423$, $F(16,366) = 16.79$, $p < .001$. $N = 383$.

For key to questions, refer to questionnaire (Appendix E).

Significant prediction of 'Good discipline' is indicated by scores on questions 3 (Capable teachers); 7 (Head teacher and staff easily approachable); 10 (Children do

not feel like failures); 49 (Pupils smartly dressed); 61 (Support for learning in advanced computing); 74 (Homework regularly marked and returned); and 89 (Discipline is not a core concern).

Table 54

Regression Summary for Dependent Variable: Good discipline

	Beta	St. Err. of Beta	B	St. Err. of Beta	t(366)	p-level
Intercpt			1.582663	.592065	2.67312	.007851
QUESTION 3	.226513	.052374	.361807	.083657	4.32487	.000020
QUESTION 7	.179157	.050415	.222298	.062555	3.55364	.000430
QUESTION 10	.193066	.050402	.278013	.072578	3.83054	.000150
QUESTION 26	-.159078	.059585	-.261844	.098078	-2.66975	.007929
QUESTION 27	.117101	.042381	.078146	.028282	2.76308	.006015
QUESTION 39	.112484	.045064	.142765	.057195	2.49611	.012996
QUESTION 49	.256733	.047199	.279236	.051336	5.43940	.000000
QUESTION 60	-.128547	.047861	-.227026	.084526	-2.68586	.007564
QUESTION 61	-.168643	.048121	-.271036	.077337	-3.50460	.000514
QUESTION 71	.142111	.045856	.276568	.089243	3.09906	.002092
QUESTION 72	.150646	.044873	.245534	.073137	3.35715	.000870
QUESTION 73	.140753	.041986	.230271	.068688	3.35241	.000885
QUESTION 74	-.235922	.044216	-.481527	.090246	-5.33569	.000000
QUESTION 89	-.174423	.042552	-.313135	.076392	-4.09908	.000051
QUESTION 98	.140522	.053113	.243238	.091937	2.64571	.008504
QUESTION 99	-.162186	.049845	-.269165	.082724	-3.25379	.001245

Teaches Social Skills as Dependent Variable

Table 55 shows multiple regression results with 'Teaches social skills' as a dependent variable, and question values as predictor variables.

Multiple $R^2 = .668$, $F(15,357) = 49.192$, $p < .001$. N = 383.

For key to questions, refer to questionnaire (Appendix E).

Scores on questions 90 (Casual staff dress), 96 (Develops children's self-confidence), 97 (Assists ability to relate to others) and 99 (Helps pupils to relate to

people from different backgrounds), show significant prediction of 'Teaches social skills'.

Table 55

Regression Summary for Dependent Variable: Teaches Social Skills

	Beta	St. Err. of Beta	B	St. Err. of B	t(367)	p-level
Intercpt			-.650599	.333540	-1.95059	.051867
QUESTION 8	.137287	.033173	.079312	.019165	4.13849	.000043
QUESTION 12	.107377	.037705	.092316	.032416	2.84784	.004649
QUESTION 13	-.112934	.034661	-.088003	.027009	-3.25829	.001225
QUESTION 29	-.100197	.035165	-.075078	.026349	-2.84934	.004628
QUESTION 55	.124784	.035042	.125537	.035254	3.56098	.000418
QUESTION 60	.113349	.033459	.115650	.034138	3.38770	.000781
QUESTION 63	-.121280	.033990	-.143645	.040258	-3.56812	.000407
QUESTION 67	-.104560	.030972	-.032594	.009655	-3.37594	.000814
QUESTION 75	.085071	.034535	.087836	.035657	2.46335	.014223
QUESTION 88	-.127800	.032760	-.145041	.037180	-3.90104	.000114
QUESTION 90	.229236	.046999	.231431	.047449	4.87748	.000002
QUESTION 91	.162270	.046772	.160211	.046178	3.46940	.000584
QUESTION 96	.196195	.047600	.209019	.050711	4.12179	.000047
QUESTION 97	.456136	.052231	.508739	.058254	8.73312	.000000
QUESTION 99	.192716	.040100	.184772	.038447	4.80590	.000002

Discussion

The percentages of variance explained by the factors occurring in the B, C and D series, derived from the Exploratory Survey and Third Survey data, were 64%, 61% and 59% respectively. This indicates that identified issues together substantially accounted for school judgement criteria, and no single factor dominated overall. It is estimated that 40% of variance is not explained by the identified factors.

The unexplained percentage of variance probably consists of diverse minor issues, and there is evidence which implies this. For example, public opinion on many educational matters has been obtained by means of empirical research, such as the poll reported by Elam et al. (1991) and the System 3 Scotland Survey (1996). A wide range of issues arising in the 'Depth Interview and Focus Group Study', are shown in

the list of fine grain categories (Table 9), and the 'Pilot Survey' questionnaire (Appendix D) includes ninety-nine dimensions on which schools are rated. In the statistical analyses all questions correlate with factors, but loadings of less than 0.3 are not reported.

Differences in mean ratings of schools on individual questions in both the Exploratory Survey and the 'Pilot Survey', show that participants tend to view performance as better in academic and communication areas than in other things, such as discipline and observable features. When asked to choose the most important school dimensions from the Exploratory Survey questionnaire, participants most often selected items which concerned discipline, relationships and academic matters, which were all issues which arose in the factor analyses. While descriptive analysis is limited in its contribution, it clearly demonstrates that participants hold views on a wide range of individual educational issues. Although many of these do not occur in the main factors, it is possible that they are implicated in the unexplained percentage of variance.

Identification of assessment criteria is important, but evidence of a relationship between these factors, overall satisfaction, and academic issues which are known to be significant, may be useful additional information for indicating how quality judgements are made. Analysis of data obtained from the Third Survey, provided significant correlations, between the communication, academic and relationship factors and satisfaction.

Although the factor structure proved to be reasonably stable, some sensitive issues may have been subsumed in the major factors. Academic achievement is not one of these as it is identifiable as a factor. However significant issues such as sensitivity to parents' views and safe environment, may be covered by general factors, which for instance might concern competent teachers or accommodation. Some individual questions were used in multiple regression prediction of satisfaction. Discipline etc. do not emerge as predictor variables independently of major factors, but in terms of individual correlations, satisfaction correlates with Factors 1D, 2D, 3D, and 5D.

Among important features of schooling is a safe environment. Two questions were directed at this. One is 'Discipline is not a core concern', and the other is 'Provides a safe and secure environment'. Multiple regression took 'Discipline is not a core concern' as the dependent variable, and as predictors, the factors plus 'Deals promptly with disciplinary problems'. The best predictor was 'Deals promptly with

disciplinary problems', followed by Factor 2D, and then marginally by Factor 4D. Another regression took 'Provides a safe and secure environment' as the dependent variable, and as predictors, the factors and discipline questions. The main predictors were 'Deals promptly with disciplinary problems' and Factors 1D, 2D, 3D and 5D. 'Provides a safe and secure environment' covered a range of things including discipline.

When data from the Exploratory Survey and the Third Survey were combined and analysed, there was significant prediction of 'Good discipline' by issues such as capable and approachable teachers, non-experience of failure by children, pupil dress, support for learning in computing, and provision of homework. There was prediction of 'Teaches social skills' by teachers' casual dress, development of self-confidence, and help for children to relate to people from different backgrounds.

Issues associated with education quality, may be compared with the SERVQUAL dimensions proposed by Parasuraman et al, however some service dimensions are subsumed in main educational factors, which suggests that there are differences as well as similarities between the processes of judgement, concerning education and services in general. The 'Relationships' factor, which covers issues such as sympathetic response to pupils, good communication and relating to others, appears to subsume service dimensions such as 'Reliability', defined as 'Ability to perform the promised service dependably and accurately', and 'Responsiveness', which is 'Willingness to help customers and provide prompt service.' The 'Academic' factor, concerning achievement, qualifications, assessment and school reputation, also relates to 'Reliability'. 'Visible features', covering cleanliness of buildings and facilities, directly corresponds with the 'Tangibles' dimension, which concerns 'Physical facilities, equipment, and appearance of personnel'. The 'Information' factor which relates to information about progress and the curriculum, and also sensitivity to parents' views, is comparable with 'Responsiveness' and 'Assurance', concerning 'Knowledge and courtesy of employees and their ability to inspire trust and confidence'. 'Discipline' in the educational context, relating to absence of bullying, supervision, relationships, and children's happiness, appears to correspond with 'Empathy'. Finally, the 'Accommodation' factor which concerns size, most closely relates to 'Tangibles'.

Although it is possible to compare the education factors and SERVQUAL dimensions, there are clear differences, but Parasuraman et al. (1988) accept that their instrument may be adapted, according to the characteristics of organisations.

While the SERVQUAL dimensions are identified with factors, there are no direct correspondences, as definitions of the dimensions are loosely related to factors. For example, the 'Academic' factor has no exact equivalent dimension, but it consists of features which relate to efficient delivery of the service. Of the various dimensions, it most closely resembles 'Reliability', concerning dependable service provision. Another important difference is that one-to-one relationships do not exist in all cases, with elements of more than one dimension subsumed in a factor. For instance, the 'Relationships' factor contains elements from both 'Reliability' and 'Responsiveness' dimensions. Conversely, elements of the 'Responsiveness' dimension are associated with both 'Information' and 'Relationships' factors. Of the various factors and dimensions, 'Visible features' and 'Tangibles' are related most directly.

There are several reasons why direct comparisons between education factors and service dimensions cannot be made easily. Firstly, certain dimensions are more relevant in contexts other than education, but this is a question of degree rather than an absolute issue. Although 'Reliability' and 'Responsiveness' are discrete SERVQUAL dimensions, in the educational context they are not represented separately, and elements of both contribute to the 'Relationships' factor. Conversely, the 'Relationships' factor while discrete in the educational context, is not among general service dimensions.

Summary

To help overcome shortcomings in the Exploratory Survey, there was a short Pilot Study based on an extended inventory of questions. Descriptive analysis of data shows that secondary schools are rated highly on features such as homework provision, testing, academic achievement, career guidance, and aspects of communication. In contrast, questions on which schools were rated least strongly, concerned discipline and related issues, and catering specifically for ability groups and genders. While participants liked academic aspects, they were less positive about school discipline and how the needs of different groups were addressed.

The Third Survey questionnaire was based on the Pilot Study inventory, with additional items. A subset of questions was used, to improve the factor structure. There was analyses of schools' ratings on thirty-seven and 102 questions, and combined Exploratory Survey and Third Survey data.

Factor analyses of Third Survey data provided evidence of several factors, including 'Relationships', 'Academic', 'Visible features', 'Information', 'Discipline', and 'Accommodation'. Most items on which schools were rated had loadings on single factors, but a number had appreciable loadings on more than one factor. Several of these items load on the 'Academic' and 'Relationships' factors, which may have a degree of central significance. Despite differing surveys, populations and size of data sets, there is a tendency for similar factor structures to emerge from analyses. This implies that there are identifiable school judgement criteria, and these are related to quality assessment.

A model of school judgement based on management concerns related to curricula, achievement and testing, is too narrowly defined. It is suggested that a multidimensional approach accounting for the various factors taken into account in the judgement process, would be more accurate.

Evidence of relationships between factors, satisfaction and issues known to be significant, may be useful for indicating how quality judgements are made. Analyses of data shows correlations between factors and satisfaction, discipline not a concern, and safe environment. There is prediction of 'Good discipline' by issues such as capable and approachable teachers, non-experience of failure by children, and pupil dress. 'Teaches social skills' is predicted by teachers' casual dress, development of self-confidence, and help for children to relate to people from different backgrounds.

Issues associated with education quality may be compared with SERVQUAL dimensions. However there are differences between judgement processes in relation to services in general and education, and for a number of reasons, education factors and service dimensions only agree loosely.

10 Quality Dimensions, Gap Measures and Satisfaction

Introduction

In the literature, models of consumer satisfaction emphasise three elements. First is dimensionality, applied to the target evaluation by the consumer. Second is the importance attached to these dimensions by individuals. Third is consistency with previous consumer expectations.

The first of these, namely deciding which dimensions are relevant to the consumer, has been the subject of factor analytic studies by Parasuraman et al. (1988). These studies identified five main dimensions, relevant in consumer evaluation of services: Tangibles, Reliability, Responsiveness, Assurance and Empathy. A secondary issue concerns how dimensions are combined: in terms of an arithmetic average, default cut-off, or a combination of both.

A second main emphasis relates to the weighting of dimensional ratings on the basis of importance judgements. This has been developed in the context of the expectancy value series of attitudes. (See Fishbein and Azjen, 1975) Work in the area of attitudes shows that value placed on a dimension, as well as the score, is important in prediction of satisfaction. Expectancy value models is the generic name for such conceptualisations. The expectancy refers to the probability that a target possesses a certain quality, in some cases measured simply by the rating on that quality, and the value indicates the importance of that dimension to the individual. Expectancy value models have a long history, and proven success in various areas. There have been a number of transformations. The most recent model is known as the theory of planned behaviour. This is applied to highly rational behaviour, and it incorporates an element defined as the subjective norm, which measures normative pressure on the individual. Although development is in relation to attitude behaviour linkages, use of the independent importance rating augments helpfully the Parasuraman model.

Expectancy violation, a third aspect, has been developed in post-Parasuraman debates in the literature. This implies a gap between what an individual expects of a service and what is experienced. A key expectancy model question, concerns how the individual forms an original expectancy. The model adopted in this study is based on an assumption, that the expectancy relies on social comparison with an alternative school. Therefore it is not a conventional model, as it uses the evaluation gap between an actual and an alternative school.

There has been examination of dimensions involved in education quality judgement. Empirical evidence suggests that these produce scores which predict satisfaction. However a dimensional analysis alone is insufficient. The most recent form of the expectancy value model and dimensions identified in the earlier studies, are tested on secondary school parents. The purpose of this study is firstly, to formalise relevant dimensions in school choice as a shortened scale, based on dimensions arising from factor analyses of data in earlier studies. Another objective is to test the additional predictive power of importance ratings given to dimensions. A third aim is to assess the impact of adding a term which measures the expectancy gap.

Testing the Models

These models may be exemplified as linear regression equations and tested by multiple regression techniques. Each new term in an equation is tested for the significance of additional variance explained. Models may be tested incrementally.

Model 1 suggests that ratings ($R_1 \ldots R_n$) on key dimensions predicts satisfaction (S).

$$S = R_1 + R_2 + R_3 \text{ etc.}$$

Model 2 indicates that addition of a term in the equation, measuring rating x importance (R x I), adds predictive power.

$$S = R_1 + R_2 + R_3 \text{ etc.} + R_1 \times I_1 + R_2 \times I_2 + R_3 \times I_3 \text{ etc.}$$

Model 3 suggests that the difference between ratings of target schools and alternatives, when added to the model 1 equation, predicts satisfaction.

The third model is derived from comparison level theory or social comparison. (See Gilbert et al, 1995) Social comparison is basically the tendency to compare the self

and our personal outcomes, with others and their outcomes. Comparison level studies focus on how comparisons are made between what has been obtained and what might have been obtained. Sometimes this involves comparisons between the self and others, but often it concerns counterfactual thinking. This is simulation in thought, of what might have happened if certain key events had not occurred. In relation to schools, the most easily imagined counterfactual is the alternative which a child might have attended. Some counterfactuals are easier to imagine than others. (See Kaheman and Miller, 1986)

Satisfaction is a function of comparison between what has been obtained, and that which realistically might have been achieved. Social comparison theory is supported by accumulation of evidence over a long period, in relation to job satisfaction, &c. More recent developments show that availability of alternatives in memory is important. i.e. Ability to generate a counterfactual. With respect to the theory of quality judgements, alternative choice is conceptualised as an ideal or expected standard. Nevertheless, both approaches are similar, in the sense that the consumer is assumed to compare what is obtained, with that which may have been attained.

While the gap model conceptualisation is based on a discrepancy between actual and ideal circumstances, the difference in social comparison is between actual and alternative circumstances. This study examines the comparison process role, which involves ratings of actual and alternative schools, in determining chosen school satisfaction.

Fourth Survey

Subjects

University students were asked to contact a small number of relatives and friends from a range of backgrounds, who had children in secondary education, and who had considered at least an alternative to chosen schools. Those with children at private schools were excluded. This procedure was necessary, on account of difficulties in relation to obtaining permission to send questionnaires to parents.

An opportunistic although less than ideal sample of one hundred and six subjects, was obtained by undergraduates. Inevitably the sample was biased toward middle-class parents, on account of recruitment by students.

Questionnaires

The questionnaires were short forms of inventories used in the factor analytic studies, and consisted of four questions with high loadings from each main dimension: 'Tangibles', 'Academic', 'Communication' and 'Socio-emotional'. As in previous studies, negative items were not included.

Participants received three copies of the inventory, but instructions on each varied according to the judgements asked for. 1) A parent was asked to rate the school his child attended on the dimensions' items, and there was a satisfaction rating. 2) An alternative school considered, was rated on each quality dimension's items. 3) Participants were asked to rate the importance of items. (See Appendix F)

School ratings were measured on a ten point scale. Importance and satisfaction ratings were on a five point scale, to maintain consistency with the other studies.

Method

Reliability of short forms are provided by the Kuder-Richardson formula. An empirical test retest correlation was computed on a sample of fifteen individuals, which yielded a Pearson correlation of .72.

Survey subjects completed questionnaires anonymously at their homes or workplaces, usually on an individual basis, and as in the previous study, data were gathered in accordance with the British Psychological Society ethical guidelines on research.

Questionnaires were coded and entered into a Statistica data file. Multiple regression and descriptive analysis was applied.

Ratings of children's and alternative schools on quality dimensions' items, were used to obtain dimensions' overall mean ratings and overall mean gap measures. Ratings of the importance of dimensions' items, were used to produce dimensions' overall mean importance values. Ratings on dimensions' items and their importance values were multiplied, and overall mean multiples for each dimension were derived. Mean satisfaction ratings were calculated.

Results

The first set of analyses reports descriptive results. The second set implies multiple regression modelling, to test three models described earlier.

Ratings of Satisfaction and Dimensions

Table 56
Mean Values of Satisfaction and Dimensions

Variable	Mean	No.	Std. Dev.
Satisfaction	3.267	101	1.333
Tangibles	6.491	106	1.987
Academic	7.505	105	2.005
Communication	6.764	106	2.096
Socio-emotional	6.538	106	1.827

Table 56 shows mean values of satisfaction and four main dimensions, ranging from 6.491 to 7.505. The mean rating of satisfaction at 3.267 is positive, being above the mid-point of the five point scale. Values on all dimensions measured on a ten point scale, were also above average overall.

Importance of Dimensions

Table 57 giving mean values of importance of dimensions, shows that while most are above the potential average of 3.0, the 'Socio-emotional' dimension has the least value.

Table 57
Mean Values of Importance of Dimensions

Variable	Mean	No.	Std. Dev
Tangibles	3.698	106	.948
Academic	3.519	104	1.254
Communication	3.453	106	.967
Socio-emotional	2.802	106	1.009

Importance Values x Ratings on Dimensions' Items

Mean values of importance x ratings on dimensions' items, are provided in Table 58. The minimum is 1 and the potential is 50. The 'Academic' dimension achieved a value of 26.592. Measures for 'Tangibles' and 'Communication' are similar, at levels of approximately 24, and the 'Socio-emotional' dimension value is 19.028.

Table 58
Mean Values of Importance
x Ratings on Dimensions' Items

Variable	Mean	No.	Std. Dev.
Tangibles	24.453	106	10.466
Academic	26.592	103	12.023
Communication	24.406	106	11.834
Socio-emotional	19.028	106	10.067

Gaps Between Actual and Alternative School Ratings

Positive values imply that gaps are in favour of chosen schools. Means of gaps between ratings of chosen and alternative schools are given in Table 59. Not surprisingly, people rate actual schools more highly than alternatives. The similarity of gap means between ratings of chosen and alternative schools on each dimension's items, indicated that rather than making an independent judgement for each dimension, subjects formed a global judgement of the difference between schools.

Table 59
Mean Values of Gaps Between
Ratings of Schools on Dimensions' Items

Variable	Mean	No.	Std. Dev.
Tangibles	3.059	102	1.434
Academic	3.190	100	1.475
Communication	3.000	101	1.517
Socio-emotional	3.149	101	1.493

Correlations Between Satisfaction and Variables

Table 60

Correlations Between Satisfaction and Dimensions' Measures, Importance Values, Importance x Dimensions Multiples and Gaps Between School Ratings

	Sat		Sat
Tangibles	.32	I. Tangibles	.56
Academic	.53	I. Academic	.39
Communication	.55	I. Communication	.50
Socio-emotional	.54	I. Socio-emotional	.31
I. x D. Tangibles	.52	G. Tangibles	.50
I. x D. Academic	.65	G. Academic	.57
I. x D. Communication	.59	G. Communication	.53
I. x D. Socio-emotional	.48	G. Socio-emotional	-.15

Pearson correlations were computed between satisfaction and ratings on each dimension's items, importance values, importance x ratings on dimensions' items and gaps between school ratings on each dimensions' items. With the exception of the 'Socio-emotional' gap, Table 60 shows that there are relationships between satisfaction and several variables. This indicates that satisfaction is linked to many important issues in this particular context. Satisfaction is individually correlated with dimensions' items, importance values, importance x dimensions' items' multiples and gaps between school ratings on each dimension's items. However, as these variables are themselves intercorrelated, a question arises concerning whether each contributes uniquely in prediction. This is addressed by multiple regression analyses.

Multiple Regression Analyses

The sample size was not large enough to run all variables concurrently in the equation. Therefore the first equation was run with 'Tangibles', 'Academic', 'Communication' and 'Socio-emotional' dimensions as predictor variables. A second equation added the multiplicative variables. A third equation was run with the four dimensions and gap variables.

Predictors of Satisfaction in the Multiple Regression Equation

A stepwise multiple regression was used, with 'Tangibles', 'Academic', 'Communication' and 'Socio-emotional' dimensions as predictor variables. Table 61 suggests that of the four important dimensions, only 'Tangibles' does not uniquely predict satisfaction. 'Academic' and 'Communication' appear to be strongest predictors, while the 'Socio-emotional' issue is also related to satisfaction. 'Academic' has the highest beta value. Multiple $R^2 = .511$, $F(4,95) = 24.85$, $p < .001$. N = 100.

Table 61

Regression Summary for Dependent Variable: Satisfaction (Four dimensions)

	Beta	St. Err. of Beta	B	St.Err. of B	t (95)	p-level
Intercpt			-1.36819	.485192	-2.81990	.005848
TANGIBLES	.061560	.079964	.04055	.052673	.76985	.443301
ACADEMIC	.391730	.078905	.26937	.054259	4.96456	.000003
COMMUN.	.300351	.099067	.18892	.062312	3.03179	.003133
SOCIO-EM.	.210639	.103339	.15602	.076544	2.03833	.044297

Satisfaction and the Multiplicative Variables

The multiplicative variables were then added to the equation in a stepwise regression. As shown in Table 62, satisfaction is predicted by ratings on dimensions x importance, in relation to the 'Academic' and 'Communication' dimensions. Only importance x 'Academic' and importance x 'Communication' variables are statistically significant predictors, however as the importance, 'Academic' and 'Communication' ratings are highly correlated, the result is difficult to interpret. Multiple $R^2 = .514$, $F(2,97) = 51.29$, $p < .001$. N = 100.

Table 62

Regression Summary for Dependent Variable: Satisfaction (Importance x Ratings on Dimensions)

	Beta	St. Err. of Beta	B	St. Err. of B	t (97)	p-level
Intercpt			.867129	.253457	3.421209	.000914
I. X D. ACAD.	.488502	.082051	.054166	.009098	5.953661	.000000
I. X D. COMM.	.332942	.082051	.037578	.009261	4.057756	.000100

Satisfaction and the Gap Variables

The gap variables were added to the Table 61 equation, involving 'Tangibles', 'Academic', 'Communication' and 'Socio-emotional' dimensions. Table 63 shows some prediction of satisfaction by gaps between ratings on the 'Tangibles', 'Academic' and 'Communication' dimensions. The 'Socio-emotional' gap measure did not add significant independent predictive power. Multiple R^2 = .709, F(5,108) = 52.56, $p < .001$. N = 114.

Table 63

Regression Summary for Dependent Variable: Satisfaction (Gaps Between Ratings on Dimensions)

	Beta	St. Err. of Beta	B	St. Err. of B.	t (108)	p-level
Intercpt			-1.63235	.346746	-4.70762	.000007
G. TANGIBLES	.216611	.057736	.20258	.053997	3.75176	.000284
G. ACADEMIC	.252733	.060949	.22499	.054258	4.14665	.000067
G. COMMUN.	.224890	.059090	.19900	.052287	3.80588	.000235

When gap variables are added, some of the original variables become non-significant. However satisfaction is determined by ratings of schools on the 'Academic' and 'Communication' dimensions, plus gaps between ratings on the 'Tangibles', 'Academic' and 'Communication' dimensions. It is the gap between what exists in the school and what might be available, which determines satisfaction. Although 'Tangibles' alone was not significant, as a gap variable it was highly significant. The 'Socio-emotional' dimension gap, dropped out of the equation.

In the first, second and third equations respectively, R^2 was .511, .514 and .709. Therefore prediction was improved by the addition of gap variables.

Intercorrelation of Dimensions

Finally, as shown in Table 64, there is evidence of intercorrelation between judgements on dimensions, although each make an independent contribution to the process of evaluation. While 'Tangibles', 'Academic' and 'Socio-emotional' dimensions are related, there is a high correlation between 'Communication' and 'Socio-emotional' issues.

Table 64

Correlations Between Judgements on Dimensions

	Tang.	Acad.	Com.	Soc.-Em.
Tangibles	1.00	.38	.19	.32
Academic	.38	1.00	.22	.29
Communication	.19	.22	1.00	.69
Socio-emotional	.32	.29	.69	1.00

Discussion

Mean ratings of schools on satisfaction, and 'Tangibles', 'Academic', 'Communication' and 'Socio-emotional' dimensions' items were above mid-points on scales. In addition, significant correlations were found between the dimensions and satisfaction. Multiple regression analysis indicates that the 'Academic', 'Communication' and 'Socio-emotional' dimensions, each predict satisfaction.

Mean ratings of the importance of the four dimensions were above or almost at the scale mid-point, and correlations between the importance values of all four dimensions and satisfaction were significant. Although ratings on each dimension independently contribute to the evaluation process, there is evidence of intercorrelation between judgements. Therefore the probability that each dimension possesses a certain quality and importance value, suggests their significance to individuals in relation to satisfaction.

While overall values on the 'Tangibles', 'Academic' and 'Communication' multiplicative variables were approximately at the mid-point, the 'Socio-emotional' value did not reach this level. Stepwise regression showed that only the 'Academic' and 'Communication' multiplicative variables independently predicted satisfaction, although correlations between all four dimensions and satisfaction were significant.

Overall gap values between chosen and alternative schools on each dimension, were close. Similarities between values suggest that there is global judgement, when two schools are compared. Regression analysis provided evidence that satisfaction was predicted, by addition of gap values relating to the 'Tangibles', 'Academic' and

'Communication' dimensions. The basic use of original dimensions provided an R^2 of .51, and the predictive value of the equation increased to an R^2 of .71 with gap values. Correlations between these three gaps and satisfaction were significant.

These findings indicate that the 'Tangibles', 'Academic', 'Communication' and 'Socio-emotional' dimensions are of consequence in relation to the school judgement process, being related to importance and satisfaction. Each independently contributes to the evaluation process, while there is intercorrelation between judgements on dimensions and global judgement concerning the difference between schools.

Summary

Models of consumer satisfaction emphasise dimensionality applied to the target evaluation, the importance attached to dimensions, and consistency with prior expectations.

An expectancy value model and dimensions identified are tested, the purpose being to formalise school choice dimensions as a shortened scale; to assess the additional predictiveness of importance ratings given to dimensions; and to test the impact of adding a term which measures the expectancy gap.

The 'Fourth Survey' questionnaires were short forms of inventories used in the factor analytic studies. Each parent rated his child's school and an alternative, on quality dimensions' items, and this was used to provide gap measures. The importance of the items were also rated, and ratings on dimensions and their importance values were multiplied. In addition there was a satisfaction rating.

Descriptive analyses show positive values with respect to satisfaction and all dimensions: 'Tangibles', 'Academic', 'Communication' and 'Socio-emotional'. Measures of the importance of the 'Tangibles', 'Academic' and 'Communication' dimensions are also positive. Values on 'Tangibles', 'Academic' and 'Communication' multiplicative variables were approximately at the mid-point, but the 'Socio-emotional' measure did not reach this level. Positive values of gaps between ratings of chosen and alternative schools on dimensions' items, imply that chosen schools are favoured. The similarity of gap means on each dimension, indicates global judgement of differences between schools.

There is evidence of relationships between satisfaction and dimensions' measures, importance values, importance x dimensions multiples, and gaps between school ratings, excepting the 'Socio-emotional' gap.

Multiple regression analysis shows that of the four main dimensions, only 'Tangibles' does not uniquely predict satisfaction, while the 'Academic' and 'Communication' dimensions are the strongest predictors. When multiplicative variables were added to the equation, only importance x 'Academic' and importance x 'Communication' variables were statistically significant predictors of satisfaction.

Addition of gap variables to the equation, showed prediction of satisfaction by gaps between ratings on the 'Tangibles', 'Academic' and 'Communication' dimensions. Of the three regression equations, this has the greatest R^2, therefore prediction is improved by the addition of gap variables.

Although each dimension makes an independent contribution to the process of evaluation, there is intercorrelation between judgements on them. A high correlation between 'Communication' and 'Socio-emotional' issues was found.

All main dimensions are of consequence, in the process of education quality evaluation.

11 Review of the Study and Implications

Aims of the Study

Owing to the complex nature and range of educational issues, it is necessary to be clear about the aims of the study. Empirical research has identified features of education which people like, but this particular study differs fundamentally. Its aim is to address, the question of how individuals make judgements about schools. It has not been ascertained previously, if the school evaluation process depended on the existence of discrete identifiable features, which were important, and how these might have been combined. Another question which has not been addressed, concerned the use and weighting of information sources.

Objectives are to identify relevant dimensions; examine information sources; investigate individual differences in evaluation of dimensions; and produce a model of satisfaction which combines dimensions. Subsidiary issues concern the balance between formal and informal sources of information; the link between quality judgements and satisfaction; and how expectancies are formed, confirmed or contradicted.

There is exploration of judgement processes, using general populations of people who have close knowledge and experience of schools, as parents, teachers and former pupils. The focus is on judgement of mainstream comprehensive schools, thus issues which specifically concern selective education are not addressed. In general, limited choice was available and individuals considered few schools. Populations used in the surveys cut across social classes, but did not cover those who selected private schooling for children. The Exploratory Survey population was skewed toward the lower middle-class. In contrast, the Third Survey and 'Fourth Survey' populations obtained by university students, were more middle-class, although those interested in private schooling were not specifically sought for inclusion. No decision was taken to ascertain accurately the socio-economic status of participants, which might have had an inhibiting effect and discouraged participation.

This is justifiable, on the grounds that the study is about universal judgement dimensions, and evaluation related to satisfaction. It is not an exercise in social policy, nor does it concern class differences.

The approach involving application of dimensionality to schools, is based on a model proposed by Parasuraman et al. (1988) with respect to service quality. Issues addressed concern school assessment dimensions; overall quality rating; the relationship between the conceptualisation proposed and the model suggested by Parasuraman et al; how school dimensions compare with those identified by Parasuraman et al; explanation of differences; and description of a revised model for prediction of satisfaction and quality in relation to secondary education. In addition, there is investigation of how information feeding dimensions is obtained. This is ascertained through direct identification of sources, and deduced from judgement dimensions. The question concerning how information may be combined is also addressed, and a number of issues relating to satisfaction are identified.

The Context of School Evaluation and Choice

Much previous work, having addressed questions based on sociological, economic and political tenets, has influenced the philosophy of education, policy, and professional training and practice.

The Elam et al. (1991) poll of public opinion, showed than only a minority of participants thought that extra payment for teaching core subjects was appropriate. Perhaps this implies that other areas are not viewed as less important, and there is support for broad curricula. The poll indicates that most people favoured tests in several areas. There is a positive response to the proposal that adults should, among other things, possess skills which enable them to compete in a global economy. The education administration literature suggests, that there is interest in the performance indicator criteria provided by league tables

Croxford (1999a) reports that the method of target setting used by the SOEID, does not have any features of good practice. The approach does not address the issues of cues used to judge performance, quality as an essence, and how people combine information on dimensions. In the absence of a literature on psychological processes underpinning school evaluation, the wider theory of consumer perception is adopted, in order to investigate if general principles are applicable to educational issues. The

literature concerning consumer judgement of other services has a long history, but this has not been used by educational theorists. It indicates salient factors and processes, which have implications for development of a general theory, and this might be relevant in relation to questions about how schools are evaluated.

Unlike consumer choice in general, parents have limited alternatives to choose from with respect to schools, for reasons of distance, cost, community and social issues. Hence a traditional model of consumer choice is unrealistic in the educational context. While it cannot be assumed that principles apply in the same way to public education services, it is legitimate to investigate the extent to which existing theory may be applicable. A consumer choice model covers the following stages: awareness of need; an evoked set, which is normally wide-ranging with experience of products; and systematic information gathering, including interaction with services or products. Expectations are formed on the basis of experience. Decisions are based on comparison between the dimensions of products or services. Scores are combined to produce an overall assessment value. However there are debates about the decision rules which produce composite scores and enable overall evaluation. In relation to schools, there is restricted choice and a lack of direct experience of the service. Relevant dimensions, individual differences in evaluation of dimensions, and decision rules which allow overall assessment, are not known.

While the pupil population has declined and the number of teachers has fallen, and there have been school closures, the issue of demand on public services in a climate of limited resources, has led to a perceived need for economies and best value. The question has important implications for education, but it is essentially a political, social and economic matter. Politicians, administrators and economists have had to find balanced solutions which were acceptable to the public, and this has led to the application of a consumer model to education. School choice which has been available for twenty years, is a mechanism for stimulating competition to raise standards, the rationale being that there is movement toward good schools and away from those perceived as failing. Publication of school examination results supposedly induces market forces by allowing comparisons to be made, which influences choice decisions. Schools are funded according to the size of rolls, and those which are able to attract pupils, being ostensibly more successful than others, are better resourced. Those which are unable to maintain pupil numbers, suffer reductions in resourcing and may ultimately close. More responsibility for decision making and outcomes has been devolved to schools, however the advisory function and inspectorate continue to be controlled centrally, and curriculum content is regulated by national guidelines.

The implications and social consequences of these developments in public education have been questioned, while they were maintained by different administrations for over a decade.

Choice equality is not a tenable concept since there are social and monetary costs involved in choosing schools at a distance. More schools are available in urban districts than in rural areas, where often no practicable alternatives exist. Consequently for many people, there is very little or no choice.

Croxford (1999b) maintains that available statistical information such as standard tables, is inadequate for informing school self-appraisement; and data should permit assessment of how efficiently children's particular needs are met. Publication of school examination results, permitting comparison, has been criticised widely as misleading. League tables imply that success may be measured in terms of examination passes, and that academic achievement is the major determinant of what constitutes a good school, but there is overestimation of the usefulness of pass rates for school evaluation. This and other performance indicators such as school attendance rates, are measures used by managers, but it should not be assumed that the managerial definition of a successful school is shared by the public. However in the absence of research findings which provide evidence of how people actually judge schools, administrators cannot be blamed for their assumptions, which are necessarily based on available information.

This study does not focus on political, social and economic questions. There is exploration of how people make school judgements. Findings are potentially useful to those who are interested in what people look for, and might influence views on educational priorities and administrative decision making.

Parents probably judge schools in terms of how well they satisfy needs. Schiffman and Kanuk (1987) explain that acquired needs are learned in the context of environment and culture, being an outcome of a subjective psychological state and relationships with others. There may be several goals for particular needs, and prevailing values, personal experience and goal accessibility influence choice. Needs and goals are interdependent, but Schiffman and Kanuk maintain that often there is less awareness of needs than goals. Thus children, parents, teachers, politicians, administrators, employers and other members of the public who fund education, may not be conscious of the influence of their own particular needs, on school evaluation.

Schiffman and Kanuk affirm that goal selection is influenced by self-perception. This implies that congruence with self-image affects perception; services are assessed according to how well they meet the particular needs of individuals; and that the judgement process is based on differing criteria.

Schiffman and Kanuk assume that consumers attempt to select alternatives which maximise satisfaction, and assessment of satisfaction is a personal process based on individual needs and learning. It had been proposed that the rational nature of motivation was obscured by emphasis on needs, and that consumers acted consciously to maximise gains. Administrators who agree with this might attempt to identify problems people experience with services, rather than try to ascertain motives.

Discussion Categories

As an approach to the question concerning how school judgements are made, the 'Depth Interview and Focus Group Study' primarily investigates the range of educational questions which interest parents, and their observations and opinions. A basic structure of issues is available from the education literature, but the approach is open-ended and affords opportunity for participants to elaborate and qualify responses to topics discussed, and raise questions. This procedure is more qualitative and quite different from an empirical study based on opinion poll methodology, with use of highly structured questionnaires. Meaning is derived from dialogue, and coding and categorisation of discussion topics permits an estimation of their relative importance, in terms of their occurrence. Forty fine grain categories are identified, and some reference to personal experience is apparent in the content of discussion.

Echols et al. (1990) found that factors related to school choice included older, often prestigious schools, with above average attainment and socio-economic status for their communities. The authors were aware of studies which showed that reasons for choice were most related to educational processes, and an atmosphere supportive to the well-being of children. It is reasonable to suppose that choice factors are in some measure related to the quality concept. However, Echols et al. were cautious, pointing out that their analysis did not adequately address the spatial and potentially multilevel process of choice, and it was acknowledged that many factors were involved. Another study by Hunter (1991), explored the bases on which parents had

chosen schools. Significant factors which emerged included discipline; examination results; understanding and friendly teachers; a friendly school, welcoming to parents; and a good atmosphere.

It would be very difficult to make assessments on the basis of all issues, and Fiske and Taylor (1984) note that the social perceiver has to make complex judgements in conditions which are not very conducive to thoroughness and accuracy. The value of much available information is uncertain, and decision making might potentially occupy a great deal of time. In the view of the authors, perceivers cannot realistically employ exhaustive strategies for the purpose of judgement. It had been suggested that in most situations, perceivers had to make adequate rather than ideal decisions, and heuristics were used to simplify complex problems. Therefore it is proposed that in the school judgement situation, some sort of heuristic may be used to make a very complex question manageable.

Srull (1981) suggests that similar processes are involved in remembering information about persons and other targets, accordingly it is possible to apply theoretical principles derived from the person perception literature, to questions concerning how judgements are made in respect of schools. Hellriegel et al. (1992) note that how others are perceived, is partially determined by our own personality traits, values, moods, experiences, etc. The authors explain that people make attributions in order to understand the behaviour of others and to make sense of the environment; and Ajzen and Fishbein (1983) report that dispositional attributions are based on inferences drawn from behaviour, about the target person or environment. A study cited by Fiske and Taylor (1991), indicated that information about the typicality of a sample was not always used, and this affected evaluation.

The Interview and Focus Group Study categories were easily and reliably matched with general service quality dimensions proposed by Parasuraman et al. (1988), indicating that these issues were also relevant with respect to education. It was estimated that topics related to 'Communication' and 'Understanding/knowing the customer' dimensions, accounted for about 50% of discussion time, and 'Reliability' and 'Security' dimensions accounted for another 25% of time. Therefore a substantial proportion of discussion concerned issues related to interaction, information, relationships, community, academic achievement, social skills, problem solving, curriculum, bullying etc.

Parents speak with teachers about children's progress or other concerns; and there is an indication that parents speak to each other, children and neighbours about school issues. If worried about something, parents may talk with members of school boards, education authority officials or local politicians. The implication is that parents wish teachers to listen and be responsive to them, when there is reason for concern. Communication also takes the form of school reports, and monitoring homework may be an indicator of children's progress. Information gathering tends to be an individual activity, with interest in whole school matters as well as children's progress. There is recognition of the need for positive relationships between children and teachers.

Some interlinkage of topics was observed in the discussions, particularly in relation to 'Interaction', 'Issues of concern', 'Information source', 'School responsiveness' and 'Problem solving'. Cluster analyses of categories occurring in time segments, produced solutions which were indicative of particular groups of items in terms of proximity. The first cluster obtained in each solution concerned issues which were central to the educational experience, including curriculum, progress, happiness and relationships; and categories in other clusters related to information sources, and problem solving.

Although there are a large number of individual categories relating to educational questions, the occurrence of categories related to service quality dimensions, concurrent occurrence of certain topics and cluster analysis, narrows the field somewhat, and indicates that issues including communication, information, relationships, problem solving, and children's progress, are particularly salient. There is parental preference for a model of development which schools might facilitate. This should include basic literacy and numeracy; co-operativeness; rejection of bullying; and social interaction. Academic and social linkages are apparent in the value placed on educational visits; the teaching of manners, with parental involvement; religious instruction; and achieving the adjustment from primary to secondary education.

This confirms that school judgement and therefore quality assessment, is a very complex issue, which covers a large number of individual questions. Although this is also true with respect to other services and products, the study of consumer behaviour addresses these issues in a way that is not done in relation to educational questions. Boulding et al. (1992) acknowledged the realisation that consumer perceptions, not managers', were what counted for the purpose of marketing, and quality measures based on this principle were developed. Quality is now thought of as related to customer satisfaction and opinion. While there is suspicion about

adoption of marketing principles in an educational context, this does not disqualify application of the methods used to investigate questions about product and service delivery. Thus it is pertinent to refer to the service quality dimensions which Parasuraman et al. (1988) propose. The ten dimensions on which the SERVQUAL scale is based, provide a useful structure for thinking about consumer perceptions. Although the SERVQUAL scale is designed to be a generic measure, it has to be adapted for individual services. (See Brown et al, 1993)

Accordingly it is suggested that service quality with respect to education, is judged by people in terms of several dimensions, which possibly relate to 'Tangibles', 'Reliability', 'Responsiveness', 'Communication', 'Credibility', 'Security', 'Competence', 'Understanding/knowing the customer' and 'Access'. The specification of school attributes which promote realisation of children's potentials in respect of academic and social skills, may include a safe environment; sympathetic and approachable staff; well qualified teachers; good buildings and equipment; and reasonable peer group discipline. Development of performance indicators based on issues arising, is likely to be helpful to both consumers of education and schools, for the following reasons: Firstly, these are things which interest parents and others; and secondly, schools which attempt to satisfy preferences based on these, are likely to be perceived as more successful. This way of approaching the question of what the public regards as quality education, is a more realistic alternative to existing methods which are derived from inspection criteria and academic output measures.

School Judgement Criteria

A questionnaire was prepared for the 'Exploratory Survey of School Perceptions'. Questions concerned information sources used by parents, when they were forming judgements about schools, and their perceived accuracy. Parents and teachers rated known secondary schools on fifty-three features derived largely from the education literature, providing data for analysis, and enabling identification of significant items in judgement strategies, and judgement criteria. For these purposes there were descriptive and factor analyses, and multiple regression provided correlations between overall satisfaction and various factors.

The methodology differed from, but was complementary to that used in the 'Depth Interview and Focus Group Study'. However it is necessary to acknowledge that the questionnaire design in this and subsequent surveys is less than perfect, in view of

the absence of negative items. While a balance between positive and negative questions may have controlled response bias, in practice negative items would not have been devised easily.

Information sources with highest mean ratings for use were 'Meetings', 'What your child says', 'School handbook' and 'Teachers (secondary)'. These items also had relatively high ratings for accuracy. This suggests that there is interest in information which schools provide through meetings, handbooks and teachers, which incline toward academic issues and children's progress. However parents also listen to their children who may have a different perspective; but there is less reliance on other children. Factor analysis of secondary parents' information sources used ratings, provided evidence of two criteria for information used. The first relates to information from schools, and the second concerns informal sources including children. This indicates that school judgement may be based on information obtainable from formal and informal sources. Those who are primarily interested in school sources, may access more information than others about core educational issues. Findings do not suggest interest in managerial performance indicators, and the economist perspective which Bradley et al. (1999) describe.

Hunter (1991) explored the bases of choice and found that parents usually used several sources of information, such as reading area booklets and school handbooks. Attending school open days or evenings was useful for making a choice. This provided opportunities to judge school atmosphere and find out about discipline standards, through observation or by asking questions. Hunter did not find a clear basis on which assessment of academic performance was made, and few people reported use of league tables. Most parents had spoken to other parents or children, to help them identify good and bad schools.

Use of a structured questionnaire is a systematic method of testing the range of topics, which participants are able to rate schools on. Descriptive analysis of ratings given to fifty-three school dimensions, indicates that people are able to express views on a wide range of educational issues, which is also an implication of the interview and focus group data. In addition, it implies that many questions potentially influence school judgement. There was clear differentiation, with schools rated more highly on some items than on others. Schools received highest mean ratings on 'Head teacher and staff easily approachable' and 'Provision of reports about progress', which concern communication and information. Schools were also rated highly on items relating to the academic function. In contrast, they received lowest mean ratings on

'Pupils in uniform', 'No bullying' and 'Parental involvement in extra-curricular activities', concerning discipline and associated matters.

Participants were asked to select four of the fifty-three questionnaire dimensions, which they thought were most important. 'Good discipline' and 'Positive staff-pupil relationships', were chosen by 31% and 24% of respondents respectively. 'Effective head teacher', 'Good teaching practices' and 'Good academic reputation', were each chosen by 18%. Dimensions most often chosen tended to relate to relationships, atmosphere and academic issues, which signified that school judgement may have been influenced by performance on such matters.

There was investigation of school judgement criteria, and survey data relating to ratings of schools on twenty-nine dimensions were factor analysed. Several factors were identified, indicating relationships between questions when school judgements were made, and therefore various evaluation criteria. The first of these concerns the academic function and related issues; the second, consists of questions associated with communication; the third is composed of items which relate to visible features; the fourth is interpreted as concerning a relationships issue; and the fifth may be viewed in terms of a professional competence question. The five factors accounted for 64% of total variance, which was largely attributable to the 'Academic achievement', 'Good communication' and 'Positive relationships' factors. Analysis of school ratings on dimensions, showed that while several items loaded significantly on one factor, others had appreciable loadings on more than one. This overlap possibly reflects the complexity of school judgement processes, which are not based purely on discrete criteria. The factor containing the least number of shared items is 'Observable features', and this may be the most clearly defined of the five. Another analysis of data provided only by secondary school parents, produced three factors, 'Academic', 'Discipline' and 'Communication', and evidence of items loading on more than one of them. It is probable that these questions are psychologically meaningful but complex, in the sense that they have consequence when impressions are formed on the bases of more than one criterion. Variance explained for each factor, was 36%, 9% and 16% respectively, and multiple regression correlations obtained between overall satisfaction and the factors, were .602, .306 and .408 respectively. It is possible that secondary parents tend to place more emphasis on the academic issue than others; but it should be noted that about two-thirds of the variance is not explained by the academic factor, and there is no generally dominant factor.

In summary, analyses of Exploratory Survey data provides evidence that there is more than one means of obtaining information about schools, and more than one judgement criterion. Identified factors were stable in a subset of the data. People are able to consider and rate schools on a wide range of issues; and they differentiate dimensions and select the most important. Descriptive analysis findings and those of the Interview and Focus Group Study may be related.

It was necessary to validate findings using different populations, and in order to investigate the quality judgement process, predictors of satisfaction had to be confirmed and identified.

The 'Pilot Survey' questionnaire, extended to ninety-nine school dimensions. Participants were invited to add additional dimensions, but few were obtained and it was assumed that most significant questions had been covered. Secondary schools judged were typically situated in towns, and were medium or large in size. Descriptive analysis confirms that people generally, are able to consider a wide range of questions related to education, and rate schools on these. Schools were rated more highly on some dimensions than others. Ratings were highest on academic and career oriented issues, but this may have reflected the characteristics of the participants who were mostly summer school students, although it tended to correspond with an Exploratory Survey finding.

As permission to send questionnaires to parents is not easily obtained, it is necessary to seek opportunistic samples which are not ideal. In relation to the Third Survey and 'Fourth Survey', the assistance of undergraduates in obtaining samples has to be acknowledged. Students were asked to approach relatives and friends, from a range of backgrounds, but parents whose children attended private schools were not included.

'Pilot Survey' questions with additional items were employed in the 'Third Survey of School Perceptions', and analysis of data relating to ratings of schools on a subset of thirty-seven questions, was used to confirm the factor structure. The analysis produced six factors: 'Relationships', 'Academic', 'Visible features', 'Information', 'Discipline' and 'Accommodation'. Variance explained for each, was 17%, 13%, 9%, 8%, 7% and 5% respectively, accounting for 59% of total variance. 'Harmonious relationships between pupils' had significant loadings on the 'Relationships', 'Academic' and 'Discipline' factors, and several items had loadings on two factors. As most of the questions loading on more than one factor have appreciable loadings on

the 'Relationships' factor, this suggests that 'Relationships' may have a degree of central importance.

Further exploration of the factor structure, through analysis of school ratings on 102 dimensions, produced six factors indicative of school evaluation criteria; related to good communication; development of social competence; academic achievement; observable features; the general educational experience; and the nature of the curriculum and support available. A number of items had significant loadings on two or three factors.

The various analyses showed a tendency for similar factor structures to occur, including in particular, academic and communication issues, and observable features, but some sensitive issues may have been subsumed in the main factors. It is possible that significant issues such as sensitivity to parents' views and safe environment, may be covered by general factors, which for instance might concern competent teachers or accommodation. Overall, it is estimated that 60% of variance is explained by identified factors, which indicate various school judgement criteria. 40% of variance is probably explained by many minor issues, which are not related to the main factor constructs.

Of particular interest, is how information obtained might have be combined. Things which are associated with satisfaction and make individual contributions, include issues concerning capable teachers and head teachers; community relations; pupils as individuals; avoidance of anonymity; organisation of teaching; safe environment; dealing with individual problems; development of self-confidence, social skills and relating to those from different backgrounds; religious tolerance; implementation of school policy; accessibility; staffing adequacy; setting of homework; children's friendships; career guidance; individualisation; extra-curricular activities; teacher maturity; organised teaching; late streaming; avoidance of clique formation; pupil identification with schools; inclusion of those from less well-off backgrounds; and range of subjects.

In terms of the identified factor structure, it is suggested that in their judgements of education quality, people look for good communication, academic achievement, satisfactory visible features, sensitivity to individual needs, positive relationships and competent teachers. These issues are more closely related to public perceptions of quality education, than information from published league tables and management indicators. Ford et al. (1993) state that the SERVQUAL model can be applied to a

university setting. Therefore it is proposed that a similar multidimensional approach is appropriate, accounting for the various factors which are implicated in the school judgement process. However some service dimensions are subsumed in the main educational factors, and this suggests that there are differences as well as similarities between the processes of judgement, concerning education and services in general. As certain service dimensions are more relevant in contexts other than education, and there are no direct correspondences between the SERVQUAL and educational dimensions, with the possible exception of 'Tangibles', it is possible only to make loose comparisons between the two structures. Nevertheless the dimensional approach to education quality assessment, warrants reappraisal of the usefulness of measures currently in use.

The Meaning of Judgement Dimensions

Service quality dimensions, provide an incomplete account of public perception of what education should provide. In order to approach an understanding of issues involved in judgement, it is necessary to clarify what the various dimensions actually mean. This may be achieved through scrutiny of the data obtained from focus group discussions and interviews.

The 'Academic' factor may be interpreted in a number of ways: It might imply that attention is given to criterion reference attainment, school league tables, and/or a degree of competitiveness. However, analysis of the 'Depth Interview and Focus Group Study' data, does not confirm this. As the academic question is important, this suggests that an atmosphere conducive to achievement is necessary, and children should have the opportunity to realise their potentials. The study provides some evidence which supports this. For example among categories were: 'Encouragement', 'Academic achievement', 'Atmosphere', 'Individual needs' and 'Child's Progress'; and in the course of interviews and discussions, among issues mentioned were child development, a required standard, children's behaviour, progress, teaching basic skills such as reading and arithmetic and breadth of experience provided.

The 'Socio-emotional' dimension may be interpreted in terms of the quality of relationships among those involved in the educational process, and children's happiness. This issue concerns the development of social skills, emotional well-being and avoidance of negative experiences. Among categories which relate to socio-

emotional factors are: 'Children's happiness', 'Relationships', 'Social dimension', 'Social skills' and 'Bullying'. In addition, interview and discussion data show references to teaching how to behave, personal experience concerning being split from friends, bullying, social interaction and co-operativeness.

In relation to the 'Communication' factor, issues concern quality of interaction and also information sources. From available data, there is some evidence that interaction issues include knowledge of what is happening and everyone being involved; relationships between parents and teachers; opportunities to express concerns if necessary; and to be informed about issues of concern and remedial action. There is a need for positive relationships between teachers and children, which concerns openness and good communication. Information sources referred to in the study, included speaking to a teacher about school matters, or a child's progress. An approach might be made to a head teacher, a teacher or perhaps another parent, regarding a problem. There is an indication that personal contact with a teacher is better than a school report, and information might also be obtained from children. Analysis of content suggests that there is much emphasis on dialogue with teachers as an information source.

Although the 'Tangibles' dimension might seem straightforward, the issue is probably fairly complex, accounting for a number of distinct features. It is possible that certain observable features are more significant than others, and threshold levels exist, for the purpose of judgement. Identification of what people notice would be useful. For example, attention may be given to buildings, equipment and school location, but without adequate investigation this is speculative. Among issues raised in the interviews, was reference to the poor state of schools. Broken windows had been noticed and a parent stated that he would not have allowed his child to attend a school in disrepair. This issue may be related to perceived school effectiveness. Also mentioned were facilities and resources such as books.

Prediction of Satisfaction

Another important perspective relates to the perceptions minus expectations judgement theory. When judgements are viewed as relative to purpose, the issue of expectations arises. This leads to the gap theory, that quality judgement varies, according to the difference between expectation and actuality. Brown et al. (1993)

stated that a measure of this sort developed by Parasuraman et al, had been cited widely.

This analysis was extended by a study which aimed to model school choice as a function of school ratings on dimensions, importance of dimensions to the individual, and the gap between ratings of actual and alternative schools. Mean ratings of schools on satisfaction, and 'Tangibles', 'Academic', 'Communication' and 'Socio-emotional' dimensions' items, were above mid-points on scales. Mean ratings of the importance of 'Tangibles', 'Academic', 'Communication' and 'Socio-emotional' dimensions were also above or almost at the scale mid-point. With the exception of 'Tangibles', each dimension was found to predict satisfaction. In addition, there were significant correlations between all dimensions and satisfaction, and importance of dimensions and satisfaction. While school ratings on dimensions independently contributed to the evaluation process, intercorrelation amid judgements on dimensions indicated positive relationships between their ratings. Multiplication of ratings on dimensions and importance values showed that 'Tangibles', 'Academic' and 'Communication' reached approximately half of the maximum potential, and stepwise regression indicated that 'Academic' and 'Communication' multiplicative variables predicted satisfaction, although correlations between all multiplicative variables and satisfaction were significant.

The similarities of gap values (expectancy gaps) between ratings of chosen and alternative schools on each dimension, indicated that schools were compared on the basis of a global judgement. Stepwise regression provided evidence of prediction of satisfaction by gap values relating to 'Tangibles', 'Academic' and 'Communication' dimensions, and there were significant correlations between satisfaction and these three gaps.

It is concluded that all main dimensions are of consequence, in the process of education judgement.

Conclusions and Implications for School Management

Baker et al. (1994), address the question concerning how aspects of retail store environment influence quality inferences. Findings indicate that ambient and social attributes provide cues which are the basis of quality inferences. However, irreconcilable features may give confusing messages. Studies such as this provide

useful clues about features associated with quality evaluation. The significance of social and ambient attributes, concurs with issues associated with the school evaluation factor structure.

Wong and Tjosvold (1995) provide evidence that communication style contributes to judgement of the service quality offered by the provider. In contrast to cold individuals, those considered warm were perceived to offer personal quality and they engendered more satisfaction. Service quality is enhanced through provider interpersonal skills and co-operative goals with customers. Sparks et al. (1997) investigated the effect on customer evaluation, of the degree of employee empowerment and communication style, in the context of service failure. Findings indicated that when there was accommodating communication, full empowerment resulted in more satisfaction than did no empowerment and limited empowerment. When there was underaccommodating communication, full empowerment and no empowerment resulted in greater satisfaction than did limited empowerment. It was concluded, that how information was presented, had an effect on customer satisfaction and service quality judgements. Schiffman and Kanuk (1987) report research showing that there is less satisfaction than warranted, with a product which does not fulfil expectations. Thus communications which create expectations may affect subsequent levels of satisfaction. In respect of education, the communication issue is important, and managers should be aware of how employee empowerment and message style, in the context of service failure, goals, interpersonal skills, and expectations, have possible implications for promoting satisfaction.

Quoting their own previous work, Parasuraman et al. (1988) acknowledge that compared to goods quality, service standard is an abstract concept, owing to intangibility, heterogeneity and inseparability of production and consumption. They also refer to earlier work, showing that consumers do not think of quality in the same way as researchers and marketers. Cronin and Taylor (1994), stated that the literature showed an apparent consensus regarding a distinction between service quality and satisfaction: Service quality is a long-term attitude but customer satisfaction is described as a transitory judgement based on a specific service encounter. Iacobucci et. al. (1995) speculate that quality factors are primarily under management control, while customer experience affects satisfaction. The authors suggest that quality differs from satisfaction, when management is out of touch with customers. A 'high-quality' service may be provided, which fails to satisfy customers, because its properties are of no consequence to them. This issue is important, as managers may erroneously place greater emphases than warranted on usual quality

indicators; assuming for example in an educational context, that there is a close relationship between school examination performance and parental satisfaction, with insufficient regard to other important factors.

Cronin et al. (1992) referred to a proposal by Parasuraman et al, that improvement in perceived service quality increased satisfaction, but this was overtaken by evidence indicating that satisfaction was an antecedent of quality. Nevertheless, it is reported by de Ruyter et al. (1997), that service quality may be regarded as an antecedent to satisfaction. The authors suggest that perception of performance is the best indicator of quality, and it affects satisfaction. Additionally, they acknowledge that perceptions of low quality might result in satisfaction. Therefore school managers should not neglect to distinguish between quality and satisfaction constructs, or assume that the relationship between them is always positive.

Croxford (1999b) reports, that high socio-economic status parents and others, tend to use differing information sources: formal and informal respectively. Analyses of the Exploratory Survey data provides evidence of several formal and informal information sources, and two information source criteria. One criterion tends to concern formal sources, from which information about core educational issues might be obtained. The other criterion concerns informal sources, from which information about issues less central to the educational experience might be obtained. It is important for school managers to be aware that parents may gather information from a variety of sources. They are interested in what children tell them, and also information provided by teachers, school handbooks, meetings etc. It cannot be assumed that judgements are only made on the basis of formal information sources, and school evaluation at least in part, is probably influenced by children and their interpretations of the educational experience. Schiffman and Kanuk (1987) cite evidence that children exert influence on family purchase decisions, which indicates that their views are also taken account of in other contexts.

The 'Academic' factor value correlates with safe environment, discipline not a core concern and satisfaction; and safe environment correlates with the 'Relationships', 'Visible features' and 'Discipline' factor values. This group of related issues may be affected by teachers, consequently parents possibly see school success in these terms, as dependent on the influence of skilled staff. Parasuraman et al. (1988) found that in the prediction of overall quality, 'Reliability' was the most crucial dimension, followed by 'Assurance'. 'Reliability' concerns the ability to provide a service dependably; and 'Assurance' relates to knowledge, courtesy, and ability to inspire

trust and confidence. These issues seem also to be related to the role of teachers, and are therefore important in the process of schooling.

Brown et al. (1993) note that several analysts have reservations about the usefulness of SERVQUAL, one issue being that it has to be adapted for individual services. Cronin and Taylor (1992) provide evidence that items defining service quality, vary among industries; and a Taylor and Baker (1994) study, indicates variation across services, of the service quality and consumer satisfaction relationship. SERVQUAL cannot be rigidly applied in an educational context, as the factor structure is not stable in relation to all services and adaptation is necessary. Nevertheless it is concluded that the gap definition of service quality judgement and the dimensional structure proposed by Parasuraman et al. (1988), are useful.

Although there are issues common to schooling and other services, the characteristics of education differ from those of other services in several important ways, and this explains why the proposed framework cannot be applied directly. To a greater extent than in relation to many other services, there is general acceptance that education is provided for the public good. Education is non-repeat in the usual sense; it extends over a lengthy period; and choice is very limited. While parents evaluate, children are the consumers. Consequentially, long-term relationships and capacity to effect repair are important. Factor 1D which concerns communication, sympathetic response etc, indicates that value is placed on response to individual needs, with implications for customisation or tailoring the service; the content of curricula; methods of delivery; and the wider educational experience.

The study identifies various features which are related to satisfaction, concerning empathetic response and relationships, as well as achievement etc. There is evidence that 'Socio-emotional', 'Academic', 'Tangibles' and 'Communication' factors are important and associated with satisfaction, a construct related to quality, and it is apparent that no single factor dominates. Goldring and Shapira (1993) found that satisfaction with schools was associated with levels of compatibility, empowerment and involvement; and Griffith (1996) believed that communication and school climate had the strongest direct effects on satisfaction. Griffith (1997) concluded that parents and students shared perceptions of the environment, as measured by scales which assessed school attributes; and parent satisfaction and student enjoyment were partly based on how well schools functioned overall. High parent satisfaction was associated with perceptions of positive school climate, and schools informing and empowering parents regarding their children's education. Permeability of a school's

organisational boundary was thought to be key to parent satisfaction. The author referred to three relevant aspects of organisational boundaries in open systems. These cover parents' experiences as they enter schools, including reception by office staff, and interest and co-operation of principals; information provided about the academic progress of children; and parental involvement in activities and policy development. Schools in which there were open communication, collaborative working relationships with parents, and positive and understanding attitudes, had been viewed as having high levels of parental involvement and satisfaction. Ultimately, satisfaction which is related to quality, concerns what is provided for individual children, within realistic limits.

Parasuraman et al. (1988) report that perceived quality is conceptualised as a type of attitude related to satisfaction, resulting from comparison between expectations and perceived performance. They refer to their exploratory research, which supports the notion that service quality is an overall evaluation resembling attitude.

Measurement of expectancy gaps which showed similarities between ratings of chosen and alternative schools on dimensions, indicated comparison on the basis of global judgement. Parasuraman et al. (1994a) acknowledge interdimensional overlap. The finding that a number of questions had significant loadings on more than one factor in analyses, suggested that judgement was not based on a discrete single criterion, and was more likely to involve more than one issue.

If there is no single view of the aims of education (see Garforth, 1985), the concept of fitness for purpose varies, suggesting the existence of more than one quality judgement strategy. Schiffman and Kanuk (1987) believe that a goal is selected to fulfil several needs but one of them is prepotent. If one need is prepotent, and several have to be fulfilled, this suggests that evaluation of the means of need fulfilment, is not based on a single criterion. Accordingly, while sections of the parent population may place differing emphases on particular things, it is likely that there is some overlap in the use of judgement criteria, and that processes are not exclusive. Therefore perception of education quality is not absolute, with several criteria taken into account in the process of evaluation. A satisfaction model is additive in nature, accounting for combined scores on dimensions.

There is evidence that most parents set realistic achievement goals for their children and schools. They are aware that coping with life, demands a more broad set of life skills than academic success alone. This implies that parents wish schools to provide

a wide range of experiences and they require a broad definition of success. Parents are interested in the balance given to various educational goals, and appreciation of individual differences implies that all children do not require identical goals to meet their needs. Willms (1997) found that parents were less interested in matters including teaching methods and examination results than discipline, reputation and proximity. Academic quality was not the main influence on school choice, and there was interest in social atmosphere, which appeared to concur with the socio-emotional issue identified in the study. Parents take into account neighbourhood, social and religious factors. School climate is determined by pupil characteristics; the peer group affects what is provided; and group factors are sometimes given consideration in the judgement of a service. It is important that such issues are given recognition by school managers, in decision making processes.

Descriptive analyses of data from the Exploratory Survey and 'Pilot Survey', showed that schools were judged more favourably on aspects which tended to be central to the educational process, than on others. Hence, those who evaluate schools with emphasis on information from formal sources, may potentially express more satisfaction than others. However, this is not a clear-cut issue. Assuming that official school sources largely concern issues covered by the 'Academic' criterion, on which schools are evaluated more positively than on other things, and that the evaluation process being multidimensional also accounts for other criteria covering issues on which schools are less highly rated, the effect of the relatively positive ratings associated with the 'Academic' criterion is likely to be reduced by less positive ratings on other dimensions also taken into account, if the model is additive, accounting for combined scores on dimensions. Individual difference importance ratings play a minor but statistically significant part, and reasons for school failure to reach preferred standards are complex.

With increasing knowledge of how school judgements are made, it is likely that there will be less reliance on managerial definitions of quality, league tables of examination results, attendance rates and other received performance indicators.

Summary

The aim of the study is to address the question concerning how individuals make judgements about schools. There is identification of relevant dimensions and

information sources, and a model of satisfaction which combines dimensions is developed.

The approach involving application of dimensionality to schools, is based on a model proposed by Parasuraman et al. (1988) with respect to service quality. Issues addressed in the study concern school assessment dimensions; overall quality rating; the relationship between the conceptualisation proposed and the model suggested by Parasuraman et al; how school dimensions compare with those identified by Parasuraman et al; explanation of differences; and description of a revised model for prediction of satisfaction and quality in relation to secondary education. The question concerning how information may be combined is also addressed, and issues relating to satisfaction are identified. It is proposed that parents judge schools in terms of how well they satisfy needs.

Discussion categories are matched with general service quality dimensions proposed by Parasuraman et al. (1988). It is estimated that topics relating to 'Understanding/knowing the customer', 'Communication', 'Reliability', and 'Security' dimensions account for most of the discussion time. Parents speak with each other, teachers, children and neighbours about school issues, and in certain circumstances they may communicate with members of school boards, education authority officials or politicians.

The ten dimensions on which the SERVQUAL scale is based, provide a useful structure for thinking about consumer perceptions.

An Exploratory Survey shows that parents use school and more informal information sources. People are able to express views on a wide range of educational issues, and dimensions considered most important tend to relate to relationships, atmosphere and academic issues. Factor analysis of data indicates school evaluation criteria relating to the academic function, communication, visible features, relationships and professional competence. While some items have significant loadings on a single factor, others have appreciable loadings on more than one, possibly reflecting the complexity of school judgement processes, which are not based purely on discrete criteria.

The questionnaire was extended and analysis of data from another population produced six factors labelled 'Relationships', 'Academic', 'Visible features', 'Information', 'Discipline' and 'Accommodation'. After further analysis, it was

concluded that there was a tendency for similar factor structures to emerge, including in particular, academic and communication issues, and observable features. In terms of the identified factor structure, it is suggested that in their judgements of education, people look for good standards in relation to factors including communication, academic achievement, visible features, sensitivity to individual needs, relationships, and the competence of teachers.

A multidimensional approach similar to the SERVQUAL model is appropriate, accounting for the various factors implicated in school judgement. However there are differences between the judgement processes concerning education and other services, and it is possible only to make loose comparisons.

Data from the 'Fourth Survey' showed that mean ratings of schools were above mid-points on scales, on 'Tangibles', 'Academic', 'Communication' and 'Socio-emotional' dimensions' items. With the exception of 'Tangibles', each dimension was found to predict satisfaction. In addition, there were significant correlations between all dimensions and satisfaction, and the importance of dimensions and satisfaction. Multiplication of ratings on dimensions and importance values, showed that 'Tangibles', 'Academic' and 'Communication' reached approximately half of the maximum potential, and stepwise regression indicated that the 'Academic' and 'Communication' multiplicative variables predicted satisfaction.

The similarities of gap values between ratings of chosen and alternative schools on each dimension, indicated that they were compared on the basis of global judgement. There was prediction of satisfaction by gap values relating to 'Tangibles', 'Academic' and 'Communication' dimensions, and there were significant correlations between satisfaction and these three gaps.

Findings indicate that all main dimensions are of consequence, in the process of education judgement.

There is evidence in the literature that judgement of service quality is affected by factors such as communication style, and how information is presented in the context of service failure. It is reported that there is less satisfaction than warranted, with a product which does not fulfil expectations. This suggests that communications which create expectations may affect subsequent levels of satisfaction.

Quality and satisfaction constructs are distinct and views differ on which precedes the other. The relationship between them is not necessarily positive, as in certain circumstances perceptions of low quality may result in satisfaction. Consequently, school managers should not neglect to distinguish between quality and satisfaction.

Although SERVQUAL cannot be rigidly applied in an educational context, as the factor structure is not stable in relation to all services and adaptation is necessary, the gap definition of service quality judgement and the dimensional structure are useful.

Parents generally set realistic achievement goals for their children and they are aware that coping with life demands a broad set of life skills. This implies that they wish schools to provide a wide range of experiences and a broad definition of success is required. Appreciation of individual differences indicates that all children do not require identical goals.

With increasing knowledge of how school judgements are made, it is likely that there will be less reliance on managerial definitions of quality, league tables of examination results, attendance rates and other received performance indicators.

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Appendix A

Fine Grain Categories - Expanded Content

Information source: Means of obtaining information, including monitoring homework and schoolwork to be done at home; letters from school; and directly from children, teachers, members of the school board and neighbours.

Curriculum: The curriculum is expected to be broad, covering areas such as reading, writing and arithmetic; art, music, sport and physical education; and educational visits.

School choice: Parents may simply choose to enrol their children at local schools, or consider all schools in their town. Religious factors influence choice, and parents may wish to change schools when there is a continuing problem.

Interaction: There is communication between parents and teachers who are acquainted. Parents speak to teachers about problems, and they may approach head teachers about whole school issues.

Personal experience: Sometimes in the past, parents themselves attended their children's schools. They recall their own experiences and recount concerns, incidents or observations.

School responsiveness: There is an expectation that schools should take action and find solutions, when there are problems.

Staffing:	Parents are aware of levels of staffing and the possible effects of teacher absenteeism.
Social skills:	Schools provide an opportunity for children to learn manners; how to interact socially, stand up to bullying, and co-operate.
School atmosphere:	A positive, secure, supportive atmosphere is favoured.
Transport:	If necessary, transport to school should be satisfactory.
Management:	Well run businesses and industries need the maximum amount of autonomy, yet there may not be a direct parallel with schools. It is appreciated that schools are well and poorly run. Education authorities are in a position to make decisions which they deem suitable. As a last resort, having approached the Director of Education, parents will consider withdrawing children from schools.
Community:	There is support for a community spirit, and general involvement.
School standard:	School judgement is in broad non-specific terms, such as doing well, generally better, reaching required standards, or no problems known.
Vandalism:	This is an acknowledged problem which may be resolved quickly.
Child's progress:	Work to be done at home is an indicator of progress. Teachers may be asked about progress, and problems should be resolved quickly.

Moral/religious education:	There is demand for moral values to be established and for religious instruction, in order that children learn how to behave.
Accessibility:	Families may reside near schools. There is concern about travelling, but distance from home does not always influence choice.
Issues of concern:	Concerned parents probably act together in some situations. This is apparent when problems are serious. Parents may take action at the first sign of a problem, or at an early stage, wait for reports. Sometimes concerns have to be serious before they respond.
Bullying:	General awareness of bullying as an issue, does not indicate that all parents are concerned, but there should be action when it occurs, and it is a problem which may be resolved quickly. People are likely to act when children report bullying, and there is a view that bullying after school, is a problem for parents. This is an issue which may be associated with school effectiveness.
Parental involvement:	It is recognised that schools are now open to parental involvement. Parents should support teachers and not interfere too much.
Academic achievement:	The development of academic skills is regarded as primarily important; and some feel that there is insufficient emphasis on areas such as reading and grammar.
Funding:	A lack of finance is related to school ineffectiveness. It is thought by some that education is underfunded. Parents are able to raise funds, but this is not regarded by all as desirable.

Primary/secondary transfer:	This is thought to be a difficult time. There is liaison between primary and secondary schools, and children are introduced to secondary education. It is thought that they are able to cope.
Social Dimension:	There is evidence that some people themselves did not have much social experience at school, and sometimes they were split from friends.
Encouragement:	Children have to be encouraged to do well.
Satisfaction:	When there is no reason to fault schools in the process of choice, and parents are happy, there is likely to be general satisfaction. In contrast, some dissatisfaction may be predicted when parents have to approach teachers about concerns, or should action be required. It is possible for there to be an unsatisfactory factor in a generally effective school.
Problem solving:	It is thought that some problems, for example, related to progress or vandalism, should be resolved quickly or as soon as possible, but many problems have to be tackled over a lengthy period.
Discipline:	As an issue, this concerns schools generally, and it is related to sanctions. There is a view that children get away with more now, yet schools are not blamed for lax discipline. Education authorities are held responsible for relaxation of rules which govern order.
Children's happiness:	It is preferred that children are happy at school. If an individual child is unhappy, this may signal that something is wrong, and people want to be informed. At the first sign of unhappiness some parents will speak to teachers.

External influence:	Government is held responsible for the state of schools. Other influences are parental attitudes, characteristics of catchment areas, religion and segregation, and financial stringency.
School repair:	Some individuals are unhappy about standards of buildings, and disrepair indicates ineffectiveness. Parents may not want children to attend schools which are in a bad state of repair.
School reputation:	Parents are aware of reputation, and therefore its significance.
Individual needs:	Children are thought of as differing individuals. Some are happy with regimentation, and others prefer to be in groups. It is acceptable for time to be available for religions.
Relationships:	Teachers have to make good relationships with children. If pupils and teachers are not getting on well, this is a problem which requires attention.
Facilities:	Fund raising helps schools to provide facilities, which suggests effectiveness.
Resources:	Books and other resources indicate school effectiveness.
School autonomy:	Although there is too much centralisation, there are reservations about the degree of autonomy schools should have. It may not make a difference. The concept has to be defined in order for a judgement to be made about requirements.
Child development:	As an indicator, observation of children is informative.

School board: While school boards are possibly approached concerning problems, and they may provide information, their role is not always known. There is awareness that elections are held.

Hazards: Safety and possible hazards concern parents. For example, they would be unhappy about children being dismissed early, or having to cross busy roads unsupervised.

Appendix B

Additional Cluster Solutions

Table 65 shows the statistical analysis, 4 Cluster Solution. The first group in the 3 (Table 13) and 4 Cluster Solutions, share five categories. In addition to these issues, the first group in the 4 Cluster Solution also contains School responsiveness, Bullying, and Problem solving, which group independently in the 3 Cluster Solution. Therefore the first group of adjacently arising categories in the 4 Cluster Solution is more complex than the first group in the 3 Cluster Solution, covering matters central to the educational experience, or the nature of the service provided by schools, including problem solving. Issues such as Curriculum and Child's progress occurring in proximity, are related to interest in the academic function, but other categories such as Bullying, Children's happiness and Relationships, are factors which concern the quality of the affective experience, and how pupils are treated. The apparent linkage between School responsiveness and Problem solving, indicates interest in how difficulties are addressed and solutions found. Cluster 2 of the 4 Cluster Solution simply shows that there is interest in obtaining information, as there are no other associated categories. Cluster 3 concerns the adjacent occurrence of Personal

Table 65

Statistical Cluster Analysis 4 Cluster Solution

Variable	Distance	Variable	Distance
Cluster 1		**Cluster 2**	
Curriculum	.298340	Information Source	0.00
School responsiveness	.319999		
Child's progress	.319999	**Cluster 3**	
Bullying	.312946	Personal experience	.231455
Problem solving	.333659	Issues of concern	.231455
Children's happiness	.258235		
External influence	.282981	**Cluster 4**	
Relationships	.220971	Interaction	0.00

experience and Issues of concern, suggesting a tendency for people to refer to actual problems they have known. Cluster 4, consisting of Interaction only, indicates that this may be an issue which is perceived independently of other matters.

All categories in Cluster 1 of the 6 Cluster Solution, shown in Table 66, are shared with the first groups in the 3 and 4 Cluster Solutions, and relate to aspects of the core educational experience. Cluster 2, consisting of Information source only, is common to the 6 and 4 Cluster Solutions, while Clusters 3 and 4 concern the single items: Personal experience and Issues of concern, which are together in Cluster 3 of the 4 Cluster Solution. Group 5 is identical to the third group of the 3 Cluster Solution, consisting of School responsiveness, Bullying and Problem solving; and Interaction occurs in isolation in both 6 and 4 Cluster Solutions.

Table 66

Statistical Cluster Analysis 6 Cluster Solution

Variable	Distance	Variable	Distance
Cluster 1		**Cluster 4**	
Curriculum	.267261	Issues of concern	0.00
Child's progress	.286606		
Children's happiness	.223607	**Cluster 5**	
External influence	.267261	School responsiveness	.251976
Relationships	.215473	Bullying	.263523
		Problem solving	.263523
Cluster 2			
Information source	0.00	**Cluster 6**	
		Interaction	0.00
Cluster 3			
Personal experience	0.00		

Appendix C

Exploratory Survey Questionnaire

PARENTS' PERCEPTIONS OF SECONDARY SCHOOLS

Parents of secondary school pupils are invited to contribute to a study, under the direction of the University of Glasgow, which concerns parents' impressions of secondary schools.

If you have a child who is in the first four years of secondary education and you would like to contribute, please complete this questionnaire and return it within a week to the school which issued it (primary or secondary).

Please put the questionnaire in the envelope provided and seal it. The questionnaire will not be shown to any member of school staff, or to the education authority.

Thank you for your help.

Which year of secondary education is your child in?
(Circle one)

1st year
2nd year
3rd year
4th year

INFORMATION SOURCES

To what extent have you used these sources of information, in forming a judgement about your child's school?

(1 - Little used 5 - Used to a great extent)

How much faith do you have in the accuracy of the information sources?

(1 - Little faith in the accuracy 5 - Very reliable source)

TO ANSWER PLACE A NUMBER FROM 1 - 5 ON EACH LINE

	INFORMATION SOURCE	
	USED	ACCURACY
1 Meetings	_____	_____
2 What your child says	_____	_____
3 Your child's brother or sister	_____	_____
4 School handbook	_____	_____
5 Teachers (secondary)	_____	_____
6 Headteacher (secondary)	_____	_____
7 Viewing homework	_____	_____
8 Other children	_____	_____
9 Visits to school	_____	_____
10 Your own experience as a pupil	_____	_____

11 Other (Specify)_____

IMPRESSIONS

Rate your school on the following characteristics

(1 - Very low rating 5 - Very high rating)

TO ANSWER CIRCLE ONE NUMBER FOR EACH CHARACTERISTIC

1	Adequate accommodation (not overcrowded)	1 2 3 4 5
2	Good size	1 2 3 4 5
3	Capable teachers	1 2 3 4 5
4	Special provision for slow learners	1 2 3 4 5

5	Information about progress easy for parents to obtain	1	2	3	4	5
6	Provision of regular reports about progress	1	2	3	4	5
7	Headteacher and staff easily approachable	1	2	3	4	5
8	Good discipline	1	2	3	4	5
9	No class disruption	1	2	3	4	5
10	Children do not feel like failures	1	2	3	4	5
11	Teachers respond sympathetically to pupils' anxieties	1	2	3	4	5
12	Good behaviour of pupils	1	2	3	4	5
13	General cleanliness of building	1	2	3	4	5
14	Clean toilets with no graffiti	1	2	3	4	5
15	Building in good repair	1	2	3	4	5
16	A mix of pupils from all social backgrounds	1	2	3	4	5
17	Convenient and within easy reach of children's homes	1	2	3	4	5
18	Effective headteacher	1	2	3	4	5
19	Adequate staffing	1	2	3	4	5
20	Adequate funding	1	2	3	4	5
21	Good organisation	1	2	3	4	5
22	Good communication with pupils	1	2	3	4	5
23	Well motivated pupils	1	2	3	4	5
24	Staff smartly dressed	1	2	3	4	5
25	Pupils' work prominently displayed	1	2	3	4	5
26	Good teaching practices	1	2	3	4	5
27	Good academic curriculum	1	2	3	4	5
28	No bullying	1	2	3	4	5
29	Adequate supervision outwith the classroom	1	2	3	4	5
30	Happy children	1	2	3	4	5
31	Good facilities	1	2	3	4	5
32	Positive staff-pupil relationships	1	2	3	4	5
33	Harmonious relationships between pupils	1	2	3	4	5
34	Good atmosphere	1	2	3	4	5
35	Parental involvement in extra-curricular activities	1	2	3	4	5
36	Good academic achievement by pupils	1	2	3	4	5
37	Assessment based on tests and examinations	1	2	3	4	5
38	Highly qualified teachers	1	2	3	4	5
39	Homework several times each week	1	2	3	4	5
40	Special provision for the more academic pupils	1	2	3	4	5
41	Information for parents about the curriculum easily obtainable	1	2	3	4	5
42	Sensitive to parents' views	1	2	3	4	5

43	Flourishing school clubs	1	2	3	4	5
44	Competitive team sports	1	2	3	4	5
45	Good relationship between the school and the community	1	2	3	4	5
46	Good academic reputation	1	2	3	4	5
47	Small classes	1	2	3	4	5
48	Modern equipment	1	2	3	4	5
49	Pupils smartly dressed	1	2	3	4	5
50	Pupils in uniform	1	2	3	4	5
51	Effective parents'/parent-teacher association	1	2	3	4	5
52	Is where children's friends are	1	2	3	4	5
53	Provides the right peer group for children	1	2	3	4	5

54 Other (specify)_____

Select four of the above school characteristics which are most important. Arrange these in order.

Most important No. ____

Second in order of importance No. ____

Third in order of importance No. ____

Fourth in order of importance No. ____

Appendix D

Pilot Survey Questionnaire

PERCEPTIONS OF SCHOOLS

You are invited to contribute to a study, which concerns impressions of schools.

If you would like to take part, please rate a secondary school you have some experience of, on each of the following characteristics.

Thank you for your help.

Rate a school known to you on these attributes:

(1 - Not at all true 5 - Very true of school)

CIRCLE ONE NUMBER FOR EACH CHARACTERISTIC

1	Adequate accommodation (Not overcrowded)	1 2 3 4 5
2	Good size	1 2 3 4 5
3	Capable teachers	1 2 3 4 5
4	Special provision for slow learners	1 2 3 4 5
5	Information about progress easy for parents to obtain	1 2 3 4 5
6	Provision of regular reports about progress	1 2 3 4 5
7	Headteacher and staff easily approachable	1 2 3 4 5
8	Good discipline	1 2 3 4 5
9	No class disruption	1 2 3 4 5
10	Children do not feel like failures	1 2 3 4 5
11	Teachers respond sympathetically to pupils' anxieties	1 2 3 4 5
12	Good behaviour of pupils	1 2 3 4 5
13	General cleanliness of building	1 2 3 4 5
14	Clean toilets with no graffiti	1 2 3 4 5
15	Building in good repair	1 2 3 4 5

16	A mix of pupils from all social backgrounds	1	2	3	4	5
17	Convenient and within easy reach of children's homes	1	2	3	4	5
18	Effective head teacher	1	2	3	4	5
19	Adequate staffing	1	2	3	4	5
20	Adequate funding	1	2	3	4	5
21	Good organisation	1	2	3	4	5
22	Good communication with pupils	1	2	3	4	5
23	Well motivated pupils	1	2	3	4	5
24	Staff smartly dressed	1	2	3	4	5
25	Pupils' work prominently displayed	1	2	3	4	5
26	Good teaching practices	1	2	3	4	5
27	Good academic curriculum	1	2	3	4	5
28	No bullying	1	2	3	4	5
29	Adequate supervision outwith the classroom	1	2	3	4	5
30	Happy children	1	2	3	4	5
31	Good facilities	1	2	3	4	5
32	Positive staff-pupil relationships	1	2	3	4	5
33	Harmonious relationships between pupils	1	2	3	4	5
34	Good atmosphere	1	2	3	4	5
35	Parental involvement in extra-curricular activities	1	2	3	4	5
36	Good academic achievement by pupils	1	2	3	4	5
37	Assessment based on tests and examinations	1	2	3	4	5
38	Highly qualified teachers	1	2	3	4	5
39	Homework several times each week	1	2	3	4	5
40	Special provision for the more academic pupils	1	2	3	4	5
41	Information for parents about the curriculum easily obtainable	1	2	3	4	5
42	Sensitive to parents' views	1	2	3	4	5
43	Has flourishing school clubs	1	2	3	4	5
44	Has competitive team sports	1	2	3	4	5
45	Good relationship between the school and the community	1	2	3	4	5
46	Good academic reputation	1	2	3	4	5
47	Small classes	1	2	3	4	5
48	Modern equipment	1	2	3	4	5
49	Pupils smartly dressed	1	2	3	4	5
50	Pupils in uniform	1	2	3	4	5
51	Effective parents'/parent-teacher association	1	2	3	4	5
52	Is where children's friends are	1	2	3	4	5
53	Provides the right peer group for children	1	2	3	4	5

54	Career guidance available	1	2	3	4	5
55	Helps with career planning	1	2	3	4	5
56	Provides an individualised atmosphere	1	2	3	4	5
57	Good curriculum spread	1	2	3	4	5
58	A range of subjects available	1	2	3	4	5
59	Avoids pupil anonymity	1	2	3	4	5
60	Specialist music facilities	1	2	3	4	5
61	Support for learning in advanced computing	1	2	3	4	5
62	Offers a range of extra-curricular activities	1	2	3	4	5
63	A high percentage of pupils achieve Standard Grades (General/Credit) or G.C.S.E.	1	2	3	4	5
64	A high percentage of pupils achieve Highers or A Levels	1	2	3	4	5
65	Many pupils go on to college or university	1	2	3	4	5
66	Staff includes many young and energetic teachers	1	2	3	4	5
67	Staff includes a high percentage of mature and experienced teachers	1	2	3	4	5
68	Teaching generally well organised	1	2	3	4	5
69	Innovative teaching	1	2	3	4	5
70	Old-fashioned but effective teaching	1	2	3	4	5
71	Staff regularly attend courses to upgrade teaching	1	2	3	4	5
72	Pupils are streamed according to ability at an early stage	1	2	3	4	5
73	Pupils are streamed at a later stage	1	2	3	4	5
74	Homework regularly marked and returned	1	2	3	4	5
75	Extensive library	1	2	3	4	5
76	In some subjects, separate education for boys and girls	1	2	3	4	5
77	Allows variety of religious provision	1	2	3	4	5
78	Provides comfortable environment for all	1	2	3	4	5
79	Stops pupil cliques dominating	1	2	3	4	5
80	Tries to improve academic standards	1	2	3	4	5
81	Initiates policies to improve academic standards	1	2	3	4	5
82	Encourages pupils to identify with school	1	2	3	4	5
83	Gets pupils to pull together for school interests	1	2	3	4	5
84	Provides a safe and secure environment	1	2	3	4	5
85	Tries to attract and keep academic pupils	1	2	3	4	5
86	Attracts pupils from a wide range of backgrounds and with varying abilities	1	2	3	4	5
87	Deals promptly with disciplinary problems	1	2	3	4	5
88	Tolerant discipline regime	1	2	3	4	5

89	Discipline is not a core concern	1	2	3	4	5
90	Casual staff dress	1	2	3	4	5
91	Formal staff dress	1	2	3	4	5
92	Provides for pupils from less well-off backgrounds	1	2	3	4	5
93	Tends to provide for better off pupils	1	2	3	4	5
94	School responds to pupils as individuals	1	2	3	4	5
95	School helps with individual problems	1	2	3	4	5
96	Develops children's self-confidence	1	2	3	4	5
97	Assists ability to relate to others	1	2	3	4	5
98	Teaches social skills	1	2	3	4	5
99	Helps pupils to relate to people from different backgrounds	1	2	3	4	5

100 Other (specify) _____

_____

Give a brief description of the school. Include details such as size, rural/urban, fee paying, former grammar school etc.

_____

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		Very dissatisfied				Very satisfied
101	How satisfied were you with the school?	1	2	3	4	5

		Very unhappy				Very happy
102	How happy would you be to send your child to this school?	1	2	3	4	5

Appendix E

Third Survey Questionnaire

PERCEPTIONS OF SCHOOLS

You are invited to contribute to a study, which concerns impressions of schools.

If you would like to take part, please rate a secondary school you have some experience of, on each of the following characteristics.

Thank you for your help.

Rate a school known to you on these attributes:

(1 - Not at all true 5 - Very true of school)

CIRCLE ONE NUMBER FOR EACH CHARACTERISTIC

1	Adequate accommodation (Not overcrowded)	1 2 3 4 5
2	Good size	1 2 3 4 5
3	Capable teachers	1 2 3 4 5
4	Special provision for slow learners	1 2 3 4 5
5	Information about progress easy for parents to obtain	1 2 3 4 5
6	Provision of regular reports about progress	1 2 3 4 5
7	Headteacher and staff easily approachable	1 2 3 4 5
8	Good discipline	1 2 3 4 5
9	No class disruption	1 2 3 4 5
10	Children do not feel like failures	1 2 3 4 5
11	Teachers respond sympathetically to pupils' anxieties	1 2 3 4 5
12	Good behaviour of pupils	1 2 3 4 5
13	General cleanliness of building	1 2 3 4 5

14	Clean toilets with no graffiti	1	2	3	4	5
15	Building in good repair	1	2	3	4	5
16	A mix of pupils from all social backgrounds	1	2	3	4	5
17	Convenient and within easy reach of children's homes	1	2	3	4	5
18	Effective headteacher	1	2	3	4	5
19	Adequate staffing	1	2	3	4	5
20	Adequate funding	1	2	3	4	5
21	Good organisation	1	2	3	4	5
22	Good communication with pupils	1	2	3	4	5
23	Well motivated pupils	1	2	3	4	5
24	Staff smartly dressed	1	2	3	4	5
25	Pupils' work prominently displayed	1	2	3	4	5
26	Good teaching practices	1	2	3	4	5
27	Good academic curriculum	1	2	3	4	5
28	No bullying	1	2	3	4	5
29	Adequate supervision outwith the classroom	1	2	3	4	5
30	Happy children	1	2	3	4	5
31	Good facilities	1	2	3	4	5
32	Positive staff-pupil relationships	1	2	3	4	5
33	Harmonious relationships between pupils	1	2	3	4	5
34	Good atmosphere	1	2	3	4	5
35	Parental involvement in extra-curricular activities	1	2	3	4	5
36	Good academic achievement by pupils	1	2	3	4	5
37	Assessment based on tests and examinations	1	2	3	4	5
38	Highly qualified teachers	1	2	3	4	5
39	Homework several times each week	1	2	3	4	5
40	Special provision for the more academic pupils	1	2	3	4	5
41	Information for parents about the curriculum easily obtainable	1	2	3	4	5
42	Sensitive to parents' views	1	2	3	4	5
43	Has flourishing school clubs	1	2	3	4	5
44	Has competitive team sports	1	2	3	4	5
45	Good relationship between the school and the community	1	2	3	4	5
46	Good academic reputation	1	2	3	4	5
47	Small classes	1	2	3	4	5
48	Modern equipment	1	2	3	4	5
49	Pupils smartly dressed	1	2	3	4	5
50	Pupils in uniform	1	2	3	4	5
51	Effective parents'/parent-teacher association	1	2	3	4	5

52	Is where children's friends are	1	2	3	4	5
53	Provides the right peer group for children	1	2	3	4	5
54	Career guidance available	1	2	3	4	5
55	Helps with career planning	1	2	3	4	5
56	Provides an individualised atmosphere	1	2	3	4	5
57	Good curriculum spread	1	2	3	4	5
58	A range of subjects available	1	2	3	4	5
59	Avoids pupil anonymity	1	2	3	4	5
60	Specialist music facilities	1	2	3	4	5
61	Support for learning in advanced computing	1	2	3	4	5
62	Offers a range of extra-curricular activities	1	2	3	4	5
63	A high percentage of pupils achieve Standard Grades (General/Credit) or G.C.S.E.	1	2	3	4	5
64	A high percentage of pupils achieve Highers or A Levels	1	2	3	4	5
65	Many pupils go on to college or university	1	2	3	4	5
66	Staff includes many young and energetic teachers	1	2	3	4	5
67	Staff includes a high percentage of mature and experienced teachers	1	2	3	4	5
68	Teaching generally well organised	1	2	3	4	5
69	Innovative teaching	1	2	3	4	5
70	Old-fashioned but effective teaching	1	2	3	4	5
71	Staff regularly attend courses to upgrade teaching	1	2	3	4	5
72	Pupils are streamed according to ability at an early stage	1	2	3	4	5
73	Pupils are streamed at a later stage	1	2	3	4	5
74	Homework regularly marked and returned	1	2	3	4	5
75	Extensive library	1	2	3	4	5
76	In some subjects, separate education for boys and girls	1	2	3	4	5
77	Allows variety of religious provision	1	2	3	4	5
78	Provides comfortable environment for all	1	2	3	4	5
79	Stops pupil cliques dominating	1	2	3	4	5
80	Tries to improve academic standards	1	2	3	4	5
81	Initiates policies to improve academic standards	1	2	3	4	5
82	Encourages pupils to identify with school	1	2	3	4	5
83	Gets pupils to pull together for school interests	1	2	3	4	5
84	Provides a safe and secure environment	1	2	3	4	5
85	Tries to attract and keep academic pupils	1	2	3	4	5
86	Attracts pupils from a wide range of backgrounds and with varying abilities	1	2	3	4	5

87	Deals promptly with disciplinary problems	1	2	3	4	5
88	Tolerant discipline regime	1	2	3	4	5
89	Discipline is not a core concern	1	2	3	4	5
90	Casual staff dress	1	2	3	4	5
91	Formal staff dress	1	2	3	4	5
92	Provides for pupils from less well-off backgrounds	1	2	3	4	5
93	Tends to provide for better off pupils	1	2	3	4	5
94	School responds to pupils as individuals	1	2	3	4	5
95	School helps with individual problems	1	2	3	4	5
96	Develops children's self-confidence	1	2	3	4	5
97	Assists ability to relate to others	1	2	3	4	5
98	Teaches social skills	1	2	3	4	5
99	Helps pupils to relate to people from different backgrounds	1	2	3	4	5
100	School located in a good area	1	2	3	4	5
101	School does what it says it does	1	2	3	4	5
102	Allows children to join a good peer group	1	2	3	4	5

102 Other (specify) _____

_____

Give a brief description of the school. Include details such as size, rural/urban, fee paying, former grammar school etc.

_____

_____

_____

_____

_____

_____

		Very dissatisfied				Very satisfied
104	How satisfied were you with the school?	1	2	3	4	5

		Very unhappy				Very happy
105	How happy would you be to send your child to this school?	1	2	3	4	5

		Not important				Very important
106	How important is it, that a school is conveniently located?	1	2	3	4	5
107	How important was the headmaster in determining the success (or not) of the school?	1	2	3	4	5

Appendix F

Fourth Survey Questionnaire (Importance of dimensions)

PERCEPTIONS OF SCHOOLS

You are invited to contribute to a study, which concerns impressions of schools.

Please rate how important these issues are for you, if you were to rate a secondary school on its merits.

(1 - Not important 5 - Very important)
CIRCLE ONE NUMBER FOR EACH CHARACTERISTIC

1	Adequate accommodation (Not overcrowded)	1 2 3 4 5
2	Information about progress easy for parents to obtain	1 2 3 4 5
3	Headteacher and staff easily approachable	1 2 3 4 5
4	Teachers respond sympathetically to pupils' anxieties	1 2 3 4 5
5	General cleanliness of building	1 2 3 4 5
6	Building in good repair	1 2 3 4 5
7	Good communication with pupils	1 2 3 4 5
8	Good academic curriculum	1 2 3 4 5
9	Happy children	1 2 3 4 5
10	Good facilities	1 2 3 4 5
11	Positive staff-pupil relationships	1 2 3 4 5
12	Good academic achievement by pupils	1 2 3 4 5
13	Information for parents about the curriculum easily obtainable	1 2 3 4 5
14	Good academic reputation	1 2 3 4 5
15	Provides an individualised atmosphere	1 2 3 4 5
16	A high percentage of pupils achieve Highers or A Levels	1 2 3 4 5