TRANSFORMING AN ESPECIALLY CHALLENGING URBAN SCHOOL AGAINST THE ODDS

A MULTIVARIATE STATISTICAL ANALYSIS OF STUDENT PERCEPTIONS

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"A dissertation submitted in partial fulfilment of the Doctorate in Education of the University of Greenwich"

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I certify that this work has not been accepted in substance for any degree, and is not concurrently submitted for any degree other than the Doctorate in Education (EdD) of the University of Greenwich. I also declare that this work is the result of my own investigations except where otherwise stated.

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This thesis is dedicated to my son Michael (7th May 1988 – 19th October 1988) who will always be remembered with pride, happiness and love.

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ABSTRACT

The aim of this four year longitudinal study was to identify the contributory factors that brought about rapid improvement in an especially challenging urban school. A two-phase sequential mixed-method strategy was used to identify underlying statistically derived factors within a post-positivist paradigm

In phase I, Principle Components Analysis was used to reduce an initial 90-item questionnaire, administered to 302 students, to identify a three factor multilevel school improvement model that comprised 17 sub-factors. The derived factors were: i. leadership at the whole school level; ii. teaching and learning in the classroom and iii. the development of students and teachers as part of a unified learning community.

During phase II, Principle Axis Factoring, Multiple Regression and MANOVA were used to test the hypothesis that 22 school improvement variables, derived from a review of the 3 factors and 17 sub-factors from phase I, did in fact comprise a single coherent school improvement model with 3 levels.

A detailed analysis of the perceptions of 104 students, gathered via a 22-item questionnaire, yielded a coherent model based on 4 factors (levels) that were interpreted as: context; leadership; learning & teaching and ethos & relationships. In addition, 22 sub-factors were identified within the model. The statistical findings were triangulated with the literature, external documentary evidence about the school and focus group interviews with a stratified random sample of students, parents and teachers.

This thesis proposes a new dynamic multilevel rapid school improvement model together with a new paradigm for schools operating in challenging urban contexts.

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DEFINITION OF TERMS

ANOVA	Analysis of Variance
BTEC	Business and Technology Education Council
CRB	Criminal Records Bureau
CVA	Contextual Value-added
DCSF	Department for Children Schools and Families
Df	Degrees of Freedom
DFE	Department for Education
DfES	Department for Education and Skills
DV	Dependent Variable
ESRC	Ethical Standards Research Council
FA	Factor Analysis
FSM	Free School Meals
GCSE	General Certificate in Education
HMI	Her Majesty's Inspectorate
HMSO	Her Majesty's Stationary Office
ILEA	Inner London Education Authority
IV	Independent Variable
KMO	Kaiser-Meyer-Oklin
LEA	Local Education Authority
MANOVA	Multiple Analysis of Variance
NPQH	National Professional Qualification for Headteachers
OFSTED	Office for Standards in Education
PAF	Principle Axis Factoring
PCA	Principle Components Analysis
PRU	Pupil Referral Unit
QCA	Qualifications and Curriculum Authority
SE	School Effectiveness
SFCC	Schools Facing Challenging Circumstances
SI	School Improvement
SPSS	Statistical Package for the Social Sciences
VIF	Variance Inflation Factor

1 INTRODUCTION

SCHOOL IMPROVEMENT AGAINST THE ODDS

1.1 The Research Problem

Existing literature and ongoing research indicate a strong negative correlation between school achievement and most measures of social disadvantage (Harris and Chapman, 2002; Chapman and Harris, 2004; Muijis et al., 2004; Potter et al., 2002). Some schools facing difficult and challenging circumstances, however, are according to Maden and Hillman (1993), able to add significant value to student achievement. Research suggests the need for different improvement strategies in these specific challenging contexts as compared with those in more advantaged circumstances (Muijis et al., 2004). There is an emerging evidence base (Chapman and Harris, 2004; Harris and Chapman, 2002; Leithwood and Steinbach, 2003; Muijis et al., 2004; Potter et al., 2002; West et al., 2005) to suggest that leadership, a focus on learning and teaching and changing the school culture have been demonstrated to have a positive impact on improving schools in difficult and challenging urban contexts.

This research study aims to statistically derive the contributory factors, both individual and specific combinations, which are critical to rapid school improvement in an especially challenging urban context. Importantly, the research aims to identify these factors through the detailed analysis of the perceptions of the cohort of students who have 'lived' through this experience. Implicit in this study is the intention to develop and test a theoretical conceptual school improvement model that can be applied to schools in similar contexts.

This thesis captures the lived experience of a headteacher in 'turning around' a failing school in 15 months and then to be faced with the threat of its closure while continuing the transformation process. Set in this context, the research provides the opportunity to analyse the impact of the school improvement and school effectiveness paradigms on schools in challenging contexts

1.2 The School Context

This research is framed within a four-year longitudinal case study of a high profile Inner London Comprehensive Secondary School with a highly diverse ethnic composition, which *"... operates in an extremely challenging urban environment and* (where) *many of its pupils come from disadvantaged socio-economic backgrounds" (*OFSTED, 2005: 1). The period covered by the study is typified by an above average number of students for whom English is not their mother tongue, with increasing numbers at an early stage of learning the language. The proportion of students with learning difficulties and/or disabilities, and the proportion of those with a statement of educational need is above average. Moreover, there has been a growing number of students that face *"considerable social challenges"* (OFSTED, 2008a) and multiple disadvantage.

Rock Bottom

In March 2004, prior to my appointment, the school was judged to be failing and as a result to require special measures, in accordance with section 13(7) of the

School Inspection Act 1996 (OFSTED, 2004). The overall quality of education was deemed to be poor, resulting in student's achievements being well below National averages. Consequently, the school failed to meet the newly introduced Government 'floor examination target' that required at least 25% of students to achieve 5 or more GCSE grades A* to C, reaching only 20%. Furthermore, the school had clearly lost the support of the local community and was frequently vilified in the press.

Following the special measures judgement a further deterioration in the school context was evident, not helped by a fatal stabbing that occurred in close proximity to the school in July 2004. Whilst not directly related to the school the incident occurred at the end of the school day and further contributed to the feeling of chaos and helplessness surrounding the school. This was further exacerbated by damaging press coverage. I took up the post as headteacher in September 2004 following a successful tenure as a headteacher in a similarly challenging context.

Back from the Brink

Initial school improvement efforts were focused on improving student behaviour and tackling ineffective teaching and management. However, according to the monitoring HMI inspector, matters deteriorated significantly during my first two terms at the school – contrary to our observations on the ground.

The turning point occurred towards the end of my second term at the school when a further detailed review of the internal context was conducted. The subsequent development and implementation of a high quality school improvement plan proved to be the key to unlocking the potential for improvement. The 'what', 'how' and 'why' questions arising from this process form the central aspect of the narrative in this thesis.

Fourteen months later, in November 2005, the school was judged by Ofsted to be *'rapidly improved'* with *'rapid improvement in test and examination results'* and

consequently it was judged that the school no longer required special measures. In 2006 the school significantly exceeded the government floor target, with 34% of students achieving at least five A* to C grades.

A Period of Political Defiance and Class Warfare

In September 2006, the newly elected Conservative Council, supported by the Local Authority, brought forward a proposal to close the school and launched a concerted and undermining campaign in the press. In response the school, in the shape of the headteacher, staff, parents, students and governors, decided to fight the proposal. Despite overwhelming community support for the school during the informal consultation period the Council issued a formal notice to close the school in December 2006.

During February 2007, in the midst of yet more objections from stakeholders and the local community, and following legal advice, the school attempted to stop the closure in the High Court based on the argument that the Council decision was founded on incorrect and misleading data. Lord Justice Sullivan judged that the school had an opportunity to correct the information at the School Organisation Committee, which at that time formed part of the appeal process, and hence the due process should take place.

In March 2007, a public meeting of the Schools Organisation Committee (held after a protracted period of campaigning and lobbying) refused to support the Council and the matter was subsequently referred by the Council to the Independent Adjudicator. At almost the last moment in April 2007 the proposal was withdrawn in the face of likely defeat at adjudication. In order to save political face the Council established a Commission, chaired by Baroness Perry of Southwark, to report on the future structural arrangements for education in the local area. One of the recommendations in the report was the 'continued development' of the case study school. However, this recommendation was coupled with a suggestion that the school seek to form a partnership with the French government to deliver bi-lingual

education. With undue haste, the Council attempted to drive through a proposal to turn the school into a French-English bilingual Academy. On the basis that there were hardly any French speakers in the school this was again an incorrect decision. Following yet more public consultation by the Council the matter was finally dropped in December 2008, albeit after a final flurry of concern and a measure of lobbying when the Council excluded the school from their plans for a sixth form in every secondary school. The school was subsequently included in the proposal.

Rapidly Improved Standards and Effectiveness

Against this backdrop of continuous and sometimes politically motivated threats to the school's existence, standards of attainment rose rapidly, with the proportion of students achieving 5 GCSE grades A*- C rising from 20% in 2004 to 78% in 2008. The improvement in the proportion of students achieving 5 A*- C grades, including English and Mathematics, rose from 12% in 2004 to 42% in 2007 resulting in the school being highlighted as the second most improved school nationally and the most improved in London over this period. More importantly, students were now judged to make *'very good progress in relation to their capabilities and earlier achievements"* (OFSTED, 2008a) as evidenced by the Key Stage 3 to 4 contextual value-added measure that placed the school in the top 2% of schools nationally for achievement in 2007.

In January 2008, the school was judged to be *"... a good and rapidly improving school with outstanding features"* (OFSTED, 2008a). A further specialist OFSTED Survey Inspection into Every Child Matters and promoting equality of opportunity in October 2008 resulted in an 'outstanding' judgement. This journey from Special Measures in March 2004 to 'outstanding' in October 2008 indicated high levels of effectiveness in all key areas of the school. The school now had the overwhelming support of parents and the local community, student numbers were rising and teachers were actively requesting to work at the school.

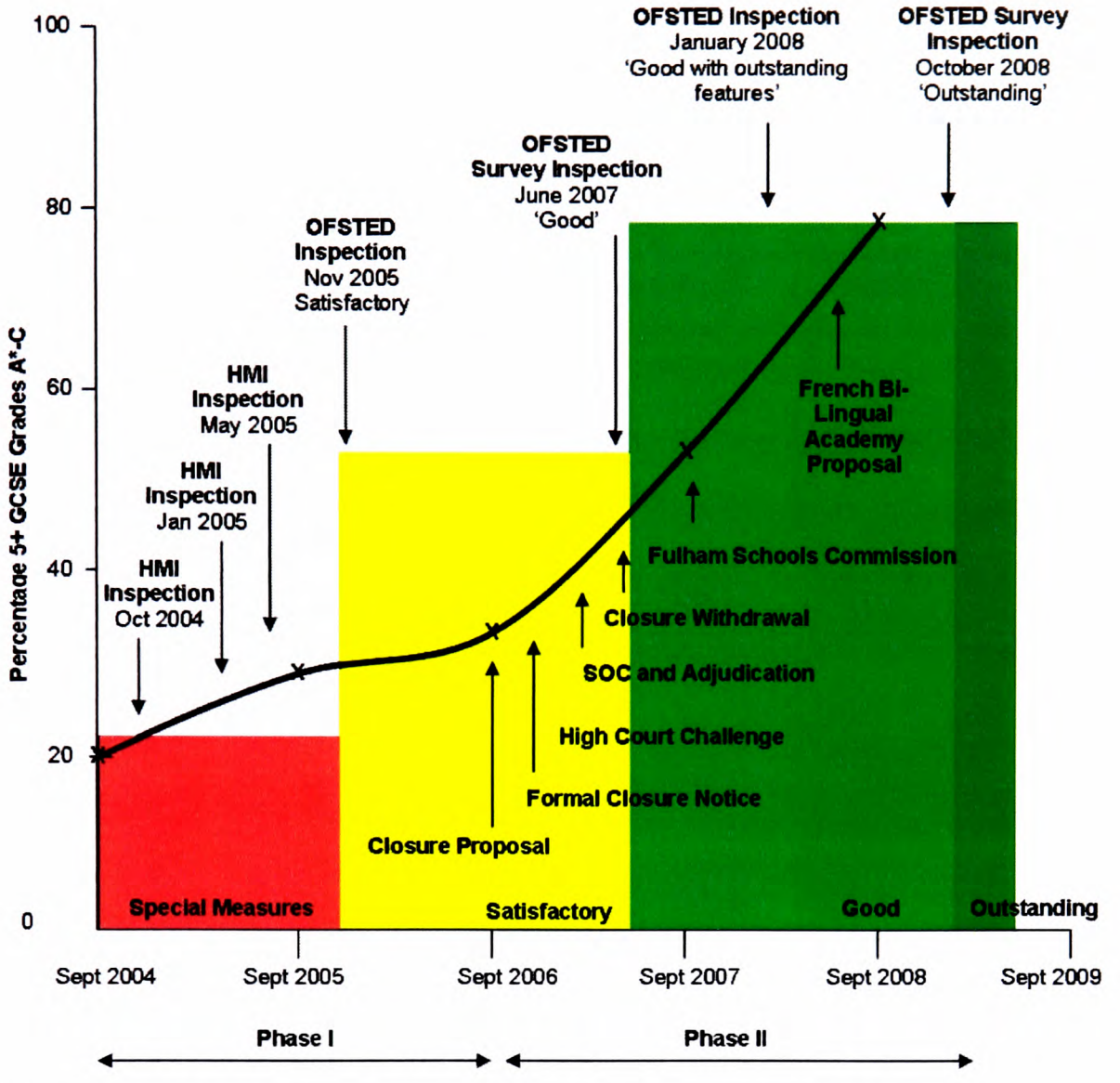

Figure 1.1: The Journey from Special Measures to Outstanding

The impressive transformational journey (Figure 1.1) of this single school against the odds has been well documented in the press but this complex case study provides a unique insight into the internal processes of change from within a school in an especially challenging context.

1.3 The Professional Context

At the time of writing, I currently have 9 years school improvement experience as a headteacher, in two very challenging schools, during which time my leadership has been judged as 'outstanding' (OFSTED, 2008) and 'exemplary' (OFSTED, 2003). I strongly advocate that any school can be 'turned around' by implementing and communicating a finite number of high impact strategies in the right way.

Central to my argument is that the theoretical and methodological debates surrounding the two dominant paradigms of School Effectiveness and School

Improvement simply 'get in the way' of rapid transformational change as a result of their confused and competing methodologies. I therefore argue for a new, more 'optimistic', post-positivist paradigm for schools in very challenging circumstances.

A focus on raising educational standards lies at the core of the public policy agenda in many developed countries (Chapman and Harris, 2004), most notably England, with increasing pressure on schools to raise levels of attainment amongst students (West et al., 2005). However, despite improvements in overall attainment levels, progress has been limited in a number of schools in challenging urban contexts. Consequently, *"The educational reform agenda in many countries reflects a renewed interest in improving schools in difficult or challenging circumstances"* (Muijis et al., 2004:149).

School improvement, however, is a complex and 'messy business'. The *"odds seem stacked against schools in poorer areas"* (Gray, 2000: 1) and the link between disadvantage and educational performance appear to be as strong as ever (Chapman and Harris, 2004).

The dominant paradigms of School Effectiveness and School Improvement both deal inadequately with 'schools in challenging circumstances' (Wrigley, 2006) leading to the theoretical and practical inadequacy of recent interventions (Harris et al., 2006). Whilst these paradigms are intimately related, they are fundamentally different in their methodology and have common limitations for schools serving disadvantaged communities. Despite producing endless lists of improvement and effectiveness factors, both paradigms are still searching for the relative size, effect and most efficient mix of these factors. Consequently, neither have produced adequate theoretical models for improving schools in challenging contexts and very few studies have explored how schools in disadvantaged circumstances engage with their local community. Neither paradigm has paid adequate attention to pedagogy and educational aims and priorities (Wrigley, 2006). It is not surprising therefore that the failure of recent Government initiatives in education in terms of

schools facing challenging circumstances represents a great challenge to both paradigms.

This study differs from most others in the field in that the research has been conducted from within a school whilst rapid improvement was actually taking place and with the headteacher as the researcher. Through carefully considering the perceptions of students, the research provides an in-depth statistical analysis of what 'works' to bring about rapid improvement in the most challenging and hostile of environments.

The benefits to the case study school are obvious in terms of school self-evaluation and improvement planning, but through combining rigorous academic research with practical school improvement strategies, the intention of this study is to make a significant contribution to the wider professional and academic communities. In particular, the findings will have significant implications for: school improvement programmes in challenging contexts; the specific training of headteachers in especially challenging contexts; central Government policy in relation to challenging urban schools and academic researchers and lead professionals in the school effectiveness and school improvement fields. These themes will be critiqued using a review of recent literature and the outcomes of quantitative research.

The impact of producing a simple and easy to implement conceptual model within a new theoretical framework would have a far reaching impact on practical school improvement efforts in schools that find themselves in difficulty. Similarly it will provide academic researchers with a theoretical model that can be robustly tested in other similar, or possibly wider, contexts.

1.4 Other Studies that have addressed the problem

There is extensive school effectiveness literature, both in the United Kingdom and internationally, that has sought to establish:

- That schools can and do make a difference (Reynolds and Creemers, 1990:1) for the better (Edmonds, 1979; Mortimore et al., 1988; Rutter et al., 1979) or even for the worse (Myers, 1995);

- Correlates of effectiveness that are central to the development of an effective school (Sammons et al., 1995; Thrupp, 1999);

- A number of indicators by which school effectiveness can be measured accurately and consistently (e.g. attainment, attendance rates, exclusions and teaching quality) that now underpin the OFSTED framework for the Inspection of schools (reported in Barber, 1998:18).

Consequently, school effectiveness research has had a major impact on policymaking at national, local and school level (White and Barber, 1997). However, whilst such effectiveness factors may be associated with good performance there is not necessarily a direct correlation (Davies, 1997: 33). Hence, the assumption that findings about successful schools can be used as a blueprint for improving ineffective schools is 'flawed' (Wilmott, 1999: 6). Despite the claim that 'the core mission of school effectiveness was to overcome poverty', " *very little attention has been paid to schools serving disadvantaged communities*" (Wrigley, 2006). As a consequence School Effectiveness research currently offers little specific advice for schools operating in very challenging contexts and is open to the criticism that it has been exploited to underpin government attempts to *"... blame teachers for the relatively slow progress of pupils growing up in poverty"* (Wrigley, 2006).

Only recently have a number of school improvement researchers (Harris and Chapman, 2002, 2004; Potter et al., 2002; Muijis et al., 2004; West et al., 2005; Leithwood and Steinbach, 2003) turned their attentions to schools in difficult and challenging circumstances but as yet there has not been an in-depth analysis of

'factors' that can be statistically claimed to be correlated to school improvement in such contexts. Muijis et al. (2004) argue that there is an urgent need for *"quantitative research that tests the strength of all the elements and links this to a differential contextual model"*.

1.5 Contribution to New Knowledge

The intention of this study is to respond to the common weaknesses of school improvement and school effectiveness research. A specific intention is to identify statistically the size, effects and mix of factors that lead to improvement in challenging schools to create a theoretical multilevel model that can be tested in similar contexts. In addition to school improvement and school effectiveness research, this study will also draw upon literature from educational research methods, multivariate statistics, multilevel modelling and texts that address criticisms of school improvement and school effectiveness research methodology.

Research into school improvement in especially challenging circumstances has concentrated predominantly on large-scale literature reviews, small scale projects, single case studies, such as those documented by OFSTED, and reports of practitioners (Potter et al., 2002; Harris and Chapman, 2002; Chapman and Harris, 2004; Harris et al., 2003). In England there is little empirical evidence about improving schools in challenging circumstances (Chapman and Harris, 2004) and no known studies have focused on the consumers of, and the largest number of participants in, the education provided, namely: the students. To date there has not been an in-depth analysis of 'factors' that can be statistically claimed to be correlated to school improvement in such contexts.

A number of features make this study unique, most notably:

- The adoption of a methodological framework that attempts to identify statistically derived correlates of improvement in an especially challenging, but improving, context through bringing together the use of student voice

and looking at the problem through a mathematical lens that seeks to develop and evaluate a conceptual rapid school improvement model over time. This approach focuses on student perceptions as 'consumers of', as well as 'participants in', the school improvement process. Furthermore, no known studies have applied a statistical analysis to identify improvement factors that are relevant to the context, then interpreted and tested them.

- My role as a headteacher-researcher provides a unique positioning on the inside of the case study school context. No one has previously given the narrative from the inside. This positioning is highly significant in school improvement terms since I was able to make the big decisions and then measure their impact through empirical research.

- During the period of this study, from September 2004 to October 2008, the case study school continuously operated in the most extreme and challenging environments it is possible to imagine. There is very little research evidence to date about 'context specificity' (Reynolds and Teddlie, 2000) and therefore an implicit aim of this study is to attempt to identify those improvement factors that are specific to the case study school and those that can be applied elsewhere in similar contexts (Reynolds et al., 1994).

- An interrogation of the literature to present a paradigm shift and a novel positioning through challenging existing paradigm structures and current ideas about school improvement and school effectiveness.

The study is important because it responds to the two recurring criticisms in the literature: the lack of detailed research into ineffective schools (Brown, Duffield and Riddell, 1997; Reynolds, 1994) that have improved (Gray et al., 1993; Stoll, 1993) and the necessity to attempt to identify the means by which some schools in

especially challenging contexts succeed 'against the odds' (Maden and Hillman, 1993).

1.6 The Purpose Statement

The purpose of this two-phase, sequential mixed methods study was to analyse student perceptions in an effort to identify the size and strength of the contributory factors, both individual and in specific combinations that are critical to rapid improvement in an especially challenging urban school.

This four-year longitudinal study employs quantitative data obtained from large scale surveys of student perceptions of what had caused improvement, triangulated with documentary evidence and in-depth interviews to deconstruct and interpret these results.

In the first phase, results from a large scale survey of student perceptions were subjected to Principle Components Analysis (PCA) to reduce the resultant large number of variables through identifying the underlying components, or latent variables, most strongly associated with school improvement. The interpretation of the PCA was enhanced by the insight gained from documentary evidence and findings from the research literature in the field. This analysis was used to develop a tentative conceptual multi-level rapid school improvement model.

In the second phase, results from a further large scale survey of student perceptions, using a refined questionnaire, were subjected to Principle Axis Factoring (PAF) to test the robustness of the conceptual school improvement model developed in phase 1 of the research. The inclusion of a measure of students perceived understanding of the extent of improvement in the school as a dependent variable enabled the use of multiple regression to measure the relationship between this dependent variable and 21 independent school improvement variables. Additionally, the combined use of factor scores and multiple regression was used to identify the relative size and effect of the factors

extracted using PAF. Multivariate Analysis of Variance (MANOVA) was used to ascertain whether there were any significant differences in student responses due to gender, ethnicity or social circumstance or a combination of these personal characteristics. A more detailed insight was gained from focus group interviews conducted with a small but representative sample of students, parents and teachers.

The rationale for using both quantitative and qualitative data was that useful questionnaires could only be developed after a preliminary exploration of student perceptions. Furthermore, the outcomes of the multivariate statistical analyses used could only be effectively interpreted following a more detailed exploration of the issues with stakeholders.

1.7 The Research Question

Having established the broad purpose and central direction of the study, the focus can be narrowed to a specific research question:

What are the contributory factors that cause rapid improvement in an 'especially challenging' urban school?

However, I will contend that the on-going debates between the separate school improvement and school effectiveness traditions has clouded professional judgment and stopped a proper alternative re-examination of this question. Consequently, the complexity of the context within which this study is conducted dictates that four fundamental supplementary questions must to be considered in order to effectively frame the research design:

(a) How does the specific context of especially challenging urban schools impact on school improvement efforts and what is the relationship to improvement factors?

(b) What do students perceive to be the size, effect and definition of contributory school improvement factors and what specific combinations of factors impact most on rapid school improvement?

(c) What would a new conceptual school improvement model for schools in especially challenging urban contexts look like?

(d) What might a new theoretical framework (paradigm) for schools operating in challenging circumstances look like?

The fundamental threads (context, what makes a difference, conceptual models and theoretical framework) associated with these questions are woven throughout the study in combination with the unique methodology (researching students perspectives, multivariate statistics, theoretical perspectives and personal insight) as shown schematically in figure 1.2. This study is unique because the methodology used to answer the research questions was also integral to the school improvement process.

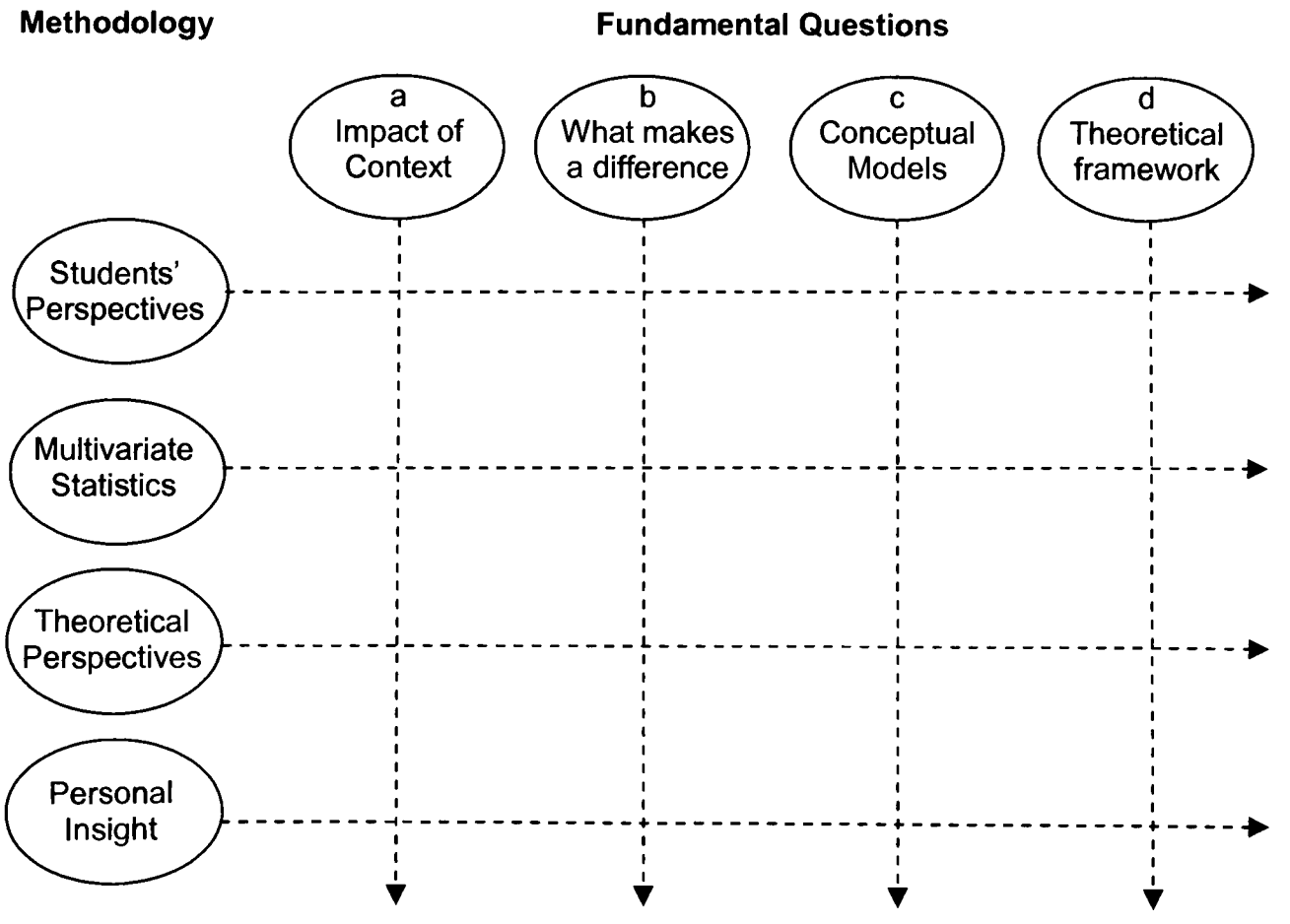

Figure 1.2: The Links between the Fundamental Questions and Methodology

Children only get one chance at secondary school regardless of the social circumstances in which they live and grow up. It is vital for their economic and social well-being that the schools where their futures are shaped, are as good as they can possibly be. The overriding priority, to speed up the pace of transformation and improvement in schools serving significant levels of disadvantage, has never been more urgent. This study aims to make a major contribution to addressing this priority with the starting point being the perspectives of students.

2 LITERATURE REVIEW

THE FAILURE OF COMPETING PARADIGMS

This chapter will consider findings from the plethora of school improvement and school effectiveness studies and their impact on the distinctive subset of institutions that I will define as 'especially challenging urban schools'. Four fundamental questions will be used to search the literature in order to address the central research question: '*What are the contributory factors that cause rapid improvement in an 'especially challenging' urban school?'*

i. How might we define an effective school operating in a challenging context?
ii. How can we define an especially challenging urban school?
iii. What does the existing literature tell us about the critical aspects of school improvement in especially challenging urban contexts?
iv. What are the convergent findings and common limitations of school effectiveness and school improvement that help us to move forward in developing conceptual improvement models?

The findings from this review of the literature will not only help to frame the research design but will also facilitate the effective interpretation of the quantitative analysis of student perceptions conducted in chapters 4 and 5 and enable the findings to be located within existing theory.

2.1 Introduction

The field of education is dominated by the school improvement and school effectiveness paradigms and consequently this study is framed within the seemingly endless debate between the two. Essentially, school effectiveness is concerned with analysis and seeks to answer the question: what characterizes effective schools? On the other hand, School Improvement is about processes, action and change. It seeks to answer the question: how can schools improve? Effectiveness and Improvement are intimately intertwined (Wrigley, 2006) and their best known protagonists frequently write together. At its simplest level, this relationship would appear to be a pre-requisite, since: if we don't know what an effective school is, then how can we frame the school improvement agenda? However, despite the overlap and blurred edges, formal links between the two paradigms are still fairly tenuous (Harris, 2001).

In attempting to identify successful improvement strategies in challenging contexts, findings from both school improvement studies and elements from school effectiveness research, upon which many school improvement efforts are based (Reynolds et al., 2000), are examined. Consequently, a pragmatic approach involving the use of different and mixed methodologies (Potter et al., 2002; Tashkkori and Teddlie, 1998) has led to material from both qualitative and quantitative perspectives being included (Muijis et al., 2004). The relative failure of both the school effectiveness and school improvement paradigms to improve schools serving disadvantaged communities (Wrigley, 2006), dictates a careful consideration of literature that critiques both positions.

From a purely pragmatic point of view there appears to be remarkable convergence between many of the findings from school improvement and school effectiveness research, with much of it making good professional common sense. For this reason we should not discard the findings from School Effectiveness or School Improvement research. However, there are common limitations to both paradigms. The lack of understanding of the impact of context, confused (and in some cases misleading) methodology and the absence of the students voice has resulted in a paucity of theoretical and conceptual models that explain how some schools succeed against the odds in challenging contexts.

Central to this argument is that the theoretical and methodological debates surrounding the two dominant paradigms of School Effectiveness and School Improvement have led us to a position where they 'get in the way'. The debate has become a raison-d'etre in itself, stopping researchers and practitioners from returning to first principles. More worryingly in some cases, the debate draws school leaders into thinking in the wrong direction. To identify a more appropriate way forward, the convergent themes and common limitations of school effectiveness and school improvement are considered. In order to understand the debate more fully in the context of especially challenging schools it is necessary to see it through the eyes of different people. For this reason the implications of researching students will be discussed as a precursor to identifying a unique methodological approach.

2.2 School Effectiveness in the Context of a Challenging School

School effectiveness emanates from the premise that the socioeconomic background of pupils makes far more difference to their educational outcomes than the nature of schooling itself (Coleman et al., 1966; Jecks et al., 1972). However, subsequent school effectiveness research (Rutter et al., 1988; Mortimore, 1988; Scheerens, 1997; Teddlie and Reynolds, 2000) confirms the existence of a school effect. Consequently, contemporary school effectiveness studies have focused on: the size of school effects (Gray et al., 1990; Daly, 1991); the continuity of school

effects (Sammons et al., 1995); the nature of differential effects (Goldstein et al., 1993); the characteristics of differently effective departments and teachers (Creemers, 1994a; Sammons et al., 1997; Harris, 1999) and the consistency of school effects on different outcomes (Thomas et al., 1997; Goldstein and Sammons, 1995).

The overwhelming conclusions are that schools do make a difference because they *"operate more as an organic whole and less as a loose collection of disparate sub-systems"* (Harris, 2001: 11) typical of less effective schools. However, there is contradictory evidence about teacher effectiveness with Flecknoe (2005) determining that outstanding teachers made no significant difference to their pupils progress, whilst Harris (2001: 11) concludes that *"Teachers are the important determinants of children's educational and social achievements"* (Harris, 2001:11).

School Effectiveness has significant weaknesses (Hopkins, Reynolds and Gray (2005: 11): there is too narrow a definition of achievement; the lack of information about the characteristics of effective teaching and learning in classrooms; its inability to transfer its insights to practitioners; its 'one size fits all' orientation which fails to take account of different school contexts and its focus on schools that became effective rather than 'how' they became effective.

The current strengths claimed by school effectiveness research (Hopkins, Reynolds and Gray, 2005) can be categorized into three strands: the characteristics of effective schools; the measurement of pupil progress using "value-added measures' and attempts to measure the school effect by demonstrating that some students make different progress in different schools and in different subjects in the same school (Hopkins, Reynolds and Gray, 2005; Luyten, Visscher and Witziers, 2005: 249; Sandoval-Hernadez, 2008: 31). Each of these strands will be analysed in turn.

The School Effect

There are inherent difficulties in defining an effective school (Mortimore, 1991, 1998) and reaching consensus on relevant criteria (Schereens and Bosker, 1997). Hence it should be recognized that the identification of effective schools is based on a limited view of what a good school is (Rowe, 2000: 78; Watson, 1996). Nevertheless, a consistent finding from school effectiveness research is that: *'The effects of educational interventions are quite small'* (Reynolds, 2005: 15) with most of the difference between schools taking place at the individual classroom teacher level (ibid.). The variance in student outcomes, once the effects of their backgrounds are taken into account, ranges from 8 - 10% (Daly, 1991) to 12-18% (Creemers, 1994). Nevertheless, whilst these differences are quite small in percentage terms, the impact on student outcomes can be quite large (Thomas and Mortimore, 1994). Deprivation is *"still by far the biggest determinant of educational success"* (Reynolds, 2005: 6).

Multilevel techniques now allow investigation of differential effectiveness; specifically whether some schools are more or less effective for particular students groups (boys or girls, low or high ability students, those from specific ethnic groups (Sammons et al., 1995). In comprehensive school systems, within-school variation in student attainment is much greater than between-school variation – at Key Stage 3 it is 11 times greater and at Key Stage 4 it is 14 times greater. However, school and teacher effects are reduced as children get older (Horay, 2005: 22). The effect of different departments (Luyten, 1994) in the same school (Smith and Tomlinson, 1989; Harris, Jamieson and Russ, 1995; Thomas, 1995; Sammons, Thomas and Mortimore, 1997) and different subjects (Sammons, Thomas and Mortimore, 1997) were found to have a greater effect than the whole school effect.

An important contextual factor concerns pupils themselves (MacGilchrist et al., 2004). Schools can have different impacts on different pupils and the 'social mix' within schools is increasingly seen to have an important influence on pupil

progress and outcomes (Willms and Kerr, 1987; Nuttal et al., 1989; Sammons, Thomas and Mortimore, 1997).

MacBeath and Mortimore (2001:12) found that: *"the longer that pupils stay in school the more pronounced becomes the influence of social class".* They ask the question: is this a school effect or a background effect. In other words does the social background that pupils bring with them exert itself more strongly over time, or is a school constructed in such a way as to accentuate the difference progressively? (ibid; MacGilchrist, 2004).

The interrelationship between social class, ethnicity and gender is very significant (MacBeath and Mortimore, 2001; Gillborn and Gipps, 1996; Gillborn, 2002) but school effectiveness researchers have been criticised for not paying enough attention to the importance of social mix (Thrupp, 2001). Thrupp (1999: 183) argues that student backgrounds and their communities play a crucial role in defining school culture. Consequently, Teddlie and Reynolds (2000) conclude that more attention needs to be paid to a wider range of contextual factors.

Measuring Student Achievement

Attainment is the subset of achievement that can easily be measured and that has been privileged over other forms of achievement in England by OFSTED. One problem with the development of such indicators of student performance is that schools may not be able to measure what is important in education. A US report, Education Counts (1991), quoted in MacGilchrist et al. (2004: 24), suggested that *"we should learn to measure what we value rather than value what we can easily measure".* Indeed, White and Barber, 1997: 51) state: *"Most of the educational aims which parents, teachers and ordinary citizens think important – happiness, personal autonomy, moral goodness, imaginativeness, civic-mindedness ... do not appear to be measurable".* Hargreaves (ILEA, 1984) suggested at least 4 aspects of achievement (capacity to remember and use facts; practical and spoken skills; personal and social skills and motivation and self-confidence) but we have

continued to become good at measuring the first aspect, whilst still having some way to go in measuring the other three (MacGilchrist et al., 2004).

The definition of an effective school as 'one in which pupils progress further than might be expected from consideration of its intake' (Mortimore, 1991: 9) and one which 'adds extra value to its students outcomes in comparison with schools serving similar intakes' (Sammons, Hillman and Mortimore, 1995: 3), have led directly to the emergence of value-added and contextual value-added measures of student progress (MacGilchrist et al., 2004).

There is some consensus that value-added and contextual value-added comparisons are desirable (Fitz-Gibbon, 1997; Fitz-Gibbon and Tymms, 1993; Goldstein, 1997a,b,c; Hill, 1995; Rowe, 1996a; 1999a,b; 2000a,b; Saunders, 1999) but there are 'serious and inherent limitations' to the usefulness of such indicators for providing judgments about schools (Goldstein and Thomas, 1996; Goldstein and Spiegelhalter, 1996; Rowe, 1996b, 2000a, b).

Given *'what is known about differential school effectiveness'* (Rowe, 2000: 80; Nuttall, Goldstein, Prosser and Rasbash, 1989; Hill and Rowe, 1998; Rowe, 2000a; Hill and Rowe, 1998) it is not possible to provide simple summaries that provide all the information about a school (Rowe, 2000: 80). The use of educational performance indicators in the form of test or examination scores *"tends to be narrowly focused on a comparative ranking of schools rather than identifying factors that explain effectiveness"* (Rowe, 2000: 79). Consequently, there are serious limitations to using a performance indicator framework for evaluating school effectiveness (Watson, 1996: 110) due to the complexity of educational provision that has multiple objectives, multiple inputs and multiple outcomes (ibid).

Value-added and contextual value-added measures are 'backward looking' performance indicators that refer to 'cohorts' of students who entered the school several years previously (Rowe, 2000: 80) and by the time an analysis is complete

may have left the school. Consequently, they have limited value in judging school effectiveness (Goldstein, 1997c).

Furthermore, value-added and contextual value-added estimates have too much uncertainty to provide reliable league table rankings (Rowe, 2000: 80). Consequently, the publication of annual league tables has attracted much criticism (Goldstein and Myers, 1996) for their unreliability (Sandeval-Henandez, 2008) and even the government that introduced them has accepted they can be misleading (Rowe, 2000). As Sammons et al. (1995: 9) conclude:

> *"It is not appropriate to produce detailed rankings of value added estimates (residuals) of effectiveness (without taking note of confidence limits) because the confidence limits overlap (Goldstein et al., 1993; Sammons et al., 1993b, 1994b, 1994c; Thomas and Mortimore, 1994).*

At best, ranked value-added estimates can be used to identify outliers which could form the basis of follow up but they cannot be used as definitive measures of school effectiveness (see Goldstein, 1997a, b, c; Saunders, 1999, Sandeval-Henandez, 2008). Such ranked estimates are relative ones in that "... *they position each school in relation to other schools with which they are being compared, and at a particular point in time*" (Rowe, 2000: 81). Consequently performance indicators based on the ranking of schools average examination and test scores, have little to offer in terms of shedding light on school effectiveness (Rowe, 2000) and consequently judgments of effectiveness or ineffectiveness can be very misleading, problematic and irresponsible (ibid).

Recent Government policy in England has been heavily influenced by school effectiveness research and is dominated by a focus on educational accountability and standards monitoring that have had significant impact on schools (Rowe, 2000). External pressure has emanated from the implementation of a National Curriculum, National testing arrangements, an external school inspection system

administered by OFSTED and the publication of comparative league tables to show every school's average achievement scores on tests and examinations under the Parents Charter (DfES, 1991).

The use of ranked value-added estimates has the potential to cause serious individual and institutional harm (Rowe, 2000: 77; Goldstein, 1997a,b,c; Goldstein and Cuttance, 1988; Myers and Goldstein, 1996). Behind the publication of league tables is the allocation of blame or credit. The underlying assumption is that if a school is deemed to be effective or ineffective in terms of its ranked position, the reason for this lies within the school (Rowe, 2000: 86). This is not to say that schools shouldn't be held accountable through relevant performance indicators; *"Rather it is suggested that it is highly unsatisfactory to attempt this, principally and indirectly by invoking 'evidence' based on the achievement scores of their students"* (Rowe, 2000: 83). In a test dominated curriculum there has been an emphasis on curriculum content that can be easily tested (Rowe, 2000: 76) with corresponding pressure on schools to teach to the tests (Christine Gilbert, Chief Inspector for Schools) and thereby reducing curriculum breadth.

Increased selection has emanated from headteachers of non-selective schools lobbying Government ministers to enable them to select up to 20 per cent of their intake to improve their league table rankings. For the same reason, there has also been a reluctance to enroll 'low achievers' and a concentration in some schools on those students thought capable of improving their test and examination scores (Rowe, 2000: 76). Parents choosing to enroll their children at schools on the basis of league table rankings, have heavily influenced the difference between the more advantaged and disadvantaged schools by seeking to get their children into the 'perceived' best schools. This becomes a self-fulfilling proposition as the 'market' takes hold and more affluent parents move into catchment areas of schools with higher league table rankings (Rowe, 2000).

Characteristics of Effective Schools

In a literature review commissioned by OFSTED, Sammons, Hillman and Mortimore (1995) noted 11 characteristics that are present in schools that *"add value to their pupils"* (MacGilchrist et al., 2004), namely: professional leadership; shared vision and goals; a learning environment; concentration on teaching and learning; purposeful teaching; high expectations; positive reinforcement; monitoring progress; pupils' rights and responsibilities; home-school partnership and a learning organisation (Sammons, Hillman and Mortimore, 1995: 8).

In the field of school effectiveness and school improvement, researchers as well as practitioners often complain about the absence of theory to guide their work. Following work by Goldstein (1987), Creemers (1997) developed a conceptual multilevel model based on a review of educational effectiveness. The levels contained within this model include: the student level; the classroom level; the school level and the contextual level. The higher levels in models such as that described by Creemers provide the conditions for what happens in the preceding levels. Creemers (1997: 118) further argues:

> *"Factors at the higher levels contribute to the outcomes or are conditional for what happens at the lower levels. This means that not just one level induces results, but a combination of levels".*

According to MacGilchrist et al. (2004), three key questions emerge from the factors of effective schools identified by Sammons et al. (1995):

i. Are they all of equal value or are some more central than others?
ii. Are they important/valid in isolation from, or in relation to, each other?
iii. How can a school develop these characteristics?

MacGilchrist et al. (2004) conclude that these factors do not have equal weighting. They place pupils' rights and responsibilities at the centre of school improvement

efforts, concluding that there appear to be three core essential characteristics: professional high quality leadership and management; a concentration on teaching and learning and the professional development of staff. In seeking to answer the third question, MacGilchrist et al. (2004) identify nine intelligences (ethical, spiritual, contextual, operational, emotional, collegial, reflective, pedagogical, and systematic), which it is argued are used by schools in addressing simultaneously the core business of learning, teaching, effectiveness and improvement. This work (McGilchrist, Myers and Reed, 2004) draws parallels between Gardner's (1999) multiple intelligences and the corporate intelligences of the improving school.

It is suggested that the nine intelligences have at least three important implications for school leaders: they are interdependent; they have maximum impact when used in combination and they each have the potential to be developed and improved. The challenge for school leaders therefore is to establish a collective understanding of the range of intelligences being used and identify those that need to be further developed (MacGilchrist et al., 2004).

However, it must be acknowledged that the distillation of the 11 characteristics of effective schools (Sammons et al., 1995) does not tell the whole story (Durrant, 2006). They gloss over social and political issues of equity and diversity, the complexity of processes of school and systemic change and the uniqueness of context (MacGilchrist et al., 2004). It is now widely recognised that there is no simple combination of factors which can produce an effective school (Willms, 1992; Reynolds and Cuttance, 1992). Indeed there is very little research "*especially in Britain, which is explicit about 'turning round' so called 'ineffective schools"* (Gray and Wilcox, 1994). These authors go on to argue that *"in the search for the correlates of effectiveness, the correlates of ineffectiveness have been assumed to be the same. It is by no means clear however that they are. "How an ineffective school improves may well differ from ways in which more effective schools maintain their effectiveness"* Ibid.: 2). As Sammons et al (1995: 2) conclude:

"... school effectiveness research results do not provide a blueprint or recipe for the creation of more effective schools (Reid, Hopkins and Holly, 1987; Sammons, 1987; Mortimore et al., 1988; Creemers, 1994; Sammons, 1994).

It is important to note that, as school effectiveness and school improvement studies have become more international, not all concepts, such as leadership, travel across all cultures easily (MacBeath and Mortimore, 2001). However, Mortimore et al (2000:142) conclude from a study of London and Singapore schools that:

- *"There is no single recipe for turning schools around but there are common elements which include motivating staff, focusing on teaching and learning and enhancing the physical environment and changing the culture of the school;*

- *Improvements must fit in with the grain of society rather than go against it;*

- *Resources in themselves do not guarantee success but do help convince staff, students and parents that society believes in the school and is willing to invest;*

- *Change has to be carried out by the school itself. Friends are important but change has to come from within".*

Depending upon the research considered there are potential dilemmas in reconciling different aspects of school effectiveness research. To illustrate this point, Ouston (1999) notes that school outcomes are quite similar when adjusted for social factors and states: *"... if schools don't differ, or we can't measure these differences reliably, the list of the features of effective schools have little justification"* (Ouston, 1999: 169).

Having examined the findings from school effectiveness research it is now important to consider the most challenging subset of ineffective schools and the limited findings from school improvement research into schools facing extremely challenging circumstances.

2.3 Defining an Especially Challenging Urban School

The literature (Harris and Chapman, 2002; Muijis et al., 2004; Potter et al., 2002) strongly suggests that performance measures alone cannot indicate whether a school is in a 'challenging context' (Chapman and Harris, 2004). Contextual indicators such as free school meals, socio-economic status, parental education and occupation offer a more accurate picture of the degree of challenge. An especially challenging urban school is therefore characterised by a complex and potentially intransigent set of antecedents (Leithwood and Steinbach, 2003). In seeking to define an especially challenging urban school more closely, three different strands emerge from the literature: the disadvantaged nature of the student cohort (incorporating urban issues), external pressures brought about by external monitoring and internal school conditions.

Low Socio-economic Status and the Urban Dimension

Leithwood and Steinbach (2003) define especially challenging schools, as those serving a large proportion of families typified by low socio-economic status and weak family education cultures, which have a *"very large and direct impact on student outcomes that far outweigh everything schools do"* (ibid.:.25). Variation in the strength of family education cultures affects a student's ability to be successful at school because *"it exerts a powerful influence on their acquisition of, and access to, social capital"* (Leithwood and Steinbach, 2003: 25). A succession of studies have suggested that socio-economic status of families explains more than half of the variation in student achievement (Coleman, 1966; Jenks et al., 1971; Rutter et al., 1979). Furthermore, the influential Plowden Report (HMSO, 1967) found that the great majority of variance in attainment between schools could be explained by

family background and parental attitudes. The urban dimension is characterised by high levels of unemployment, physical and mental health issues, high student mobility (Muijis et al., 2004) and falling roles (Gray, 2000).

External Pressure

Significant additional pressure on schools emanates from two key government initiatives that ultimately contribute to the challenging nature of the school: OFSTED monitoring and the Schools Facing Challenging Circumstances (SFCC) initiative.

The Office for Standards in Education (OFSTED) defines a school to be 'in need of special measures' where the registered inspector concludes that it is *"failing to provide its students with an acceptable standard of education"*. The impact of this judgment (Crawford, 2002) is significant, with external pressure emanating from: a requirement to submit an action plan for improvement to the Secretary of State for Education; regular additional monitoring by Her Majesty's Inspectors (HMI) and the Local Education Authority (LEA) and, most importantly, an expectation to improve and provide an acceptable education for its students within two years.

Ferguson et al (2000) note that schools in disadvantaged areas are more likely than those in stable communities to be judged harshly, with only one in a hundred schools serving a high proportion of socially disadvantaged children receiving 'very good' OFSTED reports, compared to one in five schools with only a small proportion of such children. Furthermore, schools serving high levels of social deprivation usually take more than the two years allocated in which to be removed from special measures (Gray, 2000).

In 2004, approximately 600 'Schools Facing Challenging Circumstances' (SFCC) remained at the core of the Labour government's drive to raise standards (TES, 30 August 2002). These schools had been identified because they were failing to meet uniform 'floor targets' - at least 30% of students achieving 5+ GCSE grades

A*-C. This SFCC group of schools contained a high proportion of those serving communities with low socio-economic status, urban areas (OFSTED, 1999) and schools serving inner city communities (Gray, 2000). Many of these schools are also identified by OFSTED as requiring 'special measures' or having 'serious weaknesses' (Chapman and Harris, 2004). The Department for Education and Skills (DfES, 2000) exerted pressure on such schools, in the form of increased OFSTED monitoring visits, to meet 'floor targets' in return for extra financial support through the 'Leadership Incentive Grant' (Chapman and Harris, 2004).

Following significant progress by the London Challenge, the National Challenge (DCSF, 2008), launched by the Secretary of State on 10 June 2008, provides a £400 million support package to schools who do not meet an increased floor target of 30% of pupils achieving at least 5 GCSE grades A*-C, including English and mathematics. Again financial support and that of a National Challenge Advisor is provided in return for the development of a school improvement action plan. By 2011 the National Challenge intends to achieve: a sharp drop in underperforming schools, particularly focusing on English and mathematics; more outstanding schools and significant improvements in educational outcomes for disadvantaged children (DCSF, 2007). The DCSF claim (ibid.) that the number of schools failing to meet the National Challenge floor target had fallen from 638 in 2007 to 440 in 2008. The timing of the launch was significant however, coming after the 2007-2008 cohorts of students had already completed their GCSE examinations. The National Challenge initiative could not therefore have been responsible for this improvement.

Internal School Conditions

Schools in Special Measures often fail as a result of not identifying weaknesses with sufficient rigour (Ofsted, 2000) or significant changes in staffing, particularly the loss of a good headteacher, coupled with difficulty in recruiting new high quality staff (Crawford, 2002). These schools in 'trouble' also have troubled histories (Gray, 2000: 10) and this is particularly true for especially challenging urban

schools, where internal conditions greatly exacerbate the challenge, being troubled by: poor leadership, poor teaching, poor facilities, high staff turnover, challenging student behaviour, high absence rates, a poor physical environment, poor relationships, a lack of trust, poor industrial relations, a lack of public and parental support, falling roles, budget problems, high Special Educational Need (SEN) and English as an Additional Language demands (Chapman and Harris, 2004; Muijis et al., 2004; Potter et al., 2002).

There is little data to suggest whether these three strands are equally important. However, socio-economic factors are clearly dominant when seeking to define a challenging urban school. The 'extremely challenging' element derives from a combination of all three, mutually reinforcing, sets of antecedents outlined above. Schools within this small subset of schools in difficulty are almost always at the very bottom of the school performance cycle and under serious threat.

2.4 School Improvement in Especially Challenging Contexts

The strengths of school improvement research (Hopkins, Reynolds and Gray, 2005: 10) include: a clear understanding of the importance of school culture; its emphasis on the importance of headteachers, teachers and pupils needing to accept, embrace and own the reforms; its focus on the professional 'deep cultures' of values, beliefs and socialisation. However, in common with school effectiveness, school improvement is characterised by weaknesses that include: 'one size fits all' solutions; a lack of evidence about the effect of its interventions and by the absence of any focus on the process of teaching (ibid.: 12). This section will focus on schools in challenging circumstances.

The steps required to 'turn around' a challenging school are 'significantly less well researched' (Barber and Dann, 1996: 20) than the characteristics of 'good', 'improving' and 'effective' schools (Sammons et al., 1999; Hopkins, 2001). Consequently, this chapter will consider the relatively recent research related to improving 'failing' or 'ineffective' schools (Barber and Dann, 1996; Gray, 2000;

Harris et al., 2003; Hopkins et al., 1997; Maden and Hillman, 1996; Stoll and Myers, 1998) in especially challenging urban school contexts from within the UK (Chapman and Harris, 2004; Leithwood and Steinbach, 2003; Muijis et al., 2004; Potter et al., 2002; West et al., 2005) and internationally (Elmore, 2000; Louis and Marks, 1996; Louis and Miles, 1990).

In the field of school improvement, a significant amount of time is wasted reinventing the wheel (Muijis et al., 2004). However, the literature highlights a surprising degree of convergence in the content of effective school improvement programmes. These include:

- Securing effective leadership through the appointment of a strong headteacher (Potter et al., 2002) to provide the firm directive leadership that is needed at the start of any attempts to 'turn around' schools in difficulty (Chapman, 2003);

- A multi-level approach that brings a 'synergy' to all school improvement efforts by simultaneously focusing on whole school, classroom and individual needs (Creemers, 1997; Goldstein, 1987; Potter et al., 2002);

- A clear focus on a limited number of 'high impact' goals and priorities (Hopkins, 2001; Muijis et al., 2004; Potter et al., 2002; Reynolds et al., 2001) with a single school improvement plan lying at the heart of this approach (Maden and Hillman, 1993; Muijis et al., 2004);

- The use of 'reengineering' principles (Davies, 2003) as an alternative to traditional incremental school improvement strategies (Potter et al., 2002). This involves the *"fundamental rethinking and redesign of processes to achieve dramatic improvement in critical measures of performance"* (Hammer and Champy, 1993: 32);

- The adoption of whole school *"...standard operating procedures (SOP's) and policies, including an agreed teaching model and consistent implementation of agreed actions in teaching, managing behaviour, attendance, etc"* (Potter et al., 2002).

When considering all of the research literature surrounding schools that succeed 'against the odds' in improving against a background of significant pupil and community disadvantage (Potter et al. 2002; Chapman and Harris, 2004; Muijis et al., 2004), there exists a problem of how different researchers articulate and catalogue internal school improvement strategies under specific headings. This is a vital question if headteachers are to make sense of how the various strategies are to be brought together to form a coherent school improvement programme. It is clearly evident that three recurring and convergent themes emerge: strong purposeful whole school leadership; a focus on teaching and learning in the classroom; and the development of individuals in the organization to create a positive culture and ethos.

Leadership

The importance of clear, strong, positive and purposeful headteacher leadership is a common feature within school effectiveness literature (Sammons et al., 1995), particularly in improving especially challenging urban schools (Chapman and Harris, 2004; Mortimore, 1993). It has been claimed that successful leadership has a direct influence on student attainment (Leithwood and Steinbach, 2003), accounting for up to 25% of school level variance in student achievement (Hallinger and Heck, 1998). Although more democratic forms of leadership are required once a school begins to improve (Chapman, 2003), firm directive leadership is needed at the start of turning around schools in difficulty (Chapman and Harris, 2004).

The key attributes of successful leaders in especially challenging urban schools include honesty, openness and trust (Chapman and Harris, 2004) together with an

ability to collaborate (Lein et al., 1996; Stoll, 1999) and generate a belief in a culture of improvement and a more positive climate for learning. This involves setting clear and high expectations; sharing a vision for improvement couched in academic terms (Potter et al., 2002), which is reaffirmed with students and staff on a regular basis; and by encouraging respect for others (Chapman and Harris, 2004). Clear and open communication by the headteacher is a characteristic of improving and effective schools (Harris and Chapman, 2001; Hughes 1995; Muijis et al., 2004), being correlated to gains in student achievement (Berends, 2000).

Other important leadership strategies identified in the literature include the modeling of appropriate behaviours for staff and students; instilling a sense of urgency for maintaining high academic standards and exerting pressure on students, staff and parents to excel (Chapman and Harris, 2004).

Effective leadership in improving schools in difficult and challenging contexts requires both 'transformational' and 'instructional' leadership (Potter et al., 2002) as opposed to transactional leadership, which is characterised by exchange relationships (Harris and Chapman, 2001; Reynolds et al., 2001). Transformational leadership involves satisfying higher needs and engaging the full person as follower and is better able to cope with complex situations such as schools in socio-economically deprived areas (Chapman and Harris, 2004). Bass's (1985) conceptualisation of transformational leadership contains the following characteristics: idealised influence or charisma; inspirational motivation; individual consideration and intellectual stimulation.

Instructional leadership focuses on teaching and learning issues (Hallinger and Heck, 1998) more than administrative aspects, which distinguish less effective schools (Chapman and Harris, 2004; Connell, 1996; Stoll, 1999; Teddlie and Stringfield, 1993). In addition, Leithwood and Steinbach (2003) suggest that 'emancipatory leadership' is essential in especially challenging schools. This involves building on the social capital that students do possess and implementing

equitably those policies that are most likely to bring success with children from low socio-economic backgrounds. Schools must therefore 'rediscover a sense of purpose' (Gray, 1999) underpinned by the desire to break the link between social disadvantage and attainment

Headteachers in especially challenging schools place significant emphasis on the proactive and extensive (Potter et al., 2002) recruitment and retention of a hard core of the highest quality teachers, who are suited to the school context. This includes recruiting staff that are prepared to spend time talking to students, both formally and informally (West et al., 2005), and have positive attitudes to parents (Coleman, 1998). In order to safeguard the consistency of approach, those staff unwilling to change are 'encouraged to move on' (West et al., 2005). The development of an effective 'staff team' is underpinned by a focus on teaching and learning that includes targeted training (Barth et al., 1999; Henchey, 2001; Reynolds et al., 2001) on the delivery of agreed teaching methods (Joyce and Showers, 1995; Potter et al., 2002), together with a redefinition of roles and responsibilities and new interpretations of "working relationships, management arrangements, teams and duties amongst senior staff and teachers" (West et al., 2005). Teachers are encouraged to work collaboratively as teams with shared targets (Chapman and Harris, 2004). In particular, the building of an effective leadership team that 'motivates, raises morale and sustains performance over time' (Chapman and Harris, 2004) has an important role in gaining commitment to the vision, direction and strategy (West et al., 2005).

The use of data, particularly value-added measures (West et al., 2005), is strongly identified (Reynolds et al., forthcoming) as a key component in improvement in challenging schools, particularly in relation to teaching and learning, the curriculum and the culture and image of the school (Chapman and Harris, 2004; Potter et al., 2002; West et al., 2005). Data can be used as a catalyst for improvement whilst appearing to be non-threatening (West et al., 2005) but can also be used by heads to demonstrate and celebrate success (West et al., 2005) and identify good

practice (Potter et al., 2002). Effective schools in challenging circumstances collect and centralise (Muijis et al., 2004) large amounts of data including:

- Examination results, standardised and teacher marked test results (Muijis et al., 2004);
- Surveys of student, staff and parents satisfaction (Potter et al., 2002; Etheridge et al., 1994);
- Qualitative data on school conditions (Hopkins, et al., 1996; Chapman and Harris, 2004);
- Data derived from monitoring and evaluation activities such as classroom observations and work scrutiny (Chapman and Harris, 2004).

Data richness is not just about the collection of large amounts of data but also its effective use so that data can be turned into information that forms the basis for school and classroom decision-making (Joyce et al., 1999; Hopkins, 2001a; Potter et al., 2002). The effective use of data involves target setting to spur on school improvement (Reynolds, et al., 1996), planning and evaluating appropriate programmes of study (Chapman and Harris, 2004) and analysing the effectiveness of other initiatives such as teaching styles and mentoring methods (Connell, 1996).

Furthermore, data rich, "enquiry minded" (Barth et al., 1999; Earl and Lee, 1998) schools use performance indicators to continuously interrogate data and track progress over time (Potter et al., 2002) to evaluate whether initiatives are working (Muijis et al., 2004). Similarly the tracking of student's progress enables schools to: identify particular problem areas; evaluate the effectiveness of subject departments (West et al., 2005) and measure the progress of specific populations of students according to factors such as gender, ethnicity or prior attainment (ibid.: 159).

All schools in the UK are now required to engage in a process of school self evaluation (OFSTED, 2005). As part of this process *"Schools must listen to and do*

something about the views of their stakeholders" (A New relationship with Schools: Improving Performance through School Self-Evaluation', para. 2). Furthermore:

> *"Experience shows the most effective schools are those which are well organised to collect, analyse and evaluate evidence drawn from ... gathering and considering the learners', parents', teachers' and other stakeholder views and perceptions about the quality of the schools provision"* (ibid., para. 21).

This development is significant in that schools, and the inspectors who inspect them, are now specifically required to consider their contextual situation, together with the views of their students.

Improving the environment (Potter et al., 2002) has both a symbolic and a real purpose as it demonstrates to staff, students and parents that the school is changing and improving (Chapman and Harris, 2004). This involves allocating resources to painting, repair work, new furniture, new reception areas, display boards and improving the staffroom. (ibid.: 221). Emphasis is also placed on litter removal and eradication of graffiti.

External intervention, through networking with other schools (Hopkins and Reynolds, 2002), support from Local Authority consultants and advisors (Watley, Hopkins, Harris and Beresford, 1998) or external monitoring via OFSTED inspections (Freeman, 1997), is another factor that has been found to be important to school improvement in disadvantaged areas (Reynolds, 1998; Stoll and Myers, 1998; Potter et al., 2002). However, accountability is different from improvement (Muijis et al., 2004) and if combined will inevitably cause tensions and contradictions (Earley, 1998). The evidence casts doubt over claims supporting the role that OFSTED inspections play in school improvement (Chapman, 2002). Additionally, Local Authorities in deprived areas are sometimes a major factor in

the failings of schools (Potter et al., 2002) since they themselves suffer from the same endemic problems as schools.

The literature suggests that schools in difficulty are often subject to a wide range of external interventions whose demands can be counter-productive, particularly in schools with additional problems of social disadvantage. One solution is to focus all improvement strategies on teaching and learning (Harris and Chapman, 2004).

The role of Governance in school improvement is less clear. A number of official documents (DFE/BIS/OFSTED, 1995; DfEE, 1996, 1997a, 1997b) have established that the principle purpose of governance lies in improving schools. Resultant legislation (Education Act, 1998) and the Guidance to the Law, DfEE, 2000) requires the Governing Body to conduct the school 'with a view to promoting high standards of achievement' (Ch. 5: 1). Three distinctive roles have been identified for governing bodies: to provide a strategic sense of direction for the work of the school; to support the work of the school as a critical friend and to hold the school to account for the standards and quality of education it achieves.(DFE/BIS/OFSTED, 1995; OFSTED, 1999).

Scanlon et al. (1999) found a strong association between inspector's judgements of school effectiveness and judgements of the quality of governance:

> *"It appeared as though there was a positive relationship between effective schools and effective governing bodies though the causal direction could not be determined" (Earley and Creese, 2003: 3).*

However, some researchers (Ranson et al., 2005) have implied a causal relationship, concluding that, *"better governance sharpens the practice of management, which in turn generates improved standards of attainment"*. However, OFSTED (1998) has issued warnings about the wide variation in the quality of school governance and a paper, based on findings from school

inspections during 2000/2001 (DfES, n.d.), reported that *"governance was less effective in schools where there was a higher proportion of students receiving free school meals"*. Schools serving disadvantaged communities find it difficult to recruit suitable governors, particularly parent governors. Consequently such schools are more likely not to be representative, particularly in terms of social class and ethnic background (Scanlon, Earley and Evans, 1999). Furthermore, there are potential difficulties for governors in fulfilling the role set out in Governing Bodies and Effective Schools (1995), who according to Carrick, 1996):

> *"... may lack the necessary skills, confidence and knowledge that would enable them to give a clear sense of direction to the school while also acting as a critical friend".*

In particular, working class parent governors may lack 'cultural capital' (Bourdieu, 1977) and hence be more reluctant to question teachers professional knowledge (Hood, 2003), or to interrogate judgements.

The role of the Governing Body in improving schools and raising standards has until recently been neglected in research (Scanlon et al., 1999; Earley and Creese, 2003) and *"there is, at present, little empirical evidence of how governing bodies actually contribute school improvement in practice"* (Earley and Creese, 2003: 3). Recent research (OFSTED, 2002; Scanlon et al., 1999) has begun to identify an association between governance and school improvement but has *"refrained from assessing the causality of the correlation involved"* (Ranson et al., 2005).

The Better Regulation Task Force (2000) suggests that, *"the government agenda for raising standards is accompanied by too much 'red tape' and that the lines of accountability between headteacher, governing bodies, LEA's and the DfEE have become too blurred"*. It further argues, *"... a Governing Body can create a considerable burden for the headteacher while providing little in the way of overall direction or real accountability* (Earley and Creese, 2003). A key responsibility for

governors must therefore be to ensure that the headteacher and senior staff are *"enabled to do as good a job as they can"* (Earley and Creese, 2003). The Task Force report argues for:

- A reduction in the size of governing bodies to increase their effectiveness and efficiency;
- The Governing Body to be seen as a board of non-executive directors with responsibility for appointing headteachers, monitoring his/her performance and endorsing the school's broad strategies and policies (Carver, 1990).

Such changes, along with appropriate training and induction, it is argued would allow governing bodies to focus more closely on the three areas of responsibility envisaged in Governing Bodies and Effective Schools (DFE/BIS/OFSTED, 1995).

A Focus on Teaching and Learning

Recent research in especially challenging urban schools has identified a central focus on teaching and learning as being at the heart of successful school improvement strategies (Muijis et al., 2004; Potter et al; 2002; Chapman and Harris, 2004; Herman, 1999; Reynolds et al., 2001). This includes developing a common and coherent framework (Newman et al., 2001) for instruction that includes: the organisation of the school day; a strongly structured curriculum; student grouping arrangements; an agreed teaching model; the re-skilling of teachers in a limlited but specific repertoire of teaching styles; extra academic support for students a focus on mentoring and tracking of student progress and effective management of behavior.

Reviewing the school day and using creative timetabling strategies enables the school to maximise teacher's use of time and enable additional courses, options and workshops aimed at raising attainment to take place (West et al., 2005).

The literature highlights the importance of developing a strongly structured curriculum (Ledoux and Overmaat, 2001), that is more integrated across years and subjects (Connell, 1996) with learning connected to 'real-life' experiences relevant to student's everyday lives and stressing practical applications (Chapman and Harris, 2004). Research evidence is divided on curriculum content (Muijis et al., 2004), with some findings highlighting the need for an emphasis on basic skills (Berends, Bodily and Kirby, 2002; Teddlie and Stringfield, 1993), particularly English and Mathematics (Barth et al., 1999; Hallinger and Murphy, 1986), whilst some argue that students from low socio-economic backgrounds should be exposed to a rich curriculum (Borman, et al., 1998; Guthrie et al., 1989; McHugh and Stringfield, 1998; Leithwood and Steinbach, 2003). However, a range of modular, vocational and applied GCSE courses have been found to be more appropriate for some students in such contexts (West et al., 2005). Two important studies have emphasised the Arts (Connell, 1996; Maden, 2001).

The four main purposes of the National Curriculum in England are: to establish an entitlement; to establish standards; to promote continuity and coherence and to promote public understanding. The National Curriculum also requires that: *"Teachers, individually and collectively, have to reappraise their teaching in response to the changing needs of their pupils and the impact of economic, social and cultural change".* (QCA, 2007). Smith (2000) explores four distinct ways of approaching curriculum theory and practice:

i. The Curriculum as a body of knowledge to be **transmitted -** syllabus;
ii. Curriculum as an attempt to achieve certain ends in students – **product**;
iii. Curriculum as **process -** *the interaction of teachers, students & knowledge;*
iv. Curriculum as **praxis -** makes an explicit commitment to emancipation.

When considering the four different approaches to curriculum theory and practice (Cross, 2008) we have to accept that we are currently operating within a policy

environment that prizes the productive and technical. However, in the context of the especially challenging urban school the process and praxis approaches are vital to unlocking learning for children from low socioeconomic backgrounds. Particular attention must be paid to the social context in which the curriculum is created and delivered. One criticism of all the curriculum approaches is the insufficient emphasis placed on context (Smith, 2000). In this respect curriculum is what actually happens in the classrooms, that is, *"... an ongoing social process comprised of the interactions of students, teachers, knowledge and milieu"* (Cornbleth, 1990: 5). Curriculum is therefore contextually shaped. Of special significance here is the notion of the hidden curriculum (Kelly, 1988: 8) and the impact of class, race and gender relationships.

The adoption of smaller class sizes (Biddle and Berliner, 2002; Finn et al., 2001) in the early years can be accommodated at the expense of larger classes in later years or with more able students (Leithwood and Steinbach, 2003). The use of heterogeneous, rather than homogeneous groups (Oakes, 1985; Yonezawa, et al., 2002) is unambiguously shown to benefit students from disadvantaged and low socio-economic backgrounds due to higher expectations, faster pace of instruction and a more challenging curriculum (Leithwood and Steinbach, 2003).

An agreed teaching model is vital, particularly where it supports and builds on models of excellent teaching (Potter et al., 2002; Newman et al., 2001) in which lessons are 'highly structured, with curriculum delivery in smaller packages, followed by rapid feedback' (Ledoux and Overmaat, 2001; Muijis et al., 2004). Effective teaching should be "teacher led and practically focused, but not low level or undemanding" (Mortimore, 1991) with provision of opportunities for *"student-initiated and student-orientated activities"* (Chapman and Harris, 2004: 222). Teddlie and Stringfield (1993) and Teddlie et al. (1989) advocate that students from low socio-economic backgrounds generally need more instruction at the start of school improvement programmes.

The professional development of staff must focus on the re-skilling of teachers in a limited but specific repertoire of teaching styles (Potter et al., 2002; Hopkins, 2001; Joyce, Culham and Hopkins, 1999) through focused and sustained staff development opportunities (Muijis et al., 2004; Newman et al., 2001). This ensures a consistent and continual emphasis on improving the quality of teaching and learning (Chapman and Harris, 2004) through developing an understanding of how children learn (Potter et al., 2002).

The literature suggests that students should be provided with extra academic support in preparation for examinations through: a wide variety of extra-curricular activities; homework and coursework clubs; Easter and summer schools and residential programmes (West et al., 2005). A focus on mentoring and tracking of student progress (Chapman and Harris, 2004) with targets for individual students (West et al., 2005) must be linked to the choice of appropriate courses and intervention strategies. High expectations can be transmitted to students through monitoring of pupil work, positive feedback, and the setting of demanding but realistic pupil targets (Maden and Hillman, 1993).

The introduction of a firm, clear and consistent behaviour policy is necessary to create an orderly learning climate (Potter et al., 2002; Maden and Hillman, 1993) with an emphasis on positive reinforcement from teachers and external rewards (Chapman and Harris, 2004) that help to overcome the low self-esteem of many students (Brophy, 1992).

In economically deprived areas coherence (Muijis et al., 2004), high expectations (Lein et al., 1996; Montgomery et al., 1993) and consistency (Chapman and Harris, 2004) are common to successful school improvement efforts (Maden and Hillman, 1993) being strongly linked to student achievement. In such contexts *"Pupils need to know what to expect, and have the right to experience high quality teaching in all lessons"* (Muijis et al., 2004: 159).

Culture, Ethos and Relationships

Emancipatory leaders in successful schools in challenging circumstances make concerted efforts to change the school culture by working with individuals across the institution to change values and beliefs (West et al., 2005). This involves building positive relationships, strengthening morale and raising expectations (ibid.: 82). Leithwood and Steinbach (2002) argue that a key factor in changing the ethos is to implement all policies and initiatives equitably and to *"Build(ing) on forms of social capital that students do possess rather than be restricted by the social capital they do not possess" (ibid.: 40)*. This requires leadership for equity, democracy and social justice (Larson and Murtahda, 2002) that raises awareness of unjust situations and how they affect the daily lives of students and their families (Leithwood and Steinbach, 2003), providing members of the school community with the capacity to actively resist situations that generate inequities (Ryan, 1998). Racism underpins many 'cultural insensitivities' in schools (Carr and Klassen, 1997a, 1997b; Walcott, 1994; Shields, LaRocque and Oberg, 2002: 117) and school leaders must therefore engage in 'antiracism education' (Dei, 1996) as an ethical and moral imperative to eliminate marginalisation and cultural and racial deficiency (Wagstaff and Fuserelli, 1995). Above all, building a successful school culture involves focusing primarily on the education of students and their achievement whilst retaining an emphasis on their social needs (West et al., 2005).

Building a shared sense of community is central to successful improvement efforts in schools facing challenging circumstances (Muijis et al., 2004; Chapman and Harris, 2004; Leithwood and Steinbach, 2003; Potter et al., 2002). The effective bonds between students, teachers and parents are crucial in engaging and motivating students to learn (Lee, Bryk and Smith, 1993). In improving challenging schools:

> *"An emphasis was placed upon breaking down social barriers and creating a climate within school where staff, students and parents had more opportunities to talk"* (Chapman and Harris, 2004: 222).

The organisation of staff-student committees, student councils, extra-curricular clubs and trips all provide opportunities to improve relationships between staff and students (Chapman and Harris, 2004).

The most successful schools in economically deprived areas have very strong community outreach programmes, including links with local businesses and parents (Borman et al., 2000). Despite being especially difficult to achieve (Maden and Hillman, 1993; Connell, 1996; Henchey, 2001; Muijis et al., 204; Griffith, 2001; Hatton, 2001), parental involvement is critical to school improvement (Seeley, 1990). The specific involvement of parents in raising achievement can be achieved through broadening their knowledge of the curriculum and strategies to help their children (Barth et al., 1999). In socially deprived contexts, it is also necessary to establish family education programmes and integrated social services (Leithwood and Steinback, 2003; Montgomery et al., 1993; Mortimore, 1991) as well as English language classes (Borman et al., 2001); social, sporting and charitable events (Chapman and Harris, 2004) and opportunities for parents to come into the school to discuss their child's progress.

In addition to the broad community of staff, students, parents and the local community, students benefit from the development of a more specialised 'professional learning' sub-community of teachers (Bryk and Drisoll, 1988; Newman and Associates, 1996; Louis and Kruse, 1995; Louis, et al., 1996) that promotes instructional programme coherence and stimulates teachers' instructional skills. Conceptually, two sets of conditions contribute to a professional learning community (Leithwood and Steinbach, 2003) – structural conditions and human and social resources (Louis, et al., 1996). Structural conditions include: small school size - evidence suggests 600-700 students is optimal for secondary schools (Lee, 2000); simple and informal forms of school organisation, such as having small teams (Joyce et al., 1999); time for lesson planning, observing each others lessons and enquiry (Connell, 1996; Guthrie et al., 1989; Seeley et al., 1990); and

opportunities for teachers to make decisions about teaching and learning (Leithwood and Steinbach, 2003). Critical human and social resources include: openness to innovation and enquiry (Joyce et al., 1999); feedback on instructional performance and opportunities for professional development (Chapman and Harris, 2004; Freeman, 1997; Henchey, 2001; Reynolds et al., 2001; Barth et al., 1999; Herman, 1999), such as sharing good practice within the school (Connell, 1996), visiting and networking with other schools (Muijis et al., 2004), and having time for reflection and personal coaching (Chapman and Harris, 2004). Supportive leadership is vital (Louis, Marks and Kruse, 1996), including facilitating time for creating a learning community by reserving all staff meetings for professional development activity (Piontek et al., 1998).

A final strand that supports a more positive school culture is to focus on students at risk of failure (Potter et al., 2002) resulting from poor attendance, anti-social behaviour (in or out of school) or poor academic progress. This includes targeted intervention within the school through Special Educational Needs, mentoring support or alternatively through close collaboration with external agencies, such as social services, education welfare, pupil referral units and local colleges.

2.5 Convergent Threads but Unresolved Issues

There is remarkable convergence in the literature to suggest that a number of strategies have been consistently associated with school improvement in especially challenging contexts. It has already been argued that these strategies can be located within three broad themes: leadership; learning and teaching and culture, ethos and relationships. Critically, however, there are no conceptual models that seek to bring the research findings in the literature into a single coherent framework within which schools and headteachers can guide school improvement efforts. The dictionary definition of a model constitutes:

A schematic description of a system, theory, or phenomenon that accounts for its known or inferred properties and may be used for further study of its characteristics.

Many researchers in this field have highlighted the need to concentrate on developing and testing school improvement theories and models which are contextual rather than attempting to produce one overriding school improvement model, which does not take into account school context and structure (Muijis et al., 2004). Consequently, the primary purpose of this study is to develop a theoretical school improvement model for schools in challenging urban contexts.

However, the creation of a school improvement model is not straightforward for two reasons. Firstly, whilst the literature suggests a high degree of convergence in the findings, there are a number of serious problems and inadequacies. Secondly, if school improvement were as straightforward as implementing the list of convergent strategies identified in the literature, then there would not still be a large number of schools in difficulty and the 'attainment gap' would not be widening. The common limitations of school improvement and school effectiveness will now be discussed under three distinct headings: context, methodology and student voice.

Context: How schools interact with the communities they serve

Schools in especially challenging circumstances often take insufficient account of the socio-economic contexts in which they operate (Slee et al., 1998). Consequently, when addressing improvement, an important requirement of headteachers is to analyse the context as quickly and accurately as possible (Chapman and Harris, 2002) since, while there are common ingredients to school improvement strategies, the relative strength, order and mix of these components varies according to the context (West et al., 2005). Schools should therefore be *"highly discerning in selecting specific improvement strategies and approaches"* (Chapman and Harris, 2004: 227).

This presents a significant dilemma since, the application of a finite number of high impact strategies (Hopkins, 2001; Muijis et al., 2004; Potter et al., 2002; Reynolds et al., 2001) requires the strength of character by headteachers to ignore many of the plethora of central and local government initiatives frequently imposed on schools from outside. This position was recently supported in a report by OFSTED (2008) who identified 14 "failed" and dysfunctional schools that had suddenly become successes. The common thread of improvement was leadership underpinned by the maxim known as Ockham's razor. It states: "Frustra fit per plura quod potest fieri per pauciora," or do not apply many things to a task that can be done with few. It was brilliantly "razored" by the American marines to KISS, *"keep it simple, stupid"* (The Sunday Times, 15 June 2008). The inspectors found that school improvement:

> *"... all depended on the courage, risk-taking and autonomy of one person, the head teacher, and on that person being left alone. Indeed, 'outside help can actually make things worse ... with a potential to create more problems and slow the pace of improvement'. Local councils do best to disengage or, as the report put it, manage robust exit strategies" (ibid.).*

Similarly, Wirigley (2006) argues that schools which had succeeded against the odds in very challenging situations had done so on the basis of "*eclectic and idiosyncratic leadership which made very little difference to the official agenda"* (ibid.: 282).

One of the key limitations of the School Improvement and School Effectiveness movements, particularly for schools facing the greatest challenge, is their almost universal detachment from students as participants in change and to the wider context in which they operate. Such contextual factors are often relegated to 'background factors':

> *"Family background, social class, any notion of context are typically*

regarded as 'noise', as 'outside background factors' which must be controlled for and then stripped away so that the researcher can concentrate on the important domain of school factors" (Angus, 1993: 361).

Consequently, the dominant paradigms of School Effectiveness and School Improvement both deal inadequately with 'schools in challenging circumstances' (Teddlie and Reynolds, 2000; Sammons, 1999; Harris et al., 2006; Wrigley, 2006) leading to the theoretical and practical inadequacy of recent interventions (Harris et al., 2006). Despite the claim that "the core mission of school effectiveness was to overcome poverty, "... *very little attention has be paid to schools serving disadvantaged communities*" (Wrigley, 2006). As a consequence School Effectiveness research currently offers little specific advice for schools operating in very challenging contexts and is open to the criticism that it has been exploited to underpin government attempts to *"... blame teachers for the relatively slow progress of pupils growing up in poverty"* (Wrigley, 2006). Only a few British texts have considered such schools seriously (Blair and Bourne, 1998; Cotton et al., 2003; Riddell, 2003; Wrigley, 2000a) and these are rarely reference by contemporary school improvement researchers.

The review of recent research suggests that School Effectiveness and School Improvement have common limitations for schools serving disadvantaged communities. Very few studies have explored how schools in disadvantaged circumstances engage with their local community. Neither have paid adequate attention to pedagogy and educational aims and priorities (Wrigley, 2006). They have become entangled with public policy and practice to the extent that: *"School Improvement has too frequently adopted the outcomes prioritised by the state (which are the same as those which SE has become skilled at measuring)"* (ibid.: 279).

Wrigley (2006: 280) further argues that these limitations are weaknesses for school improvement theory as a whole but have particular resonance for schools serving disadvantaged communities:

i. *"Relationships with parents and the local community are potentially more problematic, and require more effort, where there is a greater social and cultural gap between teachers and parents, where the community is in any way troubled, or if parents have reasons to be disillusioned with or antipathetic towards schools;*
ii. *A centrally prescribed curriculum might need greater adaption in order to engage working-class or ethnic minorities in meaningful learning;*
iii. *A deeper and better theorized pedagogical enquiry is needed to help underachieving pupils".*

School improvement can be viewed as a paradigm challenge to school effectiveness but the failure of recent Government initiatives in education in terms of schools facing challenging circumstances, therefore, represents a great challenge to both paradigms:

> *"... there is a cause to challenge them for their inability to explain and respond to the educational underachievement of young people from manual worker or ethnic minority backgrounds, especially those experiencing high level of poverty and deprivation". (Wrigley, 2006: 276)*

Notions of School Effectiveness and School Improvement connect research, policy practice and administration to the extent that they exclude alternative ways of thinking (Fielding, 1997; Wrigley, 2003; Elliott, 1998; MacBeath, 2004a). As a result a number of researchers have articulated the need for a paradigm shift in education; most recently, Wrigley (2006: 284), who argues that the report *Success against the Odds* (National Commission for Education, 1996), subtitled *Effective Schools in Disadvantaged Areas* represents a 'lost opportunity' of adopting an

alternative paradigm based on the notion of 'empowerment involving five complementary aspects of school life': "*Curriculum; Pedagogy; Ethos (internal relationships); The wider community and Leadership and the process of change*" (Wrigley, 2006: 284).

When considering school improvement and school effectiveness literature, it is important to recognise (MacBeath and Mortimore, 2001) that not all concepts travel across cultures easily. For this reason, the literature is consistent in highlighting that 'one size fits all' solutions are unlikely to be consistently successful in improving school performance. Instead school improvement efforts should 'carefully consider the power of site or place' (McLaughlin, 1998; Miles, 1998). However, it is important to note that in the context of this study the uniformly disadvantaged nature of the student cohort means that socioeconomic status becomes a constant variable leaving me to largely concentrate on school level factors, particularly in phase I.

School Effectiveness and School Improvement emanate from fundamentally different positions in terms of their methodology and interests but they are also intimately related and their 'best known proponents frequently write together' (Wrigley 2006). Wrigley (2003) argues that school improvement, which has the characteristics of process orientation and qualitative emphasis, seems to have been subsumed into school effectiveness rather than to challenge its reductionism (Durrant, 2006).

Methodological Weaknesses

Confusion over methodology remains a common limitation of both school improvement and school effectiveness paradigms.

Criticisms of the school effectiveness research paradigm centre around problems of 'reductionism' (Burgess, 1980; Wrigley, 2004; Angus, 1993; Grace, 1995; White and Barber, 1997; Slee and Weiner; 1998; Morely and Rassool, 1999), 'causality'

(Barber and Dann, 1996; Reynolds,1991; Reynolds et al., 1996; Wilmott, 1999, 6) and 'unproven correlation' (Davies, 1997: 33). Invariably, a linear process of 'cause and effect is assumed' despite the fact that educational change is more complex. Consequently, there is an urgent need to develop more sophisticated understandings of causality (Durrant and Holden, 2005; see also Cordingly et al., 2003). It is virtually impossible to isolate the effects of one intervention from others when many changes are occurring simultaneously and 'each is progressed through the interlinking activity of many different protagonists' (Gronn, 2003). Consequently, there is an urgent need to *"examine the agendas and processes of school change"* (Durrant, 2006). Coe and Fitzgibbon (1998) conclude that *"fishing for correlations"* between school effectiveness factors and characteristics of schools, *"neither indicate causal relations between variables nor explain the mechanisms behind these relationships"* (Sandoval-Hernandez, 2008: 34).

The multitude of factors found in the plethora of school effectiveness research studies were assembled into the '11 key characteristics' (Sammons et al., 1995) on the basis of professional judgement rather than statistical objectivity (Wrigley, 2004). Such reviews *"do not state the statistical significance nor the size of the effects of the various factors in terms of association with adjusted achievement results..."* (Scheerens, 1998: 1110-1113). This 1995 study, upon which the current OFSTED inspection framework is based, also highlights a further dilemma for school effectiveness and school improvement researchers. Such studies cannot be justified as positivist because they seek to generalise from an analysis of a large number of small-scale, largely interpretive, studies. However, they are criticised from an anti-positivist standpoint.

Only recently have a number of school improvement researchers (Harris and Chapman, 2002, 2004; Potter et al., 2002; Muijis et al., 2004; West et al., 2005; Leithwood and Steinbach, 2003) turned their attentions to schools in difficult and challenging circumstances but as yet there has not been an in-depth analysis of 'factors' that can be statistically claimed to be correlated to school improvement in

such contexts. Indeed, many of the recent studies have replicated the School Effectiveness route of producing lists of improvement characteristics, based on reviews of other studies (Muijis et al., 2004) in a manner similar to the study by Sammons et al. (1995).

Arguments in favour of using non-positivist approaches are almost invariably a direct consequence of the limitations of positivism and are linked to school improvement traditions that emerged with the 'teacher as researcher movement'.

> *"Researchers in the school improvement paradigm have tended to operate at the level of practitioner rather than at the level of the school with a qualitative and naturalistic orientated evaluation of the enterprise being preferred to quantitative measurement"* (Stoll, 1996).

Thus approaches to date have focused on individuals or groups of teachers, school processes and have been concerned exclusively with change, being more concerned with the journey of school improvement than its destination (Reynolds et al., 1993). Within the school improvement field there is very little evidence about 'context specificity' Teddlie and Reynolds, 2000). Constructivist approaches lend themselves to research in this area and many have argued for longer-term case studies using ethnographic methods (Muijis et al., 2004). However, there is also a need to identify 'universals' (Potter et al., 2002) of what works in schools facing challenging circumstances in order to avoid other schools in similar contexts having to reinvent the wheel (Muijis et al., 2004).

Another recurring criticism of interpretive and pragmatic school researchers is their tendency to suggest that all school improvement elements are equally important and only recently have some researchers articulated the need for *"quantitative research that tests the strength of all the elements and links this to a differential contextual model..."* (Muijis et al., 2004).

Consequently, School Effectiveness and School Improvement literature both highlight the urgent need to test the various strengths and mix of school improvement components and to concentrate on developing and testing theories and models, which are contextual (Muijis et al., 2004: 171), as well as identifying 'universals' (Potter et al., 2002) of what works in schools facing challenging circumstances. Whilst there is a need to understand the complexity of a particular context there is sometimes an inability to 'generalise' to other situations.

Researchers concur that there is a lack of theory in both paradigms (Teddlie and Reynolds, 2001; Sandoval-Henandez, 2008; Slee et al., 1998). There is acknowledgement in some school effectiveness studies, that make use of social theories, such as those developed by Bourdieu (1977), Bernstein (1971) and Bouden, 1974), to justify the inclusion of context variables (Cervini, 2003b; Fernandez, 2003a, 2003b; Taylor, Muller and Vinjevoid, 2003) but *"they are rather scant and do not use these theories to explain in depth the relationships between the independent variables and school outcomes"* (Sandeval-Hernadez, 2008: 36). It is only through explanations furnished by the best theories available that we will be able to understand how schools might improve in any given context (Lauder and Brown, 2007).

Some researchers voice the argument that School Effectiveness research must raise the level of abstraction from mere empiricism to a more conceptual level (Wyatt, 1996). Sandeval-Hernandez (2008: 39) argues for the construction of explanatory theories that explain *"detected phenomena by abductively inferring the existence of underlying causal mechanisms"*. Statistical techniques such as factor analysis (Haig, 2005b) and multilevel structural equation models (Goldstein and McDonald, 1988) are recommended as they allow the identification of latent variables that underlie patterns of correlations.

The Lack of student voice

The issue of how schools engage with their context is further compounded by the relative neglect of children's views in educational research (Lloyd-Smith and Tarr, 2002), particularly in England where the 'market driven' education system regards parents rather than students as the consumers (ibid). However, the Children's Act (1989), the Education Act (1993) and the Code of Practice (1994a) support the 'ethical imperative' that children must have a basic right to be heard.

Concern has been expressed about the needs and rights of marginalised groups amid renewed calls to listen to accounts of their experience in a system designed for others (Tisdall and Dawson, 1994; Lloyd-Smith and Davies, 1995; Galloway et al., 1998). It is now recognised that researching student perspectives is a potent way of challenging assumptions made about marginalised groups in education, in the way that feminist and anti-racist research has revealed levels of discrimination and subtle social processes embedded in educational policies and practices (Troyna and Hatcher, 1992; Woods and Hamersley, 1993; Dawtry et al., 1995). This is particularly the case in an especially challenging school comprising large numbers of children representing multiple marginalised groups.

Ruddock, Chaplain and Wallace (1996) stress the importance of listening to and acting upon students views about learning and teaching and the school as a whole. In the context of inclusion, Ainscow (1999) makes a similar plea. *"It is the pupils who provide the purpose and focus for the educational offer in the school"* (MacGilchrist et al., 2004: 28). Additionally, Alderson (2003: 2) argues that: *"Adults powerfully influence schools and yet the overwhelming majority of people within schools are the students".* Moreover, *"Although students are seldom recognised as formal members of school improvement teams, all school improvement relies mainly on their work and behaviors"* (ibid.: 6). Consequently, *"Just as women's views are largely missing from history, children's views are almost wholly absent"* (ibid.: 8) from school improvement texts.

School effectiveness factors (Sammons et al., 1995) tend to be concerned with the actions of teachers, although sometimes account is taken of the 'inferred experience' of pupils, but seldom are pupils seen as 'analysts of schooling and monitors of its appropriateness' (Lloyd-Smith and Tarr, 2002). However, Ruddock et al. (1996) argue that pupil's views are fundamentally important in developing school improvement strategies since they are *"capable of producing analytical and constructive observations and react responsibly to the task of identifying factors which impede* (and thereby contribute) *to their learning"* (Lloyd-Smith and Tarr, 2002: 60).

MacBeath (2004a: 19) argues that: *"It is always time to remind ourselves of what schools are for and what they might become".* When considering the impact of educational interventions Durrant (2006) also raises the question of ownership and who sets the criteria for deciding whether an initiative is successful or not and who carries out the evaluation and for whom. Ruddock et al (1996) conclude that when creating the conditions for learning, secondary schools:

> *"do not adequately take account of the social maturity of young people, nor of the tensions and pressures they feel as they struggle to reconcile the demands of their social and personal lives with the development of their identity as learners"* (Ruddock et al., 1996: 1).

The implication here is that improvement strategies that focus on teachers' perceptions of schooling and on the assumptions they make about their students' experiences will be flawed. Consequently, not listening to students perceptions may lead to school improvers getting it wrong (Lloyd-Smith and Tarr, 2002). Evidence of effective change in schools derived directly from research involving pupils and this is reported in Vulliamy and Webb (1991).

Davie and Galloway (1996) highlight another practical benefit of giving students a say in their education. They argue that the process:

> *"provides a desirable model of cooperative working that helps to give a sense of ownership over what goes on in school, adding also that it is effective because children who have been involved in decision making will find it harder to complain later about what goes on"(* Lloyd-Smith and Tarr, 2002*: 61).*

Lloyd-Smith and Tarr (2002) argue that from a sociological perspective, the principle justification for listening to student's views is epistemological. They contend that the reality experienced by students in educational settings cannot be fully comprehended by inference and assumption, since:

> *The meanings they attach to their experiences are not necessarily the meanings that teacher's or parents would ascribe; the subcultures that children inhabit in classrooms and schools are not always visible or accessible to adults* (Lloyd-Smith and Tarr, 2002: 61).

Moreover, sociological research provides opportunities to challenge the meanings and models embedded in dominant theory by questioning social assumptions and beliefs and critically analysing formal discourses about social phenomena. It is therefore argued that: *"In the context of schooling, researching the experience of children provides an effective vehicle for these objectives"* (Lloyd-Smith and Tarr, 2002: 61).

However, researching students' views is not without difficulty. Historically, a lack of confidence in methodological tools may have acted as a deterrent to research focusing on children perceptions and interpretations of the world. Despite the 'persuasive rhetoric' about the need to listen to students, there are powerful social and cultural tendencies to keep them in their place. Studies by Keys and Fernandez (1993) and Wade and Moore (1993) indicate reluctance among teachers to consult their students. Furthermore, the *"Question remains as to why*

adults in many cultures have kept children isolated and why they have been reluctant or unable to regard children's knowledge and understanding worthy of respectful consideration" (Lloyd-Smith and Tarr, 2002: 62). Consequently, researching students' perspectives is a significantly underdeveloped area (Lewis and Linsey, 2000) and often neglected in methodology texts (Breakwell, 1990; Robson, 1993), with treatment of questionnaires being particularly scant. The challenges to obtaining students' views are therefore considerable (Lewis and Linsey, 2000) but must be addressed and developed as an aspect of innovative research practice (Burgess, 1995).

MacGilchrist et al. (2004) place student's rights and responsibilities at the heart of an effective school but the existing literature demonstrates that in the field of school effectiveness there is an almost complete absence of reference to student voice. Effectiveness is curently measured via OFSTED criteria and examination results but student perceptions of the impact of the educational offer are no less valuable – just significantly less well researched and used. However, MacGilchrist et al., 2004: 46) conclude that: "*There is a growing recognition that students' perceptions about themselves as learners have a key role to play in school improvement* ...". In order to fully understand the context researchers have got to see it through the eyes of different people, most notably of those for whom the system is designed. A methodological approach involving the extensive research of children perceptions is a central aspect of this research study because it facilitates a richer understanding of context and the processes of change based on more holistic measures of effectiveness.

2.6 Summary

Whilst there are no 'quick fixes' (Stoll and Myers, 1998), there is an emerging and convergent evidence base (Chapman and Harris, 2004; Harris and Chapman, 2002; Leithwood and Steinbach, 2003; Muijis et al., 2004; Potter et al., 2002; West et al., 2005) to suggest that there are certain strategies that have consistently been demonstrated to be associated with improving schools in difficult and challenging

urban contexts. The literature suggests that contributory school improvement factors can be catalogued within three broad themes: strong purposeful whole school leadership; a focus on teaching and learning in the classroom and the personal development of individuals in the organisation to create a positive culture and ethos.

However, despite the growing consensus around what makes a difference in especially challenging urban schools (Muijis et al., 2004; Potter et al., 2002) empirical research into school improvement in these contexts remains limited. Moreover, there are currently no theoretical models that bring existing research findings into a single coherent school improvement model and only scant explanations of the nature of the complex and dynamic interrelationships between school improvement factors identified in the literature.

Three limitations have been identified in the literature and these are woven throughout this thesis. Firstly, there is an urgent need to conduct quantitative research into the relative strength and mix of the various school improvement components (Muijis et al., 2004) in order to develop appropriate theories and models. Secondly, there is a need for long-term case studies using ethnographic methods and traditional interviews that seek to understand further the role of context in school improvement. Thirdly, despite the fact that a key purpose of schools is to serve children their voice is notably absent from school improvement and school effectiveness texts. These limitations will be addressed 'head on' in this thesis, as part of a unique methodological positioning, in order to achieve a more thorough understanding of what works in schools which do succeed against the odds.

This study then, aims to make a contribution to the school improvement and school effectiveness debate through attempting to address the lack of a conceptual school improvement model that is robust enough to meet the needs of headteachers of schools in challenging contexts. At the heart of the methodological approach will be

an attempt to address the lack of student voice in existing research and to use appropriate theories to analyse how challenging schools engage with their context.

3 RESEARCH METHODS

A POSTPOSITIVIST APPROACH TO THE PROBLEM

This chapter sets out to answer the central research question: *What are the contributory factors that cause rapid improvement in an 'especially challenging' urban school?*

In order to consider the framework for the research design (Cresswell, 2003; Crotty, 1998) it is necessary to consider how the three elements of inquiry (alternative knowledge claims, strategies and methods) are conceptualised and combined to inform different approaches to research (quantitative, qualitative, mixed methods), which can then be translated into processes in the design of research (questions, theoretical perspectives, data collection and analysis). This chapter therefore provides an account of how the research was structured and the research methods employed.

3.1 The Research Paradigm

This study was conducted within a 'postpositivist' paradigm (Phillips and Burbules, 2000; Demetrion, 2003) that employs a mixture of positivist and interpretive

methods involving multiple perspectives and triangulation. It refers to thinking that is beyond positivism and challenges the traditional notion of the absolute truth of knowledge by recognising that *"we cannot be positive about our claims of knowledge when studying the behaviour and actions of humans"* (Creswell, 2003). It admits that human beings cannot perfectly understand reality, whereas with rigorous data collection and analysis, researchers can approach the truth (Oka and Shaw, 2000). Postpositivism reflects a deterministic philosophy in which causes probably determine effects and is reductionist, seeking to reduce ideas into a small discrete set of ideas to test. Postpositivist knowledge is based on careful observation and the measurement of reality using numerical measures and involves the development, testing, verification and refinement of theories that govern the world (Cresswell, 2003). Postpositivists therefore rely on the scientific method. Phillips and Burbules (2000) summarise the key assumptions of this position:

- Knowledge is conjectural and absolute truth can never be found;
- Research is the process of making claims and then refining or abandoning them in favour of other claims more strongly warranted;
- Data, evidence and rational considerations shape knowledge;
- Research seeks to develop relevant true statements that can serve to explain the situation that is of concern or that describes the causal relationships of interest;
- Being objective is an essential aspect of competent inquiry.

Additionally, the postpositivist assumption is based on two presuppositions (Demetrion, 2003):

- Inferential reasoning leading to hypothesis construction and theory formation needs to be carefully linked to the empirical evidence;
- Methodological rigour leads to as accurate as possible analysis of the relationship between cause and effect.

Some argue that postpositivism covers a range of positions so wide that it scarcely earns the name of a paradigm (Oka and Shaw, 2000). It is widely influential within qualitative research and covers positions as different as grounded theory (Glaser and Strauss, 1967; Strauss and Corbin, 1998), Herbert Blumer's brand of symbolic interactionism (Blumer, 1969), recent developments under the heading of scientific realism, and the detailed ways of analysing qualitative data devised by Miles and Huberman (1994).

In the final analysis, there appears little difference between the mixed methods approach emanating from pragmatic knowledge claims and the multiple perspectives and triangulation approaches of postpositivism. However, when considering the research question, it is important to be honest about the intention to:

- Generalise and develop a theory and model of school improvement in a limited number of specific contexts;
- Statistically identify correlates of improvement through reducing the variables in the field;
- Identify the relative strengths of the elements within a contextual model.

In adopting a postpositive stance therefore, I will be guided by the postpositivist view of critical realism that there is a reality that we should try and get right, whilst at the same time being critical of our ability to get it perfectly right. There is an intention to minimise potential 'reductionist' criticisms through the exploitation of the postpositivist view of research that contends: there is a similarity between common sense and science, there is a natural selection model of knowing and the use of multiple perspectives and triangulation. In particular:

- Given the extreme nature of the problems at the beginning, and throughout, the school improvement programme and the dramatic

improvement within a short period of time, it is easier to justify statistical causality in this context;

- The adoption of a postpositive stance based on quantitative approaches minimises criticisms of validity and reliability as a participant researcher;
- The focus on a quantitative analysis of 'student perceptions' of school improvement avoids criticisms of professional subjectivity.

When choosing a paradigm within which to conduct research, some argue that to be consistent researchers must choose one paradigm (Lincoln, 1990) since there is a 'real but imperfect link' between paradigm and method (Oka and Shawe, 2000). However, it is also argued that such purist attitudes are not appropriate to qualitative research, which requires greater flexibility (Denzin and Lincoln, 1994: 2).

The criticism of mixed methods research as being *"positivism dressed in drag"* (Giddings, 2006), albeit in its more moderate postpositive form, exemplifies a major strength of this study in that it brings common sense to positivist data and analysis using the professional interpretation of a headteacher-researcher.

3.2 Multiple Theoretical Perspectives

The proposed study is located within what Potter et al. (2002) describe as *the "paradigm of 'third wave' principles and practices that have become axiomatic in the (school improvement) field'* and has recently come to prominence as a direct result of the limited achievement of improvement programmes and reforms (Reynolds et al., 1993). This involves the adoption of a mixed methodological orientation, in which quantitative and qualitative data are used, within an organisationally tight improvement programme implementation.

Multilevel Modelling in School Improvement Theory

In recent years, school effectiveness studies demonstrated that influences on student achievement are multilevel in nature (Teddlie and Reynolds, 2000).

Following work by Goldstein (1987) and Creemers (1997), Creemers and Kyriakides (2008: 76) propose a dynamic model of school effectiveness that incorporates multiple effectiveness factors at each of four distinct levels: context, school classroom and student. This model *"assumes that factors at the school and context level have both direct and indirect effects on student achievement since they are able not only to influence student achievement directly but also to influence teaching and learning situations"* (ibid.: 76-77). This integrated model of educational effectiveness has three defining characteristics: it is multilevel in nature; gives more emphasis to classroom-level factors and especially to the behaviour of teachers in promoting learning, and is based on the assumption that higher levels within the model are expected to provide conditions for the lower levels.

Several models for school effectiveness (Creemers, 1994; Scheerens; 1992; Slater and Teddlie, 1992; Stringfield and Slavin, 1992 have been developed with the idea of distinguishing between levels in the education process. However, the dynamic aspect of Creemers and Kyriakides (2008) model assumes:

i. that the impact of school and context level factors have to be defined and measured differently from classroom level factors;
ii. that the relationship of some effectiveness factors to student achievement may not necessarily be linear;
iii. the need to carefully examine the relationship between various effectiveness factors operating at the same level;
iv. that five dimensions (frequency, focus, stage, quality and differentiation) are used to define effectiveness factors.

Some researchers argue that the classroom level is more significant than school or context levels (Hextall and Mahoney, 1998; Kyriakides et al., 2000; Yair, 1997) and consequently defining factors at classroom level is a *"prerequisite for defining the school and the system factors"* (Creemers and Kyriakides, 2008: 78). However, the

essence of the multilevel approach is that it is the combination of levels that induces results (Creemers, 1997: 116) and so factors at higher levels are important to creating the conditions for effectiveness at lower levels.

The multilevel approach employed by Creemers and Kyriakides (2008) to produce an 'effectiveness' model was adapted and used in this study to develop an 'improvement' model that incorporates statistically derived school improvement factors. The multilevel modelling theory was tested deductively through the collection and analysis of largely quantitative data from students who have experienced the improvement from within.

Social Class Perspectives

The continued existence of a strong negative correlation between school achievement and most measures of social disadvantage (Harris and Chapman, 2002; Chapman and Harris, 2004; Muijis et al., 2004; Potter et al., 2002) provides us with one of the great remaining challenges in education: 'to break the link between social circumstance and achievement'. Although gender and ethnicity are important, it is the notion of multiple-disadvantage and the link with social circumstance that binds student characteristics in a complex and synergistic way. Therefore a class advocacy position is adopted.

The school improvement process used in this study has been underpinned by 'emancipatory' leadership or leadership for 'social justice' and this has been identified as an important attribute for successful headteachers in especially challenging urban schools (Leithwood and Steinbach, 2003). Furthermore, school effectiveness researchers (Teddlie and Reynolds, 2000) have largely neglected the rich studies relating to the effectiveness of strategies for minority ethnic and bilingual pupils (Cummins, 2000: 247; August and Hakuta, 1997) and in particular the outcomes of the relative importance of class, race and gender in England (Gilborn & Mirza, 2000). Consequently, there are compelling arguments for framing the study within a Marxist perspective (Althussar, 1971; Marx, 1859; Swift, 1965).

Implicit in this perspective is a serious questioning of the effectiveness of the school improvement and school effectiveness paradigms and the manner in which they particularly affect schools facing the greatest social challenges (Wrigley, 2006).

Theoretical Perspectives on school improvement in Disadvantaged Areas

Muijis et al. (2004) identify three theoretical perspectives that can help to make sense of school improvement in schools in disadvantaged areas:

- **Contingency theory** is based on the premise that what makes an organisation effective is dependent on a variety of situational factors that can be both internal and external to the organisation (Creemers, Scheerens and Reynolds, 2000);

- The **compensatory** model (Chrispeels, 1992; Teddlie, Stringfield and Reynolds, 2000) states that because of problems faced by pupils in disadvantaged areas, the school needs to compensate for the lack of resources in students homes and that staff in such schools need to work harder to get the necessary results;

- The hypothesis of **addititivity** states that after controlling for student background factors, schools in low socioeconomic areas still do worse than those in middle and high socioeconomic status (SES) contexts (Reynolds and Teddlie, 2000). Hence, such schools are more likely to be ineffective and therefore reinforce social disadvantage.

These theoretical perspectives are not mutually incompatible and each can throw a different light on issues of effectiveness and improvement in disadvantaged areas.

A Multiple Theoretical Perspective within a single Framework

This study deductively develops and tests a theoretical multilevel model whilst using a class and social status perspective to guide the study. However, there is limited information about procedures involved in using a theoretical perspective to study class and social status (Cresswell, 2003). Consequently, a research framework that brings together the three perspectives guiding the study was necessary.

A transformational-emancipatory paradigm (Mertens, 2003) was used to incorporate the social class perspective as part of a distinct form of mixed methods research. This paradigm emphasises the role that values play in studying potentially marginalised groups (Cresswell, PlanoClark, and Hanson, 2003), such as students from disadvantaged backgrounds. This transformative theory is:

> *"... an umbrella term for research that is emancipatory, anti-discriminatory, participative, Freirian, feminist, racial/ethnic, for individuals with disabilities, and for all marginalised groups"* (Cresswell, 2003: 138).

Although the emphasis in this study is on quantitative approaches, this theoretical perspective involves integration of the transformative-emancipatory methodology detailed by Mertens (2003) into all phases of the research process as shown in Figure 3.1.

In discussing Mertens theory, Creswell (2003) highlights the 'importance of studying issues of discrimination and oppression and of recognising diversity amongst study participants'. This approach also addresses the need to treat individual participants with respect through gathering and communicating data collection and through reporting results that lead to changes in the institution and the relationships.

Transformative-Emancipatory Questions for Mixed Methods Researchers Throughout the Research Process

Defining the Problem and Searching the Literature

- Did you deliberately search the literature for concerns of diverse groups and issues of discrimination and oppression?
- Did the problem definition arise from the community of concern?
- Did your mixed methods approach from spending quality time with these communities?

Identifying the Research Design

- Does your research design deny treatment to any groups and respect ethical considerations of participants?

Identifying Data sources and Selecting Participants

- Are the participants of groups associated with discrimination and oppression?
- Are the participants appropriately labelled?
- OIs there a recognition of diversity within the target population?
- What can be done to improve the inclusiveness of the sample to increase the probability that traditionally marginalised groups are adequately and accurately represented?

Identifying or Constructing Data Collection Instruments and Methods

- Will the data collection process and outcomes benefit the community being studied?
- Will the research finding be credible to that community?
- Will communication with that community be effective?
- Will the data collection open up avenues for participation in the social change process?

Analysing, Interpreting and Reporting and Using Results

- Will the results raise new hypotheses?
- Will the research examine subgroups (i.e. multilevel analyses) to analyse differential impact on diverse groups?
- Will the results help understand and elucidate power relationships?
- Will the results facilitate social change?

SOURCE: Cresswell (2003). Adapted with permission from Mertens (2003), "Mixed Methods and the Politics of Human Research : The Transformative-Emancipatory Perspective", in A. Tashakkori & C. Teddlie (Eds.), *Handbook of Mixed Methods in the Social and Behavioural Sciences.*

Figure 3.1: Transformative-Emancipatory Theoretical Research Framework

3.3 Research Design

Although this is essentially a quantitative study, a mixed methods approach was chosen because Factor Analysis is the major data analysis technique used. The findings from factor analysis have to be carefully interpreted to avoid objections on the basis that 'no more is taken out than is put in'. Therefore qualitative data is used to aid the interpretation of quantitative data analysis within a single study.

In order to achieve an understandable research design from potentially complex data and analyses, four criteria (Cresswell, 2003) were used to select an appropriate mixed methods strategy: the implementation sequence (sequential or concurrent); the priority given to quantitative and qualitative approaches; the phase in the research in which the integration of approaches will occur and the theoretical perspective or framework that will guide the study.

A visual model of the research study, which uses notation adapted by Cresswell (2003) from Morse (1991) and Tashkkori and Teddlie (1998), is shown in Figure 3.2. In this model a "→" indicates a sequential and a "+" indicates a concurrent form of data collection, with capitalisation used to indicate an emphasis on the quantitative or qualitative data and analysis. Specific data collection, analysis and interpretive procedures are included to aid understanding.

Phase 1: A Sequential Transformative Design (September 2004 - July 2006

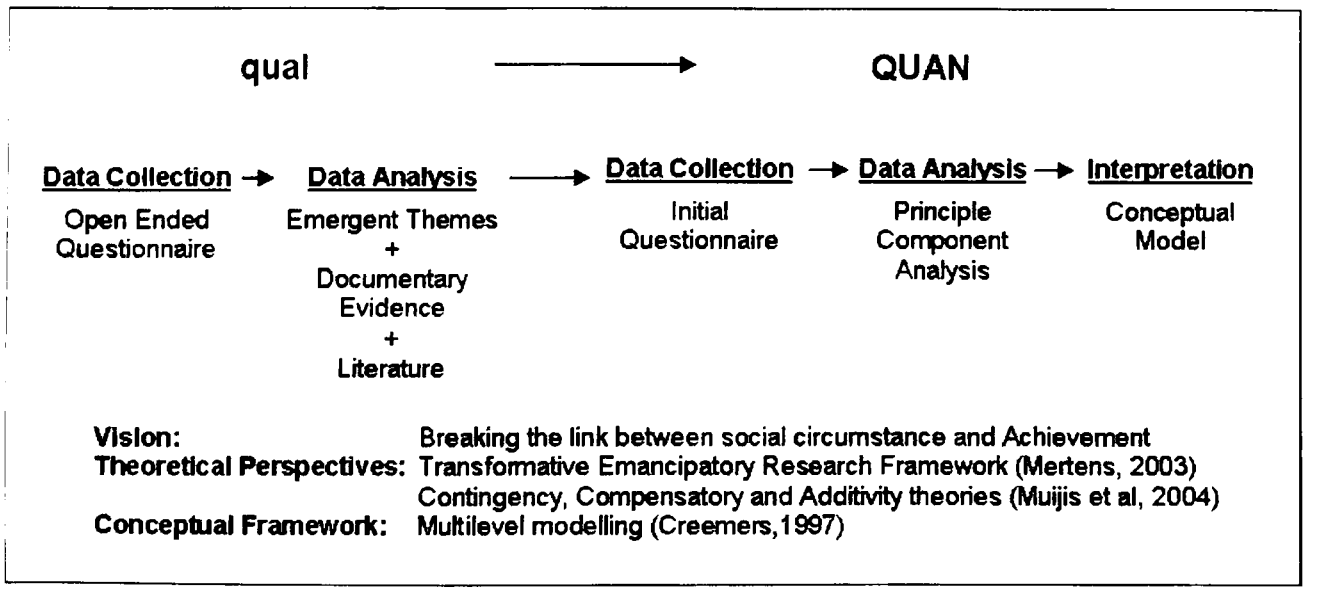

Figure 3.2: A Mixed Methods Research Design within a Transformative-Emancipatory Theoretical Framework

Phase 2: A Concurrent Nested Transformative Design (July 2006 - October 2008)

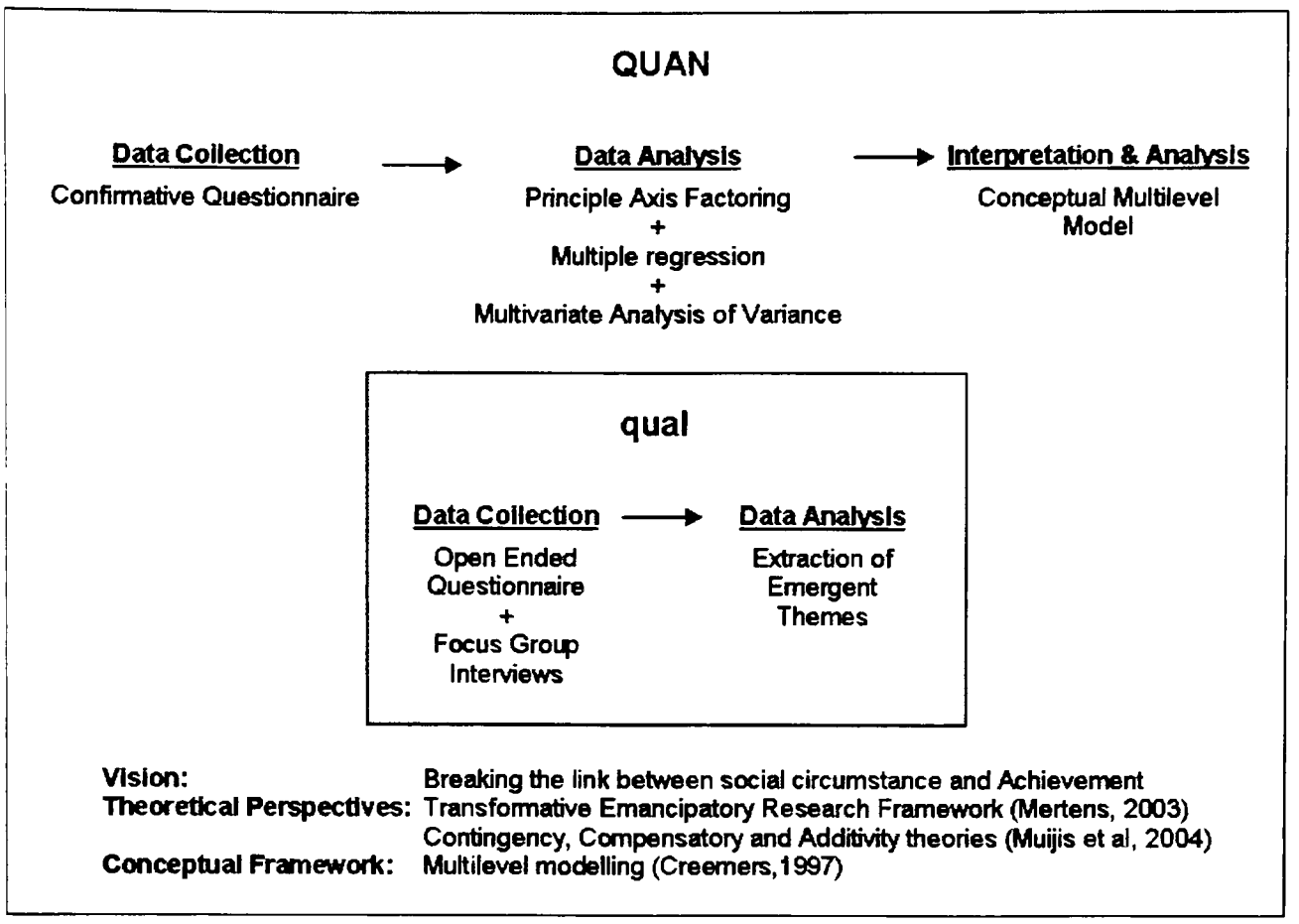

Figure 3.2: A Mixed Methods Research Design within a Transformative-Emancipatory Theoretical Framework

In the first phase, a sequential transformative strategy was employed. This design best serves the class advocacy perspective being used to frame the study. By using two data collection and analysis stages students were given a voice that enabled a better understanding of the school improvement process to be developed. Furthermore, students benefitted directly from the study at each stage as the findings were used to bring about subsequent further change and improvement in the school improvement strategy. An analysis of student perspectives in this phase of the study heavily influenced the second phase of the research design. This approach was commensurate with the transformational-emancipatory leadership style being used in the school and demonstrated to students that that their views were being listened to and acted upon. An open-ended questionnaire administered with students was analysed to help develop a detailed 'initial student perceptions of school improvement' questionnaire. The data from this survey was then analysed using Principle Components Analysis to reduce the number of school improvement variables to develop a conceptual rapid school improvement model. This model was then used to guide the work of the school over the next two years.

In the second phase, the concurrent transformative design was nested so that the diverse range of participants in the study (parents, teachers and students) were given a voice in the change process (Cresswell, 2003) that was primarily being studied quantitatively. The integration of data took place during the interpretation and analysis parts of the study. This is particularly important since the qualitative data was vital to the effective interpretation of the findings from Principle Components Analysis and Principle Axis Factoring.

The reduced numbers of variables from the first phase of the study were reviewed and used directly to form a confirmatory school improvement questionnaire. The quantitative data gathered was then subjected to a multivariate statistical analysis in order to test and further refine the multilevel rapid school improvement model. The refined conceptual model is advanced politically as an agenda for policy reform.

3.4 Context

The case study school *"operates in an especially challenging urban context"* (OFSTED, 2005) and was identified by the DfES as a London Challenge 'key to success' school. At the beginning of the timeframe within which the study was conducted the school was judged by OFSTED (2004) as being in need of special measures, failed to meet the new Labour Governments 'floor examination targets' and had lost the support of the local community. The study focuses on the period between September 2004 and October 2008, during which it improved rapidly against the odds. The study was conducted in two distinct phases:

Phase I: **From September 2004 to July 2006**

The school improvement process brought significant progress on student standards and consequently the school was removed from special measures in November 2005. The critical school

improvement path in this period was analysed, enabling an initial conceptual model of the process to be constructed.

Phase II: **From July 2006 to October 2008**

Having come out of special measures and significantly raised standards, the school was subjected to closure proposals and political threats from the Local Council. During this period the school improvement model was robustly tested in the most difficult of circumstances and with the school under maximum stress. The effects of these threats and the continued implementation of the school improvement strategy was analysed in detail and the conceptual school improvement model modified as a result.

This longitudinal case study is therefore bounded by a four year time frame and by a purposive population of all students that were present throughout the improvement programme (Cresswell, 1998). The school serves a significantly disadvantaged urban student population. Such a case study can be seen as an example of a general picture (Cohen, Manion and Morrison, 2003) within similar contexts and can depict both the cause and effect of situations or occurrences as they unfold.

3.5 Sample

The student sample

In phase 1, all students in years 8 to 11 who had been in the school throughout its period in 'special measures' were eligible for involvement in the study. This provided a sample size of 302, which represented the full diversity of the student population in terms of gender, ethnicity and social circumstance (as measured by entitlement to free school meals).

In phase 2, only year 11 students were involved, having been at the school during the full transformational journey from being placed in special measures to being judged by OFSTED as 'good with outstanding features' and being rated as the second most improved school nationally. Of these students eligible, almost all of those present during the conduct of the questionnaires took part. The final group of 104 students was therefore highly representative, accounting for 104/129 (81%) of the eligible student population.

Of greater importance in the context of the statistical analyses used in the research was the notion of sample size and this will be explored in respect of the three procedures that were used extensively in the study.

Sample size for Factor Analysis

Sample size is crucial to an effective research design that involves factor analysis but there is little consensus amongst researchers on this issue (Pallant, 2005:175). It is essential for algebraic reasons that there are more respondents than variables (Kline, 2004). Beyond this, authors have recommended an absolute sample size of 200 (Guildford, 1956) or even 300 (Tabachnick and Fiddle, 2001). However, it is argued (Tabachnick and Fidell, 2001) that a smaller sample (e.g. 150 cases) is sufficient if solutions have several high loading marker variables above 0.8. In data with a clear factor structure samples of 100 are deemed sufficient (Kline, 2004). Other experts in the field recommend that the ratio of subjects to variables is of greater concern, with recommendations ranging between 2:1 and 20:1. Arrindel and van der Ende (1995) claim that the ratio of subjects to factors should be at least 20:1. However, this is not particularly useful since it is not known in advance how many factors will emerge.

The specific implications of sample size will be further dealt with as each aspect of the analysis develops but it is clear that the sample sizes, N=302 for the initial questionnaire containing 90 variables, and N=104 for the confirmatory

questionnaire containing 21 variables, are well in excess of values recommended by most experts in the field.

Sample size for Multiple Regression

For a reliable multiple regression the ratio of participants to independent variables has to be substantial. *"The required sample size depends on a number of issues, including desired power, alpha level, number of predictors, and expected effect sizes"* (Tabachnick and Fidell, 2001).

For testing the multiple correlation, the simplest rule is $N \geq 50+8m$ (where m is the number of independent variables) and for testing individual predictors $N \geq 104+m$ (Tabachnick and Fidell, 2001). These rules assume a medium size relationship between the independent and dependent variables, $\alpha=.05$ and $\beta=.20$. Alternatively, Garson (2008) suggests there should be 5 cases for each independent variable. However, in the context of this study it is important to ascertain whether results can be generalised to other samples in the same context. Soper (2008) provides a useful sample size calculator for multiple regression, which allows p-values, effect size and desired statistical power level to be specified. Similarly, Green (1991) offers the following, more complex rule of thumb that takes into account effect size: $N>=(8/f^2)+(m-1)$, where f^2 = .01, .15 and .35 for small medium and large effects, respectively and m=number of independent variables (IV's). For more precisely estimated effect sizes, Tabachnick and Fidell (2001) note that $f^2 = R^2/(1-R^2)$, where R^2 is the expected squared multiple correlation. The implications and validity of samples sizes will be discussed within each specific analysis where multiple regression is used.

Sample Size for Multiple Analysis of Variance (MANOVA)

MANOVA requires a minimum recommended sample size of 20 observations per cell in all cases and/or the number of samples in each cell should exceed the number of dependent variables.

3.6 Data Gathering Instruments

Initial Questionnaire

The questionnaire conducted in phase I was developed using a two-stage process over a six-month period between July and December 2005. The first stage involved the administration and analysis of an open-ended pilot questionnaire that was completed by students, staff and parents (n≈600) in July 2005. Four fundamental questions were posed:

- Do you think your school has improved since September 2004? If so, what have the improvements been?
- What do you think has helped to bring about this improvement?
- What are the main strengths of the school now?
- What further improvements are needed?

These questions emerge from the school improvement literature and the requirements of the School Self-Evaluation Form required under the new inspection framework (OFSTED, 2005).

During the second stage, the outcomes of the open-ended questionnaire were collated and the emergent themes then extracted. This analysis was simultaneously informed by the review of literature presented in Chapter 2 and external documentary evidence about the school. The aim of this process was to comprehensively isolate the emergent themes and items that necessitated inclusion in the final questionnaire.

In order to produce a comprehensive initial research instrument, all of the possible improvement variables were then collated in a table and coded according to their source (L=literature, P=parents, S=students, T=teachers, R=Ofsted reports and other monitoring documents). The variables were then grouped into similar

categories (e.g. aspects connected with teaching and learning) and very similar variables were then amalgamated and given greater clarity by simplifying the wording. To avoid question order influence the variables were then de-grouped prior to presenting them as questions to the respondents. This process resulted in the development of a ninety-item questionnaire and participants were asked to rate the contribution to improvement of each of the 90 variables using a seven-point semantic differential scale (Osgood et al., 1957).

Confirmatory Questionnaire

Following a review of the components and sub-components of school improvement extracted using Principal Components Analysis during phase 1 of the study and experience gleaned during phase II, a confirmatory student perceptions questionnaire was developed in four parts:

- ***Student perceived measure of improvement***

  Students were asked to rate the overall improvement at the school since they joined in year 7 (the year in which the school went into special measures) on a scale of 1 to 10, with10 being the highest.

- ***Personal Details of the respondent***

  Specific data about the student's gender (male or female), ethnicity (White, mixed race, Asian or Asian British, Black or Black British, Chinese or other) and their entitlement, or otherwise, to free school meals was requested.

- ***Factors that have contributed to improvement***

  Students were asked to rate 21 contributory factors of school improvement, based on those derived from the initial student's perceptions questionnaire, completed at the end of phase I, using a 7-point semantic differential scale. These variables were reduced from the original 90 variables and hence were based largely on what students themselves had actually indicated made a difference in phase 1 of the study. Consequently only wording and

emphasis was changed. The only notable exception was the inclusion of a variable indicating how the school had dealt with external threats such as the closure proposal, being in special measures and heavy press attention.

- ***Open-ended questions***

  Students were given the option to respond to two open-ended questions. In addition to the 21 variables specified, what other factors did they think might have helped the school to change and what the school could do to improve further?

A significant amount of time and effort went into getting the 21 variables right. This involved a further review of literature, Ofsted reports on the schools progress and an evaluation of other school improvement questionnaires such as those provided by Ofsted.

Focus group interviews

Three separate focus group interviews (teachers, students and parents) of 6 participants were conducted concurrently with the administration of the confirmatory questionnaire during phase II of the study. Participants were selected to form a stratified random sample to reflect, gender, ethnicity, ability and/or status of the wider stakeholder population. In order to avoid issues of bias, coercion and to support anonymity as a researcher, 'Zing' facilitation software was used to conduct the interviews. A template containing all of the questions was pre-installed on the system and participants completed their responses anonymously using a keyboard. The system allows more detailed and searching questions to be asked as the interviews develop. At the end of each section of the interview, the system allows for the group to agree the common themes that have emerged from their individual responses.

3.7 Data Analysis

The quantitative data was subject to three distinct types of multivariate statistical analysis: Factor Analysis; Multiple Regression and Multivariate Analysis of Variance. For conciseness only an overview of these procedures in included here but a complete explanation can be gained from Tabachnick and Fidell (2001).

Factor Analysis

School improvement in challenging contexts is a difficult and complex process and this is reflected in the large number variables in both student questionnaires. Factor analysis was chosen as the primary data reduction technique since it allows the simplification of a matrix of correlations between many variables by identifying the most important latent variables, or factors. A factor is a construct, which is a condensed statement of the relationship between a set of variables (Royce, 1963). Exploratory factor analysis is ideal in this study since the data is complex and it is uncertain what the most important variables in the field are. The research undertaken for the Plowden Report on Primary Education (HMSO, 1967) used factor analysis as part of an elegant solution to identify the factors determining educational progress and became an outstanding example of the genre (Kline, 2004).

There are four steps to carrying out a factor analysis: assessing the suitability of the correlation matrix; factor extraction; factor rotation and factor interpretation.

i. Assessing the suitability of the data

In order for factor analysis to work effectively there needs to be some interrelationship between variables. For this reason Tabachnick and Fidell (2001) recommend an inspection of the correlation matrix for evidence of coefficicients greater than 0.3. If "*few correlations above this level are found, then factor analysis may not be appropriate*" (Pallant, 2005: 174). However, values above 0.9 could

imply a problem because of singularity in the data. The determinant of the correlation matrix should be greater than 0.00001.

Bartletts test of sphericity (Bartlett, 1954) should be significant ($p<.05$) since it tests the null hypothesis that the original correlation matrix is an identity matrix. The Kaiser-Meyer-Oklin (KMO) measure of sampling adequacy (Kaiser, 1970, 1974) ranges from 0 to 1, with 0.6 suggested as the minimum value for a good factor analysis. Furthermore, KMO values between 0.7 and 0.8 are good, values between 0.8 and 0.9 are great and values above 0.9 are superb (Hutcheson and Soifroniou, 1999: 224-225).

ii. Factor Extraction

There are two methods of extracting factors. Principle Components Analysis (PCA) is used where the purpose is data reduction by seeking the set of factors that account for all the common and unique variance in a set of variables. Common factor analysis or Principle Axis Factoring is preferred when the research purpose is detecting data structure or causal modeling, and seeks the least number of factors which can account for the common variance in a set of variables.

There are three methods for deciding how many factors best describe the underlying relationship amongst variables:

- Kaisers criterion requires that only factors with eigenvalues of 1.0 or more are retained for further investigation;
- Cattel's (1966) scree test involves plotting each of the eigenvalues of the factors and then retaining all factors above the break in the plot, where the shape changes direction and becomes horizontal. These factors contribute most of the explanation of variance in the data set. However, Kaisers Criterion and Cattels scree test tend to overestimate the number of components to retain (Hubbard and Allen, 1987; Pallant, 2005; Zwick and Velicer, 1986);

- Parralel Analysis (Choi, Fuqua and Griffin, 2001; Horn, 1965; Stober, 1998) involves comparing the size of the eigenvalues with those obtained from a randomly generated data set of the same size. Only those eigenvalues that exceed the corresponding values from the data set are retained (Pallant, 2005; Marley Watkins, 2000).

iii. Factor Rotation

To assist in the process of interpretation, factors are rotated. This does not change the underlying solution but merely presents the pattern of loadings in a more readily interpretable manner. There are two main techniques: orthogonal and oblique. Orthogonal (varimax) is used when the factors are theoretically independent, whereas oblique (direct oblimin) rotation is used when the factors are related to each other as in real world situations (Garson, 2008:18).

iv. Interpretation

Following rotation, it is necessary to look at the content of the questions (variables) that load highly (>0.3) onto the same factor in order to identify common themes. In the case of more than one factor there are two possibilities: either the questionnaire failed to measure what it set out to but did measure some related constructs, or, the derived constructs are sub-factors of the original questionnaire content. Communality, $\mathbf{h^2}$, measures the percentage of variance in a given variable explained by all the factors jointly and *"may be interpreted as the reliability of the indicator"* (Garson, 2008: 7). Uniqueness of a variable is $1\text{-}h^2$.

Multiple Regression

In phase II, multiple regression was used to account for (predict) the variance in students' overall measure of school improvement (dependent variable) based on a linear combination of student perceptions of the impact of a number of contributory school improvement (independent) variables. More specifically, multiple regression

was used to establish if a set of independent school improvement variables explains a proportion of the variance in student perceptions of overall improvement (dependent variable) at a significant level (through a significance test of R^2) and establish the relative predictive importance of the independent variables (by comparing beta weights).

The multiple regression equation takes the form $y = b_1x_1 + b_2x_2 + ... + b_nx_n + c$, where y is the estimated dependent and c is the constant (that includes the error term). Curvilinear and interaction effects can be explored by adding power cross-product terms as independent variables respectively. The model shown above is known as a main effects model, since no interaction effects are considered. The regression coefficients (b's), represent the amount the dependent variable y changes when the corresponding independent changes by 1 unit and other independents are held constant. t-tests are used to assess the significance of individual b coefficients, testing the null hypothesis that the regression coefficient is zero. It is common (Garson, 2008) to drop all variables from the regression equation that are not significant at the p=.05 level. The standardized b coefficients (beta weights) represent the average amount the dependent variable increases when the independent increases one standard deviation and the other independent variables are held constant. The ratio of the beta weights indicates the relative importance of the independent school improvement variables. Providing the confidence intervals for the b's do not contain 0, it can be assumed with 95% confidence that the regression coefficients are significantly different from 0.

The coefficient of multiple determination (or multiple correlation) R^2, is the percentage of the variance in overall school improvement (dependent variable) explained collectively by the (independent) contributory school improvement variables. The F test is used to test the significance of R^2. If prob (F) < .05 then the model is considered significantly better than would be expected by chance and we reject the null hypothesis of no linear relationship of school improvement (y) to the independent school improvement variables. Adjusted R^2 is used when there is a

large number of independents when it is possible that R^2 becomes artificially high simply because some independents' chance variations *'explain'* small parts of the variance in the dependent. Gujarati (2006: 229) recommends, *"it is good practice to find the adjusted R^2 value because it explicitly takes into account the number of variables included in the model"*. Adjusted $R^2 = 1-((1-R^2)(n-1/n-k-1))$, where n is the sample size and, k is the number of independents in the model.

Multiple regression is based on a number of assumptions: linearity of relationships; homoscedasticity (the same level of relationships throughout the range of the independent variable); interval or near interval data; absence of outliers; data whose range is not truncated and that the model being tested is correctly specified.

When specifying the model *omission* of relevant variables and the inclusion of causally *irrelevant* variables can both substantially affect the size of the b and β coefficients. Regression analysis is a linear procedure. However, whilst departures from linearity will not substantially affect the interpretation of regression output, R^2 will underestimate the importance of the variables in the non-linear relationship. Multiple regression assumes multivariate normality and normally distributed residual error. In the case of skewed distributions, transforms can be applied to force all variables to a normal distribution.

Multicollinearity refers to excessive correlation of the predictor variables. When correlation is excessive ($r>.9$) standard errors of the b and β coefficients become large making it difficult or impossible to assess the relative importance of the predictor variables. Tolerance ($1-R^2$) and its reciprocal variance–inflation factor (VIF) are tests for multicollinearity, with a VIF >0.4 indicating a multicolinearity problem. The Durban-Watson statistic tests the assumption of independent observations. A value in the range 1.5 to 2.5 indicates this assumption is met.

For the homoscedasticity assumption to be met, observations should be spread about the regression line for the entire x-axis on a plot of the dependent (x-axis)

against standardized predicted values (y axis). Outliers are a form of violation of homoscedasticity and can affect regression coefficients substantially (Garson, 2008: 18). The leverage statistic (h) identifies cases which influence regression coefficients more than others. Cases with h < .2 are not a problem. Outliers may be a problem if the maximum Mahalabobis distance, h x (n-1), exceeds the critical chi-squared value, with degrees of freedom equal to the number of predictors and alpha = .001. Cook's distance (D) measures the effect of deleting a given observation. Fox (1991: 34) suggests that observations with D > 4/(n-k-1), where n is the number of cases and k is the number of independents, may have an unusual influence, whilst others (Garson, 2008: 19) suggests that D > 1 provides a strong indication of an outlier problem.

MANOVA

In phase II MANOVA is employed to assess the differences in student responses (multiple dependent variables) simultaneously based on gender, ethnicity and social disadvantage (as defined by entitlement to free school meals) acting as independent categorical variables. MANOVA therefore provides information on the nature and predictive power of gender, ethnicity and FSM as independent measures and is used to assess whether an overall difference exists between groups. The Wilkes Lambda multivariate test was used to simultaneously test each factor effect (gender, ethnicity and FSM), and the interaction between them, on the dependent groups (student responses). The significance of an F test shows if the effect is significant. Eta squared provides a measure of the proportion of the total variability in the dependent variable accounted for by the variation in the independent variable. The covariance serves as a control. If any effects are found to be significant then tests of between subject effects are considered.

Three key assumptions underpin MANOVA: independent observations; equality of variance/covariance matrices and multivariate normal distribution. Box's M tests the assumption that for each cell in the factor design matrix the covariance is similar. This assumption is violated if M is significant (<.05). Bartlett's test of

sphericity tests the null hypothesis that the residual covariance matrix is proportional to an identity matrix. If the Levene test is significant (<.05) then the homogeneity of variances assumption is met. It should be noted that *"Levene's test is robust in the face of departures from normality"* and that *"failure to meet the assumption of homogeneity of variances is not fatal to ANOVA which is relatively robust"* (Garson, 2008: 5). If the F test indicates there is an effect on the dependent variable, then Post Hoc tests (Bonferroni and Tukey) are used to determine which group means differ significantly from others and hence help to specify the exact nature of the overall effect.

3.8 Representing the Data

The findings from the extensive multivariate analysis of quantitative data in the study are presented largely in tables together with appropriate and relevant interpretation and assumption narratives in line with the exemplar guidance provided by Tabachnick and Fidell (2001) and Pallant (2005).

The responses to the open–ended questionnaires and focus group interviews are summarised according to the emergent themes and again provided in tabular form for ease of interpretation, particularly when bringing both quantitative and qualitative data together. The full transcripts of the focus group interviews are provided in an Appendices B, C and D.

The outcomes of the analysis and discussion in each phase of the research design are presented as a single visual multilevel conceptual model to help the reader gain a full understanding of the issues and to convey the complexity and coherence of the interrelationships amongst the 'reduced 'latent variables (factors).

3.9 Ethical Issues

This research was conducted rigorously within the guidance laid down by the Ethical Standards Research Council (ESRC) and gained full approval from the

University of Greenwich Research Ethics Committee. Given the sensitivity of researching children and the central role this aspect plays in the thesis, the successful application submitted to the Research Ethics Committee is provided in Appendix E. Within the professional context, permission was sought from the appropriate authority, the governing body.

Main Ethical Issues

The reliance within this study on collecting research data mainly from children, all of whom were under 18 years of age, led to two main ethical issues being considered paramount:

Confidentiality and Privacy

It was vitally important that all respondents were able to express their views freely and in confidence, whilst ensuring that students, in particular, did not confer with each other over their responses.

Reliability and Coercion

At an early stage the potential conflict between my professional role and the conduct of the research was acknowledged. In particular it was recognised that my professional status, as a headteacher, might affect the perception of participants as to their freedom to choose not to participate and also possibly bias their responses.

In order to address these potential concerns, an external consultant, skilled in seeking the views of students and other stakeholders, was engaged to conduct the questionnaires and focus interviews. The consultant and I have many years experience of working with young people and we both have 'list 99' clearance and enhanced CRB checks conducted on a regular basis.

Questionnaires

The completion of the large scale questionnaires of students' perceptions were conducted in groups of approximately 30 in the school lecture theatre; providing ample space for participants to be well spaced and hence guarantee privacy and anonymity of responses.

Since the questionnaire was carefully explained and conducted by an external consultant, anonymity was guaranteed and issues of coercion by the researcher were negated. No names were specified on the questionnaires.

A positive decision was taken not to use postal questionnaires. Previous experience of working with children shows that reliability is more likely to be assured if the questionnaire is carefully explained to groups in an environment where the independence and privacy of responses can be guaranteed. Furthermore, experience in the school shows that response rates from students, parents and teachers to written requests is very poor. Since a sample in excess of 100 is required for the multivariate analysis of data to be meaningful, I could not risk a low response rate.

Focus Group Interviews

The focus group interviews were again conducted by the same external consultant. They took place in the school conference room which provides ample room to allow privacy for the small sample sizes used in this study.

'Zing' facilitation software was used to structure the interviews, with a pre-prepared question template. Participants were able to respond anonymously by using a key board but group agreement on common themes was recorded at the end of each question. This system allows more detailed and searching questions to be asked as the interviews progress. Once the interviews were complete, the responses were simply exported to a Microsoft Word document and stored securely for further

processing. This enabled an accurate confidential electronic transcript to be obtained immediately.

A participant information sheet was made available to all who took part in the study and all were informed of their option not to take part. Written consent was sought from all participants in the focus group interviews, including additional parental consent for student respondents. Due to the need to keep questionnaire responses anonymous, no written consent was sought for participation in the questionnaires and no names were written on completed questionnaires. All participants had adequate understanding in the use of English.

3.10 Summary

This chapter has concentrated on the development of a 'unique' research methodology that is appropriate for the complex context in which the study took place and that responds to the limitations identified in existing literature. These limitations include the lack of: student voice; quantitative attempts to identify the size and mix of school improvement factors and theoretical approaches that enable researchers to understand the context more fully. The choice to work within a transformational-emancipatory paradigm as defined by Mertens (2003) was based on the need to incorporate the social class perspective as part of a distinct form of mixed methods research. This methodology is also significant because the approach mirrors the school improvement process adopted in the case study school.

The ethics of research using children's perspectives were considered in detail and appropriate solutions to mitigate concerns were incorporated into the research design. The longitudinal nature of the research dictates that the number of students in the sample reduces considerably over the four years of the study and consequently the effect of sample size is considered in detail. The two questionnaires used in the study have been carefully considered and accompanied

by a brief explanation of the multivariate statistical methods used – principle components analysis, factor analysis, multiple regression and multivariate analysis of variance. In conclusion, the research was conducted with a post positivist paradigm which reflects a deterministic philosophy.

4 PHASE I RESULTS, ANALYSIS & DISCUSSION

THE JOURNEY OUT OF SPECIAL MEASURES

This chapter will consider the possible causes of the improvement that took place in phase I of the study, between September 2004 and February 2006. The chapter is organised under five subheadings: the research question and a description of the sample; a Principle Components Analysis (PCA) of student's responses to the 90-item exploratory questionnaire; the interpretation of the PCA analysis and an analysis and discussion of the findings in the light of the literature, triangulated with external inspection judgments and personal insight.

4.1 Introduction

In the spring term 2006, subsequent to the school being removed from special measures, the initial student perceptions questionnaire was conducted. This seven-point semantic differential research instrument had been developed following:

- An analysis of an open-ended questionnaire of student, parent and staff perceptions of what had led to improvement in the school;

- A review of the research literature related to school improvement in especially challenging schools;
- Documentary evidence from OFSTED inspection reports on the school's progress (OFSTED, 2004; OFSTED, 2005).

The purpose of this 90-variable questionnaire was to attempt to answer the research question:

What do students perceive to be the contributory factors implicit in the rapid improvement of an especially challenging urban school?

The aim was to seek and then analyse the perceptions of students, who had lived through the school improvement experience, as to what they considered were the most important factors that had impacted on improvement, leading to the school being removed from special measures. A large sample of 302 students in years 8 to 11 completed the initial questionnaire. The explicit intention was to reduce the 90 school improvement variables contained in the questionnaire by identifying the underlying 'factors', or latent variables.

4.2 Principle Components Analysis of Student Perceptions

The responses to the ninety-item questionnaire were analysed using SPSS version 16, with Principal Components Analysis (PCA) as the extraction method and Varimax with Kaiser Normalisation as the rotation method to identify the underlying components of the student's perceptions of the rapid school improvement process.

Prior to performing PCA, the suitability of the data for factor analysis was assessed. The sample size (n=302), the ratio of subjects to variables (3.36:1) and the ratio of subjects to factors (10:1) are all above values recommended by experts in the field (Arrindel and van der Ende, 1995; Guildford, 1956; Kline, 2004; Pallant, 2005; Tabachnick and Fidell, 2001).

Inspection of the correlation matrix revealed the presence of a number of coefficients of 0.3 and above. The Kaiser-Meyer-Oklin measure of sampling adequacy of 0.929 significantly exceeded the recommended value of 0.6 (Kaiser, 1970, 1974). Bartlett's (1954) Test of Sphericity (χ^2=13916.071, df=4005, p=.000) reached significance at both the p=0.05 and p=0.01 levels, Taken together these tests supported the factorability of the correlation matrix.

The 90 variables in the initial student perceptions questionnaire were subjected to PCA using SPSS. Kaiser's Criterion, revealed the presence of twenty-two components with eigenvalues exceeding 1, explaining a total of 66.45% of the variance. An inspection of Cattel's (1966) screeplot revealed possible breaks after the third, fifth and eighth components providing an argument for retaining three, five or eight components for further investigation. However, the large number of eigenvalues makes the plot difficult to interpret. Parallel Analysis (Marley Watkins, 2000) showed only 3 components with an eigenvalue exceeding the corresponding criterion values for a randomly generated (100 repetitions) data matrix of the same size (90 variables x 302 participants). The extraction of 3 components was therefore a robust conclusion to draw from this analysis and these components were retained for further analysis.

To aid the interpretation of the three components in this analysis the most commonly used Varimax rotation was performed. This *"... attempts to minimize the number of variables that have high loadings on each factor"* (Pallant, 2005:176). The rotated solution (Table 4.1) was readily comprehensible in the context of existing literature on school improvement in especially challenging urban contexts.

4.3 Interpretation of the Principle Components Analysis

Close inspection of the three extracted components in this analysis enables them to be interpreted and developed within a conceptual multilevel model framework similar to that defined by Goldstein (1987), Creemers (1997) and Creemers and Kyriakides (2006). This involves distinguishing between the context, whole school,

Table 4.1: Varimax-rotated factor loading matrix for principal component analysis calculated for items measuring student participants (N=302) perceptions of the contributory factors of school improvement.

Qn.	**Extracted Components** *C_1: A focus on learning & teaching* *C_2: Purposeful whole school leadership* *C_3: Changing the culture of the school*	Analysis N	Mean	SD	Component loadings		
					C_1	C_2	C_3
S1	There are stricter rules and stricter staff	302	5.51	1.152	.087	.220	**.489**
S2	The headteacher provides strong, purposeful, positive & effective leadership	302	5.70	1.081	.058	**.407**	**.373**
S3	Getting rid of teachers who don't care	299	6.03	1.375	.030	.002	.255
S4	Improved communication with parents, including ringing and writing home	299	4.73	1.542	.013	**.437**	.232
S5	Insistence on students looking smart and wearing uniform	301	4.64	1.657	-.041	**.540**	.224
S6	Staff that stay longer in the school	299	5.12	1.614	-.074	**.303**	.269
S7	There is a determined, strong and purposeful Leadership Team	296	5.26	1.234	.086	**.301**	**.535**
S8	The school is cleaner and brighter with no litter or graffiti	299	5.49	1.364	-.025	**.321**	**.404**
S9	Students are encouraged to respect others	302	5.61	1.281	.058	.146	**.540**
S10	The headteacher provides clear direction for the work of the school	299	5.56	1.178	.156	**.406**	**.423**
S11	Bullying is taken seriously and dealt with effectively	301	5.83	1.468	.211	-.054	**.548**
S12	Parent-teacher meetings are more informative	299	5.00	1.401	.112	**.343**	**.339**
S13	There has been a significant reduction in racist comments	299	5.34	1.627	.201	.162	**.494**
S14	Students now have a more positive attitude to school	296	5.36	1.300	**.328**	.192	**.466**
S15	The school listens to students views and acts on them	299	4.95	1.747	**.549**	-.017	**.445**
S16	The way people talk to each other has improved	297	4.96	1.366	**.346**	.229	**.493**
S17	Whole staff working together as a team	300	5.39	3.038	.136	.087	.188
S18	There are clear, firm and consistent discipline procedures	296	5.05	1.271	.221	**.411**	**.425**
S19	The headteacher is high profile and walks the school	298	5.34	1.462	.100	**.513**	.288
S20	The worst behaved students have been removed from the school	297	5.58	1.615	**.435**	.074	**.351**
S21	The quality of teaching has improved	300	5.59	1.330	**.512**	.177	**.390**
S22	There are clear behaviour management policies	293	5.19	1.179	**.308**	**.472**	**.386**
S23	There are hard working staff committed to the school and school improvement	301	5.37	1.299	**.390**	.289	**.353**
S24	Teachers 'expect' all students to achieve	301	5.68	1.392	**.318**	.251	**.300**
S25	Students [and parents] receive regular reports on their progress	298	5.16	1.628	**.333**	**.363**	.164
S26	Problems that arise are dealt with by teachers	296	5.05	1.493	**.444**	**.322**	.215
S27	Attendance and punctuality is taken seriously and followed up	301	5.50	1.406	.170	**.539**	.134
S28	The headteacher is committed to high standards and academic achievement	300	5.66	1.206	**.367**	**.459**	**.348**
S29	There is higher quality display work around the school	301	4.73	1.612	.107	**.544**	.116
S30	Teachers now manage behaviour well	295	4.95	1.404	**.550**	.109	.294
S31	The recruitment of good new staff who want to teach children	298	5.56	1.335	**.433**	**.323**	**.322**

Table 3: (Continued)

Qn.	**Extracted Components** *C_1: A focus on learning & teaching* *C_2: Purposeful whole school leadership* *C_3: Changing the culture of the school*	Analysis N	Mean	SD	Component loadings 1	2	3
S32	Insistence on a calmer atmosphere around the school	298	5.11	1.335	**.328**	**.333**	**.341**
S33	Students want the school to improve	299	5.86	1.302	**.373**	.295	**.369**
S34	Teachers showing students how to behave	299	4.93	1.493	**.400**	**.376**	.077
S35	Good support is offered to students with difficulties	296	5.44	1.359	**.427**	.251	.154
S36	Being in Special Measures and OFSTED telling us what to do to improve	292	5.34	1.596	.233	**.450**	.202
S37	Students feel more comfortable in the school and it is a 'safe' place to study	299	5.53	1.362	**.507**	.257	**.379**
S38	A clear and innovative management structure is in place	295	4.99	1.267	**.344**	**.377**	**.320**
S39	There are better relationships amongst students	299	5.22	1.317	**.321**	**.328**	**.332**
S40	In lessons teachers explain carefully to students what they are to do	300	5.25	1.537	**.603**	.072	.240
S41	Daily assemblies provide a more organised start to the day	300	4.22	2.016	.125	**.571**	-.044
S42	The new Leadership Team is working well as a team	301	5.05	1.451	.249	**.611**	.095
S43	There is more concentration on work and students are expected to learn	301	5.53	1.231	**.477**	**.365**	**.366**
S44	The leadership style is characterised by openness, trust and honesty	301	5.01	1.322	**.406**	**.449**	.239
S45	There is stronger discipline and less disruption in the classroom	301	5.14	1.449	**.615**	.062	.284
S46	There is a focus on teaching and learning	301	5.43	1.254	**.558**	.154	**.388**
S47	Pupils are keen to succeed and willing to learn	300	5.49	1.274	**.465**	.058	**.401**
S48	The headteacher & Leadership Team are skilled in the management of change	300	5.43	1.271	**.377**	**.590**	.174
S49	Work is marked frequently and/or feedback helps students to improve	300	5.22	1.617	**.564**	.206	.130
S50	Data about school performance is analysed and shared effectively	301	4.97	1.412	**.377**	**.564**	.176
S51	There is a broad and balanced curriculum	296	5.07	1.207	**.465**	**.372**	.244
S52	There are better relationships between staff and students	301	5.21	1.484	**.503**	.191	.273
S53	Expectations are higher and students are expected to adhere to the rules	300	5.34	1.224	**.460**	**.426**	.186
S54	Lessons are more structured	296	5.34	1.281	**.522**	**.300**	.257
S55	Students understand that the school must improve	299	5.71	1.195	.182	**.410**	**.328**
S56	The improved lunchtime arrangements	299	4.94	1.733	**.381**	.271	.071
S57	Staff treating students with respect	299	5.37	1.776	**.702**	-.067	.112
S58	Better organisation of the school day & timetable	299	5.19	1.539	**.512**	.201	.208
S59	High standards of behaviour are 'enforced'	298	5.20	1.302	**.505**	.255	**.320**
S60	There is a wide range of x-extra-curricular activities and after school clubs	299	4.98	1.616	**.388**	.269	.076
S61	There are clear roles and responsibilities for staff with lines of accountability	299	5.01	1.293	**.439**	**.434**	.143
S62	Students are expected to learn and teachers push them to do well	294	5.42	1.399	**.686**	.252	.122
S63	The Leadership Team regularly observes lessons	296	4.67	1.553	**.441**	**.450**	.084

Table 3: (Continued)

Qn.	**Extracted Components** *C_1: A focus on learning & teaching* *C_2: Purposeful whole school leadership* *C_3: Changing the culture of the school*	Analysis N	Mean	SD	Component loadings 1	2	3
S64	Students are set targets for improvement	300	5.34	1.413	**.510**	**.310**	.050
S65	The headteacher has generated a belief in a culture of self improvement	300	5.19	1.264	**.357**	**.534**	.100
S66	Good teachers who display good humour & establish excellent relationships	296	5.67	1.299	**.355**	.231	.219
S67	There is an agreed & consistent approach to teaching & learning across school	297	5.31	1.265	**.518**	**.336**	.163
S68	Good practice is modelled by senior staff	297	5.03	1.348	**.420**	**.445**	.169
S69	There are clear expectations of what is expected of students and staff	300	5.39	1.284	**.340**	**.534**	.216
S70	The Leadership Team effectively analyses & monitors school performance	299	5.13	1.381	**.383**	**.499**	.122
S71	Students helping out and taking on positions of responsibility	299	5.18	1.365	**.406**	**.402**	.193
S72	There is consistent and effective leadership & management	300	5.11	1.329	**.442**	**.486**	.299
S73	Students who do well are rewarded for their efforts	295	5.39	1.652	**.561**	.170	.134
S74	The school vision and expectations are clearly and regularly communicated	296	5.20	1.326	**.376**	**.368**	.299
S75	The redecoration and building work have improved the environment	296	5.38	1.438	**.323**	**.343**	.276
S76	Everyone is treated fairly	298	5.01	1.951	**.703**	-.056	-.067
S77	Behaviour is managed consistently	297	5.09	1.453	**.677**	.231	.020
S78	Lessons are better planned and in advance	297	5.32	1.467	**.527**	.290	.124
S79	There are less children in the school	299	4.68	1.770	.159	**.372**	.135
S80	There is a consistent approach across the school	294	4.93	1.358	**.333**	**.550**	.148
S81	School policies, procedures and structures are clear and coherent	297	5.07	1.238	**.388**	**.510**	.125
S82	The school is focused on success and improvement	298	5.47	1.339	**.432**	**.338**	**.314**
S83	The targeted revision and coursework sessions help to improve results	302	5.60	1.307	**.454**	**.322**	.229
S84	The Leadership Team regularly check exercise books	300	4.71	1.496	**.496**	**.314**	.043
S85	Teachers are exposed to good whole school development and training	296	5.18	1.300	**.572**	**.357**	.138
S86	Students progress is tracked effectively	301	5.22	1.319	**.606**	.294	.202
S87	There is good support and encouragement from teachers	297	5.27	1.354	**.699**	.239	.128
S88	The improved quality of healthy food	300	4.86	1.899	**.430**	**.317**	-.091
S89	The school concentrates on a small number of achievable goals	301	5.16	1.384	**.482**	**.440**	.040
S90	The headteacher has a clear vision for the future of the school	302	6.05	1.146	.257	**.444**	.174
Eigenvalue					27.58	3.45	2.39
% of total variance					30.64	3.84	2.66

Extraction Method: Principal Component Analysis.
Rotation Method: Varimax with Kaiser Normalization.
a Rotation converged in 13 iterations

classroom and individual levels in the education process by categorising those school improvement strategies that are most effective within each level. Significantly only three of Creemers levels were considered in phase I of the study and these related specifically to the internal conditions within the school. However, the especially challenging context clearly underpins each component extracted.

To enable each factor to be interpreted appropriately, each is broken down into sub-factors in an attempt to establish a clear picture of the interrelationships between the original variables and the conceptual basis for the three factors extracted. In the interpretation that follows, each factor and sub-factor was identified on the basis of the PCA analysis of student perceptions triangulated with OFSTED judgements and personal insight, as the headteacher, based on detailed knowledge of existing literature as set out in chapter 2.

Factor 1: Focus on Teaching and Learning in the Classroom

Factor 1 explained 30.64% of the total variance and included 66 variables with a loading greater than 0.3. The variables were clearly grouped around specific aspects of classroom practice and these are dealt with in turn.

(a) Instructional Leadership

Students perceived that the school vision was built on a small but clearly identified number of achievable goals (S89) and, together with the resulting expectations, were clearly and regularly communicated (S74) in daily assemblies (OFSTED, 2005). Students were expected to learn (S43) and therefore priority was given to a sharp focus on teaching and learning (S46); success and improvement (S82) and a concentration on academic work. Students suggested that good practice in the classroom was modeled and monitored by members of the leadership team (S68), who regularly checked exercise books (S84) and observed lessons (S63). This perception is supported by OFSTED (2005: 5) who judged that *"the monitoring of all aspects of the schools work by members of the leadership team is through and*

extensive; they also observe lessons and give detailed feedback". A vital component of classroom improvement was the recruitment (S31) of a new and strong team of hardworking staff committed to teaching students in the school (S23).

(b) Positive interaction between students and staff

The highest loadings on component 1 indicated a dominant view from the students' perspective that positive interaction with students by teachers, accounting for 8 variables, played a vital role in improvement. Staff treating students with respect (S57 and S76) and the school listening to students points of view and acting upon them (S15) led to significantly improved relationships between staff and students (S52). This was confirmed by OFSTED (2005: 4) who judged that*: "The school has a number of successful teachers who display good humour and establish excellent relationships."* However, students indicated that they were expected to learn and teachers pushed them to do well (S62). Consequently, students were keen to succeed and willing to learn (S47). The increased engagement of students manifested itself in a number of ways; most noticeably in the numbers helping out around the school and taking on positions of responsibility (S71).

(c) Support for Students

Good support and encouragement from classroom teachers (S87), particularly for students with difficulties (S35), was identified by students as a key aspect of improvement in the classroom. A contributory factor to improved results was the provision of targeted revision and coursework sessions (S83) and a wide range of extra-curricular activities (S60) that were *"... well attended"* (OFSTED, 2005: 2). There was also a perception that teachers were more able to deal effectively with problems that students experienced (S26).

(d) Teacher management of behaviour

Items loading on factor 1 indicated the strong emphasis that students placed on teacher's management of behaviour in the classroom. An agreed set of minimum expectations and a positively phrased code of conduct were displayed in every classroom and students were expected to adhere to them at all times (S53). Stronger discipline and less disruption in the classroom (S45) were achieved through training and support for teachers in enforcing high standards of behaviour (S59), managing behaviour consistently (S77) and showing students how to behave (S34).

Student perceptions were supported by the external judgement that teachers *"now manage the pupils' behaviour well"* (OFSTED, 2005: 4). However, this was achieved within a supportive framework in which "*Pupils who* (were) *in danger of exclusion or who (*did) *not attend school regularly* (were) *given good support*" (OFSTED, 2005: 4) so that *"the number of exclusions (was) reduced considerably* (ibid.: 4). As a consequence of higher expectations and the schools determination to rigorously enforce minimum expectations of behaviour, the worst behaved students were either improved or removed from the school (S20) and this was well received by students.

(e) An agreed teaching model

Students strongly perceived that an agreed and consistent approach to teaching and learning had been adopted across the school (S67). Consequently, more structured lessons (S54) were planned in advance (S76) and hence the quality of teaching was improved (S21). Particular focus was placed on teachers explaining carefully to students what they were to do (S40) and *"learning objectives were usually shared with the pupils during the introduction"* (OFSTED, 2005: 4). Most importantly the "*consistent and detailed approach to lesson planning"* ensured that the structure of lessons was *"well matched to the pupils needs"* (ibid.: 4).

(f) Feedback

The OFSTED (2005: 5) judgment that *"most of the pupils work is marked frequently and many teachers give clear guidance on how a pupil may improve standards*" was commensurate with student perceptions that feedback, including the frequent marking of student's work (S49), helped students to improve. Students were set targets for improvement (S64), their progress was tracked effectively (S86) and those who did well were rewarded for their efforts (S73). Significantly, " *The schools system for tracking progress (was) a highly reliable and effective means of predicting the performance of individual pupils, and groups of pupils, in tests and examinations"* (OFSTED, 2005: 5). Based on this information, students and their parents received regular written reports on their progress (S25) that were discussed at termly academic review days.

(g) Curriculum and organisation of the school day

Students perceived that the development of a *"broad and adequately balanced"* OFSTED, 2005: 2) curriculum (S51), including successful vocational courses, had provided more flexible and appropriate pathways to post-16 education and improved the motivation of key stage 4 students. This was supported by a better organisation of the school day and timetable structure (S58). Improved arrangements at lunchtimes (S56) and better quality healthy food (S88) drastically improved behaviour at lunchtimes and during afternoon lessons.

Factor 2: Purposeful Whole-School Leadership

Factor 3 explained 3.84% of the total variance and included 52 variables with a loading greater than 0.3.

(a) Leadership of the headteacher

One of the strongest findings from an analysis of students' perceptions was the strong, purposeful, positive and effective leadership (S2) of the headteacher as a

fundamental component of rapid improvement. Students indicated that the headteacher provided clear direction for the work of the school (S10), was high profile and walked the school (S19) and was rigorous about high standards and academic achievement (S28). The clear vision (S90) and high expectations of what is required of students and staff (S69 and S53) was communicated during daily whole school assemblies, which provided a more organised start to the school day (S41). In order to make an immediate impact, there was an insistence on students looking smart and wearing uniform (S5), with attendance and punctuality taken seriously and followed up (S27). OFSTED (2005) judged the leadership and management of the headteacher as 'good':

> *"Through firm and effective leadership he has inspired both pupils and staff to bring about the evident improvements and has given clear direction for the school's work"* (OFSTED, 2005: 5).

The importance of speed of improvement and having "a clear vision for the school's future" (ibid: 2) were crucial aspects of the headteacher's performance that were highlighted by both students and OFSTED.

(b) Recruiting and retaining an effective body of staff that work as teams

Students were clear that central to raising standards in the classroom was the recruitment (S31) and retention (S6) of quality new teachers (S31) that were skilled at modelling good practice with students and inexperienced teachers (S34 and S68). Consistent and effective leadership and management (S72) was underpinned by the development of effective teams, especially the leadership team (S42). Central to this sub-factor was the *"development of a clear and innovative"* (OFSTED, 2005: 5) management structure in which senior leaders directly led major curriculum areas (S38). Clear roles and responsibilities for staff were established with direct lines of accountability (S61) that were judged to *"work well in practice"* (ibid: 5).

(c) A positive culture based on very high expectations

Students perceived that the headteacher and senior staff leadership, employing a leadership style that was characterised by openness, trust and honesty (S44), had generated a belief in a culture of self-improvement (S65) with an immediate insistence on a calmer atmosphere around the school (S32). Students understood that the school must improve (S55) and readily helped out by taking on positions of responsibility (S71), such as showing visitors around the school and acting as mentors to younger students. As a direct result better relationships were fostered amongst students (S39). Expectations of teachers were equally important and consequently a central focus of the leadership team was to: *"...challenge ineffective teaching, ensure consistency of approach and monitor the improvement to raise standards"* (OFSTED, 2005: 5).

(d) High quality strategic planning with clear policies and procedures

Student responses indicated that they understood that the school had rigorously focused on a small number of goals (S89) and had insisted on a consistent approach (S80). School policies were deemed to be *"... coherent and (gave) guidance to teachers on preferred and agreed practices"* (OFSTED, 2005: 5). Similarly, procedures and structures were perceived by students to be clear (S81), particularly those relating to the management of behaviour (S22 and S18). Our comprehensive single school improvement plan set out the work of the school in a clear and concise manner. One key aspect of strategic planning was the 'bar' on casual admissions to the school brokered with the local authority. This stabilised the roll. Not surprisingly, the effect of fewer children in the school (S79) was instrumental in developing a calmer atmosphere.

(e) Monitoring and evaluation

It is undoubtedly true that the 'outstanding' quality of the schools self-evaluation procedures' (OFSTED, 2005) was stimulated by being in Special Measures (S36)

and the need to complete a Self Evaluation Form (SEF) as part of the inspection process (OFSTED, 2005). Central to this approach was that: *"The leadership team systematically and effectively analyse(d) and monitor(ed) data about the schools performance"* OFSTED, 2005: 2). Consequently, student responses confirm that data about the school's performance was analysed and shared more effectively (S50), with the leadership team effectively monitoring school performance (S70). This included regularly observing lessons (S63) and scrutinising samples of student's work (S84).

(f) Environment

As suggested in the literature, improving the environment had both a symbolic and a real purpose as it demonstrated to staff, students and parents that the school was changing and improving (Chapman and Harris, 2004). Students indicated that higher quality display work around the school (S29) had made a difference and this was supported by the external judgment that *"teachers produce(d) stimulating displays"* (OFSTED, 2005: 4). Zero tolerance of litter and graffiti led to the school being cleaner and brighter (S8) with almost immediate effect. A number of redecoration and building projects further improved the learning environment (S75). This sub-factor was summed up neatly by OFSTED (2005: 4): *"The refurbishment of some classrooms and social areas, an extensive building programme and the emphasis placed on clearing away litter has resulted in the provision of an attractive learning environment".*

(g) Partnership with parents and the wider community

An analysis of student perceptions identified three items IS4, S25 and S12) being loaded significantly on improving relationships with parents. Improved communication, with teachers ringing and writing home (S4) for positive as well as negative reasons, was coupled with termly written reports on progress (S25) that were discussed between teachers, students and parents during subsequent

'academic review days' (S12). This ensured that the dialogue with parents was focused almost solely on learning and progress.

Factor 3: Changing School Culture through Developing Individuals

Factor 3 explained 2.66% of the total variance and included 31 variables with a loading greater than 0.3.

(a) Improved relationships

Student responses indicated that six items (S11, S9, S13, S16, S15, S39) loaded significantly on this factor indicating that the improvement in relationships was a key feature of the school improvement process. In particular, *"Relationships (were) friendly and pupils (were) considerate to others ..."* (OFSTED, 2005: 3). Dealing with bullying (S11), racism (S13) and treating each other with respect (S9) loaded particularly highly on this component indicating a need to feel that the school provided a 'safe' learning environment (S37).

Implicit in this sub-factor was student's recognition of the need to have clear, firm and consistent discipline procedures (S18, S22), with staff enforcing high standards of behaviour (S1 and S59). Significant action was taken, such as permanently excluding the worst behaved students from the school (S20), if the new code of conduct was broken. As a result of this approach the school was judged to provide *"... good care, guidance and support and the pupils mix(ed) in a calm and tolerant atmosphere"* (OFSTED, 2005: 2). The analysis of student perceptions suggests that the importance of relationships with parents is exemplified by the improvement in parent-teacher meetings, which became more informative (S12) and focused on achievement.

(b) Determined staff

Items loading on factor 3 indicated that students understood the importance of staff being determined to succeed and committed to high standards. Strong, determined

and purposeful leadership (S7, S38), particularly of the headteacher (S2, S10 and S28), generated a focus on teaching and learning (S46) together with striving for success and improvement (S82). The recruitment of new staff (S31) that were committed to improvement (S23) led to better quality teaching (S21), more concentration on work (S43), higher expectations of what students could achieve (S24) and an insistence on a calmer learning environment around the school (S32).

OFSTED (2005) highlighted a number of associated judgments related to commitment of staff. Most notably, *"morale amongst staff* (was) *good"* (ibid: 2) and they had *"evolved into a strong team of committed professionals"* (ibid: 3) that had "*undertaken much additional work in order to improve the quality of teaching and planning"* (ibid: 5). Additionally, the headteacher was *"well supported by a committed and hard working group of senior managers"* (ibid.: 5).

(c) Student attitudes

Students themselves were key agents of improvement and it came as no surprise that a discrete group of items loading on factor 3 highlighted the importance of student attitudes. The majority of students indicated they were now keen to succeed and willing to learn (S47) and this was supported by the OFSTED (2005: 2) judgment that *"many of the pupils (were) keen to succeed and (came) to school with a willingness to learn"*. Furthermore, students wanted the school to improve (S33) and understood that it must do so (S55). Implicit in improving student attitudes was the modeling of good behaviour by staff. The new headteacher immediately stopped teachers from 'shouting' at students and insisted that staff were well dressed and professional at all times. The success of the school's strategy to engage students was summed up by OFSTED (2005: 3) at the end of phase I, who judged that pupils were *"well behaved and polite both in and out of lessons and (were) very proud of their school"*.

The interrelationships amongst variables

A detailed analysis shows that eight variables with correlation coefficients > 0.3 were highly loaded on all three components. Not surprisingly these reflected the emergent themes in my analysis, namely whole school leadership, a focus on teaching and learning and developing a positive school culture. In particular:

- The headteacher is committed to high standards and academic achievement *(S28)*;
- A clear and innovative management structure is in place *(S38)*;
- The recruitment of good new staff that want to teach children *(S31)*;
- The school is focused on success and improvement *(S82)*;
- There is a concentration on work, with students expected to learn *(S43)*;
- There are clear behaviour management policies *(S22)*;
- Insistence on a calmer atmosphere around the school *(S32)*;
- There are better relationships amongst students *(S39)*.

In their own right, these variables could be used to adequately sum up the culture that the school had sought to build whilst in special measures and had led to the rapid improvements evidenced during phase I of the study (OFSTED, 2005).

4.4 Analysis and Discussion: An Embryonic Multilevel Model

Exploratory factor analysis was used to establish, from a student's perspective, the main components of the rapid school improvement process in an especially challenging urban school. The three factors extracted can be interpreted within a multilevel framework with levels commensurate with three of those described by Creemers (1997), Goldstein (1986) and Creemers and Kyriakides (2006, 2008), namely: the whole school level, the classroom level and the individual level. It is acknowledged that Creemer's model includes a contextual level above the whole school level. In this study contextual factors were placed to one side in order to

concentrate on the internal conditions within the school. This replicates the 'highly focused' improvement strategy adopted by the school since "s*pecial measures leadership is unique in that it is set within a specific time frame'* (Crawford, 2002). Given the need to make rapid improvements there was insufficient time to consider the wider context external to the school.

Variables loading on factor 1 suggested that the focus on teaching and learning in the classroom was a vital component of rapid improvement. A focus on teaching and learning is a common feature of success in improving schools in especially challenging urban circumstances (Chapman and Harris, 2004; West et al., 2005). In common with the outcomes of this study, researchers highlight instructional leadership (Potter et al., 2002; Hallinger and Heck, 1998), training staff in specific teaching methods (Hopkins, 2001; Joyce, Calhoun and Hopkins, 1999), positive interaction between staff and students (Chapman and Harris, 2004), good support for students (West et al., 2005), a broad, rich and balanced curriculum (Guthrie et al., 1989; Leithwood and Steinbach, 2003) with rapid feedback on student progress (Chapman and Harris, 2004), effective management of behaviour (Maden and Hillman, 1993), the adoption of an agreed teaching model (Potter et al., 2002), and good organisation of the school day (West et al., 2005).

Variables loading on Factor 2 suggested that students perceived purposeful whole school leadership as vitally important. All of the literature in the field identifies successful school leadership as having an important influence on the learning of students in especially challenging schools (Harris and Muijis, 2003; Leithwood and Steinbach, 2003). Research by Hallinger and Heck, 1996a, 1996b, 1998) concluded that *"the effects of school leadership on pupil outcomes were educationally significant - accounting for about a quarter of the variation in student achievement across schools explained by school factors"*. A substantial body of evidence from school effectiveness research into especially challenging inner-city schools identifies 'strong positive leadership' as one of the most significant correlates of effective schools (Mortimore, 1993).

The literature supports the student perceptions in this study of what constitutes successful leadership: strong transformational (Harris and Chapman, 2001; Reynolds et al., 2001) leadership by the headteacher, with a clear vision and high expectations (Chapman and Harris, 2004; Mortimore, 1993:300; Sammons et al., 1995); open communication (Harris and Chapman, 2001; Hughes, 1995; Joyce et al., 1999); recruiting and retaining an effective body of staff, including developing a strong leadership team (West et al., 2005); developing a positive school culture (Muijis et al., 2004); high quality strategic planning with clear policies and procedures (Potter et al., 2002); monitoring and evaluation (Louis and Miles, 1990; Maden and Hillman, 1993) of standards as part of a data rich environment (Joyce et al., 1999; Hopkins, 2001a; Muijis et al., 2004; Potter et al., 2002); improving the learning environment (Chapman Harris, 2004; Potter et al., 2002) and developing partnerships with parents and the local community (Chapman and Harris, 2004).

Leadership and a focus on teaching and learning have been identified in some form by all researchers in the school improvement and school effectiveness fields and immediately lend themselves to the interpretation of factors 1 and 2. However, variables loading highly on factor 3 made it very difficult to interpret, even allowing for the growing school improvement research base. A more detailed search of the literature revealed a number of other related issues which include: tackling racism (Dei, 1996; Solomon, 2002:176); generating positive relationships (Chapman and Harris, 2004); building a sense of community (Leithwood and Steinbach, 2003); relationships between students and teachers (Lee, Bryk and Smith, 1993); building students social capital and developing family education cultures (Leithwood and Steinbach, 2003); building a learning community of teachers (Muijis et al., 2004) and involving parents and the wider community (Joyce et al., 1999).

This group of variables loading on factor 3 can therefore be categorised by what West et al. (2005) term 'changing the culture of the school' and can be described in terms of changing values and beliefs. *"This involve(s) building relationships,*

strengthening morale and raising expectations" (West et al., 2005: 83). This factor places an emphasis on what might be referred to as the social needs of both staff and students.

Phase I of this study was unique in that it gave students an opportunity to express their opinions on what they perceived had brought about improvement in the case study school. The research design, incorporating factor analysis as the data reduction technique, enabled their feedback to be analysed and 'reduced' to a finite number of improvement components. The findings demonstrated a remarkable convergence between student's perceptions of what has 'caused' rapid improvement and those factors identified in the literature. Consequently it was possible to suggest a tentative conceptual multilevel model (see Figure 4.1) to explain the school improvement strategy used during phase I. More importantly, the model was used as the basis for a more rigorous implementation of the school improvement strategy in phase II. Thereby students were able to see that their views had been listened to and acted upon.

It should be noted that the sub-factors are included in the model to help explain the factors although there is no relative measure of importance attached. This model does not necessarily replicate the purely hierarchical models suggested by others (Creemers, 1997; Goldstein, 1987; Creemers and Kyriakides, 2006). I would suggest at this stage that the three distinct factors are interdependent and require implementation in a synergistic way. This aspect clearly required further study to ascertain the nature of the relationship between the three extracted factors. In addition to the multilevel framework, the rapid improvement strategy at the case study school was also characterised by a focus on a *"limited number of goals"* (Hopkins, 2001; Potter et al., 2002; Reynolds et al., 2001), a reengineering rather than incremental approach (Davies, 2003) and the coordination of internal and external processes. All of the improvement variables suggested by students could be described as simple but the systematic introduction of these simple measures not previously in place could be described as radical (West et al., 2005) at the time.

Consistency and coherence (Muijis et al., 2004) were key attributes of the model described in Figure 4.1.

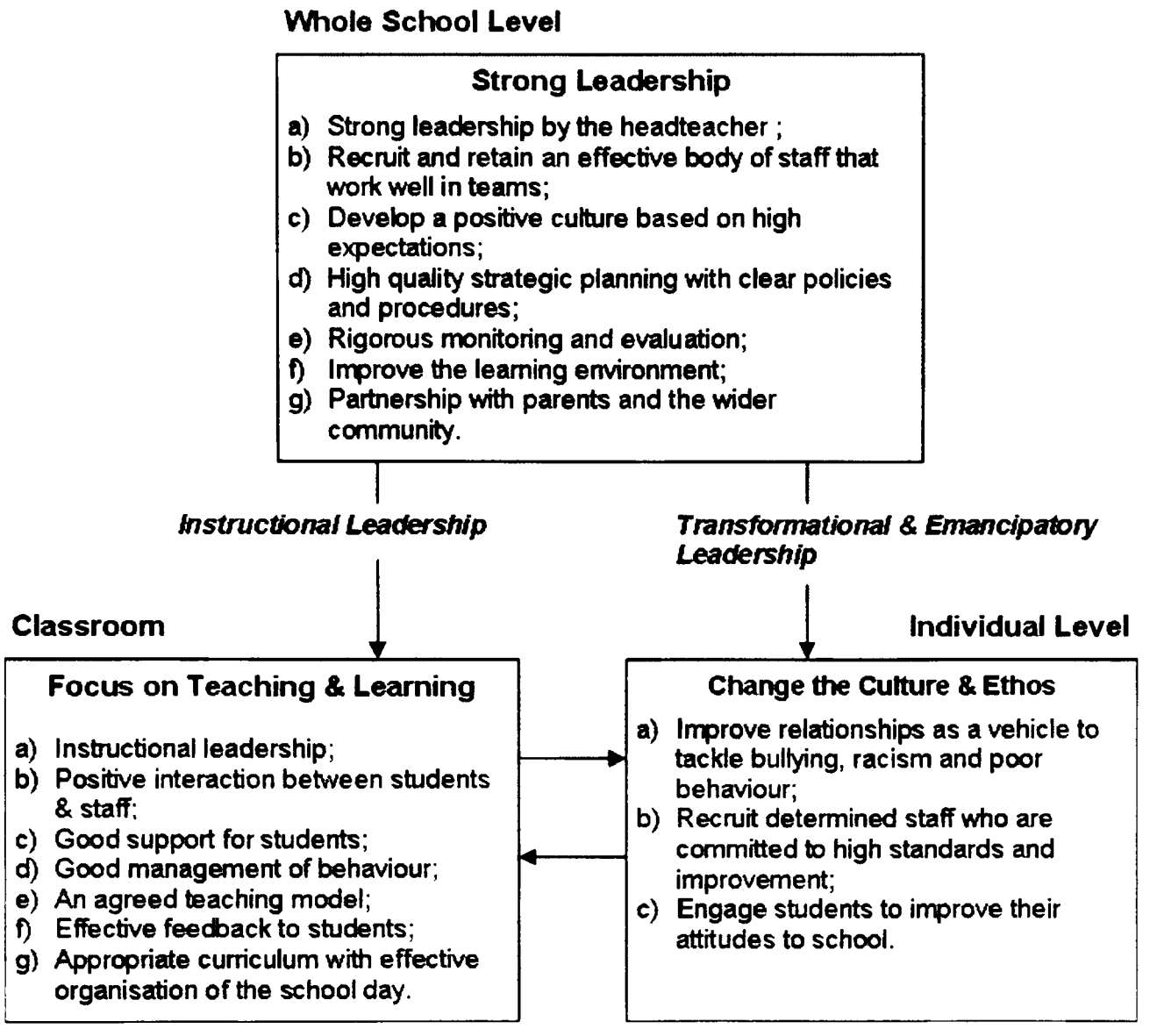

Figure 4.1: Embryonic conceptual multilevel model of rapid school improvement in an especially challenging urban environment.

Further research was required, using detailed interviews with a stratified random sample of students, to test and sharpen the conceptual model that emerged during phase I of the study. It was also important to use the experience gained in this part of the study to develop a more refined and shorter questionnaire that could be used by the school as part of its self-evaluation procedures. The refined questionnaire, incorporating a reduced set of school improvement variables based on the PCA analysis in phase I, was used to test the initial school improvement model using a further multivariate analysis of student's perceptions to determine the size and effect of the factors and sub-factors.

School improvement is a complex and 'messy business'. The *"odds seem stacked against schools in poorer areas"* (Gray, 2000:1) and the link between disadvantage and educational performance appear to be as strong as ever (Chapman and Harris, 2004). However, at the case study school, rapid improvement had been achieved in a very challenging urban context through the application of a finite set of simple strategies focused on strong purposeful whole school leadership, teaching and learning in the classroom and the creation of a positive school culture.

Factor 1, a focus on learning and teaching, was by far the most significant school improvement component extracted using PCA. However, there are two major limitations to the analysis in Phase I. Firstly; it is not possible to determine if there is a hierarchical relationship between the 3 factors because they are based on a view from the student's perspective. Secondly, it is not possible to ascertain the size of the sub-factors or the interrelationships between them.

4.5 Summary

PCA revealed a clear 3-component solution in which the components were interpreteted as: a focus on teaching and learning; strong leadership and changing the culture of the school by developing individuals. The interpretation of the components was consistent with existing research literature in the field. At this stage a tentative conceptual model was proposed, based on the 3-component solution and its sub-components, that was subsequently used to drive further school improvement efforts in phase II. Hence Phase II provided the opportunity to test the model robustly and to establish the detailed definition, size and interrelationships amongst factors and sub-factors.

It was significant in phase I that the external context of the school, beyond getting out of special measures and improving standards, was not considered due to the complexity and intransigence of the internal situation. In effect this led to context being a fixed variable, leaving the study to concentrate on those factors that had

contributed to internal improvement. However, with hindsight, insufficient notice was taken in phase I of the external political context and image of the school in the local community. As described in Chapter 1, phase II of the study was characterised by significant external political threats to the school that could have seriously destabilised the rapid improvement trajectory. The Council closure proposals in phase II drastically changed the way we did business with the community.

Consequently, the interaction between the school and its wider context was to form a central aspect of phase II, enabling a proper analysis of the impact of context to inform the development of a new paradigm for especially challenging urban schools.

5 PHASE II RESULTS, ANALYSIS & DISCUSSION

THE JOURNEY TO GOOD WITH OUTSTANDING FEATURES

This chapter will present a multivariate statistical analysis of the results from the confirmatory student perceptions questionnaire to test and refine the conceptual multilevel school improvement model developed in Chapter 4. This analysis will be triangulated with an analysis of the emergent themes from the open-ended element of the confirmatory questionnaire and findings from focus group interviews with parents, students and teachers. The findings from the quantitative and qualitative data will be interpreted, analysed and discussed in the light of the literature.

5.1 Introduction

During phase II of the study, between July 2006 and March 2008, the school improvement strategy was tested robustly in the most hostile of contexts, with the school being subject to closure proposals and repeated threats from the newly elected Conservative council and its officers. However, in January 2008, OFSTED judged that the school was 'good with outstanding features'. Simultaneously, the school was celebrated nationally as the second most improved school in the

country, and the most improved in London, between 2004 and 2007. Clearly the school improvement strategy was not only continuing to deliver remarkable results but with an increasing pace of change.

This chapter therefore forms the central part of the study and involves the rigorous testing and refinement of the conceptual multilevel model developed in phase I. Two fundamental questions will underpin this analysis:

(a) What is the relative effect size and specific combinations of factors that impact most on rapid school improvement in the challenging case study context?

(b) Is the conceptual model developed in this thesis equally effective from a student perspective when results are controlled for gender, ethnicity and social circumstance?

Consequently, a final 'confirmatory' analysis of the factors leading to rapid school improvement was conducted. This aspect of the study consisted essentially of two concurrent activities: quantitative data was collected via a confirmatory student perceptions questionnaire and qualitative data was collected via focus group interviews with students, parents and teachers.

Confirmatory School Improvement Questionnaire

The development of the 21 item confirmatory student perceptions questionnaire followed a detailed review of experience gained during phase II and a further careful consideration of the components and sub-components derived in phase I. Three issues were considered when constructing the final questionnaire.

Firstly, only items that could be experienced and measured as perception by students were included. Hence, possible key improvement factors such as governance and school-wide standard operating procedures were not included.

Secondly, despite the need to review and amend the variables in the final questionnaire great care was taken to ensure that these were closely representative of the improvement sub-components that emanated from the PCA analysis which reduced the initial 90 item questionnaire to a much smaller number of components. In short, it was based on what students actually told us two years into the school improvement process at the end of phase I. The key variable added was the impact of the school fighting the closure proposals. On the basis of this review the conceptual model to be tested was amended as shown in Figure 5.1.

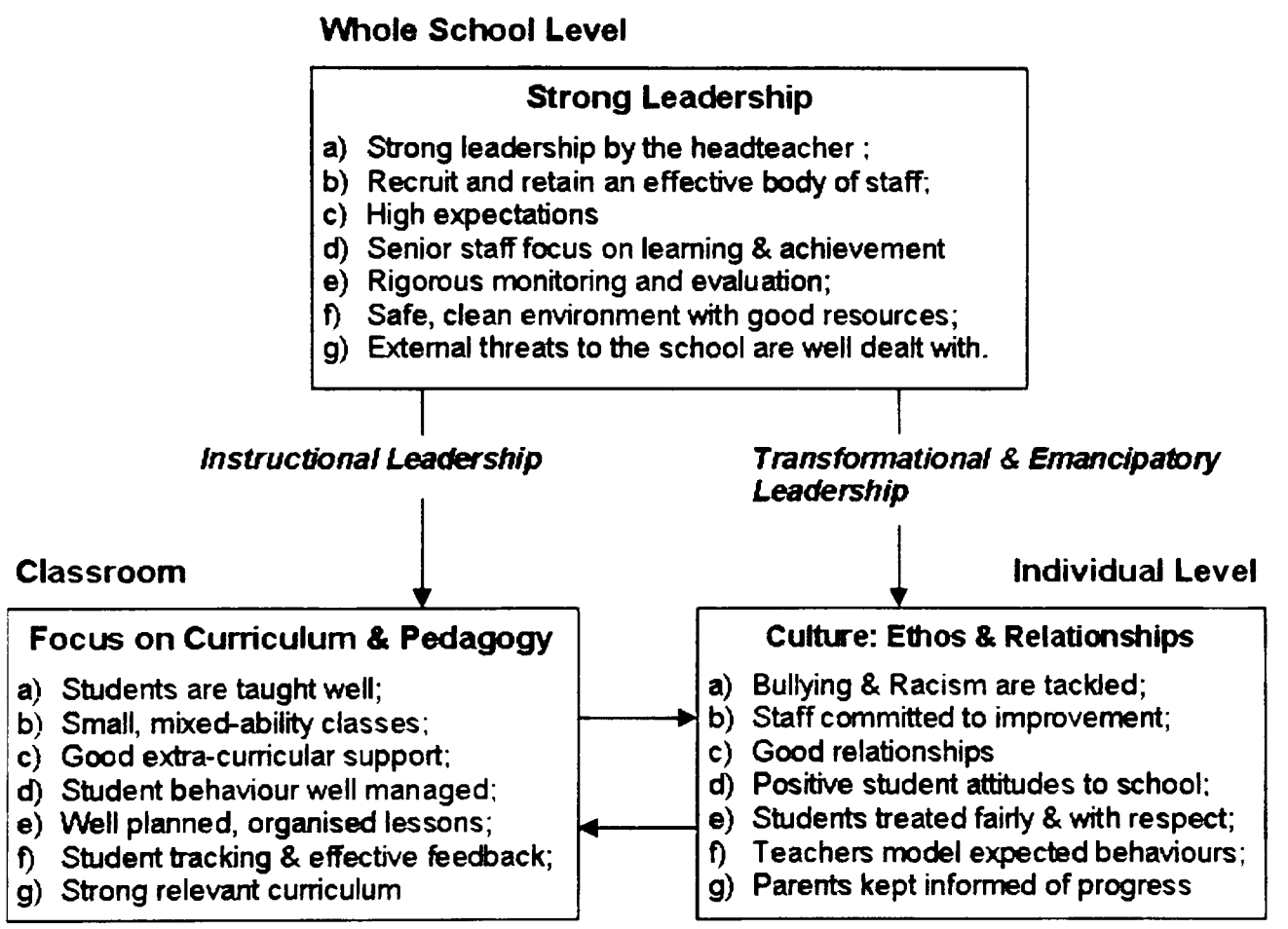

Figure 5.1: Amended Conceptual Multilevel School Improvement Model

In addition to rating each independent school improvement variable on a seven-point semantic differential scale, the confirmatory questionnaire included a dependent variable that required students to rate the overall improvement in the school on a scale of 1 to 10. This dependent variable enabled the use of multiple regression analysis. Data about students' ethnicity, gender and entitlement to free school meals (FSM) was also collected to facilitate the use of MANOVA to test the impact of these independent categorical variables.

The confirmatory questionnaire also included an open-ended response section to enable students to specify additional factors that they think might have led to improvement but were not included in other parts of the questionnaire.

The important issue of semantics was addressed through the careful wording of questions. This was necessary because despite the reliability of the mathematical calculations, their truth depends on the validity of school improvement categories as expressed in natural language. Many key characteristics identified in the literature are *"semantically incapable of being assigned unambiguously to some schools and denied to others, as would be required for valid statistical modelling"* (Wrigley, 2004). This potentially undermines the reliability and validity of the mathematical calculations. Furthermore, some meanings are context specific and therefore generalisation is problematic. The solution was to use wording that was commensurate with the language used on a daily basis by the school in its dialogue with students, teachers and parents.

Focus Group Interviews

Three separate focus group interviews were conducted with a stratified random sample of parents, staff and students. Participants were selected to reflect, gender, ethnicity, ability and/or status of the wider stakeholder population. A key criteria to the selection of participants was their presence in the school throughout phase I and II of the study. 'Zing' facilitation software was used to record the outcomes from the interviews. A template containing all of the questions was pre-installed on the system and participants completed their responses anonymously using a keyboard. The system allowed for more detailed and searching questions to be asked as the interviews developed. At the end of each section of the interview, the group agreed the common themes that had emerged from the individual participant responses and these were recorded appropriately.

5.2 Testing the Multilevel School Improvement Model

This section tests the school improvement model proposed in section 5.1. The analysis of the quantitative data is presented as responses to a set of predetermined questions.

(i) Were there significant differences in how students perceived overall school improvement on the basis of gender, ethnicity and social disadvantage?

Student perceptions of improvement measured highly (on a scale of 1 to 10) with mean 7.51, standard deviation 1.792 and N=103. A three-way between subjects analysis of variance was conducted using SPSS to explore student perceptions of school improvement as the dependent variable (DV). Independent variables (IV's) were gender (male or female), ethnicity (White, mixed race, Asian or Asian British, Black or Black British, Chinese or other) and levels of disadvantage as expressed through entitlement to FSM (yes or no).

Results of the evaluation of the assumptions of normality of sampling distributions, linearity, homogeneity of variance and homogeneity of regression were satisfactory. The Regression Standardised Residual histogram showed the dependent variable school improvement to be normally distributed N(.000518, .893).

Levene's Test of Equality of Error Variances was not significant $F(22, 80) = 1.268$, $P = .219$, indicating that the assumption of equality of variance has not been violated. Post-hoc comparisons using the Tukey HSD test indicated no statistically significant differences in means score responses from students based on the 3 IV's. SPSS FREQUENCIES indicated that there were no outliers among cases. The original sample size of 104 was reduced to 103 by one respondent who did not provide information on school improvement measurement.

Table 5.1 Tests of Between Subjects Effects for Analysis of Variance with Gender, Ethnicity and FSM as the Independent variable and Students Perceptions of School Improvement as the Dependent Variable.

	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta* Squared
Gender	3.863	1	3.863	1.385	.243	.017
Ethnicity	23.736	5	4.747	1.702	.144	.096
FSM	10.245	2	5.122	1.837	.166	.044
Gender v Ethnicity	6.688	4	1.672	.600	.664	.029
Gender * FSM	2.215	1	2.215	.794	.375	.010
Ethnicity * FSM	16.677	5	3.335	1.196	.319	.070
Gender * Ethnicity * FSM	.454	3	.151	.054	.983	.002

Dependent Variable: Improvement (N=103)
*Eta squared is the proportion of the total variability in the dependent variable accounted for by the variation in the independent variable

The main findings from the three-way ANOVA are summarised in Table 5.1. Tests of Between Subjects Effects clearly show that neither the main effects for gender, ethnicity or FSM or the interaction effects reached statistical significance ($p<.05$).

A one-way ANOVA shows that there are no significant differences in students measurement of overall school improvement (DV) on the basis of sex (gender), race (Ethnicity) or social disadvantage (as measured by entitlement to FSM).

(ii) Can the 21 school improvement variables be reduced to a smaller number of factors that represent improvement and how many factors are there?

Previously in phase I of this research Principal Components Analysis (PCA) was used to reduce a large number of variables to 3 components and 17 sub-components. In this final analysis Factor Analysis (FA) was used because the purpose was to detect data structure as part of a causal modeling process. Principle Axis Factoring (PAF) seeks the least number of factors which can account for the common variance (correlation) of the set of variables. Direct Oblimin rotation is used since a non-orthogonal (oblique) solution, in which the factors extracted are allowed to be correlated, is required.

Consequently, the variables in the 21-item 'confirmatory' school improvement questionnaire were analysed using SPSS with Principle Axis Factoring (PAF) as the extraction method and Direct Oblimin with Kaiser Normalisation as the rotation method to identify the underlying factors (on the basis student's perceptions) that have led to the rapid improvement in the case study school.

Prior to performing PAF the suitability of the data for factor analysis was assessed. The sample size (n=104), the ratio of subjects to variables (4.95:1) and the ratio of subjects to factors (104:1 for the single factor solution and 26:1 for the 4-factor solution) are all above values recommended by experts in the field (Arrindel and van der Ende, 1995; Guildford, 1956; Kline, 2004; Pallant, 2005; Tabachnick and Fidell, 2001).

Inspection of the correlation matrix revealed that almost all of the coefficients were significantly above 0.3. The Kaiser-Meyer-Oklin Measure of Sampling Adequacy value was 0.890, exceeding the recommended value of 0.6 (Kaiser, 1970, 1974). Bartlett's Test of Sphericity (χ^2=1167.626, df=210, p=.000) which reached significance at both the p=0.05 and p=0.01 levels. Taken together these tests supported the factorability of the correlation matrix.

Initially, the 21 items in the school improvement questionnaire were subjected to PCA using SPSS. Kaiser's criterion revealed the presence of four components with eigenvalues exceeding 1, explaining 45.0%, 6.7%, 5.9% and 5.3% of the variance respectively, and accounting for 62.94% of the total variance. An inspection of Cattel's screeplot revealed a clear break after the first component and a possible break after the fourth component. The extraction of only 1 component for further investigation was strongly supported by the results of Parallel Analysis (Marley Watkins, 2000), which showed only 1 component with an eigenvalue exceeding the corresponding criterion values for a randomly generated (1000 repetitions) data matrix of the same size (21 variables x 104 respondents).

Principle Components Analysis using SPSS revealed that the extraction of single and 4-factor solutions could be justified from Principle Axis Factoring, with the single factor solution most rigorously justified using Parallel Analysis.

(iii) What does an investigation of the single factor solution reveal about the proposed school improvement model?

Following PCA, Kaisers Criterion and Cattell's Scree tests suggested that a four-factor solution could be extracted using PAF. However, a more rigorous investigation using Parallel Analysis strongly suggested the extraction of only one factor. Consequently, Principle Axis Factoring (PAF) was performed using SPSS on student responses to the 21 variables in the confirmatory questionnaire. A single school improvement factor was extracted which by default could not be rotated. Loadings of variables on the factor and percentage of variance are shown in Table 5.2.

The means of 8 variables were high I1 (5.6), I4 (5.16), I9 (5.19), I14 (5.12), I17 (5.57), I18 (5.13), I19 (5.97), I20 (5.06). The single extracted factor accounted for 45% of the total variance.

Factor loadings are considered as 'weak' if less than 0.4; 'strong' if more than 0.6 and otherwise 'moderate'. In this case 14 of the loadings are 'strong' and the remaining 7 are at least 'moderate', with many being close to 0.6. This is consistent with the notion that these 21 variables do in fact constitute a single coherent school improvement model. This is supported by the view expressed by many respondents to the open-ended part of the questionnaire that *"It's all been covered"* in the 21 statements included in the questionnaire. This supports the multi-level model developed from the initial Principle Components Analysis conducted exactly two years previously. It should be noted that the highest loadings on this single factor are specifically about teachers direct contribution to student progress. In short – 'teachers matter'.

Table 5.2: Factor Loadings, Eigenvalues and Percentages of Variance for Principle Axis Factoring Extraction of Student (n=104) Perceptions of the Contributory Factors of School Improvement.

		Analysis N	Mean	SD	Component loadings 1
I1	Strong leadership of school by head teacher	104	**5.60**	1.084	.538
I2	Safe, clean environment with good resources	104	4.43	1.453	.704
I3	Strong relevant curriculum	103	4.87	1.226	.734
I4	Senior staff focus on learning and achievement	103	**5.16**	1.334	.712
I5	Bullying, racism and behaviour taken seriously	104	4.79	1.647	.538
I6	The school employs good teachers	102	4.42	1.589	.656
I7	Staff committed to school and its improvement	102	4.97	1.452	.835
I8	Good relationships between staff and students	103	4.90	1.418	.589
I9	Good extra-curricular support for examinations	104	**5.19**	1.435	.666
I10	Students have a positive attitude to school	101	4.70	1.277	.546
I11	Students are treated fairly and with respect	103	4.27	1.554	.670
I12	Students are taught well	103	4.93	1.207	.701
I13	The work of the school is regularly monitored	104	4.54	1.343	.742
I14	Lessons well structured and organised	104	**5.12**	1.109	.630
I15	Student behaviour is managed well	103	4.31	1.449	.703
I16	Teachers model behaviour expected of students	103	4.36	1.420	.759
I17	External threats to the school are dealt with well.	103	**5.57**	1.311	.658
I18	Classes small with mostly mixed ability groups	104	**5.13**	1.435	.564
I19	Students expected to work hard & do their best.	103	**5.97**	1.115	.515
I20	Good feedback to students on their progress	104	**5.06**	1.357	.622
I21	Parents are kept informed of students progress	104	4.38	1.840	.457
Eigenvalue					9.453
Percentage of total variance					45.016

Extraction Method: Principal Axis Factoring.
a. 1 factor extracted. 3 iterations required.
b. Only one factor was extracted. The solution cannot be rotated.

Principle Axis Factoring confirmed the existence of a single factor that represents a single coherent school improvement model as expressed by the 21 variables in the student questionnaire.

(iv) Do the 21 variables in the school improvement questionnaire adequately predict school improvement and which variables form the best predictors of school improvement?

A standard multiple regression was performed between students perceptions of overall school improvement as the dependent variable and student scores on the 21 school improvement items in the questionnaire as the independent variables. Analysis was performed using SPSS REGRESSION and SPSS FREQUENCIES for evaluation of assumptions.

The SPSS 'Exclude Cases Pairwise' facility indicated 12 cases had missing values and these cases were excluded from the regression analysis. In this study it is important to ascertain whether results can be generalised to other samples in the same context. Green (1991) offers the following formula for calculating minimum sample size:

$$N >= (8/f^2) + (m-1)$$

This formula takes into account effect size where f^2 = .01, .15 and .35 for small medium and large effects, respectively and m = number of IV's. This calculation, with a large effect size and 21 independent variables, yields a minimum sample size of 85, Consequently a sample size of 92 is above that required for reliable multiple regression that can be generalised to other samples in the same context.

All 21 variables correlated substantially with the school improvement variable, with most being above 0.3, but there are no correlations between each of the independent variables above 0.7 (Tabachnick and Fidell, 2001: 84). Furthermore,

the colinearity diagnostics provided by SPSS (see Table 5.3) also show that Tolerance values for all independent variables are >0.2 and all VIF (variance inflation factor) values are below 10. Even at the generally accepted most rigorous 'cut off point', only one variable (the school employs good teachers) has a VIF just > 0.4. Therefore this analysis does not indicate multicollinearity concerns and consequently no independent variables were removed from the model. Hence assumptions about multicollinearity and singularity, which are necessary for a good regression model, are met.

SPSS generated histograms show that all 21 IV's were approximately normally distributed. Where distributions were skewed there was insufficient deviation from normality to warrant transformation of the variables concerned. An inspection of the Normal Probability Plot of the regression standardised residuals clearly shows that the points lie close to a straight diagonal line from bottom left to top right. This suggests no major deviations from assumptions of normality, linearity, homoscedasticity and independence of residuals. Three Mahalanobis distances exceeded the critical χ^2 value (p=.001 for 21df = 46.797) indicating the existence of three possible outliers among the cases (respondents 80, 86 and 98). However, this was not supported by the SPSS residuals statistics, following regression, which show that none of the standardised residuals exceeded a maximum value of 2.275 or were less than a minimum value of -1.988. Hence, there were no standardised residuals greater than 3.3 (corresponding to the 0.001 alpha level). On this basis no outliers were removed. The maximum value for Cook's distance (D) was 0.148. Since D > 4/(n-k-1) = 0.057 this did suggest some influential cases but as D > 1 there were no strong indications of outlier problems. The Durbin-Watson statistic = 1.733 lies in the range 1.5 to 2.5 (Garson, 2008), which means that the independence of observations can be assumed.

Table 5.3 displays the correlations between the variables, the unstandardised regression coefficients (B) and intercept, the standardised regression coefficients (β), the semi partial correlations (sr_i^2), R^2, and adjusted R^2. R for regression was

significantly different from zero, $F(21,77)=6.079$, $p<.001$. For the four regression coefficients that differed from zero, 95% confidence limits were calculated. The confidence limits for I1 (Strong Leadership by the Headteacher) were .253 to .887, for I4 (Senior Staff focusing on Learning and Achievement) were .005 to .582, for I11 (Students being treated fairly and with respect) were .020 to .513 and I17 (Dealing with External Threats to the School) were .029 to .624. The coefficients table also provides the necessary information to generate the regression equation:

Improvement =

1.232 + 0.570 x strong leadership of HT + 0.257 x environment & resources -- 0.240 x relevant curriculum – 0.294 x senior staff focus on learning – 0.095 x tackling bullying & racism + 0.043 x recruiting good teachers – 0.219 x staff commitment to improvement + 0.218 x relationships – 0.166 x extra-curricular support + 0.069 x positive student attitudes + 0.266 x students treated with respect + 0.013 x good teaching – 0.026 x school monitoring + 0.131 x structured lessons – 0.038 x behaviour management + 0.226 x teachers modelling behaviour – 0.326 x dealing with external threats + 0.143 x small group size + 0.020 x high expectations + 0.033 x feedback to students + 0.116 x parents kept informed

Only one IV, strong leadership of the Headteacher ($sr_i^2=.0625$), contributed significantly to students overall perception of improvement at the $p=.05$ level. The 21 IV's in combination contributed another 0.5615 in shared variability.

At the $p=.05$ level, four of the IV's contributed significantly to the prediction of students' perceptions of school improvement: Strong Leadership by the Headteacher ($sr_i^2=.063$); Senior Staff focusing on Learning and Achievement ($sr_i^2=.020$); Students being treated fairly and with respect ($sr_i^2=.023$) and effectively managing external threats to the school ($sr_i^2=.023$). Altogether, 62.4% (52.1% adjusted) of the variability in students perceptions of school improvement was predicted by knowing the scores of the 21 IVs.

Table 5.3: Standard Multiple Regression of Student Responses to the 21 School Improvement Variables on Student Perceptions of School Improvement

Var	Im (DV	I1	I2	I3	I4	I5	I6	I7	I8	I9	I10	I11	I12	I13	I14	I15	I16	I17	I18	I19	I20	I21	B	β	t	sig	sr^2	Tol	VIF
I1	.578																						.570	.345	3.577	.001**	.063	.527	1.898
I2	.587	.525																					.257	.208	1.821	.073	.016	.374	2.673
I3	.404	.440	.614																				-.240	-.164	-1.349	.181	.009	.329	3.041
I4	.540	.392	.503	.603																			.294	.219	2.026	.046*	.020	.420	2.382
I5	.228	.224	.363	.458	.377																		-.095	-.088	-.908	.367	.004	.524	1.907
I6	.307	.201	.466	.519	.512	.388																	-.043	-.038	-.350	.728	.001	.405	2.469
I7	.541	.443	.539	.571	.662	.377	.620																.219	.178	1.224	.225	.007	.232	4.310
I8	.200	.223	.315	.349	.350	.200	.436	.561															-.218	-.172	-1.682	.097	.014	.465	2.151
I9	.419	.337	.486	.546	.465	.428	.426	.483	.513														.166	.133	1.194	.236	.007	.392	2.548
I10	.240	.299	.414	.468	.385	.269	.348	.411	.468	.492													-.069	-.049	-.507	.614	.001	.523	1.911
I11	.470	.319	.501	.472	.425	.387	.433	.535	.415	.529	.395												.266	.231	2.151	.035*	.023	.425	2.355
I12	.479	.368	.498	.505	.497	.433	.570	.551	.385	.588	.355	.583											.013	.009	.075	.941	.000	.345	2.897
I13	.425	.431	.521	.640	.471	.407	.537	.587	.386	.364	.375	.468	.589										.026	.019	.156	.877	.000	.320	3.123
I14	.297	.427	.348	.377	.399	.274	.378	.472	.511	.468	.423	.355	.408	.466									-.131	-.081	-.786	.434	.003	.456	2.191
I15	.325	.285	.406	.485	.422	.493	.498	.552	.477	.511	.473	.484	.546	.642	.535								.038	.030	.257	.798	.000	.349	2.866
I16	.395	.425	.535	.490	.514	.471	.467	.663	.476	.435	.340	.626	.404	.513	.475	.551							-.226	-.179	-1.414	.161	.010	.306	3.269
I17	.532	.392	.457	.446	.549	.336	.419	.568	.332	.458	.219	.378	.538	.482	.437	.387	.468						.326	.239	2.185	.032*	.023	.410	2.440
I18	.332	.385	.377	.376	.413	.345	.379	.522	.213	.298	.316	.361	.310	.355	.356	.239	.472	.550					-.143	-.115	-1.142	.257	.006	.484	2.064
I19	.288	.323	.314	.394	.436	.204	.180	.384	.320	.334	.178	.240	.269	.349	.509	.270	.502	.508	.423				.020	.012	.119	.906	.000	.466	2.147
I20	.425	.339	.460	.412	.464	.214	.319	.634	.380	.273	.230	.379	.378	.542	.357	.462	.514	.369	.375	.393			.033	.025	.230	.819	.000	.404	2.475
I21	.320	.186	.449	.216	.274	.309	.245	.516	.310	.148	.230	.303	.157	.371	.254	.288	.451	.183	.326	.175	.570		.116	.119	1.113	.269	.006	.429	2.328
																							Intercept = 1.232						
Mean	7.51	5.60	4.43	4.87	5.16	4.79	4.42	4.97	4.90	5.19	4.70	4.27	4.93	4.54	5.12	4.31	4.36	5.57	5.13	5.97	5.06	4.38							
SD	1.79	1.08	1.45	1.23	1.33	1.65	1.59	1.45	1.42	1.44	1.28	1.55	1.21	1.34	1.11	1.45	1.42	1.31	1.44	1.12	1.36	1.84							

$R^2 = 0.624$
Adjusted $R^2 = 0.521$
R = 0.790**
F(21,77) = 6.079, p=.000**
Durbin-Watson = 1.733
N=92

**p<0.01 *p<.05
Unique Variability = .0625 Shared Variability = .5615

A linear combination of the 21 variables does significantly predict school improvement, contributing 62.4% (52.1% adjusted) of the variance in student's perceptions of improvement. Four independent school improvement variables (leadership of the headteacher, senior staff focusing on achievement, treating students with respect and dealing effectively with external threats to the school) significantly predict improvement.

(v) Do the four predictor variables identified from multiple regression on all 21 variables adequately predict improvement in themselves?

The regression analysis to date shows that four variables (I1, I4, I11 and I17) significantly predict school improvement. A further regression analysis will now be conducted with only these 4 variables, to ascertain the extent to which these variables alone can predict school improvement and to derive the regression equation.

Two cases had missing values and these were excluded from the regression analysis, leaving a sample size (N = 102) that exceeded the minimum sample size for reliable multiple regression (Tabachnick and Fiddel, 2001) of 82 (50 + 8 x number of IV's).

All four variables correlated substantially with the school improvement variable, all being above 0.3, and there are no correlations between each of the independent variables above 0.7 (Tabachnick and Fidell, 2001: 84). Furthermore, the colinearity diagnostics provided by SPSS also show that Tolerance values for all independent variables are > 0.2 and all VIF (variance inflation factor) values are < 4. This does not indicate multicollinearity concerns and therefore no independent variables were removed from the model. Consequently, it was concluded that assumptions about multicollinearity and singularity, which are necessary for a good regression model, were met.

SPSS generated histograms show all 21 IV's were approximately normally distributed. Where distributions were skewed there was insufficient deviation form normality to warrant transformation of the variables concerned. An inspection of the Normal Probability Plot of the regression standardised residuals clearly shows that the points lie close to a straight diagonal line from bottom left to top right. This suggests no major deviations from assumptions of normality, linearity, homoscedasticity and independence of residuals. Two Mahalanobis distances exceeded the critical χ^2 value (p=.001 for 4df = 18.467) and had leverage values > 0.2, indicating that there could be two possible outliers among the cases (respondents 1 and 86). However, this was not supported by the SPSS residuals statistics following regression which shows that none of the standardised residuals exceeded a maximum value of 2.552 or were less than a minimum value of -2.847. Hence, there were no standardised residuals greater than 3.3 (corresponding to the 0.001 alpha level). On this basis no outliers were removed. The maximum value for Cook's distance (D) was 0.154. Since D > 4/(n-k-1) = 0.041 this did suggest some influential cases but as D > 1 there were no strong indications of outlier problems. The Durbin-Watson statistic = 1.603 lies in the range 1.5 to 2.5 (Garson, 2008), which means that the independence of observations can be assumed.

Table 5.4 displays the correlations between the variables, the unstandardised regression coefficients (B) and intercept, the standardised regression coefficients (β), the semi partial correlations (sr_i^2), R^2, and adjusted R^2. R for regression was significantly different from zero, F(4,97)=25.854, p<.001. For the four regression coefficients that differed from zero, 95% confidence limits were calculated. The confidence limits for I1 (Strong Leadership by the Headteacher) were .325 to .848, for I4 (Senior Staff focusing on Learning and Achievement) were .038 to .515, for I11 (Students being treated fairly and with respect) were .036 to .404 and I17 (Dealing with External Threats to the School) were .046 to .523. The coefficients table also provides the necessary information to generate the regression equation:

Improvement =

0.285 + 0.587 x strong leadership of the headteacher + 0.276 x senior staff focusing on learning and achievement + 0.220 x students being treated fairly and with respect + 0.284 x effectively managing external threats to the school

Only one IV, strong leadership of the Headteacher (sr_i^2=.0986), contributed significantly to students overall perception of improvement at the p<.01 level. The four IV's in combination contributed another 0.417 in shared variability.

Table 5.4: Standard Multiple Regression of the 4 most Significant School Improvement Variables (Headteacher leadership; senior staff focusing on learning and achievement; students being treated fairly and with respect and external threats to the school being dealt with well) on Student Perceptions of School Improvement.

Factor	Impr (DV)	I_1	I_4	I_{11}	I_{17}	B	β	t	sig	sr^2	Tol	VIF
I_1	.578					.587	.355	4.447	.000**	.099	.784	1.275
I_4	.540	.392				.276	.206	2.297	.024*	.026	.622	1.608
I_{11}	.470	.319	.425			.220	.191	2.372	.020*	.028	.773	1.294
I_{17}	.532	.392	.549	.378		.284	.208	2.363	.020*	.028	.646	1.548
						Intercept = .285						
Mean	7.51	5.60	5.16	4.27	5.57							
SD	1.79	1.08	1.33	1.55	1.31							

R^2 = 0.516
Adjusted R^2 = 0.496
R = 0.718**
F(4,97) = 25.854, p=.000**
Durbin-Watson = 1.603
N=102

**p<0.01 *p<.05
Unique Variability = 0.099 Shared Variability = 0.417

I_1: Strong leadership of school by head teacher
I_4: Senior staff focus on learning and achievement
I_{11}: Students are treated fairly and with respect
I_{17}: External threats to the school are dealt with well

At the less rigorous p=.05 level, all four of the IV's contributed significantly to the prediction of students' perceptions of school improvement: Strong Leadership by the Headteacher (sr_i^2=.099); Senior Staff focusing on Learning and Achievement (sr_i^2=.026); Students being treated fairly and with respect (sr_i^2=.028) and effectively managing external threats to the school (sr_i^2=.028).

A linear combination of four independent variables (leadership of the headteacher, senior staff focusing on achievement, treating students with respect and dealing effectively with external threats to the school) did significantly predict improvement, contributing 51.6% (49.6% adjusted) of the variability in student's perceptions of overall school improvement.

Taken together the four significant variables in the 'reduced' school improvement equation are commensurate with Leithwood and Steinbach's (2003) notion of emancipatory leadership. More specifically, this points to school improvement in especially challenging contexts being underpinned by a leadership style focused on 'battling for children'.

(vi) Did students respond differently to the 4 predictors of improvement on the basis of gender, ethnicity and social disadvantage as measured by entitlement to FSM?

This analysis could not be justified for all 21 variables due to the small sample size relative to the number of cells. A 2x2 between subject's Multivariate Analysis of Variance was performed using SPSS on 4 dependent predictor variables (leadership of the headteacher, senior staff focus on learning and achievement, students treated with respect and dealing effectively with external threats) identified using multiple regression. Independent variables were gender (male or female), ethnicity (White, mixed race, Asian or Asian British, Black or Black British, Chinese or other) and levels of disadvantage as expressed through entitlement to FSM (yes or no).

Preliminary assumption testing prior to multiple regression of the four predictor variables (I1, I4, I11 and I17) was conducted to check for normality, linearity, univariate and multivariate outliers, and multicolinearity with no serious violations noted. Box's Test of Equality of Covariance Matrices produced Box's M = 77.357, $F(70, 1553.653) = 0.749$, $p=.939>.05$, confirming homogeneity of variance-covariance matrices. Levene's Test of Equality of Error Variances indicated that three variables were significant (senior staff focus of achievement, $F(22, 78) = 2.309$, $p = .004<.05$; treating students with respect, $F(22,78) = 1.910$, $p=.020<.05$

and dealing with threats to the school, F(22,78) = 3.307, p=.000<.05) suggesting that the assumption of equality of variance has been violated for these variables. Tabachnick and Fidell (2001) suggest a more conservative alpha level, such as .025 or .01 for determining the significance for that variable rather than the conventional .05 level. On this basis there were still two violations of assumptions - senior staff focus of achievement and dealing with threats to the school.

Table 5.5: Multivariate Analysis of Variance with Gender, Ethnicity and FSM as the Independent variable and the 4 predictor variables (leadership of the headteacher, senior staff focus on learning and achievement, students treated with respect and dealing effectively with external threats) identified using multiple regression: as the dependent variables

	Wilkes' Lambda	F	Hypothesis df	Error df	Sig.	Partial Eta Squared*
Gender	.959	.803[a]	4.000	75.000	.527	.041
Ethnicity	.836	.693	20.000	249.697	.832	.044
FSM	.865	1.416[a]	8.000	150.000	.194	.070
Gender v Ethnicity	.863	.709	16.000	229.766	.783	.036
Gender * FSM	.950	.981[a]	4.000	75.000	.423	.050
Ethnicity * FSM	.804	.848	20.000	249.697	.654	.053
Gender * Ethnicity * FSM	.904	.643	12.000	198.723	.803	.033

a. Exact statistic
Dependent Variable: Improvement (N = 102)
*Eta squared is the proportion of the total variability in the dependent variable accounted for by the variation in the independent variable

The multivariate tests of significance are given in Table 5.5. The use of Wilkes' Lambda criterion (p<.01) indicated that the combined DVs were not significantly affected by gender, ethnicity, social disadvantage or their interaction. Given the small sample size, Pillai's Trace offers a more robust multivariate test (Pallant, 2005) but an analysis using this test still showed that no IV's reached significance at the p=.05 level.

Since Levene's tests shows that the assumption of homogeneity of variances is not met for three of the variables, post hoc tests were conducted using the Games-

Howell, Tamhane's T2, Dunnett's T3 and Dunnett's C methods[1] in SPSS. None of these tests were significant ($p<.05$).

The failure to meet the assumption of homogeneity of variances is not fatal to ANOVA, which is relatively robust, particularly when groups are of equal sample size. For this reason separate three-way ANOVA's were conducted for each of the dependent variables. No significant differences were detected in students perceptions of the impact of the leadership of the headteacher, senior staff focusing on learning and achievement and students being treated fairly and with respect on the basis of sex (gender), race (ethnicity) or social disadvantage (as measured by entitlement to FSM). Inspection of the between subject effects table in SPSS revealed that FSM did appear to have an impact on students perceptions of the impact of dealing with threats to the school, $F(2) = 3.758$, $p = 0.028 < .05$. However, a further investigation of post-hoc tests showed that the significant cell for FSM was the 'don't know' group. Hence we can assume that the four predictor variables are not significantly affected by the gender, race or social disadvantage of the students in the sample.

There were no significant differences in student responses to the four predictor variables (leadership of the headteacher, senior staff focus on learning and achievement, students treated with respect and dealing effectively with external threats) identified from multiple regression, on the basis of gender, ethnicity or entitlement to FSM.

5.3 Refining the Multilevel Model

The analysis in section 5.2 confirms that the 21 variables do constitute a reliable school improvement model. However, whilst the existence of four predictor

[1] Post-hoc tests were not performed for Gender because there were fewer than three groups.

variables identified from multiple regression does hint at a multilevel structure within this single coherent model, it was not confirmed.

Consequently, although PAF confirms the existence of a single coherent school improvement factor it would be advantageous to investigate if an interpretation based on the 4-factor solution, supported by Kaiser's Criterion and Cattell's scree test, would shed any further light on the multilevel nature of the proposed school improvement model. This is important since three factors were extracted using Principle Components Analysis in phase I and they were interpreted to be part of a multilevel structural model.

(i) Will an investigation of the 4-factor solution provide any refinement of a multilevel model of school improvement?

Principle Axis Factoring (PAF) extraction with Direct Oblimin rotation was performed through SPSS on the 21 items of the school improvement questionnaire from the same sample of 104 Year 11 students. Four factors were extracted. When Direct Oblimin rotation was requested the correlation between the 4 extracted factors was above 0.3 in all but one case supporting the use of oblique rotation. Loadings of variables on factors, communalities and percentages of variance are shown in Table 5.6.

Close inspection of the four extracted components in this analysis enables them to be interpreted and developed within the original conceptual multilevel model framework. The four factors can be interpreted as: high quality teaching and learning; the development of a committed community of teachers; strong school leadership and the development of a positive learning culture.

Table 5.6: Factor Loadings, Communalities (h^2), Percentages of Variance and Factor Correlations for Principle Axis Factoring Extraction and Direct Oblimin Rotation of Student (n=104) Perceptions of the Contributory Factors of School Improvement.

		Factors				
		F_1	F_2	F_3	F_4	h^2
I1	Strong leadership of school by head teacher	.298	.063	**.348**	-.041	.336
I2	Safe, clean environment with good resources	**.587**	.228	.103	-.110	.549
I3	Strong relevant curriculum	**.725**	-.012	.140	-.054	.605
I4	Senior staff focus on learning and achievement	**.503**	.083	**.301**	-.038	.539
I5	Bullying, racism and behaviour taken seriously	**.574**	.068	-.034	-.032	.334
I6	The school employs good teachers	**.663**	.067	-.067	.074	.489
I7	Staff committed to school and its improvement	**.411**	**.402**	.184	.114	.733
I8	Good relationships between staff and students	.086	.172	.068	**.653**	.616
I9	Good extra-curricular support for examinations	**.596**	-.200	.101	**.314**	.592
I10	Students have a positive attitude to school	**.397**	.019	-.031	**.334**	.378
I11	Students are treated fairly and with respect	**.576**	.122	-.027	.127	.480
I12	Students are taught well	**.808**	-.129	.011	.051	.617
I13	The work of the school is regularly monitored	**.567**	.215	.070	.042	.565
I14	Lessons well structured and organised	.065	.035	**.409**	**.485**	.576
I15	Student behaviour is managed well	**.518**	.125	-.081	**.355**	.595
I16	Teachers model behaviour expected of students	.283	**.351**	.261	.154	.610
I17	External threats to the school are dealt with well.	**.384**	-.055	**.541**	-.060	.585
I18	Classes small with mostly mixed ability groups	.218	.184	**.441**	-.109	.430
I19	Students expected to work hard & do their best.	-.152	.037	**.800**	.167	.627
I20	Good feedback to students on their progress	.092	**.592**	.190	.059	.572
I21	Parents are kept informed of students progress	-.040	**.860**	-.082	.036	.681
Eigenvalue		9.45	1.41	1.25	1.11	
Percentage of total variance		45.02	6.72	5.93	5.27	
Factor Correlations						
F_1: High Quality Teaching & Learning		1.000	.464	.513	.439	
F_2: Committed Community of Teachers		.464	1.000	.357	.222	
F_3: Strong School Leadership		.513	.357	1.000	.233	
F_4: Positive Learning Culture		.439	.222	.233	1.000	

Extraction Method: Principal Component Analysis.
Rotation Method: Oblimin with Kaiser Normalization.
a. Rotation converged in 14 iterations.

Variables are ordered and grouped by size to facilitate interpretation as shown in Table 5.7. Loadings under 0.3 are not included.

Table 5.7 Order (by size of loadings) in which Variables Contribute to Factors

Factor 1: ***High Quality Teaching & Learning***	**Factor 2:** ***Committed Community of Teachers***	**Factor 3:** ***Strong School Leadership***	**Factor 4:** ***Positive Learning Culture***
Students are taught well Students are taught well	Parents are kept informed of students progress	Students expected to work hard & do their best.	Good relationships between staff and students
Strong relevant curriculum	Good feedback to students on their progress	External threats to the school are dealt with well.	Lessons well structured and organised
The school employs good teachers	Staff committed to school and its improvement	Classes small with mostly mixed ability groups	Student behaviour is managed well
Good extra-curricular support for examinations	Teachers model behaviour expected of students	Lessons well structured and organised	Students have a positive attitude to school
Safe, clean environment with good resources		Strong leadership of school by head teacher	Good extra-curricular support for examinations
Students are treated fairly and with respect		Senior staff focus on learning and achievement	
Bullying, racism and behaviour taken seriously			
The work of the school is regularly monitored			
Student behaviour is managed well			
Senior staff focus on learning and achievement			
Staff committed to school and its improvement			
Students have a positive attitude to school			

Note: Variables with higher loadings (>0.3) on the factors are nearer the top of the column. Proposed labels are in italics.

Factor 1: A Focus on High Quality Teaching and Learning in the Classroom

Factor 1 explained 45.016% of the total variance and included 13 variables with a loading greater than 0.3. The much improved classroom culture was underpinned

by strong curriculum focused leadership (I4) with a commitment to quality assurance (I13). Central to this approach was the employment of high quality (I6), committed (I7 & I17) teachers who delivered good lessons (I12) and the development of a relevant structured curriculum (I3), supported by extensive extra-curricular academic support (I9) and good resources for learning (I2). Furthermore, the development of positive student attitudes (I10) and the fostering of good relationships (I11) contributed to a climate in which student behaviour was managed constructively and well (I5 & I15).

Factor 2: A Committed Community of Teachers

Factor 2 explained 6.721% of the total variance and included 4 variables with a loading greater than 0.3. Students perceived that teachers were committed to the school and its improvement (I7) and modelled the behaviours expected of them (I16). Students received good feedback on their progress so that they knew how to improve (I20) and parents were kept informed (I21).

Factor 3: Strong School Leadership

Factor 3 explained 5.933% of the total variance and included 6 variables with a loading greater than 0.3. The variables were clearly grouped around the notion of strong ethical, aspirational and achievement-focused leadership based on high expectations. Important aspects of this factor include strong leadership by the headteacher (I1) and Curriculum Directors (I4), who ensured that lessons were well structured by teachers (I14) and delivered in small class sizes (I18). Dealing with external threats (I17) to the school and insisting on high expectations of all students (I19) were highly correlated (ρ=0.774 and ρ=0.704 respectively) with factor 3.

Factor 4: A Positive Learning Culture and Ethos

Factor 4 explained 5.271% of the total variance and included 5 variables with a

loading greater than 0.3. Students perceived that improved relationships (I8) and more positive attitudes of students (I10) contributed significantly to overall improvement. It appears that this improved ethos was developed within the framework of well structured lessons (I14), good management of student behaviour (I15) and good extra-curricular support to prepare students effectively for examinations.

(ii) Do the four Extracted Factors Predict Student perceptions of School Improvement?

Multiple Regression analysis was used to analyse the relationship between the 4 extracted factors and their impact on predicting improvement. This was commensurate with the view that, *"A general goal of regression then is to identify the fewest IV's to predict a DV where each IV predicts an a substantial and independent segment of the variability of the DV"* (Tabachnick and Fiddel, 2001: 116).

Factors scores are *"... estimates of the scores subjects would have received on each of the extracted factors had they been measured directly"* (Tabachnick and Fiddel, 2001: 628). This makes them particularly useful for reducing a large number of IV's to a small number of factors for purposes of predicting a DV in multiple regression. In order to enhance subsequent analyses factors need to be small in number, stable and interpretable (ibid.: 626). However, some researchers (e.g. Bollen, 1989: 305-306) consider factor scores to be problematic for three reasons:

i. The competing methods for deriving the scores;
ii. The principle of indeterminacy suggests that different rotations of the factor solution could lead to different factor scores;
iii. The methods used to compute factor scores capitalise on chance relationships between variables, so factor score estimates are biased.

Nevertheless, as long as factor scores are considered only estimates, they should not lead to confusion. There are three main approaches to estimating factor scores: Regression; Bartlett and Anderson-Rubin.

An initial analysis using SPSS regression showed that the most frequently used and understood 'Regression' generated factor scores were significantly correlated with the DV but also highly correlated to each other. This is not ideal since regression is best when each IV is strongly correlated with the DV but uncorrelated to other IV's. Despite producing smaller correlations with the DV, Anderson-Rubin (Gorsuch, 1983 – in Tabachnick and Fiddel, 2001: 626) generated factor scores were used for regression analysis of the 4 extracted factors (Tabachnick and Fiddel, 2001: 116) because this method produces factor scores that are uncorrelated with each other, even if factors are correlated. Factor scores are normally distributed N(0,1) and correlate with their own factors.

A standard multiple regression was performed between students perceptions of school improvement as the dependent variable and the Anderson-Rubin generated factors scores for the 4 extracted factors (Teaching and Learning, Teacher Commitment, Leadership and Culture) as the independent variables. Analysis was performed using SPSS REGRESSION and SPSS FREQUENCIES for evaluation of assumptions.

The SPSS 'Exclude Cases Pairwise' facility indicated 13 cases had missing values and these cases were excluded from the regression analysis. With 91 respondents and 4 IV's, the number of cases is above the minimum requirement of 82 (50 + 8 x the number of IV's) for reliable multiple regression.

There was some correlation between all IV's and the DV, with two IV's significantly correlated. There were no correlations between each of the independent variables

above 0.7 as we would expect given the choice of the Anderson-Rubin method of generating factor scores. The colinearity diagnostics provided by SPSS show that Tolerance values for all independent variables are > 0.2 and all VIF (variance inflation factor) values are below 4. This does not indicate multicollinearity concerns and consequently no independent variables were removed from the model. Therefore, assumptions about multicollinearity and singularity, which are necessary for a good regression model, were met.

SPSS generated histograms show all four IV's were approximately normally distributed. An inspection of the Normal Probability Plot of the regression standardised residuals clearly shows that the points lie in a reasonably straight diagonal line from bottom left to top right. This suggests no major deviations from assumptions of normality, linearity, homoscedasticity and independence of residuals. None of the Mahalanobis distances exceeded the critical χ^2 value (p=.001 for 4df = 18.467) indicating that there were no outliers among the cases. This is supported by the SPSS residuals scatterplot, following regression, which shows that none of the standardised residuals exceeded 2.82. Hence, there were no standardised residuals greater than 3.3 (corresponding to the 0.001 alpha level). The maximum value for Cook's distance (D) is 0.148. Since D > 4/(n-k-1) = 0.045 this did suggest some influential cases but as D > 1 there were no strong indications of outlier problems. The Durbin-Watson statistic = 1.700 lies in the range 1.5 to 2.5 indicating that independence of observations can be assumed.

Table 5.8 displays the correlations between the variables, the unstandardised regression coefficients (B) and intercept, the standardised regression coefficients (β), the semipartial correlations (sr_i^2), R^2, and adjusted R^2. R for regression was significantly different from zero, F(4,86)=13.063, p<.001. For the three regression coefficients that differed from zero, 95% confidence limits were calculated. The confidence limits for quality of teaching and learning were .585 to 1.228, for

committed community of teachers were .127 to .733 and for strong school leadership were .242 to .846.

Table 5.8: Standard Multiple Regression of Anderson-Rubin Generated Factor Scores (Teaching and Learning, Teacher Commitment, Leadership and Culture) Extracted using Principle Axis factoring with Direct Oblimin Rotation of 21 School Improvement Variables on Student Perceptions of School Improvement.

Factor	Impr (DV)	F_1	F_2	F_3	F_4	B	β	t	sig	sr^2	Tol	VIF
F_1	.476					.906	.488	5.606	.000**	.228	.954	1.049
F_2	.200	-.079				.430	.241	2.819	.006**	.058	.993	1.007
F_3	.309	.008	-.006			.544	.306	3.584	.001**	.093	.995	1.005
F_4	.143	.199	.012	.073		.042	.020	0.023	.816	.000	.955	1.048
						Intercept = 7.506						
Mean	7.51	.002	-.013	.027	-.490					R^2 = 0.378		
SD	1.79	.966	1.00	1.00	.869					Adjusted R^2 = 0.349		
										R = 0.615**		
										F(4,86) = 13.063, p=.000**		
										Durbin-Watson = 1.700		
										N = 91		

**p<0.01 *p<.05
Unique Variability=.378 Shared Variability=.000

F_1: High Quality Teaching & Learning
F_2: Committed Community of Teachers
F_3: Strong School Leadership
F_4: Positive Learning Culture

Three of the IV's contributed significantly to the prediction of students perceptions of school improvement: High quality teaching and learning in the classroom (sr_i^2=.477); a committed community of teachers (sr_i^2=.240) and strong school leadership (sr_i^2=.305). The four IV's in combination did not make any further contribution to shared variability. Altogether, 38% (35% adjusted) of the variability in students perceptions of school improvement was predicted by knowing the scores of the four IV's. The regression equation based on student perception was: school improvement = 7.506 + .906 x Quality of Teaching & Learning + .430 x Commitment of Teachers + .544 x Strength of Whole School Leadership + .042 x Quality of the Learning Culture.

This analysis confirms the existence of two distinct levels (learning and teaching and leadership) within a possible model. The third factor, a committed community of teachers, forms only part of the cultural dimension identified as the third level in the initial proposed school movement model.

(iii) Are there significant differences in the estimates of Anderson-Rubin generated factors scores on the basis of gender, ethnicity and social disadvantage as measured by entitlement to FSM?

A 2x2 between-subjects Multivariate Analysis of Variance was performed using SPSS on 4 dependent variables (student perceptions of: the quality teaching & learning; commitment of teachers; whole school leadership and the learning culture). These latent variables were the Anderson-Rubin estimated factors scores extracted from PAF with Direct Oblimin rotation applied to the 21 school improvement variables contained in the confirmatory student questionnaire. Independent variables were gender (male or female), ethnicity (White, mixed race, Asian or Asian British, Black or Black British, Chinese or other) and levels of social disadvantage as expressed through an entitlement to FSM (yes or no).

Preliminary assumption testing prior to multiple regression of the factor scores was conducted to check for normality, linearity, univariate and multivariate outliers, and multicolinearity with no serious violations noted. Box's Test of Equality of Covariance matrices produced Box's M = 133.888, F(70, 1579.583) = 1.291, p=.056 > .05, confirming homogeneity of variance-covariance matrices. Levene's Test of Equality of Error Variances indicated that only one variable, Leadership, was significant F(20, 71) = 1.771, P = .042, suggesting that the assumption of equality of variance has been violated for this variable. However, Tabachnick and Fidell (2001) suggest a more conservative alpha level, such as .025 or .01 for determining the significance for that variable rather than the conventional .05 level. On this basis there were no serious violations of assumptions.

Table 5.9 Multivariate Analysis of Variance with Gender, Ethnicity and FSM as the Independent variable and the 4 Extracted School Improvement Factors (High Quality Teaching & Learning; Developing a Committed Community of Teachers; Strong Whole School Leadership and Developing a Positive Learning Culture) as the Dependent Variables.

	Wilkes' Lambda	F	Hypothesis df	Error df	Sig.	Partial Eta Squared*
Gender	.979	.360	4.000	68.000	.836	.051
Ethnicity	.689	1.344	20.000	226.480	.153	.089
FSM	.952	.420	8.000	136.000	.907	.024
Gender v Ethnicity	.803	.971	16.000	208.381	.490	.053
Gender * FSM	.919	1.490	4.000	68.000	.215	.081
Ethnicity * FSM	.740	1.352	16.000	208.381	.169	.073
Gender * Ethnicity * FSM	.760	1.639	12.000	180.203	.084	.087

Dependent Variable: Improvement
*Eta squared is the proportion of the total variability in the dependent variable accounted for by the variation in the independent variable

The multivariate tests of significance are given in Table 5.9. With the use of Wlikes' Lambda criterion ($p<.01$), the combined DVs were not significantly affected by gender, ethnicity, social disadvantage or their interaction. Given the small sample size, Pillai's Trace offers a more robust multivariate test (Pallant, 2005) but an analysis using this test still showed that no IV's reached significance at the $p=.05$ level.

There were no significant differences in students estimated responses, had they been measured directly, on the basis of gender, ethnicity or FSM to student's perceived contributory factors of school improvement within the 4-factor solution.

5.4 The Importance of People and their Interaction

Important evidence was gained from student responses to the open-ended section of the confirmatory questionnaire. Two key issues underpinned their responses. Firstly, many students responded by saying that the causes of improvement were

already covered in the 21 variables. Secondly, in their responses, students clearly focused on people (students, teachers and parents) and their interaction and impact on change. This notion that people matter is best summarised by one student who reflected:

> *"In my opinion there are many reasons for the improvement of the school such as strong leadership of the headteacher and motivated students as well as great teachers"* (Year 11 student).

Consequently, the emergent themes in the student responses are summarised under these headings in Table 5.10.

The arrival of a new headteacher at the start of the school improvement strategy in September 2004 was a significant factor to emerge with students focusing on:

i. **immediate action:** "*A strict headteacher has changed the school rapidly", "...since he came he knuckled down on everything and everyone and within ... months here he got us out of special measures so I think it's down to him";*
ii. **raised expectations:** The headteacher *"... explained the importance of doing well"*;
iii. **appointing the right teachers:** *"He ... employed better subject teachers that actually know what they are doing and (got) the best potential out of the students"*, and;
iv. **personal commitment** through *"... having the school at heart. He tries his best".*

The most significant factor in respect of teaching and learning was the impact of *"better teachers",* with *"better attitudes",* making *"...lessons more fun and exciting"*

and providing more *"revision classes"*. Some students referred to *"lessons being more fun and exciting for students"* and this was supported by OFSTED (2008).

Table 5.10: The importance of people to improvement and their catalyst for change

The arrival of a new: **Headteacher**	Rapid change almost exclusively down to new headteacher: • Headteacher changed most things and got school out of special measures. • Changed the way things were being done (e.g. school day, longer lunch, etc). • Employed better subject teachers who knew what they were doing. • Headteacher has the school at heart and always tries his best. • Strictness towards students – serious rules were put in place.
A Change in the attitude of: **Students**	Significant change in student attitudes: • Wanted the school to improve and learn in a good environment. • Students more motivated, with a real focus on getting good grades and working harder to improve. • More support from teachers who pay more attention to students.
A change in the **Teachers** and their attitudes	Change in teacher attitudes was noticed by students: • Bad teachers left and better ones came. • Supply teachers were replaced with permanent ones. • Teachers pay more attention to students & provide more support. • Better qualified teachers led to an improvement in teaching quality. • Lessons became more fun and exciting within a more interesting environment. • More fun activities actively prevent bad behaviour by students. • Teachers were willing to form good relationships and deal better with students – 'more authority, less victimisation'. • Provision of fun exciting clubs, after school revision classes & activities and help with coursework;
Parents & The community pulled together	A joint effort of everyone working for improvement, being persistent and not giving up. • Student's participation in protest & support through difficult times. • Threat of school closure made the school work harder • Parents getting involved to support the school.

Not surprisingly, although this is rarely mentioned in school improvement literature, *"student's hard work"* and *improved attitudes"* were acknowledged by the students themselves. More pertinently, as one student remarked, *"the students themselves wanted the school to improve"*.

Ironically the external threats to the school appear to have galvanised improvement efforts. A number of students specifically referred to the school community 'pulling together' under the threat of closure as typified by comments such as: *"The proposal of closure bringing the school together, making us realise that we must change"*; "*The threat of the school clos(ing), made the school work harder ..."* and the importance of *"... students participation in (the) protest and support through the difficult times". "Parents getting involved to support the school"* was an added feature.

Never far from this analysis was the fight for the survival of the school being about justice for working class families. This fact was amplified and celebrated as a *"class war won"* headline in the local press when the school was saved. Moreover, the improvement, as one student noted, was a *"joint effort of everyone (parents, students, teachers and the whole community) working for improvement, being persistent and not giving up"*. This point is reinforced by Durrant (2006):

> *"...if we wish to effect improvement in the broadest sense, we need to focus not on applying formulae but on engaging people – pupils, teachers, support staff headteachers, parents and others – in building their own learning community".*

It is perhaps significant that this notion of all stakeholders working together to improve the school appears to have been galvanised during the closure threat to the school. The interrelationships between various stakeholder groups are complex but the student responses seem to indicate that Figure 5.2 provides a useful starting point. This shows the significance of all stakeholders interacting with each other and with the headteacher as an agent of change and emancipation at the centre.

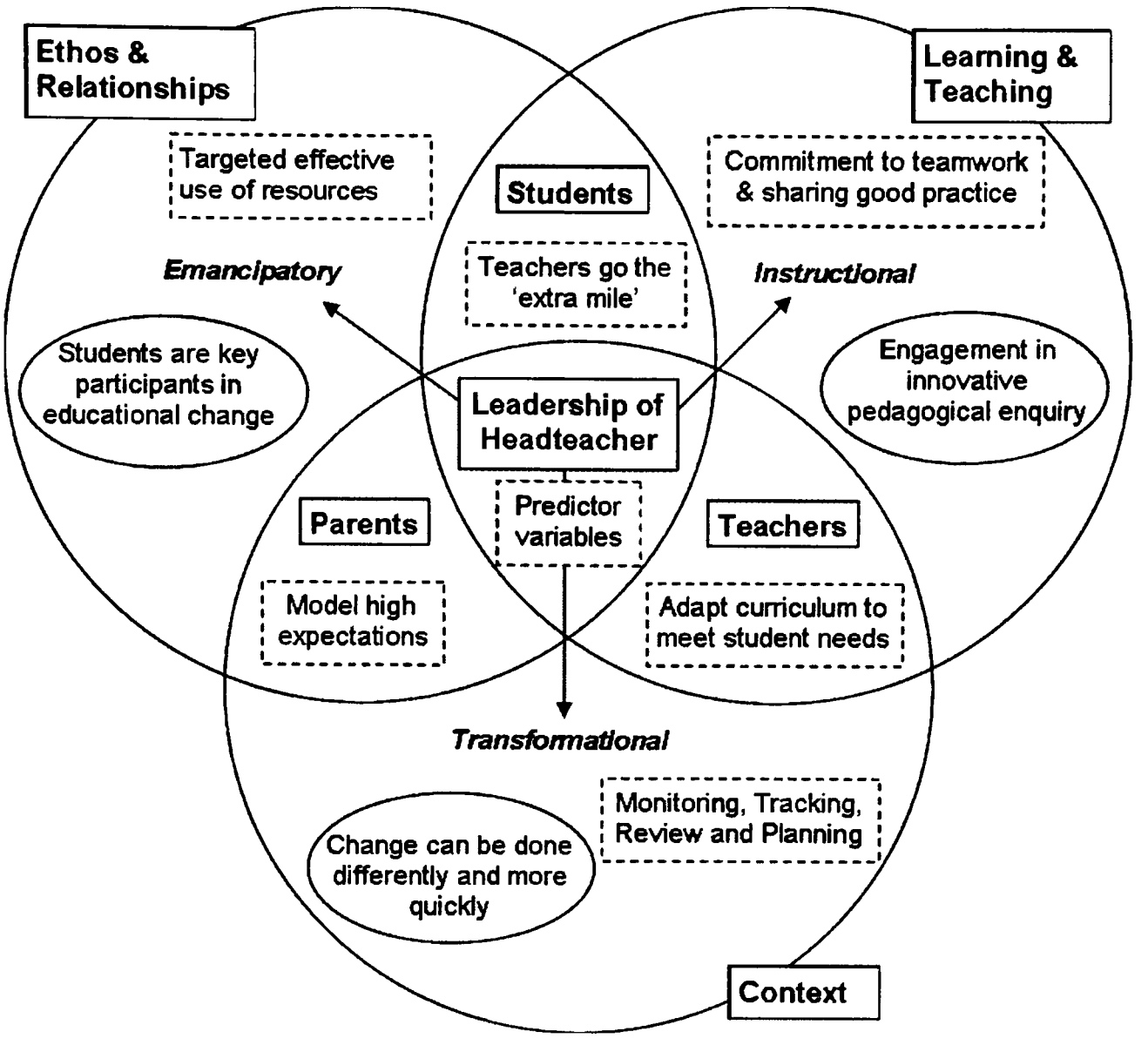

Figure 5.2: Connecting People to School Improvement Factors and Sub-Factors

Figure 5.2 also recognises the notion of people and key strategies being intertwined and driven by different aspects of the headteachers leadership style, namely: instructional, transformational and emancipatory. Trust emerges as the 'cement' that binds the school improvement strategy together.

Far from being a threat, it would appear that the closure proposal actually brought the school community together in a way that might otherwise not have happened. As an active participant myself in the 'fight' - the threat from the Council clearly felt like an attack on working class and disadvantaged people who were deemed not to have a 'say' in the future of 'their' school. Indeed, I would argue that the Council severely underestimated the role that building a united community of stakeholders had played in the schools improvement during phase I.

5.5 Focus Group Interviews

Three focus group interviews were conducted with a stratified random sample of students, teachers and parents. The purpose of the interviews was to establish what had made the most difference to the school's improvement. An analysis of the responses led to the identification of four emergent themes (context, leadership, learning & teaching and culture & ethos) that were commensurate with the four levels (Context, School, Classroom and Student) identified in multilevel school effectiveness models (Creemers, 1997; Creemers and Kyriakides, 2006). The emergent themes are summarised in Table 5.11.

Table 5.11: Emergent Themes Extracted from the Focus Group Interviews with Students, Teachers and Parents

	Students	Staff	Parents
Context	Teachers stood by us & gave massive support, even through threat of closure.	Because of adversity we have become a community that is moving forward.	There is improved communication, especially with parents;
	The school has a much better reputation and is massively improved.		Headteacher started getting student opinions of the school.
Leadership	Strong leadership of the Headteacher.	Strong leadership of the Headteacher has permeated all aspects of the school	Strong Leadership of the headteacher.
	New, better & more motivated teachers.	Good teachers given a strong vision of where school is going and what needs to be done to improve.	Staff were 'sorted' There are now good teachers who care about children
	Higher expectations of teachers and students.	Stronger focus on the structures that meet needs of students.	Focus on learning and achievement.
		New toilets, better food & eating arrangements have had a huge impact on how students understand they are viewed by the school.	Strong leadership team.
		Leadership enables everyone to make their contribution.	

	Students	Staff	Parents
Teaching & Learning	Dramatically better teaching standards due to higher expectations.	Curriculum better meets the needs of students.	Behaviour was targeted and basic ground rules put in place.
	Well planned, organised and more exciting lessons – not just text books.	Teaching is better with well structured, well organised, engaging lessons and planning that caters for students needs of all students	Students enjoy school and lessons making for better behaviour.
	Teachers more strict, clear rules.	Good feedback on pupil's progress to help them to improve.	Problems that occur are dealt with appropriately.
	Teachers are more confident in their teaching.	Size of classes makes assessment for learning easier and more regular and it's easier to focus on teaching and learning rather than behaviour.	
	Teachers pushing us to do our best	Focus on learning & achievement, monitoring and sharing of good practice drives the school forward.	
	Extra-curricular clubs & revision support after school & at weekends.		
	Good support from teachers & other students.		
Culture & Ethos	Mutual respect leading to better relationships between students and teachers.	Students treated well & with respect leading to excellent student-teacher relationships.	Pupils were listened to and started to value themselves and the school.
	Teachers motivate us to work & have supported us through it all.	Strong leadership, good teachers and students well treated has permeated through the school culture and ethos over time.	Teachers care about children and there is mutual respect.
	Children enjoy school & want to learn	Staff committed to the school and to improving opportunities for pupils from disadvantaged backgrounds.	Bullying was no longer tolerated
	Exciting multicultural school with high moral standards	Staff work long hours to support students.	
	Students are more confident, mature, and happier and take school seriously.		
Other		Real drop in student numbers makes for a safer school.	A good Governing Body.

In reality the outcomes from the interviews speak for themselves and served to reinforce the findings from the quantitative analysis of student perceptions. A common theme to emerge was that the 21 variables were seen as a comprehensive list of improvement factors by most participants, with one parent typically stating: *"The children have it right"*. Similarly, all focus groups reinforced the importance of the appointment of a new headteacher and strong leadership in bringing about the improvements rapidly. The engagement of people (parents, students and teachers) in the school improvement process was again highlighted as a major factor.

5.5 Summary

Student perceptions gathered using the confirmatory questionnaire were subjected to a multivariate statistical analysis. Principle Components Analysis revealed the existence of one and four factor solutions, with the single factor solution most rigorously justified using parallel analysis.

The single factor solution confirms the hypothesis that the 21 variables do form a coherent school improvement strategy. Multiple regression analysis showed that a linear combination of the 21 variables does indeed significantly predict improvement, explaining 62.4% of the variation in overall improvement. Only one variable, leadership of the headteacher predicted improvement at the $p<.01$ significance level, which in combination with three additional variables, senior staff focusing on learning and achievement and dealing effectively with external threats to the school predicted improvement at the $p<.05$ significance level. There were no significant differences in students' perceptions of overall improvement, the impact of the leadership of the headteacher and the combined perceptions of leadership of the headteacher, senior staff focusing on learning and achievement and dealing effectively with external threats to the school on the basis of gender, ethnicity and social disadvantage.

A closer examination of the four-factor solution identified using Principle Axis Factoring led to the interpretation of the four factors as: high quality learning and teaching; the development of a committed community of teachers; strong whole school leadership and the development of a positive learning culture. Multiple Regression analysis of the Anderson-Rubin factor scores for these extracted factors showed that a linear combination of these factors did significantly predict overall improvement in the school, explaining 34.9% of the variation in improvement. A 4 x 3 MANOVA showed that there were no significant differences in student's estimated responses (Anderson-Rubin factor scores), had they been measured directly, on the basis of gender, ethnicity and social disadvantage.

The open ended responses to the confirmatory questionnaire identified four central antecedents underpinning improvement: the arrival of a new headteacher; a change in attitude of students and teachers and the local community and parents pulling together in support of the school.

The focus group interviews supported the existence of a four-factor solution comprising: the context; leadership; learning and teaching and culture and ethos. The responses suggest that the 21 school improvement variables extracted using PCA in phase I could be divided into these four sub-factors as part of a coherent school improvement model. An overriding finding was the importance of engaging people in building a united learning community.

6 FURTHER ANALYSIS AND DISCUSSION:

A NEW FRAMEWORK FOR SCHOOLS IN CHALLENGING URBAN CONTEXTS

This chapter will consider each of the research questions posed in Chapter 1 by carefully examining: the findings of the study; the findings that support or only partially support my hypotheses; the findings in the light of existing research studies; the implications of the study for current theory and the limitations of the study that may affect the validity or the use of the outcomes in other contexts and situations.

The structure of the chapter reflects the most important issues contained within the sub-questions asked in chapter 1 and reproduced here for completeness:

(a) How does the specific context of especially challenging urban schools impact on school improvement efforts and what is the relationship to improvement factors?

(b) What do students perceive to be the size, effect and definition of contributory school improvement factors and what specific combinations of factors impact most on rapid school improvement?

(c) What would a new conceptual school improvement model for schools in especially challenging urban contexts look like?

(d) What might a new theoretical framework (paradigm) for schools operating in challenging circumstances look like?

The discussion brings together outcomes from the multivariate analysis of student perceptions, existing literature, external OFSTED judgements and personal insight of the headteacher set within the context of the schools journey.

6.1 Introduction

The central focus of this sequential two-phase case study was to systematically gather and analyse student perceptions of what has 'caused' significant and sustained improvement in an especially challenging urban school between September 2004 and October 2008.

This chapter will analyse and discuss the findings of the study in the light of existing research that has sought to:

- identify the relative strength and mix of school improvement factors in especially challenging urban contexts (Muijis et al., 2004);
- develop a theoretical framework for educational effectiveness (Creemers, 1997; Creemers and Kyriakis, 2008);
- identify correlates of effectiveness (Sammons et al., 1995);

- establish how effectiveness factors may be developed through an understanding of the nine 'school intelligences' developed by MacGilchrist et al. (2004), and;
- articulate a new paradigm for schools serving disadvantaged communities (Wrigley, 2004).

Drawing on the convergent findings from the literature together with, and based firmly on, a multivariate analysis of quantitative data from both phases of the study and interpretive outcomes from focus group interviews in Phase II, a new conceptual multilevel school improvement model and associated framework are proposed.

Coincidentally at the end of Phase II of this research, OFSTED again inspected the school (OFSTED, 2008a). Significantly and opportunely a further OFSTED inspection took place during the writing up phase (OFSTED, 2008b) of this study. The findings from these two most recent inspections, which are woven into the text, provide further external triangulation evidence to support the findings.

6.2 The Impact of Context on School Improvement Efforts

The review of literature in Chapter 2 indicates that one of the strongest findings from both leadership (Crawford, 2002) and school improvement research (Chapman and Harris, 2004; West et al., 2005) is that context matters and much more than hitherto has been recognised or openly acknowledged. Schools in especially challenging circumstances often take insufficient account of the socio-economic contexts in which they operate (Slee et al., 1998) and few school improvement studies have given serious thought to how schools engage with the local communities (Wrigley, 2006) they serve. As previously quoted in chapter 2:

> *"Family background, social class, any notion of context are typically regarded as noise, as 'outside background' factors which must be*

controlled for and then stripped away so that the researcher can concentrate on the important domain of school factors' (Angus, 1993:361).

A direct outcome of this approach is that 'if a school is underperforming then it must be the fault of the school alone'.

The acquisition of contextual intelligence (internal, local, national and global) is one of the nine 'intelligences' identified by MacGilchrist et al. (2004: 122) as essential to the development of an effective school. This requires the *"... the capacity to read understand and interpret at four dimensions of the environment in which a school functions"*. The importance of engaging and responding to a highly complex context has become one of the most critical aspects of this case study.

Phase I: Tackling the internal conditions, standards and special measures

Phase I of this study focused on the first 18 months of the school improvement process following the school being placed in special measures. During this period the primary focus was to improve the internal conditions in the school. This involved: improving the leadership; transforming teaching and learning; engaging more directly of the needs of students and managing the school coming out of special measures.

During this phase, a combination of two fundamental aspects was crucial in stimulating the improvement process:

i. establishing a detailed knowledge of 'what works' in especially challenging urban schools based on the literature review in chapter 2;
ii. generating a detailed understanding of the school context, both internal and external.

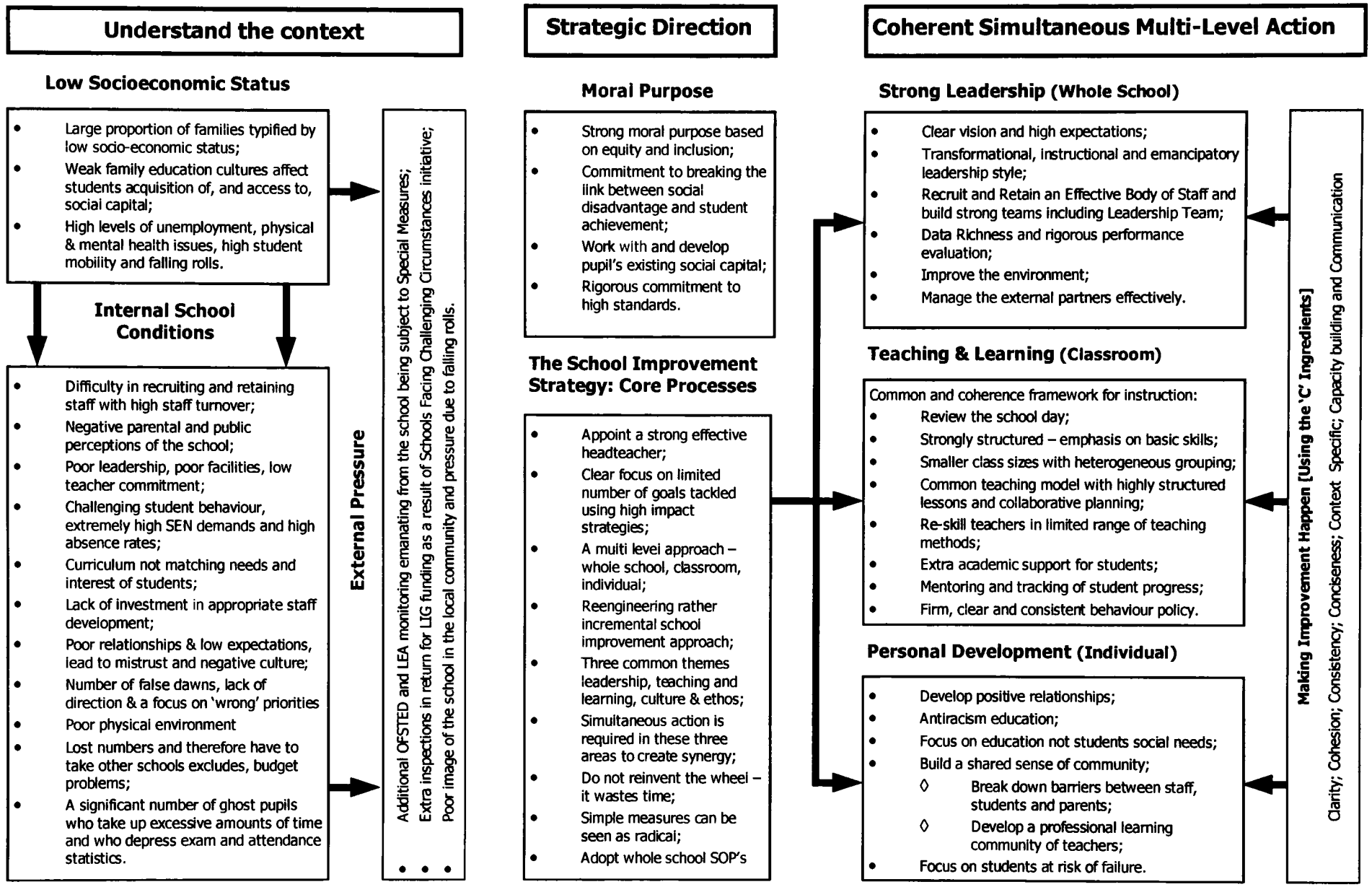

Figure 6.1: Convergent Findings from School Improvement Research into Schools Facing Challenging Circumstances

Initial school improvement efforts were influenced by the development of the schematic diagram in Figure 6.1, which brings together the findings from the literature about which there is little debate into a 'tentative' conceptual model for schools in challenging urban contexts.

One aspect of this model distinguishes between the whole school, classroom and individual levels in the school improvement process. However, rather than a hierarchical (Creemers, 1997) or chronological (Potter et al., 2002) relationship between these strands, I argue that in an especially challenging urban context they are bound together in a complex, flexible and dynamic (Creemers and Kyriakides, 2006, 2008) fashion, with each strategy being mutually dependent on the others in the model. The key school improvement actions are bound together by a central core of strategies and processes.

It quickly became evident that the school improvement task was much more difficult and complex than would appear on the surface. Initial improvement efforts during the Autumn Term 2004 had only limited impact for two reasons. Firstly, an incremental approach to school improvement wasn't working because so much energy was being expended in making small improvements that significant improvements were unlikely to happen due to exhaustion. Secondly, the recalcitrance of the school culture strongly suggested that doing more of the same was unlikely to have much impact. A more radical approach was required.

Consequently, during the Spring Term 2005, a much deeper analysis brought together three strands: knowledge of existing literature; a detailed understanding of the context and personal experience of school improvement in similar contexts into one coherent school improvement plan.

With hindsight six major changes were made during this first phase that proved to be the catalyst behind the steady progress made by the school:

i. the appointment of a new headteacher with previous experience of school improvement in challenging schools;

ii. the adoption of a new model of Governance based on a School Improvement Partnership Board and a new chair;

iii. the development and implementation of a new distributed leadership team structure that focused on teaching and learning;

iv. the implementation of a generic lesson structure based on the accelerated learning cycle and the remodeling of the learning environment (including a set of minimum behavior expectations) and classroom layout;

v. Building relationships and trust;

vi. External support from a London Challenge Advisor and an ex-HMI consultant as part of the school's approach to school review and self-evaluation.

These strategies were rigorously followed in a synergistic way – facilitating other school improvement strategies in their wake. This is consistent with the notion that schools should therefore be *"highly discerning in selecting specific improvement strategies and approaches"* (Chapman and Harris, 2004: 227).

As the fourth headteacher in just over three years my previous experience of leading especially challenging schools gave me an insight and a belief that the school could and would be 'turned around', providing that the right mix of school improvement strategies were implemented. This quickly led to the resignation of my first chair of governors who openly articulated that the job could not be done and the school should be closed. The Local Authority was supportive in helping to replace the chair with someone I had worked successfully with in my previous school. The establishment of a School Improvement Partnership Board with executive powers, comprised the chair of governors, the headteacher, a London Challenge Advisor, a senior DfES representative, a Local Authority representative

and a clerk. This was helpful in speeding up transformation in two ways: by helping to hold other partners, most notably the Local Authority, to account and by providing a sounding board to make radical strategic decisions.

The adoption of a distributed leadership structure facilitated the effective remodeling of teaching and learning in the classroom. This led to a strong degree of coherence and reliability in students' expectations within all classrooms. Students were immediately placed at the centre of our school improvement efforts. This involved working to improve their social capital and providing them with the skills to engage more effectively with the formal education process. This required a body of staff that was overtly committed to working with such students in a positive manner and prepared to continuously model high expectations. Initially it was hard work attempting to overcome several years of low expectations. Central to this was an understanding of the educational and social needs of a cohort of students largely drawn from disadvantage backgrounds. The need to work with the social capital that students did have rather than what they didn't have, was vital in this respect.

OFSTED's Inspection monitoring of the school's progress whilst in special measures did not make things easy. The HMI monitoring inspectors approach was negative, with the first three monitoring inspection reports identifying further significant deterioration in the quality of teaching and an unsatisfactory school improvement action plan.

The OFSTED judgments on teaching looked increasingly flawed and possibly partisan since at the end of the academic year in question the GCSE results improved significantly. Likewise the school improvement plan was judged to be unsatisfactory, yet it was based largely on a document previously described as outstanding in my previous school. In order to finally 'nail' the improvement plan advice was sought directly from the DfES. The content of the plan remained largely

the same but the presentation was significantly improved. We can only conclude that other factors had a bearing on the monitoring Inspectors judgments.

However, the personal manifestations of his consistently and wholly negative approach merely made the staff even more determined and resolute that we knew we were focusing on the right things. The role of the London Challenge Advisor and an external consultant with significant HMI experience at a senior level were critical to us 'holding the school line'. Subsequent events continued to prove we were right.

The school was removed from special measures only after results had improved further and significantly but more importantly, when we were sufficiently confident to challenge the HMI Monitoring Inspector and formally complain to OFSTED about the conduct of the Monitoring Inspector, with the full support of the Local Authority, which was subsequently upheld by OFSTED.

By the end of Phase I, according to school effectiveness research, the school was performing effectively. By tackling the internal conditions the school, it came out of special measures, exceeded the Government's floor targets and had gained the support of parents, students and staff.

However, with hindsight we wondered whether we paid sufficient attention during this stage of the improvement process to political issues and other factors including, as it transpired, to the external image of the school amongst local communities.

Phase II: A political lack of understanding of school effectiveness measures, school improvement strategies and the class dimension

Despite becoming *"a rapidly improving school with rapid improvement in test and examination results"* (OFSTED, 2005) the Council still decided to close the school.

I argue strongly that the political and historical perceptions of the school were fuelled by 'class' hostility and a lack of understanding of school effectiveness and school improvement. Consequently, the Council and its officers manipulated, or simply didn't understand, school effectiveness measures against the school without knowledge of school improvement and the relationship between the two. During the period of hostility the school was able to:

- put the correct data into the public domain and explain what the school was doing well;
- share widely the schools' vision and ethos;
- engage the press positively and get the local community on side.

During Phase II the impact of the context shifted significantly as a result of the Council closure proposal. The closure threat galvanised teachers, students and most importantly parents. The vision of the school played a crucial factor in this. The manner in which the parents perceived the Council's closure proposal was as if the local politicians, and previously supportive Local Authority, were attacking our students and their families directly, due to the levels of their disadvantage. Constant referrals to 'class war' in the local press reinforced this. The school had been recently judged to be rapidly improving by OFSTED but the Local Authority and Council were attacking it as 'significantly underperforming'. The two pictures did not match. Consequently, the parents, students and a previously unsupportive local community sensed a real injustice that they felt keenly and increasingly personally. For them, the school was now seen positively by many parents and the local community as being committed unequivocally to improvement and fighting for the interests of working class people. It was not difficult to use this energy and focus it as a means of support to further our critical improvement strategies. The debate that ensued was political and unashamedly so. The constant use of misleading and incorrect information to support closure arguments and public

attacks on the leadership of the school further compounded the local communities' perception of injustice and being treated unfairly.

When analysing why the school successfully fought the closure proposals a number of factors are clear. From the moment that the closure threat was announced, the leadership, staff, parents and students remained united in their belief that the school had a secure future. In contrast to the Council, the school had a strong case in its favour backed up by a meticulous approach to presenting data and arguments via written papers, numerous public speeches by the headteacher and other senior staff and engaging positively with the local and national press. The school utterly believed in its vision, core values, school improvement strategies and, most importantly, the people it served. The battle was fought with integrity and competence that engendered a high degree of trust in the leadership of the school amongst staff, students and parents.

It is clear in this study that the repeated and sometimes hostile threats to the school's existence (closure proposal and special measures judgements) triggered something about values, trust and justice that together galvanized the communities the school serves. The external context actually sped up and made the job of engaging with local communities, and most notably with parents and carers, more effective than might otherwise have been the case. As a result the school adopted a national profile amid a climate that there was *'something not right about this'* and *'they wouldn't do this to schools serving more advantaged communities'*. The shift from low and largely negative perceptions of the school to one of high trust and confidence in what the school stood for and was achieving was one of the most significant and enduring aspects of the closure debacle. Likewise the split between the 'political' view of the school and 'local community' perceptions about what the school stood for and was doing represented a key shift in events.

In relation to our families, this represented a classic 'winning' and 'winner' scenario. Working class communities like winners. They respect trust and loyalty like no others – if you are in, you are in – it's part of implicit class consciousness and solidarity. This was beautifully summed up by the ***"Class War Won"*** headline in the local press (Fulham and Hammersmith Chronicle, 26 April 2007).

The shifting balance of challenge versus improvement

The literature suggests that an especially challenging urban school is characterised by a complex and potentially intransigent set of antecedents (Leithwood and Steinbach, 2002) that include: (i) the disadvantaged nature of the student cohort; (ii) external pressure brought about by external monitoring and low standards and (iii) poor internal conditions within the school. It is difficult to establish a hierarchy to these criteria, although we do know there is a strong negative correlation between most measures of social disadvantage and student attainment (Harris and Chapman, 2002; Chapman and Harris, 2004; Muijis et al., 2004; Potter et al., 2002).

At the beginning of this research the case study school was clearly characterised by all three of these features and they were intertwined in a complex, reinforcing and almost self-fulfilling manner. Evidence from the study strongly suggests that the impact of these elements on the nature and degree of challenge shifted continuously in importance throughout the improvement process.

School effectiveness literature indicates that schools only have a small effect, with the biggest influence on student achievement being their socioeconomic backgrounds. Schools therefore have to work hard at the margins of their internal context to bring about quite small changes in the outcomes of students. Additionally, if schools are to have a significant impact on achievement they must invest most effort in transforming the students themselves.

Figure 6.2 highlights the reinforcing nature of the three strands of contextual challenge. In this diagram, school decline follows a clockwise direction, whereas the opposing school improvement efforts operate in an anticlockwise direction.

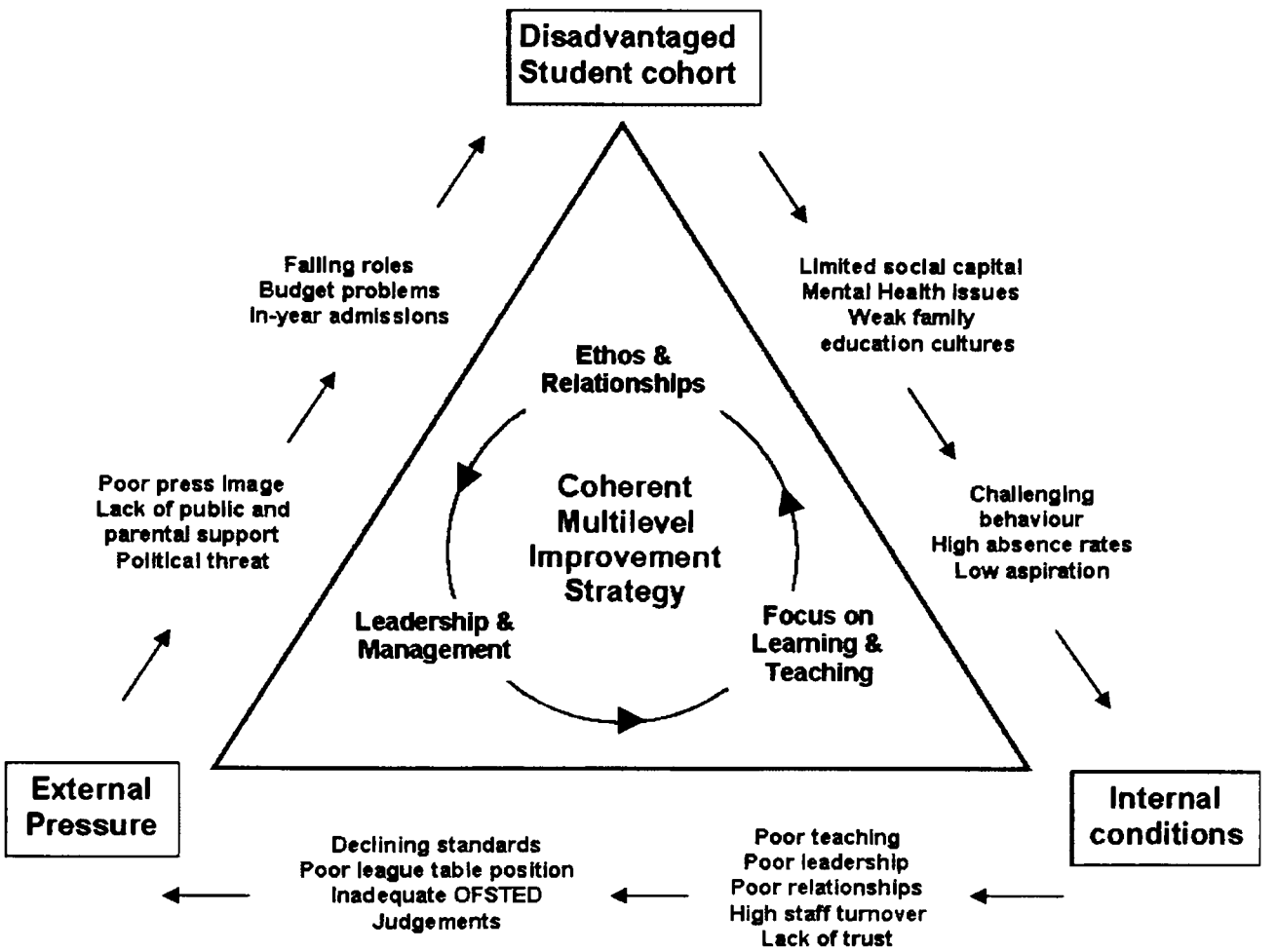

Figure 6.2: The Competing Cycles of Challenge (clockwise) and Improvement (anticlockwise) in an Especially Challenging Urban School

The cycle of decline begins with the weak family education cultures, street culture and low aspirations brought into the school by students. This destabilises the internal conditions by making it harder for teachers to teach, manage student behaviour and reinforce expectations. This subsequently results in declining staff morale, increasing staff turnover and a reduction in standards. This is exacerbated by poor leadership. Poor standards leads to external pressure from OFSTED and failure to meet targets, which in turn breeds a poor public image resulting in the school attracting a greater proportion of disadvantaged students due to surplus places. And the cycle moves on apace as the mutually reinforcing antecedents grow in strength.

In order to break the cycle of decline, the intervention must first come with improvement of the internal conditions. Student perceptions from this study suggest this begins with a focus on strong leadership, improved teaching and good relationships. This involves working with students' social capital and building family education cultures to galvanise students, parents and staff to feel better about themselves. This leads to the school working more coherently as a unit which in turn creates an improved image externally and rising standards internally. As the community perceives the school is improving, it attracts a more balanced intake of students and a mutually reinforcing positive cycle of improvement and achievement is initiated. This positive improvement cycle becomes a bigger force for change than the impact of negative contextual factors. The fight against the closure of the school was significant in causing a discontinuity with a previously negative culture around the school. However, it does not take much to destabilise a school – either internally or externally.

Whilst the focus on school improvement was consistently maintained, Phase II was characterised by external threats to the school that had to take priority. One of the prime outcomes from this period was that many senior staff and staff left the school due to uncertainty regarding the school's closure. Whilst many of the students returned – the staff did not. Given that in the first four years of the improvement strategy the school was not able to recruit a full cohort of year 7 students because of the negative local perceptions of the school, many year groups were characterised by surplus places. This left the school vulnerable to having to take large numbers of in-year admissions, many of whom had EAL needs or a significant history of poor behaviour. Together these factors contributed to a significant de-stabilisation of the school, even though it was improving rapidly.

Despite the rapid improvement, a key impact of the external threats was the effect that it had on the profile of students across the school. By the end of phase II the data indicates that students posses a greater degree of multiple disadvantage than

at any time in the school's history. This raises two urgent issues for the school. Firstly, it is essential to ensure the maintenance of internal effectiveness to avoid precipitating another cycle of school destabilisation as a direct result of the levels of student disadvantage. Secondly, current methods of measuring the disadvantaged nature of a student cohort are flawed because of the blunt nature of the criteria used. The current CVA formula, for example, does not distinguish between stages of EAL provision. It is far more meaningful to measure the levels of multiple disadvantages amongst students (e.g. how many students have FSM and EAL and child protection issues, etc.). The need to track students even more rigorously and intervene more rapidly when things go wrong has never been more urgent.

The shifting impact of the various aspects of the case study context is shown in Figure 6.3. A traffic light system is used to indicate level of challenge (red = significant impact; yellow = moderate; green = little impact). For illustrative purposes it demonstrates how the different aspects of the context have changed over the two phases of the study. The school now (2008) has a challenging cohort of students and little political support but results and external judgements of the schools effectiveness are at an all time high. This compares with the situation in March 2004 when the school had a comparatively able cohort of students, little political interference and yet was judged seriously ineffective by OFSTED and had low performance standards.

		Standards & achievement	OFSTED intervention	Internal judgement	Student cohort	Community hostility	Political interference
Phase I	Mar 04						
	Oct 04						
	Jan 05						
	May 05						
	Aug 05						
	Nov 05						
Phase II	Sep 06						
	Jan 07						
	Sep 07						
	Jan 08						
	Oct 08						

Figure 6.3: The Shifting Impact of Different Challenges during the Course of the Study

The position is that now in 2008, at the end of phase II, the internal conditions have been radically and fundamentally improved. The school is more stable, in terms of staff and student mobility, and as a result standards of attainment have risen to the extent that the school is now the second most improved nationally and the most improved in London. The Key Stage 3 to 4 CVA measure places the school in the top 2% of schools nationally for achievement (OFSTED, 2008a), The Local Authority politics now appear more stable and public attacks on the school have ceased. That is not to say, however, that the school has political support.

The critical issue here with regard to context was that the key elements of political support and local perceptions, for some time coinciding, actually split into fundamentally and diametrically opposite positions as a direct result of the Council's attacks on the school. Significant in this split was that the school campaign against closure was founded on accurate data interpretation; engaging directly with the schools key stakeholders (the parents and students) and social justice for young people. Rather than distancing parents through a negative campaign to save teachers jobs, the school was portrayed as a 'winner', with national school improvement status that was largely embodied in the way the schools senior leadership acted during this period.

In many ways the school was even more challenging at the end of the study, particularly in terms of the needs of the students and communities we serve. However, the fact that it has most recently been judged to be 'outstanding' by OFSTED (2008b) in respect of its success in promoting equality of opportunity, perhaps signals a better understanding by OFSTED of what effectiveness means in the context of a challenging school.

6.3 The Definition, Size and Mix of School Improvement Factors Identified from an Analysis of Students' Perceptions

The cornerstone of this study is the identification of the 21 school improvement sub-factors or variables[2] from a multivariate analysis of student perceptions of what 'caused' improvement in an especially challenging school. Multiple regression analysis confirms that a linear combination of these 21 sub-factors does significantly predict improvement and PAF confirms the existence of a single school improvement factor that contains all 21 sub-factors.

Two underlying issues guide the analysis in this section. Firstly, one of the issues with interpreting the outcomes of the analysis of students' perceptions and generalising to other similar contexts is that students have responded to the 'impact' of school improvement approaches as they experience them. For example, 'monitoring and evaluation' most often takes place in the classroom and so students will observe this variable as being an aspect of classroom practice rather than a function of good leadership and management. Hence, to make sense of our school improvement model it is necessary to 'map' the observed impact of school improvement variables to a school improvement model based on where the improvement strategy is initiated.

A careful consideration of semantics was vital to explaining our school improvement model. In order to ensure validity and reliability in the derived model, the precise meaning of school improvement factors requires them to be expressed carefully in natural language that conveys an accurate meaning to all. For this reason, school improvement sub-factors are explained in detail and where necessary in context. As a direct consequence the wording of some of the sub-

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[2] The terms factors, sub-factors and variables are used interchangeably in this chapter to describe distinctive elements of the school improvement model. In the strict mathematical sense they are all improvement 'factors' extracted using factor analysis.

factors has been slightly changed to better represent the outcomes of the interpretive aspect of the research.

(a) Defining the School Improvement Sub-Factors

The hypothesis that 21 school improvement sub-factors, extracted from an initial list of 90 school improvement variables in phase I of the study, constitute a single coherent school improvement model was rigorously tested in Chapter 5 using a multivariate statistical analysis of student perceptions of the size and causes of improvement in the school. This mathematical justification was then triangulated with my own insight and evidence gained from the responses to the open-ended part of the confirmatory questionnaire, focus group interviews and OFSTED reports. The following sub-factors were contained within the single factor:

1: Strong Personal Lead provided by the Headteacher

Standard multiple regression revealed this variable to be the sole predictor of improvement at the p=0.01 level and this is consistent with much of the literature that highlights the importance of the headteacher to stimulating and maintaining improvement.

The factor isolated by students was 'strong leadership of the school by the headteacher'. However, more detailed analysis suggests this is more about an embodiment of the headteacher's values and vision. This involves separating the functions of leadership and how they are delivered from the person and their values and beliefs. In effect this is translated into four aspects of leadership: (i) values and beliefs; (ii) knowing what to do; (iii) building trust and (iv) developing a distinctive leadership style and a set of expectations.

(i) Values and Beliefs

A strong vision must be underpinned by a set of core values and beliefs that are embedded in the spiritual and ethical intelligences defined by MacGilchrist et al (2003). These include honesty, integrity, loyalty, creativity and decisiveness. In reality there are four aspects to the vision: breaking the link between social circumstance and attainment; engaging with the communities the school serves; equity, inclusion and social justice and developing excellence in urban education. Consequently, *"Leadership and management is vision led, and driven by the outstanding leadership of the headteacher ..."* (OFSTED, 2008a: 4). The context dictates that 'inclusion' becomes synonymous with 'effectiveness'. A keen sense of social justice and respect for all students and their families are key determinants in this respect.

(ii) Knowing what to do and doing it

Challenging schools are always subject to external intervention and public scrutiny. Consequently, a key aspect of the role of the headteacher is to maintain the direction and coherence of the school improvement strategy. This requires both contextual and systematic intelligence to keep the overall improvement strategy on track. It is about knowing what to do and modelling this with others, for example through 'walking the job'. This requires the headteacher to be secure in their knowledge about school improvement – what works and how do you make it work. Due to the necessary finite time allowed to 'put things right' this involves identifying and implementing a finite number of high impact strategies (Hopkins, 2001). However, a strong degree of personal robustness and 'grit' is required when implementing the 'Ockams Razor' maxim - 'do not apply many things to a task that can be done with a few'. Being an experienced headteacher helps significantly in this respect.

(iii) Building Trust

Trust is a vital ingredient in the challenging school context. Covey (2006) argues that trust is the "hidden variable" in the formula for organisational success and proposes an alternative equation that states:

(S x E) T = R

([Strategy times Execution] multiplied by Trust equals Results)

One of the key attributes of trust is credibility. Covey articulates 4 cores of credibility: Integrity (honesty plus walking the talk); Intent (motives, agenda and resulting behaviour); Capabilities (abilities we have to inspire confidence – talents, attitudes, skills, knowledge and style) and Results (track record, performance, getting the right things done). Integrity and intent are synonymous with character and capabilities and results are aspects of competence. Trust became a major factor in managing the context during the closure threat and through protecting the school from being destabilised and conveying to everyone with an interest that the school was in good hands.

(iv) Leadership Style

The evidence strongly suggests that this has involved a confluence of transformational, emancipatory and instructional leadership styles.

Transformational leaders offer a purpose that transcends short-term goals and focuses on higher order intrinsic needs. This results in followers identifying with the needs of the leader. The four dimensions of transformational leadership are "*idealised influence* (or *charisma*), *inspirational motivation*, *intellectual stimulation* and *individual consideration*" (Pounder, 2006:536). People-led rather than systems-led change, points to the significant influence of a transformational leadership style

The headteacher's emancipatory leadership style is driven by a belief that 'all students can succeed' and that improving standards provides a 'good deal' for working class children. It is entirely possible that emanating from a working class background myself and being the first member of my family to obtain a university degree was decisive in framing this approach. The associated definition of inclusion requires a universal approach to the 'well being' of all pupils (MacGilchrist et al., 2004: 115). In order to make this vision a reality the leadership of the headteacher must be creative and consistent with *"eclectic and idiosyncratic leadership which made (makes) little reference to the official agenda"* (Wrigley, 2006: 282).

Leadership in urban schools is characterised by its intensity. The challenges may not be unique but they come with relentless pace variety and complexity. "The foundation of successful urban leadership is a robust sense of purpose." (NCSL, 2005). Teamwork is vital if we are to remain focused and effective. Significant factors in this include:

i. Enduring personal courage, conviction and resilience;
ii. Recognising the complexity of the external environment and the community the school serves coupled with a willingness to work with that community;
iii. Consistency and accountability;
iv. Engaging openly and directly with others, to hold them to account and to celebrate their achievement;
v. A willingness to work out of and beyond the bounds of the job description, and above all,
vi. Being innovative and creative.

Additionally, 'Special Measures leadership is unique in that it is set within a specific

time frame'. This affects the behaviours adopted by those in all leadership positions, but especially the headteacher

2: A Safe, Clean Environment with Good Resources

The school has "... *managed finances and resources impressively...*" (OFSTED, 2008a: 7) and was one of the first schools to achieve the Financial Management in Schools Standard (DfES, 2009). This has been a key responsibility of the headteacher, with resources being carefully targeted to support the coherent school improvement strategy. Between 2004 and 2008, the school has turned a significant budget deficit into a £1.5 million surplus. This has been achieved through a better match between staffing and curriculum requirements and the employment of largely young and inexperienced teachers. A significant reduction in support staff has emanated from a more efficient management of the school.

In the early stages of the school improvement strategy, new computer rooms, a new school entrance, new toilets and better dining facilities demonstrated the school's vision to provide the highest quality facilities for students. Unfortunately this could not be sustained due to the closure proposals as capital grants available to the school were then withdrawn by the Council. The school is now due to be largely rebuilt under the Governments 'Building Schools for the Future' programme.

Zero tolerance of litter and graffiti has been supported by a regular programme of redecoration, which in turn, was supported by a high quality cleaning contract. The school has no playing fields on site but flowers in the numerous planters both in and outside the building are treated with respect by students and never damaged. Consequently there is ample evidence that *"Students care for their school and have a strong commitment to preserving the school environment"* (OFSTED, 2008a: 5). Good work is displayed in classrooms and around the school and is regularly updated.

3: The Development of a Strong Relevant Curriculum

The personal involvement of the headteacher, working closely with an experienced deputy headteacher, locates this as a leadership factor. External scrutiny dictated that the national curriculum had to be met for political reasons. However, the success of the current curriculum is founded on maximising the flexibility within the national guidance to best meet students' needs and abilities. An aspirational dimension is facilitated through 'fast tracking' students to sit examinations when they are ready.

The school has one curriculum offer for all students and *"Equality of opportunity for all students strongly underpins the curriculum"* (OFSTED, 2008a: 6). This is most visible at Key Stage 4 where a strong partnership with a local FE college enables all students to follow a BTEC National level 2 course. The school has deliberately avoided DFES guidance to have separate vocational and academic pathways, that have the potential to reinforce class divisions. Hence all students are provided with a balance of academic and vocational courses. Consequently the school has *"an innovative, broad, balanced curriculum, which is outstanding at Key Stage 4, makes a strong contribution to student's achievement and personal development"* (OFSTED, 2008a: 6).

The school has largely followed the National Curriculum at key stage 3 with a focus on individual subjects amending the curriculum to meet the disadvantage nature of the cohort, most notably for students whose first language is not English and those with specific learning needs.. The identification of high quality, interesting and diverse learning activities has been central to this approach. This approach was judged positively in a recent inspection: *"Some of the students find learning difficult and the strong curriculum is testament to the schools commitment to make learning meaningful and engaging for all"* (OFSTED, 2008a: 6). Creative approaches to timetabling have ensured that the curriculum is effectively implemented.

4: Senior staff focusing on learning and achievement

Throughout the improvement process, the headteacher has been *"... ably assisted by a strong and effective senior leadership team"* (Ofsted, 2008a: 7). In particular, two deputy headteachers already in post prior to the appointment of the currently headteacher have been instrumental in driving up standards in their respective areas of subject expertise, namely English and Mathematics.

In 2004 both departments were 'failing' and typified by low standards and poor management. One of the first actions was to install these two senior colleagues to lead the core areas. Almost immediately the experience and school improvement knowledge provided by these two curriculum directors resulted in both subjects improving rapidly with strong instructional leadership being the defining improvement factor (Cross, 2008).

So successful was this strategy that a new 'innovative' leadership structure (OFSTED, 2005) based around six curriculum directors and a Director of Student Services was adopted as shown in Figure 6.4

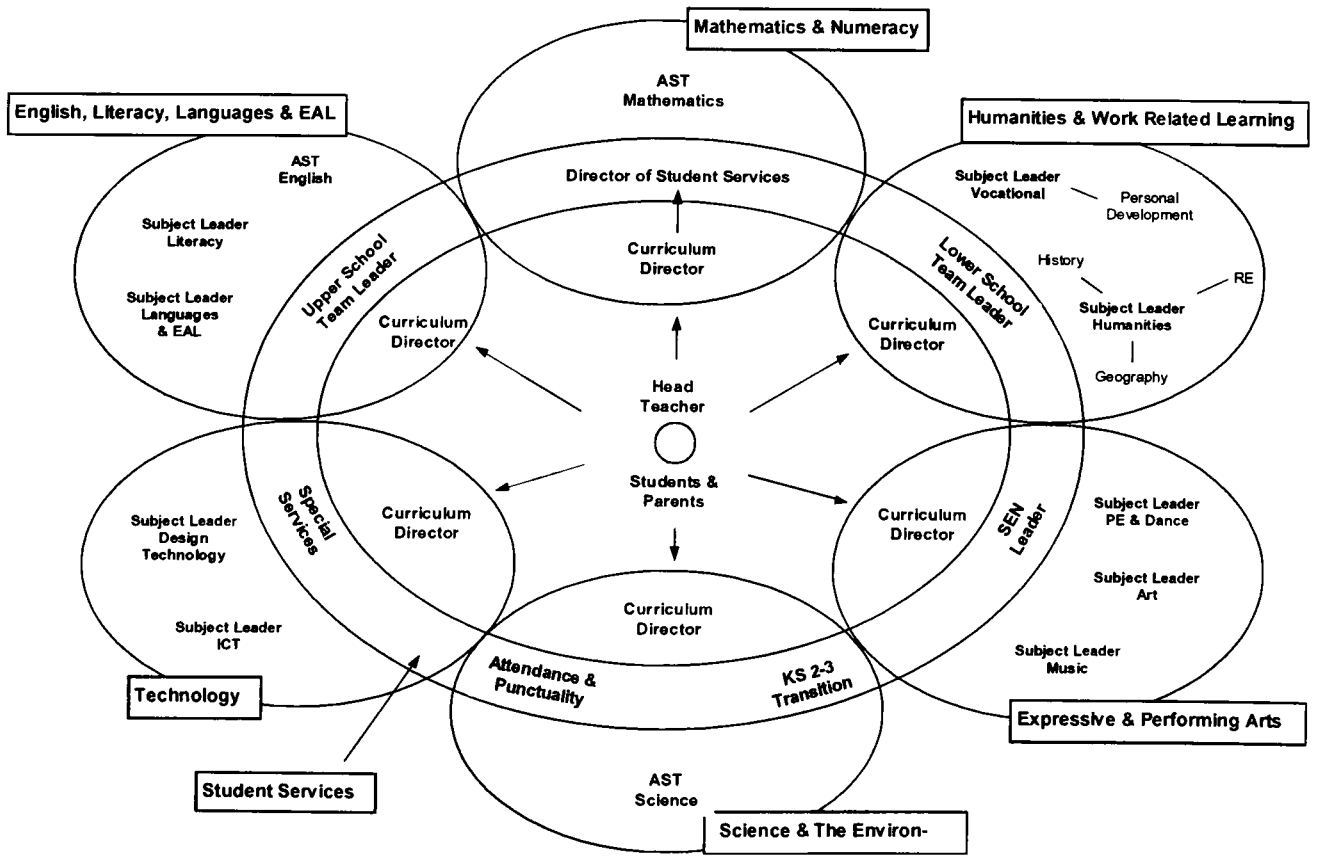

Figure 6.4: The Distributed Leadership Structure Employed in the Case Study School

A distinguishing feature of the Curriculum Director role is that it is based on three key principles: of being learning centred; focused on leading subject teams and directed towards the highest possible standards for children and professionals (National Standards for Headteachers, October 2004). The role requires high skills in management and proven and successful subject expertise. It also requires a strong commitment to using every opportunity to develop innovative approaches to learning and teaching.

The post of Director of Student Services formed a key aspect of the school's strategic response to raising achievement and actively promoting the personal development and wellbeing of all students as highlighted in the *Every Child Matters: Change for Children Programme,* particularly the five key outcomes. The school context demands a coherent and high profile approach to providing effectively for students individual and personalised learning needs as part of a developing extended school provision. The framework enables the school to meet existing statutory requirements and sharpening legal responsibilities under the Children Act 2004. This post subsumes and develops all student interventions, most notably in respect of: primary-secondary transition and mid-year admissions; SEN provision; Child Protection and safeguarding; attendance and punctuality and most importantly, existing and developing specialist services (e.g. school nurse, counsellor, health advisor, etc).

Given the robust requirements of these roles the posts are remunerated at Assistant or Deputy Headteacher level. Curriculum responsibilities sit alongside a range of whole school tasks, which are negotiated on an individual and school needs basis.

The model adopted (Figure 6.3) moves away from the traditional hierarchical structure to a more collegiate, mutually accountable approach to whole school

leadership. Consequently, *"Distributed leadership ensures collective responsibility for the impressive improvement the school has made... "* (OFSTED, 2008a: 7).

Members of the leadership team represent the embodiment of the headteacher's vision for the curriculum and pedagogy within a distributed leadership structure. Operational, collegial and pedagogical intelligences (MacGilchrist et al., 2004) are vital to success in these roles.

A study into departmental improvement in English (Cross, 2008) in the same school identified strong instructional leadership by the Curriculum Director as the defining improvement factor at subject team level, with the high degree of consistency in classroom delivery being dependent on strong leadership. This factor is commensurate with other research findings which show that strong whole school leadership (Sammons et al.,1995) and the *"... style of leadership of the head of department was the most important contributory factor to the success of the department"* (Harris, 2003). The success of the new distributed leadership model demonstrates that both are essential for success.

The complexity of the relationship between the leadership provided by the headteacher and curriculum directors is difficult to unravel but the synergy between the whole school and departmental improvement strategies is a vital ingredient, with the high status (deputy headteacher) and experience of the curriculum directors proving essential, given the challenging context. Curriculum Directors and the Director of Student Services work closely with the headteacher to drive up standards through implementing rigorously all the schools policies for learning and teaching; student behavior and quality assurance.

5: Bullying and Racism are taken seriously and Tackled Effectively

The school has adopted a zero tolerance approach to all forms of oppressive and hostile behaviour and this is widely communicated to staff, students and parents. A

calm and purposeful climate for learning coupled with excellent relationships provide the best possible atmosphere in which bullying and racism cannot exist. A great deal of effort went into establishing a school culture that celebrates diversity and positively encourages community cohesion. This was observed during an inspection which judged "*The school provides a culturally harmonious community based on mutual respect between students and with staff*" (OFSTED, 2008a: 5). Consequently, *"Students say they feel safe and that bullying is rare"* (OFSTED, 2008a: 5) but where it does occur, the matter is dealt with quickly and effectively in one of two ways. Firstly, serious transgressions result in exclusion from school. Secondly, in all cases a restorative meeting is held by a senior member of staff with the victim and perpetrator.

6: Recruit Good Teachers, Train them Well and Establish Effective Teams;

The need to appoint high quality teaching staff is well established in school improvement and effectiveness literature (Sammons et al., 1995) and this is particularly true in especially challenging contexts. The ability to manage student behaviour, to motivate and challenge students and to provide appropriate support are identified as key attributes that students expect their teachers to posses.

Strong leadership at the beginning of the improvement process, coupled with an inability to meet increased expectations, led to all but a few of the existing staff leaving the school quickly. Recruiting teachers to a failing school is never easy and so new appointments were, out of necessity, young and inexperienced. Many were Newly Qualified Teachers or from Teach First – high quality graduates that were trained in the school. Central to the improvement strategy in phase I was the provision of, good support, focused training on learning and teaching and knowing about and sharing good practice. The coherence of the school improvement strategy engendered a strong team ethos within subject teams and across the school. A second period of staff mobility as a direct result of the closure threats required the leadership of the school to continue to seek out and train young

teachers. This is a key feature of schools in disadvantaged areas and challenging schools.

Given the nature of the challenge, effective teamwork is essential and so *"... there has been a sustained focus on collaborative planning, peer and management lesson observation, along with regular sharing of good practice"* (OFSTED, 2008a: 7). This has led to the establishment of a culture of learning improvement that is a key feature of the school" (ibid, 2008a).

7: Staff Commitment to Improvement and Closing the Gaps

Great care is taken to appoint teachers who are prepared to engage with disadvantaged and vulnerable students and are committed to closing the gaps in achievement that are often deeply embedded in students' experiences when they arrive at the school, either in year 7 or as an in-year admission from another school. A commitment to high standards of achievement and to students' personal development and wellbeing are essential qualities and these are extended via all professional training and development opportunities provided by the school. High levels of grit and determination are critical antecedents required by all teachers in this environment.

Staff absence is low and the excellent progress made by newly qualified and inexperienced teachers has enabled the school to establish *"... a culture of learning improvement that is the key feature of the school"* (OFSTED, 2008a: 7). The fact that a large number of staff remained at the school during the political threats demonstrates that this factor is well embedded in the school's culture.

8: Develop Excellent Relationships

A commitment to promoting and sustaining excellent relationships between everyone connected with the school is closely linked with the critical factor that

requires students to be 'treated with respect'. This factor facilitates other factors, enabling them to be more effective than they otherwise might be. For example:

> *"Excellent relationships are evidenced between students and their teachers, with the result that many vulnerable pupils attend extra-curricular clubs, homework and revision sessions after school, Saturday mornings and during the holidays, which effectively supports increased levels of attainment"* (OFSTED, 2008b: 2).

Good relationships are based on trust and confidence and the notion that teachers will '*do what they say they will do'*. The very public demonstrations of teacher support for the community of students during the closure consultations provided ample evidence to students that staff respected them. Many students may not experience good relationships within their family units and consequently building relationships within the school environment provides them with an essential life skill they are not always consistently exposed to elsewhere.

9: The Provision of high Quality Extra Curricular Support for Examinations

A wide range of extra-curricular activities are provided to support students in preparation for coursework and public examinations. These take place after school, at weekends and during holiday periods. In addition, many subject teams provide trips curriculum visits, fieldwork, residential experiences and regularly bring speakers into the school.

Many students benefit from placing their learning in context. In response the school has attempted to 'trade' homework for engaging in other activities outside the classroom. Many subjects provide CD's with revision and extension activities that students can access at any time. This approach is based on the notion of homework as a largely unsupported and isolated activity that is essentially a 'middle class' construct. There is little academic research that unequivocally

supports its effectiveness in accelerating students progress and especially for those students who work best in groups with readily available access to feedback on their progress and to support in building their self-confidence.

The school timetable is periodically collapsed to provide time for PHSE activities, project work and work-related learning. Additional support is provided through the hidden curriculum.

10: Engender Positive Student Attitudes

Students' *"... moral and social awareness is outstanding"* (OFSTED, 2008a: 5). The school has relentlessly worked to foster positive attitudes to learning, behaviour and achievement and this has allowed students to play a vital and proactive role in the school improvement process. The shared responsibility and ownership all staff have for this aspect of care, guidance and support is *"... a strength of the school; exemplified by one student's remark, 'teachers boost us up"* (OFSTED, 2008a: 6). Motivation through a 'you can do this' approach and consistency amongst all staff are the important dimensions of this on-going process.

11: Students Must be Treated Fairly and with Respect

Traditionally, respect in schools has been confused with fear of authority or unquestioning loyalty. At the case study school respect is viewed much more as the manifestation of self-esteem and self-worth. Central to this, and the approach to the study, is a belief in students 'rights and responsibilities'. This requires showing respect for a person in everything the school does and in the language we routinely use. Respect is underpinned by a fundamental commitment to ethical considerations evident in how: equality of opportunity is viewed; power is exercised; self-esteem and personal confidence are promoted and developed and

mutual respect for and between all the children and adults is maintained (MacGilchrist et al., 2004).

Teachers have a pivotal role in establishing a culture of respect through the way they model good behaviour. Consequently, any manifestations of lack of respect (such as bullying, racism, etc.) are not tolerated. This is now expressed in a number of professional and personal expectations of teachers and students. Teachers are expressly required not to shout at, or touch, children. Transgressions are rigorously tackled by the leadership team.

12: Good Teaching through an Agreed Teaching Model

One of the first cornerstones of the whole school improvement strategy was to adopt an agreed teaching model based on the 'accelerated learning cycle' that provides coherence, pace and rigour:

> *'The cycle blends our developing knowledge of neuroscience, motivational theory and cognitive psychology to increase students' engagement in learning and the motivation to achieve. (Wise, 2003: 114)'.*

The school adapted the Accelerated Learning Cycle to produce an agreed structure for a 'Good Lesson'. This is, in effect, a four-part lesson plan that consists of: putting the learning into context; a starter activity; the main teaching and learning activities and a plenary. All teachers are required to plan their lessons using this model and lesson plans are checked before they are delivered. This model has been rigorously adopted by most subject areas to great effect. Most planning is now conducted on a collaborative basis, which provides for good professional development of inexperienced staff, reduces workload and enables the regular sharing of good practice. The use of ICT to enhance learning is used in all classes and the innovative use of interactive whiteboard technology has been particularly effective.

As a direct result of the generic lesson planning format, the curriculum is broken down into manageable chunks for students with a range of activities to support auditory, visual and kinesthetic learning styles. Learning objectives are shared with students so that they understand what they are being required to do. The well organised and tight structure of lessons, coupled with a tidy and motivating classroom environment, results in an ordered and predictable climate for learning.

13: Rigorous Monitoring, Evaluation and Planning

Routine, rigorous and robust monitoring and evaluation of standards, quality and effectiveness has informed the school improvement strategy and underpins the approach to planning and hence school improvement.

Monitoring encompasses the regular use of lesson observations and work scrutiny together with the analysis and interpretation of achievement data. Of equal importance, given its central focus in this study, is listening and responding to the views of students and parents. Evidence from staff discussions and 'walking the job' further inform judgements.

Self-evaluation involves making robust judgements at a subject, year, aspect and whole school level that will inform future strategies or elements of staff training. All staff with a position of responsibility are required to keep an SRSE folder of evidence and regularly complete a detailed evaluation report on their areas of work. This aspect of the work of the school has been formalised using a coherent framework (Banks, 2007) that includes self-evaluation tools and accompanying training. Credibility of judgements has been secured by triangulating school judgements against evaluative profiles derived from national standards as well as the views of students and the expertise of external consultants or advisors.

Action planning has been *"... linked well with the schools exceptional knowledge of*

its strengths and weaknesses" (OFSTED, 2008a: 7). In reality the action plan that has run throughout the whole of this study contains the factors extracted from students' perceptions.

14: Structured Lessons with Good Range and Quality of Activities

The generic four-part lesson structure based on the 'accelerated learning cycle' is deployed across the school. Consistently applied this ensures that students are exposed to the same lesson organisation in every subject. Where subject teams do not follow this lead the outcomes are less secure for students.

Across the school all classrooms are set out in the same way, with students grouped in 'fours' around desks that are set out as in most primary school classrooms. This facilitates group work and provides more space for the teacher to circulate. In the centre of every desk there are 'desk tidies' in which all necessary equipment is provided for students. Previously students rarely arrived at school with even a pen and the lack of equipment was a major barrier to learning.

At a whole school level, the decision was taken to make the quality of written work in exercise books a real priority. Consequently, all students are now provided with A4 exercise books and plastic covers. At the start of the year every teacher is responsible for labeling the front of his or her student's exercise books [Name, TG, Subject, Teacher, prior attainment and targets]. An expectations sheet is stuck into the inside cover of every students exercise book and exercise books are not allowed out of the classroom. Teachers place the books on the desk according to the seating plan before the lesson starts and at the end of the lesson students leave their exercise books in a pile in the middle of the desk. There are clear expectations of how work should be presented and these are specified in a similar manner to the minimum expectations of behaviour.

Students are exposed to a wide range of activities in lessons. The curriculum is broken down into small 'chunks' so that children can access learning in more easily manageable components. Activities are set in context and a variety of media are used to engage students. For example in English, 'ActivStudio' is used effectively with interactive whiteboards to present imagery in poems. Similarly, music and images are displayed to help students understand the context of examination texts. Most importantly, resources are shared amongst teachers and are adapted to cater for all learning types and to make learning 'fun' and active'. In most curriculum areas teachers have been resourceful in using curriculum trips, visits, external speakers and workshops led by external facilitators to bring the curriculum 'alive'.

15: Provide an Effective Climate for Learning

This aspect is about more than managing student behaviour. It is equally concerned with the organisation of classrooms and the provision of a purposeful climate for learning.

Effective behaviour management is founded on excellent reciprocal relationships based on mutual respect and the appropriate use of praise that helps to foster a good learning culture in classrooms. The cornerstone of the school's expectations of students is based on a set of 'Minimum Classroom Expectations', which is underpinned by the notion that:

- Everybody has a right to be safe (physical and psychological);
- Teachers have a right to teach;
- Students have a right to learn;
- Everybody has a right to be treated with dignity and respect.

Removing barriers to learning for students is the key to creating the conditions in which teachers can deliver high quality lessons. Evidence had previously shown (OFSTED, 2004) that in many classrooms students were in control of the learning

space and engaged in behaviours that were socially orientated. Removing a finite and easily identifiable group of such behaviours was identified by the Leadership Team as a key focus for attention.

Minimum Expectations

- No hats or coats;
- No MP3 players or other electronic devices;
- No mobile phones;
- No gum or food;
- No swearing or rudeness;
- No name calling or cussing [including racist, sexist or homophobic language];
- No throwing things;
- No behaviour that stops learning;
- No calling out;
- No physical contact.

Figure 6.5: Minimum Expectations to Remove Barriers to Learning

All of the behaviours referred to in Figure 6.5 are indicative of the 'street culture' previously brought into school by students. Eradicating such behaviours has put teachers back 'in charge' of the classroom environment. A more detailed and positively phrased school code of conduct and the minimum classroom expectations are displayed in all classrooms, on the front of every student's exercise book and in the home-school planner. This enables teachers to reinforce them as often as necessary. Greater consistency has been gained as a result of communicating expectations widely. The fact that these expectations are so clear and simple has ensured that almost all students engage effectively.

In order to provide an attractive learning environment, teachers are expected to keep classrooms neat, tidy and free from graffiti and litter. A seating plan is provided for every class. Learning groups are arranged to avoid social groupings and groups are regularly rotated to allow for development of relationships. Taken together with good quality display work and well planned lessons; teachers are able to provide a high quality climate for learning.

16: Teachers Model Good Behaviour and Attitudes

The manner in which good behaviour and positive attitudes towards learning are modelled at all levels is essential to building social capital and developing positive family education cultures that lie at the heart of engaging meaningfully with the communities we serve. The way that teachers present themselves as role models in terms of dress, attitudes, work ethic, high quality teaching and other aspects of professional practice lie at the heart of our approach to care, guidance and support. Where the schools expectations of staff are not met they have been rigorously tackled. Examples include teachers who repeatedly shout, engage physically with students or do not respect equality of opportunity issues.

This approach is typified by an expectation and state of mind that all teachers 'go the extra mile for students' in everything they do in the school. This includes one-to-one support for emotional and academic issues as well as extra-curricular activities.

17: Effectively Manage and Respond to the External Context

During the study students linked engagement with the context as an important aspect of leadership due in the main to the fact that they have seen the headteacher and senior staff publicly engaged in a fight to save their school from closing.

This requires the school to be expert at understanding its internal context through an *"excellent understanding of and relationship with the pupil population"* (MacGilchrist et al., 2004: 123). However, no school is an island and the school must have a detailed understanding of the communities it serves and an awareness of local opportunities and challenges that exist. Successful partnerships with local external agencies such as the police, local community groups, the health service and local businesses reinforce the notion of the school reaching out into

the community. An important aspect of the work of the school has been to respond to every external complaint about the behaviour of students in the local community. This further builds trust between the school and all sections of the community.

The relationship between the school and the local authority proved to be one of the greatest challenges for the school during the period of the study. Relationships between the headteacher and most areas of the LA remained strong and secure. Ironically it was the local authority's school improvement service that most strongly supported, or were seemingly ineffective at heading off, the Council's attempts to derail the school's improvement efforts.

A far greater challenge for the school was, and remains, to interpret the national educational policies in ways that do not detract from the school's core vision and beliefs. This requires the confidence and creativity to translate national initiatives in ways that strengthen rather diminish the schools educational offer (MacGilchrist et al., 2004). This is not an easy task when Government policies often challenge ethical intelligence as described by MacGilchrist et al. (2004).

The school's general approach to boundary management has been to do 'what is right' for the students and communities we serve, drawing on the ethical intelligence that is implicit in our vision for the school.

18: Ensure Small Largely Mixed ability Classes

The curriculum and staffing are carefully planned and monitored using an EXCEL spreadsheet developed by the headteacher. This ensures the most efficient match of teachers to curriculum need. However, a conscious decision has been made to ensure that every class has a specialist teacher in the relevant subject and that the majority of the staffing budget is invested in teachers rather than support staff. This enables staff to have low teaching loads and students to be distributed in smaller (~20) classes than would normally be expected. This is commensurate with the

focus on learning and teaching and developing excellent relationships associated with other factors.

With the exception of some setting in Mathematics and Science, students are overwhelmingly taught in mixed-ability classes. This ensures equality of access to the full curriculum and avoids grouping by behaviour that is so prevalent with other modes of grouping.

19: Ensure High Expectations in Every Aspect of School Life

Consistency and high expectations are vital ingredients of all school improvement efforts and students indicated that this was particularly true of the journey to 'outstanding' practice in the case study school.

Quality assurance has a strong aspect of relentless challenge of students and staff to attain high standards in every aspect of school life. In respect of students this includes lateness, absence, uniform, behaviour and language together with the presentation and quality of work. For staff this includes tasks like lesson planning, how they present themselves in the classroom and how they meet the expectations of them as role models for students.

The best practice in this area comes from senior staff 'walking the job' and challenging staff and students to perform to the highest levels they possibly can. Of course, the preponderance of newly qualified staff means that this does not happen automatically. Consequently, training in how to model high expectations for disadvantaged students is essential. High expectations emanate from the top and starts with the headteacher.

20: Student Tracking, Feedback and Intervention

Students have identified having 'good feedback on their progress' and knowing 'what to do to improve' as key factors in improving outcomes. Consequently it

comes as no surprise that *"Tracking and supportive interventions are exemplary"* (OFSTED, 2008a: 4).

Research shows that where assessment is used formatively there are significant improvements in attainment. (Black and Wiliam, 'Inside the Black Box', 1998). Planning is therefore focused around: sharing learning objectives so that students know what they are expected to have learnt by the end of a lesson and establishing success criteria (or learning outcomes) through sharing best work with students. Consequently students are now confident in identifying features of good work so that they know what success will look like and know exactly what to do to reach each grade or attainment level. In order to reinforce expectations in lessons teachers relate their questioning and feedback to students to the intended learning outcomes. The setting of challenging tasks in lessons with teachers constantly demanding students to produce their best work, has had a significant impact on student attainment. Students feel they are being stretched and in turn engagement is significantly enhanced.

The school has developed "... *robust and sophisticated systems for tracking students' academic and general progress"* (OFSTED, 2008a: 6) based on EXCEL spreadsheets. Trackers enable staff to "... identify *students' needs early and put in place targeted support* (ibid., 2008a: 6). This motivates students to improve and complete further work. Furthermore, "*Detailed termly reports inform parents well and enable students to receive feedback and assess their progress in reaching their targets"* (OFSTED, 2008a: 6). Most departments have also developed subject trackers to monitor progress with GCSE coursework and progress throughout the National Curriculum at a teacher and student level. Additionally, *"Yearly targets are displayed on the front cover of all exercise books"* (OFSTED, 2008a: 6). Teachers also use verbal praise effectively to motivate students.

Interventions may take a number of forms. These include extra-curricular catch up and revision support, as contained in sub-factor 9, as well as special needs and English as an Additional Language support. Emotional and behavioural support is provided by the Student Services team in the form of counselling, the school nurse, one-to-one guidance and access to a range of external agencies. It is recognised that tracking and intervention must be taken to another level as a result of the increasing levels of multiple disadvantage and our commitment to improving 'Key Outcomes' for all and particularly the most disadvantaged students.

21: Parents Kept Informed of Students' Progress

High priority has been given to involving parents as partners in the education of their children. This involves regular contact with home, primarily via short phone calls - both good and bad. This includes first day follow-up to absence from school.

When tackling more complex issues, parents are encouraged to come to the school to talk through problems. The most common issues reflect the nature of the communities we serve and include: enabling parents to effectively parent their teenage children; emotional and behaviour problems; poor progress in learning and other social issues not directly connected with schooling, such as housing and metal health problems. Teachers are encouraged to listen to parents and dialogue is always conducted with respect and concern for the child and the family context.

Detailed termly reports are supported by academic reviews days that ensure a developing dialogue with students and parents about achievement and attainment. Parental support was galvanised during the fight against closure and they are now kept informed through termly or half-termly newsletters and letters about specific activities, explaining key events and celebrating success of the school or their child.

(b) The effect, size and specific combinations of sub-factors that impact most on school improvement

This section considers the relationships between factors and sub-factors in the statistical models derived in Chapter 5.

An analysis of the confirmatory questionnaire completed by 104 students using Principal Components Analysis (PCA) and Principle Axis Factoring (PAF) strongly supports the extraction of a single factor explaining 45% of the total variance in student perceptions of what had 'caused' improvement. This is consistent with the hypothesis that a linear combination of all 21 school improvement variables can be used to represent a single coherent school improvement model.

This is further supported by views expressed by many student participants in the open-ended part of the confirmatory questionnaire and the focus group interviews (conducted with staff, students and parents) that *"it's all been covered"* in the 21 statements. One of the most notable findings was that the highest loadings on this single factor are specifically related to teachers' direct contribution to student progress.

Standard multiple regression revealed that all 21 variables in the school improvement model together do significantly predict school improvement explaining 62.4% of the variance in student perceptions of the causes of school improvement. The overall regression equation can be represented[3] as follows:

Improvement =

1.232 + 0.570 x ∑strong leadership of HT + 0.257 x ∑environment & resources -- 0.240 x ∑relevant curriculum – 0.294 x ∑senior staff focus on learning – 0.095 x ∑tackling bullying & racism + 0.043 x ∑recruiting good teachers –

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[3] The ∑ sign is used appropriately in this equation to represent the sum of all the interventions related to each variable.

0.219 x ∑staff commitment to improvement + 0.218 x ∑relationships – 0.166 x ∑extra-curricular support + 0.069 x ∑positive student attitudes + 0.266 x ∑students treated with respect + 0.013 x ∑good teaching – 0.026 x ∑school monitoring + 0.131 x ∑structured lessons – 0.038 x ∑behaviour management + 0.226 x ∑teachers modelling behaviour – 0.326 x ∑dealing with external threats + 0.143 x ∑small group size + 0.020 x ∑high expectations + 0.033 x ∑ feedback to students + 0.116 x ∑parents kept informed

The strong leadership of the headteacher had the biggest impact on improvement and was the sole predictor of school improvement at the p=.01 significance level. However, using a less rigorous significance level (p<.05) then three further independent variables (senior staff focusing on learning and achievement; students being treated fairly and with respect and the effective management of external threats to the school) do significantly predict improvement. From this point forward, these will be referred to as the **'critical predictor variables".** Together these form the antecedents that provide the conditions in which rapid school improvement can take place.

A further regression analysis using only the critical school improvement variables revealed that a linear combination of these four variables can be used to effectively predict improvement and explained 51.6% of the variance in school improvement. In this case the regression equation can be represented as:

Improvement = 0.285 + 0.587x∑Headteacher_Leadership + 0.276x∑Subject_Leadship + 0.220x∑Respect_for_Students + 0.284x∑Threats_Defence

Taken together the critical predictor variables in the 'reduced' school improvement equation are commensurate with Leithwood and Steinbach's (2003) notion of emancipatory leadership. More specifically, these variables point to school improvement in especially challenging contexts being underpinned by a leadership style focused on 'battling for children'.

The analysis conducted in Phase I of the study strongly implied that the 21 variables were part of a three-factor solution. Although PCA suggested that a single factor solution was most appropriate in phase II, there was evidence from both Kaiser's criterion and Cattels scree test to support a less rigorously justified four-factor solution. In other words the 21 variables could be reduced to four underlying sub-factors within a single factor solution. On this basis an attempt was made to refine the structure of the conceptual model using Principle Axis Factoring. Four factors were extracted and can be interpreted as: high quality learning and teaching; the development of a committed community of teachers; strong whole school leadership and the development of a positive learning culture.

Multiple regression, using Anderson-Rubin generated factor scores, demonstrated that 38% of the variance in school improvement can be explained by the four extracted factors. Three of the factors (learning and teaching; teacher commitment and effective whole school leadership) contributed significantly ($p<.01$) to students' overall perceptions of improvement. The regression equation was:

Improvement = 7.506 + 0.906 x ∑Quality of Teaching & Learning + 0.430 x ∑Commitment of Teachers + 0.544 x ∑Strength of Whole School Leadership + 0.042 x ∑Quality of the Learning Culture.

This equation effectively provides the relationship between the 4 levels in the PAF generated model. Open-ended questionnaire responses from the 104 respondents strongly showed the importance of people (the headteacher, teachers, students and parents) and their combined fight to stop the closure of the school to the improvement process.

The findings from the detailed interviews with a stratified random sample of students, teachers and parents further confirmed that the 21 factors underpin the rapid improvement but the emergent themes can be easily categorised under the

headings: leadership; learning and teaching; the context and cultures and ethos. Consequently, the evidence is commensurate with a four- level model as initially proposed by Creemers (1997). These four levels can be defined as being context, whole school leadership, the classroom, and individual and are consistent with the four predictor variables of improvement identified by the multiple regression analysis.

It should be recognised that the school improvement factors and sub-factors have been identified in this study from an analysis of students' perceptions of what has caused improvement. Whilst this provides an invaluable insight from the student's perspective, this approach has a limitation that the variables are located where the impact of the factor is measured from the student's perspective. When attempting to determine a conceptual improvement model we need to map these student perceptions onto where the improvement will be initiated.

(c) Additional school improvement factors

It was important to consider possible school improvement factors that may not have emerged from the analysis of students perceptions. Only one significant sub-factor comes into this category:

Develop Partnerships to Support Students at Risk of Failure (22)

Although supporting students at risk of failure is mentioned in the literature, this was not a variable that students could make an effective judgement on. Hence it is added at this stage. Regardless of how effective the school becomes, the context and levels of multiple disadvantage dictate that it may not be able to meet the needs of all of its students. This discrete variable therefore emerges from factors 20 and 21 and has formed an important aspect of the school. When the school tracking systems determine that a student is at serious risk of underachieving the school has become expert at seeking out appropriate alternative educational

opportunities. Almost invariably these opportunities lie outside the school. Examples involve managed moves to the local PRU, buying placements at centres that offer more appropriate 'wrap around' support that includes a more vocational curriculum and family therapy support and 'not school dot com'. The aim of these alternatives is to keep students within the educational system in some form and is the ultimate embodiment of our approach to intervention.

6.4 A Conceptual Model for Especially Challenging Urban Schools

Potter et al (2002) have identified the need to develop a multilevel school improvement model for schools in challenging circumstances. Similarly, researchers in the area of educational effectiveness have long attempted to develop a theoretical multilevel framework (Creemers, 1997; Goldstein, 1987). More recently, following a critical analysis of the current models of educational effectiveness research, Creemers and Kyriakides (2006, 2008) conclude that:

> *"... a dynamic model of effectiveness must: (a) be multilevel in nature; (b) be based on the assumption that the relation of some effectiveness factors with achievement may be curvilinear; (c) illustrate the dimensions upon which the measurement of each effectiveness factor should be based, and (d) define relations among the effectiveness factors"* (Creemers and Kyriakides, 2006).

Although this study is about school improvement in especially challenging contexts, I will use these four key requirements identified by Creemers and Kyriakides (2006, 2008) from within school effectiveness research to establish the nature and structure of a conceptual multilevel school improvement model using the findings from this research and relevant literature in the field.

(a) A Multilevel Structure

Determining the overall structure of the model is dependent on identifying the number of levels and knowing what they represent.

The findings from the study require some detailed consideration here. The initial PCA conducted in phase I provides secure evidence for the extraction of three components which are commensurate to three levels in a possible school improvement model. These were interpreted as: leadership at the whole school level; learning and teaching in the classroom and school culture. During this phase it should be noted that school improvement efforts were largely focused on the internal conditions in the school.

In Phase II of the study, PCA strongly suggests the extraction of either one or four factors. The most rigorously argued single factor solution strongly confirms that there are 21 school improvement variables in our model. The less rigorous Kaiser's criterion and Cattels scree test support the extraction of four factors. Whilst learning and teaching and leadership can be interpreted as two of the factors, the other two factors can be interpreted as learning culture and the commitment of teachers. Taken together these two factors can be interpreted as a single factor identified by Leithwood and Steinbach (2003) – the notion of developing a learning community, of which the professional learning community is a subset. I argue here that since we were measuring student perceptions, they will have observed dealing with the context as an aspect of the strong leadership of the school rather than a separate factor.

Multiple regression analysis in Phase II demonstrated that taken together the 21 school improvement variables do significantly predict improvement. This analysis identified one predictor of improvement at the $p=0.01$ level (leadership of the headteacher) and three further predictors of improvement at the $p=0.05$ level

(senior staff focusing on learning and achievement; students being treated fairly and with respect and the effective management of external threats to the school).

The single predictor variable is commensurate with strong leadership that ensures the overall coherence of the school improvement model. This supports the extraction of a single factor as determined in Phase II from PCA. Using the less rigorous significance level, the four predictor variables (leadership of the headteacher, senior staff focusing on learning and teaching, respect for students and dealing with external threats to the school) can be seen as indicators of broader factors that further suggest four levels, namely: leadership, learning and teaching, ethos and relationships and responding to the context.

The extracted themes from the detailed interviews with students, staff and parents clearly demonstrate that the school improvement factors can be grouped under four headings:

- The community pulling together under the threat of closure;
- Strong leadership of the headteacher;
- Improved learning and teaching;
- Culture and ethos.

Consequently, the findings from this study strongly suggest that there are 22 school improvement variables that can be grouped within four levels that are located within a single coherent theoretical model. It is particularly useful at this point to refer back to the findings from the literature. We have already identified the surprising degree of convergence over findings and in respect of identifying levels within a possible model, These points are summarise in Table 6.1.

As part of an 'empowerment' approach to school improvement against the odds, Wrigley (2006) suggests five complementary aspects of school life: Curriculum;

Table 6.1: The Convergence of Study Findings and the Literature in Determining the Number of Levels within the Derived School Improvement Model

← Literature Findings →						← Study Findings →				
Sammons et al (1996) 11 Factors of Effective Schools	**Improving schools in challenging contexts**	**McGilchrist et al (2003)** 9 Intelligences	**Creemers (1997)** Model of School Effectiveness Levels	**Wrigley (2006)** Complementary Empowerment Aspects	**Convergent Levels**	**Phase I PCA** (Focus on internal conditions)	**Phase II PAF Factors** (Focus on external context)	**Phase II Single Factor Variables** (Based on single factor solution)	**Phase II Multiple Regression Predictor Variables**	**Focus Group Themes** (Parents, students & teachers)
		Contextual	Context : Students, Community and Political.	The Wider Community	**Context**			Threats to the school are managed effectively	Threats to the school are managed effectively	Context
High Expectations; Monitoring Progress; Vision & goals; Professional leadership.	Leadership	Operational Systemic Ethical Spiritual	Whole School	Idiosyncratic & Creative Leadership	**Leadership** ***(Whole School)***	Leadership	Leadership		Headteacher Leadership	Leadership
Learning & Teaching; Purposeful Teaching; Positive Reinforcement; Quality Learning Environments.	Learning & Teaching	Pedagogical Reflective	Classroom	Curriculum Pedagogy	**Learning & Teaching** ***(Classroom)***	Learning & Teaching	Learning & Teaching	Good teaching Class size Extra support; Student behaviour Lesson planning Student tracking Relevant curriculum	Senior Staff Focus on Learning & Achievement	Learning & Teaching
Home school partnership; Learning organisation; Pupils rights & responsibilities.	Culture	Emotional Collegial	Individual	Culture: Ethos & Relationships	**Ethos & Relationships** ***(Individual)***	Personal Development	Staff Commitment Student Attitudes	Tackling bullying & Racism; Committed staff Good relationships Student attitudes Student respect Modelling high expectations Parents informed	Students treated with respect	Culture & Ethos

Pedagogy; Ethos (internal relationships); the wider community and Leadership and the process of change. By combining curriculum and pedagogy, these five aspects can be seen as commensurate with the four levels identified in Creemers (1997) and Creemers and Kyriakides (2006, 2008) multilevel effectiveness models: context, school, classroom and individual.

Furthermore, although they were not seen as mutually independent, it is not difficult to locate the nine distinctive intelligences identified by McGilchrist et al (2004) and the 11 factors of effective schools (Sammons et al., 1996) within a set of headings that are commensurate with a four level model. The findings from school improvement in challenging circumstances (Chapman and Harris, 2004; Harris and Chapman, 2002; Leithwood and Steinbach, 2003; Muijis et al., 2004; Potter et al., 2002; West et al., 2005) can also be catalogued within a four-level model and is convergent with the multilevel school improvement notion sought by Potter et al., (2002).

School review and self-evaluation procedures have played a significant role in monitoring and planning improvement within the case study school. We used an evaluative framework (Banks, 2007) based on three key dimensions of Standards, Quality and Effectiveness that in turn are broken down into 21 key indicators of performance and linked to specific context indicators, including the views of students, parents/carers and other key stakeholders.

This framework enabled us to focus directly through a shared framework on analysing forensically and systematically the evidence and determining in precise terms the steps for targeting how improvements would be carried forward. These were grouped under the following broad headlines:

i. **Context:** issues, including how various stakeholders view the school;
ii. **Standards:** outcomes, including attainment and achievement levels and all aspects of students' personal development and well-being;

iii. **Quality of Provision and Students' Experience:** focusing on learning and teaching; assessment; the curriculum; students' care and welfare; partnerships and resources.

iv. **Effectiveness:** principally of governance, leadership and management.

These dimensions matched exactly the three internal school levels (ethos and relationships, pedagogy and curriculum and leadership, respectively) of a multilevel model and also, the three distinct aspects of context in relation to the school. Whilst definitions may vary, it again seems reasonable to catalogue improvement strategies under four headings. From a practical point of view this is important as it opens the way to link improvement factors within a single coherent school improvement approach.

We can therefore conclude that a detailed multivariate analysis of the quantitative data in this study, together with focus group interview responses and reference to the literature, strongly suggest that four sub-factors can be identified that in turn can be interpreted as four levels located within a single coherent theoretical multilevel model.

(b) The relationship between improvement factors and achievement

Student perceptions of improvement rather than actual achievement for individual students were employed. However, the question posed by Creemers and Kyriakides (2006) is still pertinent since we are using students' perceptions as a 'proxy' measure of overall improvement. The assumption that the relationship between some of the improvement factors and achievement may be curvilinear is not borne out by this study.

An analysis of the distribution of student scores on the dependent variable and each independent variable showed no significant deviation from the assumptions of normality, linearity, homoscedasticity and independence of residuals that are required for effective multivariate statistical analysis. Consequently no variables

had to be transformed to reduce skewness in the original distributions. Hence, there was no significant evidence that the relationship between school improvement factors and student perceptions of overall school improvement are anything other than linear in nature.

(c) The dimensions upon which the measurement of each effectiveness factor should be based

In order to measure school improvement effectively, a broader definition of achievement such as that proposed by Hargreaves (ILEA, 1984) was used rather than the narrowly defined measures (such as attendance, punctuality, exclusions and test and examination scores) that school effectiveness has become very adept at measuring. The influence of school effectiveness on the national policy agenda in England has also led to the use of a basket of effectiveness criteria by OFSTED to measure the effectiveness of schools on the a-priori assumption that these same criteria are in some unspecified way translatable to a menu for school improvement. This questionable orthodoxy has been used to drive the approach to OFSTED monitoring inspection for schools in difficulty and certainly those working in challenging contexts. What has been demonstrated is the paucity of these assumptions when confronted with different ways for leading and managing schools to more sustained and sustainable patterns of improvement.

One particular concern of school effectiveness measurement of attainment is that of grading. Students achieving the same grade or level on a test or examination may have scored vastly different in terms of their raw score mark they achieved due to the placement of grade boundaries. Many consider that value-added measures have improved things but again grading has a disproportionate impact on how schools are judged. There is no better example of how the 'system' is biased towards more high attaining schools than the issue of truncated level boundaries at Key Stage 2. High achieving, and hence more likely to be advantaged, students at age 11 cannot achieve more than a level 5 – even if they are achieving well above that level. This means that schools with significant

numbers of such students will be significantly advantaged at secondary school level because higher levels are already 'in the children' they have just not been measured. This is compounded by the fact that the examinations system is so error-ridden that it is "inevitable" some pupils will get inaccurate grades (Newton, 2005). In particular, *"Marking was not completely reliable"* with *"as many as 30% of 11 year olds gain(ing) the wrong marks"* (ibid., 2005). This has significant implications for Contextual Value-added (CVA) measures that were introduced to enable schools with disadvantaged cohorts to be measured on a more level playing field.

The current CVA formula further disadvantages school with significant numbers of students with multiply disadvantaged and vulnerable students. For example the formula does not distinguish between EAL stages, with a first stage learner gaining the same points in the formula as a child speaking near perfect English.

Similarly when OFSTED use pre-determined school effectiveness criteria to judge a schools effectiveness they are heavily influenced in all other aspects by the schools overall attainment as measured against national performance norms. OFSTED inspectors therefore arrive at a 'best fit' judgement against each performance criteria rather than a cumulative score of the impact on each student. OFSTED's own data shows a strong positive correlation between student attainment and other judgements (for example leadership and teaching and learning), even though many aspects of the context (prior attainment of students, attendance, punctuality and other measures of social circumstance) are almost entirely outside the school's direct control. Furthermore, OFSTED criteria are largely subjective and open to interpretation and hence inspectors retreat back to what can easily be measured – cumulative attainment of students. So although it is blatantly unfair and unsound to measure the effectiveness of schools on the basis of the aggregated performance of its students in test and examinations – this is precisely what happens in practice.

Hargreaves four aspects of achievement have stood the test of time (MacGilchrist et al., 2004) but with the exception of aspect one, which refers to capacity to remember and use facts; we have a long way to go in measuring the other three. Even the more recently implemented value-added and contextual value-added measures are based on too narrowly defined measures and are notoriously unreliable as measures of effectiveness. Since there remains no clear consensus on the purpose of education it is important that each school is clear about the criteria by which they assess their own effectiveness (MacGilchrist et al., 2004). The requirement for schools to seek stakeholder's views is potentially a positive step forward and it is hoped that the methodology used in this study will be a particularly useful example of this genre.

However, current examples of seeking stakeholder views are notoriously poor – witness the OFSTED parent's questionnaire. Poorly constructed questions (e.g. my child receives the correct amount of homework) are supplemented by a flawed ideology – how can parents make a judgement, however basic, about the teaching or leadership when they aren't present in the school all day and are not direct recipients of the service provided. All of these issues point to the role of students in making authentic and informed judgements based on their direct experience.

Consequently, a more holistic measure of improvement is required rather than narrow, easy to measure achievement or attainment scores. Hence, it was decided from the outset of this study to use a dependent variable, namely students' perception of overall improvement using a scale of 1-10 that measures the full spectrum of improvement factors and performance indicators. Student perceptions were also used to measure the impact of improvement factors using a seven-point semantic differential scale. This approach has the benefit of measuring impact on students across the widest possible range of improvement and effectiveness criteria. Using the same dimension (student perceptions) for all improvement factors also allows for the impact of these variables to be compared.

(d) Defining the Relationships amongst the Improvement Factors

The tightness and coherence of the derived multilevel school improvement model can be better represented by adapting the graphical presentation of the model as shown in Figure 6.6 and then locating it within a wider theoretical framework that will be discussed in section 6.5.

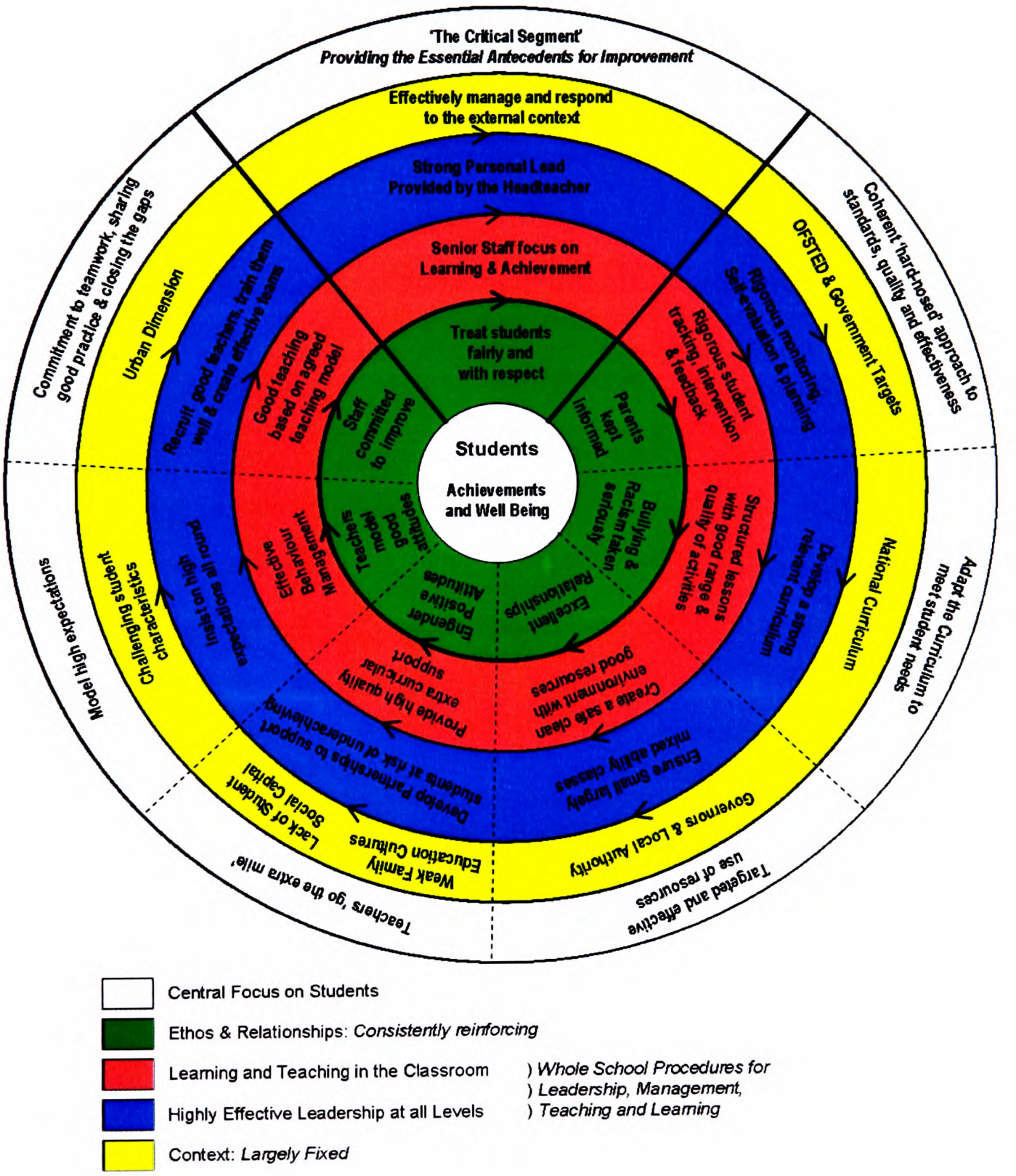

Figure 6.6: Transforming an Especially Challenging Urban School against the Odds: A Multilevel Conceptual Model for Improvement based on a Multivariate Analysis of Student Perceptions

The multilevel aspect of the model is defined by different coloured concentric rings that represent the four factors identified in this study, namely: context, whole school leadership, learning and teaching in the classroom and ethos & relationships. Since the focus of improvement has been exclusively on students, they naturally lie at the centre of the model. The variables contained in the model have a synergistic relationship in which levels and the sub-factors within them are interdependent. The model is further subdivided into seven sectors. Whilst this subdivision did not form part of the initial model that was tested in phase II of the study, it does help to explain some overlapping loadings on factors extracted using Principal Axis Factoring. Furthermore, they are logical in terms of how they were put together as an integral part of the strategy used by the leadership team of the school during the improvement process.

Of most significant importance is what I will term the 'critical sector' at the top of the diagram which contains the four predictors of improvement, one at each level, identified using multiple regression of the 21 independent school improvement variables on student perceptions of school improvement. Together these four variables highlight the key points of intervention and consequently comprise the essential antecedents required for sustainable improvement.

In combination with the cumulative impact of the variables in the inner green circle, comprising the variables related to ethos and relationships within the school, the 'critical sector' drives all other school improvement efforts at each level and between each level. The other aspects of the model mean nothing, if they are not constantly reinforced by this central and dynamic core of the school's work.

What is different about this model is the dynamic, rather than static, nature of the relationship between the variables and the levels. Each ring (equivalent to a level in the model) is like a flywheel that is constantly spinning and hence arrows are shown to denote movement. The inner green ring is turning fastest with each ring moving outwards turning progressively more slowly. The outer 'contextual' yellow

circle remains largely fixed in the model because it cannot be changed and defines the reality of the day-to-day situation in which the school operates.

The derived model does more than support the Creemers and Kyriakides (2006, 2008) and MacGilchrist et al. (2004) assumption that it should be dynamic; it does so here by explaining the crucial nature of the dynamic relationship between variables, levels and sectors.

There is another aspect of dynamism present here. Schools are never static, they are *"... ever-changing, organic institutions"* (MacGilchrist et al., 2004: 28). This study has identified at a particular point in time the size and effect of the variables in the new multilevel model but the size and relationship between the variables can and will change over time as both the internal and external context changes. Initially this has been developed as a school improvement model but due to the link with the 11 factors of effective schools (Sammons et al., 1995), a powerful case is made for arguing that this model is sustainable and has the real and practical potential to be developed into an effectiveness model for schools in challenging circumstances. This approach requires an understanding that in such challenging contexts, effectiveness, improvement and inclusion become synonymous.

The green ring is concentrated on values and beliefs and is focused on the development of a learning community – of teachers as well as the wider community comprising students, parents and the local community. The red and blue rings are essentially underpinned by processes and structures. These are without substance without the constantly reinforcing nature of the rotating green ring which binds the whole model together. Not to be underestimated, is that it is a powerful reminder that students and their learning is the core of the whole enterprise.

The model derived from this study differs in nature and scope from that suggested by Creemers' (2003) and Creemers and Kyriakides (2008) multilevel educational effectiveness models, in that it is not hierarchical. Levels are not independent or

mutually exclusive of each other. The school improvement variables are bound together in one simple coherent and easy to communicate framework in which there is an interdependent and synergistic relationship between all levels and sectors in the model. The distributed nature of the leadership arrangements in the case study school is indicative of this approach.

Unlike Creemers' (1997) and Creemers and Kyriakides (2008) model of school effectiveness, this model focuses on people rather than structures and procedures. An essential ingredient of the school's improvement strategies was the development of people: enhancing leadership capacity, building student's social capital, providing 'on the job' training for new and experienced teachers and fostering parental education cultures. Teachers who consistently model appropriate behaviours and insist on high expectations provide the glue that binds it all together.

The model is predicated on a tight multilevel approach that requires a synergy between school improvement efforts at the context, whole school, classroom and individual level. The school improvement factors contribute to an approach that focuses on the school improving consistently over time.

Is the conceptual model developed equally effective on the basis of gender, ethnicity and social circumstance?

The school has a growing number of vulnerable students with multiple disadvantage on roll, with approximately 40% of students entitled to free school meals. The proportion of students from minority ethnic backgrounds is well above average, the largest proportions of whom are Black Caribbean and Black African heritages. There is an above average number of students for whom English is not their mother tongue, with increasing numbers at an early stage of learning English. The proportion of students with learning difficulties and/or disabilities, and the proportion of those with a statement of educational needs is above average. Many students face *"considerable social challenges"* (OFSTED, 2008a: 4). Given the

characteristics of the students, equity, inclusion and social justice are key aspects of our vision. It is therefore vitally important that any derived school improvement model is equally effective across all micro populations of students.

Student perceptions of improvement over the period of this study rated highly with a mean of 7.51 (on a scale of 1-10). Furthermore, when controlled for gender, ethnicity and social circumstance (as measured by FSM) there was no significant difference in how students rated improvement in the school. This strongly suggests that school improvement efforts have had a similar impact across all sections of the student population as represented by the sample. This is supported by RAISEonline data (DCSF, 2008) that shows no significant difference in standards of attainment or achievement levels for the same micro populations at the end of Key Stage 4. Furthermore, OFSTED (2008b) judged the schools effectiveness in meeting the Every Child Matters agenda and to promoting equality of opportunity to be 'outstanding'.

A multivariate analysis of variance showed that there were no significant differences in students' responses to the four predictor variables derived from multiple regression when controlled for gender, ethnicity and social circumstance. This further supports the emancipatory nature of the improvement model highlighted by OFSTED (2008a: 4) which stated that the school *"... is vision led ... and is particularly successful in meeting its stated aim of breaking the link between social disadvantage and student achievement".*

Furthermore, Multivariate Analysis of Variance confirmed that there were no significant differences in students estimated responses calculated using Anderson-Rubin generated factor scores used to establish the relationship between the four sub-factors extracted in phase II on the basis of gender, ethnicity or social disadvantage.

We can therefore conclude that the conceptual multilevel school improvement model is equally effective across all sections of the student population.

6.5 A new Theoretical Framework (Paradigm) for Challenging Schools

When considering the implications of the study for current theory it is necessary to examine why both the dominant paradigms of School Effectiveness and School Improvement deal inadequately with schools in challenging circumstances' (Wrigley, 2006) leading to the *"theoretical and practical inadequacy of recent interventions"* in such contexts (Harris et al., 2006). A number of limitations shared by both school effectiveness and school improvement have been raised in the literature (Wrigley, 2006) and these can be summarised as follows:

- They have both ignored alternative traditions of school reform and educational change;
- School Improvement has adopted the outcomes prioritised by the state and those that School Effectiveness has become skilled at measuring;
- There is a lack of understanding of what constitutes the mix and size of school improvement factors;
- Few studies have considered how schools in challenging contexts interact with their communities;
- Neither has paid adequate attention to pedagogy and both are almost silent on the issue of curricular and educational aims and priorities.

Until recently school improvement writers have neglected schools in 'challenging circumstances' and with the exception of Wrigley (2006), few have advanced the need for a new paradigm for schools in such contexts. During the course of this research it has become clear that the effectiveness of the school improvement programme together with the success of the methodological approaches used, potentially provide the basis for a new framework for school improvement and school effectiveness in especially challenging urban schools. Initially the term 'framework' was used to avoid becoming embroiled in the definitions and rules

associated with paradigms. This would leave me free to focus on what works in challenging contexts. However, Kuhn (1962) suggests that the concept of paradigm might involve:

i. Entities, forces and laws – key concepts, relationships and causes;
ii. Models - whether seen as heuristic or ontological;
iii. Legitimate problems and acceptable solutions;
iv. Methods and instruments.

The notion of models, key concepts, relationships and causes has been extensively discussed in sections 6.3 and 6.4. The causes of school improvement are expressed as factors and sub-factors derived from factor analysis. The relationship between them was ascertained using multiple regression and MANOVA. A conceptual multilevel model was developed from an understanding of school improvement processes and an interpretation of the statistical analysis.

Wrigley (2006: 276) further argues that *"Paradigm shifts in the social sciences also entail two further dimensions, the political and the ethical"*. Taken together the Khun and Wrigley definitions appear to fit the main aspects of a new framework identified in the study. Hence, the response to the remaining limitations in both school effectiveness and school improvement will be addressed through a paradigm shift in five sections:

(a) Methodological approaches;
(b) Legitimate problems and acceptable solutions;
(c) Theoretical perspectives driven by the context;
(d) The management of change;
(e) Locating the new paradigm: a merger or a transformational shift.

However, Kuhn (1962) insists that, *"The adoption of a new paradigm is often under-evidenced, even for many years"* (Wrigley, 2006: 276) and for this reason

this section presents a tentative answer to the question: What might a new paradigm for schools operating in challenging circumstances look like?

(a) A Unique Methodological Approach: Children and Multivariate Statistics

The adoption of student perceptions as a new measurement of school effectiveness is proposed as a response to the criticism that *"some degree of measurement inaccuracy is an inherent feature of all educational assessment"* (Newton, 2005). This section will consider the unique methodological approach employed in the study.

Researching Students' Perceptions

One of the key limitations of the School Improvement and School Effectiveness movements, particularly for schools facing the greatest challenge, is their almost universal detachment from students as participants in change and to the wider context in which they operate. Indeed, students are rarely spoken of in school improvement and school effectiveness texts, which focus almost universally on teachers and a measurement of whole school performance respectively. However, the OFSTED 'Framework for Inspecting Schools' (2005) requires all schools to engage in a process of school self-evaluation and states that: *"Schools must listen to and do something about the views of their stakeholders"* (A New relationship with Schools: Improving Performance through School Self-Evaluation', para 2). Furthermore:

> *"Experience shows the most effective schools are those which are well organised to collect, analyse and evaluate evidence drawn from ... gathering and considering the learners', parents', teachers' and other stakeholder views and perceptions about the quality of the schools provision".* (ibid., para 21)

Consequently, a unique aspect of this study is the use of student perceptions to measure improvement and to isolate the factors that have caused improvement. This approach, however, does not come without its own limitations. Ethical objections on the basis of sampling children were effectively nullified through the use of an external consultant to gather data. However, the difficulty in getting this research through the University Ethics Committee was in itself a significant undertaking that highlights the fact that studies of this kind are rarely if ever undertaken due to their difficulty and potential pitfalls. Nevertheless, in common with MacGilchrist et al. (2004), this study places students and their rights and responsibilities at the heart of school improvement efforts as opposed to a focus on schools and teachers by the school effectiveness and school improvement movements respectively.

Looking through a Mathematical Lens

The most effective headteachers focus on implementing the strategies that make the most difference in the shortest possible time. Hence, despite potential criticisms, the research methods must be reductionist in order to identify a finite number of high impact improvement factors. Furthermore, having decided to use students' perceptions as a measure of effectiveness it is essential that the collection and analysis of data is as rigorous as possible

Factor Analysis is uniquely suited to reducing a large number of variables, whilst multiple regression analysis facilitates the exploration of relationships amongst the variables. The outcomes of the mathematical analysis are rigorously triangulated using interview and documentary evidence.

A Postpositivist Approach

School improvement as a paradigm is largely wedded to an interpretive research methodology that ignores the reality that we live in a world that prizes outcomes measured in positivist terms. In short, we have to accept that we will be judged on

positivist based measures by external agencies, however flawed. Since we require schools to be improving **and** effective a new school paradigm or framework is required.

In attempting to resolve the methodological issues arising from the on-going school improvement and school effectiveness debate it is essential to adopt a mixture of quantitative and qualitative approaches within a postpositive paradigm that is underpinned by a class advocacy position. This allows researchers to incorporate rich studies from outside the 'selective' school improvement and school effectiveness traditions (Wrigley, 2006).

(b) Legitimate Problems and Acceptable Solutions

Three legitimate questions arise from the multivariate statistical analysis used in this study and these will be discussed here in some detail.

Is the derived model unique?

Since I aimed to identify the smallest number of meaningful school improvement variables in Phase I and to confirm the exploratory model in Phase II, PCA and confirmatory factor analysis respectively were the obvious data reduction methods to use in this study. However, a number of objections to factor analysis as a methodological approach (Kline, 2004) have been raised, most notably the infinity of equivalent solutions and that no more is taken out of the process than is put in. Moreover, a major conceptual problem with confirmatory factor analysis is that the fact that a model is confirmed means only that this particular model fits the data. It does not mean that other models might not fit and fit better. Since the infinity of models cannot be tested, unless the model has a sound rationale, the procedure can be viewed as less powerful than it seems.

In this case study context the solution may not be unique based on the data but the interpretation and findings place this model firmly within the existing literature and

are convergent with other models and findings in the field. However, the fact that the unique methodology developed here, results in modifying and clarifying existing models is very significant. The coherence of the final model represents a transformational shift in knowledge about school improvement and, most importantly about the relationship between the variables and levels.

Whilst not claiming this model is mathematically unique, a number of factors lead to the assumption that this is a much better model than those currently available. Firstly, the initial school improvement model derived after Phase I was used with even greater rigor to speed up the process of change and improvement in Phase II with remarkable results. In a nutshell – it worked. Secondly, the school has been under intense scrutiny throughout the improvement process and so there is ample evidence from independent external sources to rigorously triangulate the statistical findings. If another alternative model exists we would have found it. Phase II of the study adds a dependent variable and uses multiple regression to find predictors on improvement amongst independent school improvement variables.

Correlation or causality?

There is a false assumption that correlation demonstrates causality (Fidler, 2001). It could be argued, therefore, that the extracted 'factors' in this study may be associated with improvement without necessarily causing it. It could therefore be argued, in strict mathematical terms, that this study has established correlation between school improvement factors and improvement without necessarily demonstrating mathematical causality. Consequently, without further exploration of this assumption in the specific context of the study, there is a danger that the derived model can be challenged as flawed. However, given the rigor of the research and the convergence of the findings with existing literature, a strict mathematical definition of causality is not essential nor claimed here.

A number of the most compelling arguments here overlap with those used to demonstrate the uniqueness of the model. Whilst the infinity of solutions under PCA and PAF should be recognised there is no denying that:

i. the model has been demonstrated to 'work' very effectively under very testing conditions;
ii. the model is convergent with findings from existing research, and;
iii. the outcomes have been successfully triangulated with numerous external independent judgements.

Furthermore, one of the key findings from school improvement literature is the importance of headteacher's deciding what to do. It is implicit in my interpretation of the factors extracted using PCA that I knew what was making a difference. The wording of the student questionnaire is also significant here since participants were asked to rate the 'causes' of improvement. In other words their responses assumed a definition of causality.

School improvement in this study was no accident - it was planned for and recorded in a school improvement plan submitted to the Department for Education and Skills for agreement. Moreover, the school has consistently improved over time, thereby the study responds to a recurring criticism in the literature that there is an absence of research to reflect this particular subset of improving schools. Similarly the findings from Phase I of the study were used to speed up improvement during Phase II. It has been argued that hypotheses about causal relationships can only be explored through qualitative investigations of case study schools (Nash, 2002). However, the mixed methods approach used in this study limits these claims. If we do not assume causality then the improvement must have been due to other factors that I am not aware of that have not been highlighted in this study. Given the intense external independent scrutiny the school has been under throughout the transformation process this seems almost impossible to be true. Indeed it could be argued that it is foolproof.

Reductionism: potential criticism by school improvement researchers or a helpful strategy?

Within a complex human environment such as schools, 'postivistic' school effectiveness methods have been criticised by school improvement researchers on the grounds of reductionism. This is in stark contrast to more recent school improvement literature that highlights the importance of applying a finite number of high impact strategies (Hopkins, 2001; Muijis et al., 2004; potter et al., 2002; Reynolds et al., 2001) in schools facing challenging circumstances. This provides a dilemma for schools and headteacher's since they may not know what the most important strategies are and will certainly waste time trying to identify them - during which time matters might well have become worse. More importantly, this approach requires the strength of character by headteacher's to ignore, or treat with measured caution, the plethora of central and local government initiatives frequently imposed on schools from outside. Hence, an important aspect of this study is the urgent need to focus on a 'finite' (reinforcing reductionism) number of 'high impact' (determining the most effective) strategies over time.

The 'unique' approach involving gathering students' perceptions of improvement responds to a number of contributory criticisms of reductionism. Traditionally, the identification of outputs is viewed as problematic since schooling has a multiplicity of outcomes. Consequently, research is invariably distorted, with social outcomes limited to measurable factors such as attendance or exclusions (Wrigley 2004). Student perceptions of improvement provide a more holistic measure of how well a school is performing. This measure of improvement also counters arguments that 'positivist attempts to separate contextual from school factors is also 'flawed' (Wrigley, 2006). This is because school cultures are a "*product of the interaction between the official culture of the school and the culture of pupils*" (Hatcher, 1998: 280).

The input-output model is problematic, with the term 'key characteristics' often used interchangeably with causes or correlates of improvement (Hamilton, 1995: 126), whilst a wide range of studies indicate that attainment is strongly correlated to social class factors such as parental occupation, income and education. The adoption of a student perception measure largely negates this criticism.

Regardless of the reliability of mathematical calculations, their truth depends on the validity of school improvement factors as expressed in natural language. Many key characteristics identified in the literature are *"semantically incapable of being assigned unambiguously to some schools and denied to others, as would be required for valid statistical modelling"* (Wrigley, 2004). This undermines the reliability and validity of the mathematical calculations. Furthermore, some meanings are context specific and therefore generalisation from them is inherently problematic. Throughout the course of this study the same language of school improvement has been used continuously with teachers, students and parents, whilst great care has also be taken to interpret the meanings and definitions of improvement variables extracted during the study.

(c) A Context Driven Theoretical Perspective

Multilevel modelling theory was used in section 6.4 to help make sense of the research findings and to construct a conceptual school improvement model for schools in challenging circumstances. Chapter 3 also highlights three theoretical perspectives - contingency, compensatory and additivity - that can help to make sense of school improvement in disadvantaged areas (Muijis et al., 2004). These perspectives are not mutually incompatible and this section will consider how they can help to make sense of effectiveness and improvement in the case study school throughout the whole of its improvement programme.

Contingency Theory

Contingency theory is based on the premise that what makes an organisation effective is dependent on a variety of situational factors that can be both internal and external to the organisation (Creemers, Scheerens and Reynolds, 2000).

Rather than accepting traditional notions of the link between context and attainment, the school quickly understood that improvements are dependent on how effectively the school engages with, and responds to, the context in a positive way. In other words the leadership have to do things differently. Internally this involves knowing what to do that makes the greatest difference and then getting on with it. For example, the case study school has amended the national curriculum significantly to meet the needs of its students. Similarly, teachers have worked relentlessly to grow students' social capital and 'enable' parents to develop family education cultures that support their children and the school. The effective management of human resources issues amongst staff has been a vital ingredient in remedying numbers of internal problems.

Compensatory Theory

The **compensatory** model (Chrispeels, 1992; Teddlie, Stringfield and Reynolds, 2000) states that because of problems faced by pupils in disadvantaged areas, the school needs to compensate for the lack of resources in students' homes and that staff in such schools need to work harder to get the necessary results.

This study demonstrates that this is undoubtedly true. Simply put, nothing would have been different without 'going the extra mile' for children. The school provides all the necessary equipment for students learning such as pens, calculators and revision guides. A significant amount of personal emotional support is provided for students and, if necessary, their families. It is a mute point as to whether staff are required to work harder in this context but the provision of extra-curricular support for examinations and coursework supplemented by a good number of educational

visits and some residential experiences did make heavy demands of staff time. Without doubt the complexity of students' needs and the relentless nature of the job for all staff was very draining on all involved - both testing and fortunately reinforcing their commitment.

Additivity

The hypothesis of **additivity** states that after controlling for student background factors, schools in low socioeconomic areas still do worse than those in middle and high SES contexts (Reynolds and Teddlie, 2000). Hence, such schools are more likely to be ineffective and therefore reinforce social disadvantage. In England there is compelling evidence that this hypothesis is true – if traditional, flawed and narrow school effectiveness measures of attainment are used. In other words it depends how you measure school effectiveness. However, if you believe this hypothesis then the improvement job can never really be done successfully.

The chair of governors in place at the time of the special measures judgement was replaced in the early days of the school improvement strategy precisely because of her belief that the school could not succeed. Similarly, this was undoubtedly a driving factor in the local authority's support for the closure of the school. There was endless talk of 'rebranding' - a term too often synonymous with the notion of 'change the students and the results will improve'.

Throughout the school improvement programme to date the case study school has never subscribed to the hypothesis of additivity. Instead the improvement strategy is based on a secure foundation that includes a redefinition of expectations of working class, disadvantaged children. Most notably:

> *'"Raising expectations' had an accent of political defiance, rejecting traditional assumptions that students growing up in such neighbourhoods had little hope of a decent future"* (Wrigley, 2006: 283)

This was instrumental in the successful fight for the future of the school. Furthermore, this perspective was continuously communicated to students and parents – further cementing the galvanising effect of the class advocacy position. Consequently, OFSTED (2008a: 4) judge that the school was, *"... particularly successful in meeting its stated aim of 'breaking the link between social disadvantage and student achievement".*

The three perspectives and the case study context drive a school improvement strategy (Figure 6.7) underpinned by a strong Marxist class advocacy position. This research study has in turn employed a transformational-emancipatory research paradigm (Mertens, 2003) that incorporates the social class perspective as part of a distinct form of mixed methods research. This paradigm emphasises the role that values play in studying potentially marginalised groups (Cresswell, PlanoClark, and Hanson, 2003), such as students from disadvantaged backgrounds. The impact of this philosophy was again most evident during the fight against the closure of the school.

Wrigley (2006) argues that the *'theoretical impoverishment'* within the school improvement paradigm has restricted its ability to think clearly about schools in challenging contexts. Emanicpatory leadership in such contexts requires:

> "*a belief that all children can succeed; that education is a vehicle for the emancipation of working class children, that equality of opportunity is an absolute entitlement; and that teaching and learning must be based on mutual respect and the raising of self-esteem*" (National Commission for education, 1996: 63).

This passage shows a degree of political and social understanding not normally associated with school improvement texts. This more informed understanding of raising expectations in challenging contexts underpins the critical predictor

variables described in section 6.3 and taken as a whole they can be interpreted as the headteacher, leadership team and staff battling for working class children.

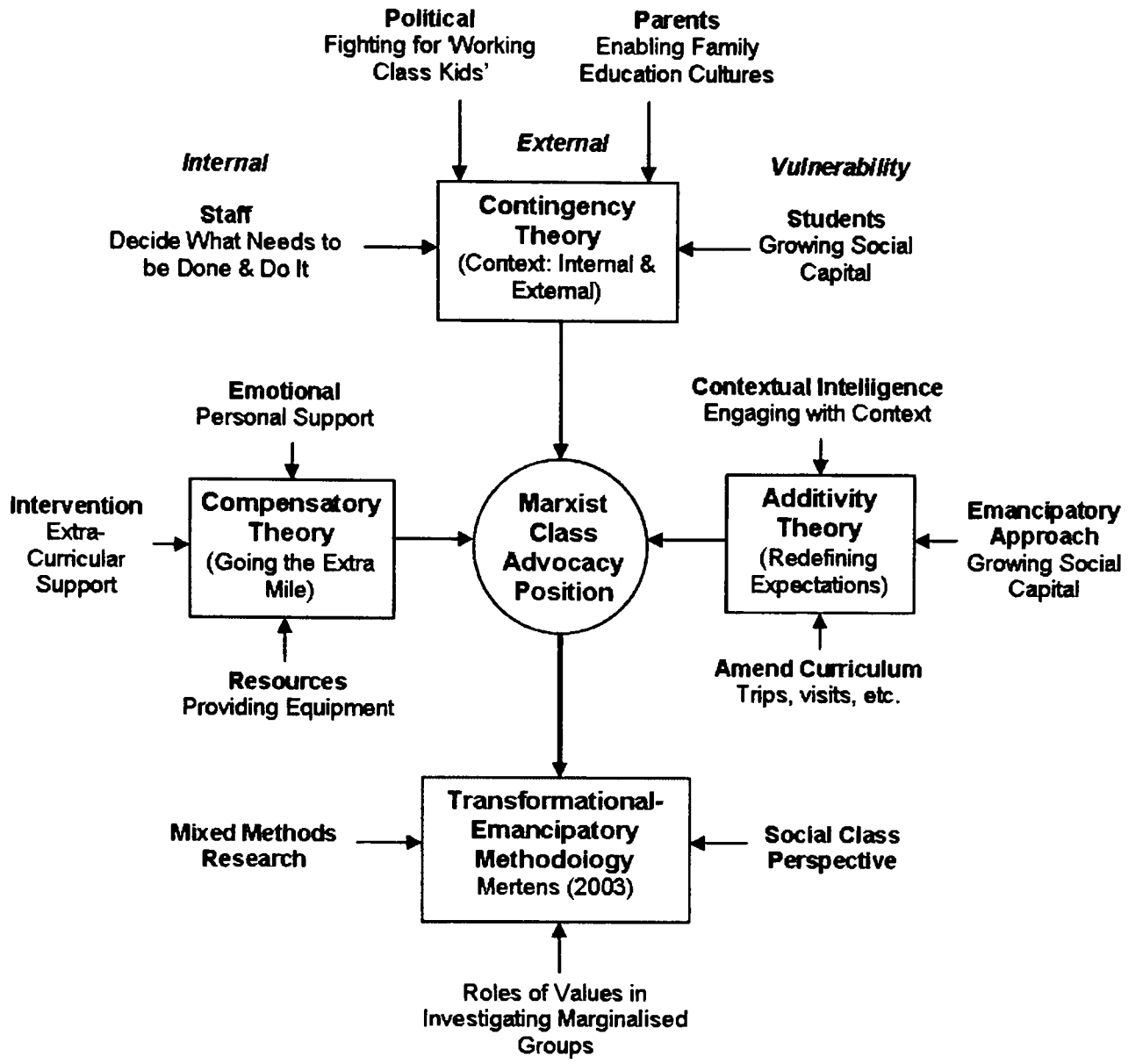

Figure 6.7: Multiple Theoretical Perspectives Underpinning the Research and Improvement strategy

(d) The Change Management Strategy

Change is complex (MacGilchrist et al., 2004): it takes time; it must be well led and managed; teachers must be the main agents of change and students must be the main focus for that change. Very early in phase I and after one term at the school it became clear that the context was exceptionally complicated. This led to an acknowledgement that:

- an incremental approach to school improvement wouldn't work. So much energy was being expended in making small improvements that significant improvements would not happen due to exhaustion;

- the recalcitrance of the school culture implied that doing more of the same was not an option since it was unlikely to have much impact.
- After two HMI inspections only limited progress had been made despite considerable effort. In conclusion old nostrums don't work;
- The difficulty of working in partnership with the LA and governing body.

Consequently, a much deeper analysis was undertaken of all the functions within the school in order to know how best to root the school improvement strategy firmly within the school's context rather than wishing that things were or might somehow be different. With hindsight the change management strategy was based firmly on:

- Identifying the context through rigorous school review and self-evaluation;
- Deciding what to do based on a robust knowledge of the literature;
- Using a reengineering approach to remodel how things were done;
- Employing a mixture of transformational, emancipatory and instructional leadership styles to drive the transformation.

Rather than going off in different directions, the school's approach required defining afresh what is understood by the term "transformation" in the context of a challenging school. This seemed to include:

- being clear about the simple things that work well in our context;
- speeding up the implementation of things we are already effectively doing;
- managing change within a rigorous and reflective framework;
- focusing on people and their development.

A synergistic approach was adopted across the school, in classrooms and in working with individuals. We didn't choose what aspects of the improvement strategy to tackle first – since it was all judged important. Perhaps the greatest focus was placed on maintaining direction. The strategy worked because it was simple, coherent and consistent as well as being clear, concise and easy to

communicate. The research shows that as few as 22 school improvement factors have driven the transformation to date. Hence, there has been (and will continue to be) a relentless focus only on those aspects of our work that make the most significant impact. In short: 'If it doesn't make a difference to children's lives - don't do it'.

The school improvement strategy is people rather than structures-driven. Whilst it is difficult to identify exactly when it happened, it is clear that during the later part of Phase I and the early part of Phase II the school reached a 'tipping point' in changing its ethos. A number of key features were central to this: openness, trust, respect and, most importantly, involving students through consulting with and listening to them. It was the student's experience of being treated differently, fairly and seriously that enabled them to see themselves as key partners in the change process. When a 'critical mass' of students, parents and staff were engaged as part of a 'can do' culture, the whole ethos changed from being largely negative to mostly positive. In the context of the derived multilevel school improvement model this requires: the right people across the school (levels), the right strategy (sectors) and the right actions (variables).

Behind the school improvement strategy sits a finite number of key management tools: the timetable; the school diary of events; student achievement trackers; a budget planning and monitoring spreadsheet; the school improvement plan and the school review and self-evaluation document.

A 'quick fix' or a model and framework for sustained improvement?

There is a discussion to be had about whether to name the derived outcome of the study a 'rapid school improvement model' or not. One point of view is that the term 'rapid' smacks of quick fixes, which we know have been a spectacular failure in the field – Fresh Start Schools, Academies, appointing executive Headteacher's, etc.

The core of the work and case study school experience suggests that what works has to be worked for and what works does more than produce a quick turnaround (important though this is) but sets the foundation for sustained improvement. I argue that this frames a 'new deal for urban schools and urban children' – something real and lasting, not just this year school X doing well whilst the others around dip ... and in turn fortunes shift again for different schools and the merry go round starts again. The challenge is to create this new deal for urban children in whichever school they attend. Consequently, choice and markets cease to be so important because basically there is not much to choose between schools in that they are distinctive in being similarly effective.

For this reason we need to create a different set of terms to describe what are, essentially, preconditions and linked strategies for creating the 'improvement imperative' – another term for what is essential in a RAPID model. The refined and closely linked variables in the school improvement model become the antecedents for sustained improvement over time (the momentum issue) and for the subsequent quickening of the school improvement process (the pace issue). On this basis pace and momentum become important attributes of the model.

There is a further argument that the term 'rapid' is indeed central to the improvement strategy in the case study school. The impact of the time constraint imposed by the OFSTED special measures judgement in 2004 and local politicians determined that the school must improve rapidly or face closure was critical. Special measures leadership requires that you can't mess about. Consequently the school had no choice but to conduct a needs assessment and get on with the school improvement process. All of the important dimensions had to be implemented simultaneously with nothing left out. School improvement was therefore conducted in a systematic and structured way. It was totally holistically organised as part of a coherent, mutually reinforcing overall strategy.

Some researchers have alluded to a chronological order to improvement strategies in which improvement variables are implemented in a specific order that also implies a hierarchy of importance. Given the timeframe of the study, we do know for certain that if the improvement was a quick fix then it would have broken down by now. Furthermore, since the school has been under intense external scrutiny we would have known it had broken down.

(e) Defining and Locating a new Paradigm for Challenging Schools

Table 6.2 brings together the main theoretical and conceptual findings from this study into one umbrella framework to provide the theoretical underpinning for the multilevel model. This framework for schools in challenging circumstances takes its name from two key definitions we have used in this chapter, namely transformational and emancipatory. Coincidentally, it also takes its name from the transformational-emancipatory research paradigm suggested by Mertens (2003), and described in chapter 3, in which the social class perspective is incorporated as part of a distinct form of mixed methods research. This paradigm emphasises the role that values play in studying potentially marginalised groups (Cresswell, PlanoClark, and Hanson, 2003), such as students from disadvantaged backgrounds. The synergistic use of a research methodology and school improvement strategy under the same title perhaps shows the way forward and highlights a unique aspect of this study.

A key question when locating this new framework is whether it emerges from school effectiveness and school improvement or is completely separate. Recent literature related to schools facing challenging circumstances documents a 'third age' school improvement paradigm. However Wrigley (2006), in seeking to articulate a new paradigm for schools in challenging circumstances, argues for more than just a merger of the school effectiveness and school improvement paradigms and calls for a transformational shift. This is only partly the answer. A transformational shift must be associated with a discontinuity - involving a disengagement from the debate surrounding the two competing paradigms in

favour of the development of a framework based on 'what works' as a precursor to sharpening the definition of a new paradigm once it has been tested in similar challenging contexts. This is important since politically a shift to a paradigm that advantages schools serving disadvantaged communities may well be seen as a threat to schools serving more advantaged communities.

Table 6.2: The definition of a new Transformational-Emancipatory Framework (Paradigm) for Improving Especially Challenging Urban Schools [after Kuhn (1962) and Wrigley (2006)]

Commitments	Assumptions
Entities, forces and laws – key concepts, relationships and causes;	• Context based solutions; • Single coherent, concise, clear strategy; • Linear relationship between school improvement variables; • Transformational-emancipatory change; • Focused on rapid change in student outcomes.

Models - whether seen as heuristic or ontological;	• Concerned with improvement over time;
	• A tight multilevel approach:
	  ○ Context (political, community, internal)
	  ○ Whole school leadership
	  ○ Curriculum & Pedagogy in classroom
	  ○ Culture (Ethos & relationships)
	• Re-engineering of all aspects of school practice.

Legitimate problems and acceptable solutions;	• How does the school engage communities it serves? • Alternative measures of school effectiveness? • Reductionist: identification of finite number of high impact strategies; • Uniqueness of the contextual school improvement model; • Establish causality of school improvement variables; • Sustainable improvement or a quick fix?
Methods and instruments.	• Post positivist; • Quantitative and qualitative in orientation; • Context driven mixture of practitioner & academic research; • Multivariate analysis of student perceptions; • Effective triangulation of evidence from all sources; • Embedded in school self-evaluation procedures.
Political	• Reflects the interests of working class students serving multiply disadvantaged communities. • A threat to traditional school effectiveness approaches; • Political defiance in face of external threats; • Transformational shift away from school effectiveness and school improvement paradigms.
Ethical	• Adoption of Marxist class advocacy theoretical perspective that is more likely to consider moral implications. • Multiple theoretical perspectives (additivity, compensatory, contingency) • Consider alternative traditions of school reform and educational change from outside SE and SI traditions (e.g. antiracism, inclusion, bilingualism); • Fighting for a new deal for working class kids.

Table 6.3 attempts to locate the new framework in contrast to the separate traditions of school improvement and school effectiveness based on a taxonomy used by Reynolds et al (1993).

Table 6.3: Positioning the new Transformational-Emancipatory Framework in Contrast to the Separate Traditions of British School Effectiveness and School Improvement paradigms (after Reynolds et al., 1993)

School effectiveness	School improvement	Transformational-Emancipatory Paradigm for Improving Especially Challenging Urban Schools
Focus on schools	Focus on individual teachers or groups of teachers	Focus on students and their acquisition of social capital and how the school interacts with the local community
Focus on school organisation	Focus on school processes	A tight multilevel approach: • Context (political, community, internal) • Whole school leadership • Curriculum & Pedagogy in classroom • Culture (Ethos & relationships)
Data driven with emphasis on outcomes	Rare empirical evaluation of effects of changes	Data driven within the context of continuous and rigorous and triangulated school self evaluation
Quantitative in orientation	Qualitative in orientation	Quantitative and qualitative in orientation
Lack of knowledge about how to implement change strategies	Concerned with change in schools exclusively	Concerned with transformational-emancipatory change underpinned by multiple theoretical perspectives
More concerned with change in pupil outcomes	More concerned with the journey of school improvement than its destinations	Concerned with rapid change in student outcomes through identifying high impact strategies and a re-engineering approach
More concerned with schools at a point in time	More concerned with schools as changing	Concerned with schools improving over time
Based on research knowledge	Focus on practitioner knowledge	Based on context-appropriate practitioner & academic research
Positivist	Interpretive	Postpositivist

In order to help schools and headteachers, it is important to stop arguing about the relative merits of school effectiveness and school improvement as separate paradigms. There are three reasons for this. Firstly, there is a remarkable convergence in the findings from school improvement and school effectiveness research. Secondly, effectiveness and improvement are intimately related and many of their most notable proponents frequently write together. Thirdly, neither

paradigm has paid sufficient attention to schools in challenging circumstances leading to the relative failure of both paradigms in breaking the link between social circumstances and achievement. This raises fundamental questions about the practical and professional usefulness of school effectiveness and school improvement outside of the research community. Consequently, we need to bring the findings from school improvement and school effectiveness under one single dialogue. We need a pragmatic framework that is based on 'what works and why?'

This study has shown unequivocally that the derived multilevel school improvement model within its associated theoretical framework actually does work and that all stakeholders (students, staff and parents) have agreed unequivocally that this is the case. The literature suggests it should work; we have tested it rigorously using real data and shown that it does.

Further work is required to define a new paradigm for schools in disadvantaged areas that brings together all that is known about how schools operate effectively in these contexts. One key outcome from this study is that the findings, and their convergence with existing literature and other research studies, suggest that it could all fit together within a new theoretical framework that may be generalisable to other contexts.

6.6 Limitations of the study

The uniqueness of the methodology used in this study could potentially give rise to a number of questions from other researchers in the field. Given the content of existing literature, these questions will undoubtedly centre on the limitations and assumptions of the multivariate statistical analyses employed and the implications of measuring student perceptions of improvement as a proxy for a holistic school improvement measure.

It is clear that factor analysis is the most appropriate research method for answering the research questions in this study but they must be properly

implemented, having regard to all the problems and difficulties which can render their results misleading and of little scientific value. These limitations will not be replicated here since each aspect of the multivariate statistical analysis employed in this study were rigorously implemented using SPSS version 16, with strict adherence to the assumptions and interpretation of the findings using the guidance provided by the most eminent writers in the field (Kline, 2004; Pallant, 2005; Tabachnick and Fiddel, 2001).

A possible limitation of the methodological approach is highlighted by Cresswell (2003) who concludes that there is *"limited information about the procedures involved in using a theoretical lens to study class and social status*" and it is recognised that further work is necessary in this area.

The ethical considerations of research methods using children's views were addressed rigorously throughout the study, to the extent that a highly experienced external consultant was engaged to administer large scale questionnaires and conduct focus group interviews. This avoided criticisms of my power relationship, as the headteacher, interfering with students' thinking whilst participating in the study. Students have been active participants in the improvement process and hence gained a unique understanding of school improvement and its causes. The political context and more specifically, the threat of closure, further cemented this understanding.

6.11 Summary

The analysis and discussion of the findings from the study address the four key areas of context, contributory school improvement factors, possible conceptual models and a new paradigm for schools in especially challenging environment.

The discussion confirms the extent to which the schools 'understanding of' and 'engagement with' its context was a central component that led to the success of the school improvement strategy in the case study school. The 21 school

improvement sub-factors that were shown in Chapter 5 to constitute a coherent school improvement factor are carefully defined together with the interrelationships between them. Consequently, a coherent but dynamic multilevel school improvement model is developed based directly on what students perceived had brought about improvement. There are four levels within the model: engaging with the context; whole school leadership; learning and teaching in the classroom and ethos and relationships at the individual level. The school improvement model is located within a new paradigm for schools operating in especially challenging circumstances.

The findings from the study are consistent with many of the hypotheses and findings from school improvement literature. However, the fact that these findings emanate from a quantitative analysis of the perspectives of the learners makes the message all the more compelling and it could be argued deals a swift blow to much of the 'academic' and 'practitioner-led' research on school improvement. Throughout the study the school has been under intense external scrutiny. Whilst it cannot be claimed that the findings are foolproof they are at the very least compelling - to the extent that taken together the findings constitute a serious framework for achieving success against the odds in especially challenging urban schools.

7 CONCLUSIONS AND RECOMMENDATIONS

SHARPENING AND REFOCUSING THE SCHOOL IMPROVEMENT AGENDA FOR ESPECIALLY CHALLENGING URBAN SCHOOLS

Between March 2004 and October 2008 the case study school has undergone a remarkable and sustained transformation. The proportion of students achieving 5 or more GCSE grades A* to C has risen from 20% to 78%.

OFSTED judgements of the school's effectiveness have moved from special measures (failure) in 2004 to good with 'outstanding features' in January 2008 and 'outstanding' in October 2008. This has been achieved against the background of on-going and significant educational, social and political challenge that has threatened the very existence of the school on more than one occasion.

7.1 The Purpose of the Research

The purpose of this two-phase sequential mixed methods study was to explore student perceptions to identify the size and strength of the contributory factors, both individual and specific combinations that are critical to rapid improvement in an especially challenging urban school.

This four-year longitudinal study employed quantitative data obtained from large scale surveys of student perceptions of what had caused improvement, triangulated with documentary evidence and in-depth interviews to fully interpret these results.

In the first phase, results from a large scale survey of student perceptions were subjected to Principle Components Analysis (PCA) to reduce a large number of variables through identifying the underlying components, or latent variables, most strongly associated with school improvement. The interpretation of the PCA was enhanced by the insight gained from documentary evidence about the school and findings from the research literature in the field. This analysis was used to develop an initial multi-level rapid school improvement model.

In the second phase, results from a further large scale survey of student perceptions, using a refined questionnaire, were subjected to Principle Axis Factoring (PAF) to test the robustness of the conceptual school improvement model developed in phase 1 of the research. The inclusion of a measure of students' perceived understanding of the extent of improvement in the school as a dependent variable enabled the use of multiple regression to measure the relationship between this dependent variable and 21 independent school improvement variables. Additionally, the combined use of factor scores and multiple regression was used to identify the relative size and effect of the factors extracted using PAF. Multivariate Analysis of Variance (MANOVA) was used to ascertain whether there were any significant differences in student responses due to gender, ethnicity or social circumstance or a combination of these personal characteristics. A more detailed insight was gained from interviews conducted with a stratified random sample of students, parents and teachers.

The rationale for using both quantitative and qualitative data was that useful questionnaires could only be developed after a preliminary exploration of student

perceptions. Furthermore, the outcomes of the multivariate statistical analyses used could only be effectively interpreted following a more detailed exploration of the issues.

7.2 The Main Research Findings

This research has successfully identified 21 school improvement variables (antecedents), together with their size and specific linear combinations that have 'caused' the most significant impact on improvement in the case study school.

The interpretation of these quantitative findings have been extensively triangulated with existing literature in the field, external judgements of the schools' progress and effectiveness, themes from focus group interviews and my own 'lived experience' as a headteacher, leading to the proposal of a coherent, concise and finite conceptual multilevel rapid school improvement model. This model is fully explored in section 6.7 and reproduced in Figure 7.1 for completeness.

The study has attempted to define each of the factors and how they have been interpreted and applied in the case study context. The extracted school improvement factors, and the levels within the school to which they refer should not come as any great surprise to those working in the field. However, the fact that they have emanated from a rigorous mathematical analysis of the perceptions of children makes them all the more powerful. The dynamic, yet finite, nature of the model is statistically highly significant and this aspect is explored fully in chapter 6.

The extreme challenge and complexity provided by the context has demanded a radical rethinking of the school improvement and school effectiveness paradigms leading to a proposed paradigm shift. The derived multilevel model is therefore located within what has been articulated as a new 'transformational-emancipatory' paradigm for school improvement in especially challenging contexts. This new paradigm focuses primarily on children, rather than schools and teachers, and the strategies necessary to rapidly improve their outcomes at school. Critical to this

approach is an imperative to understand how schools that succeed against the odds engage with their contexts at a school, local and national level. School improvement factors must therefore be framed in context with an explanation of how national and local agendas have been amended as a result of the context.

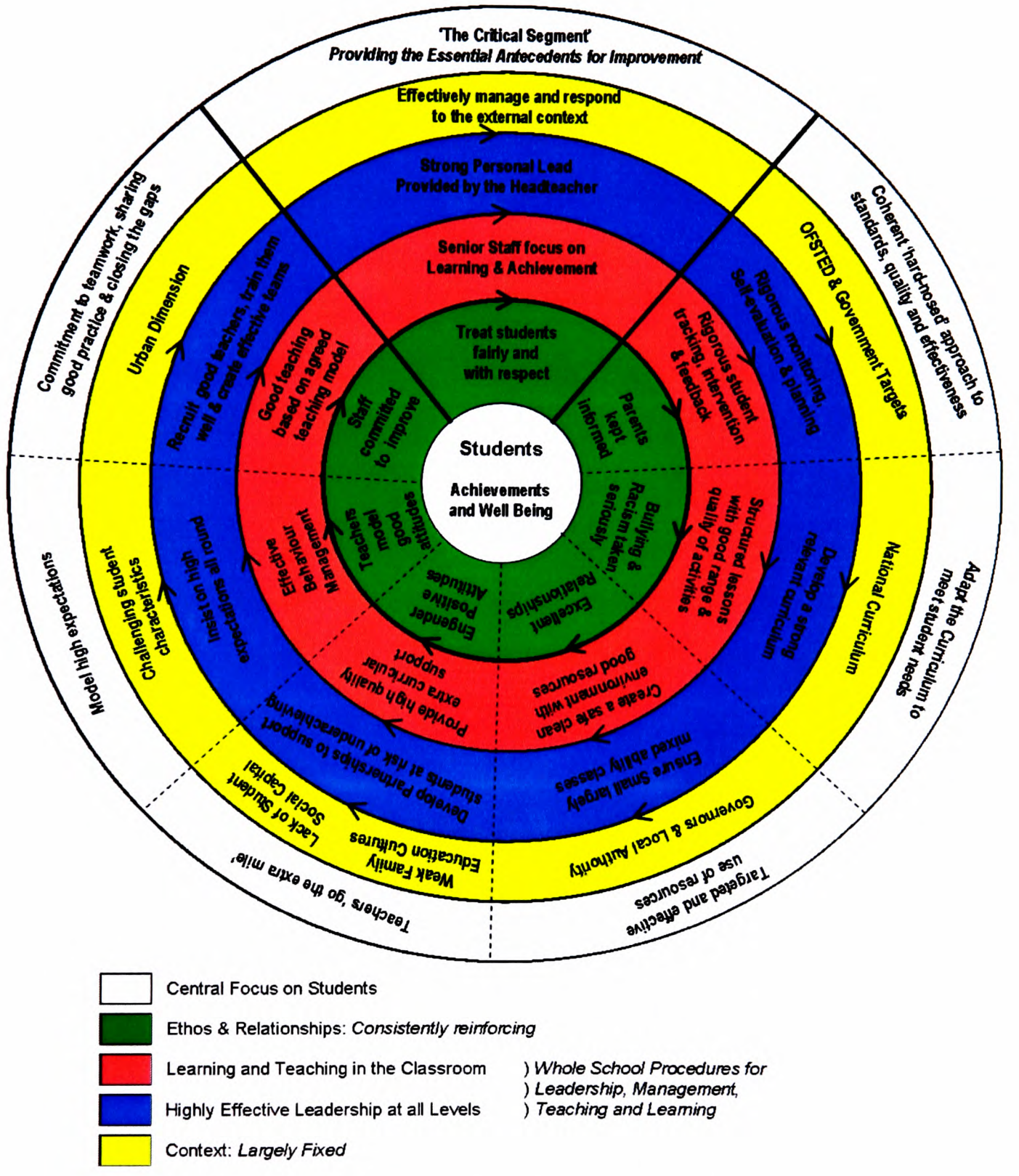

Figure 7.1: Transforming an Especially Challenging Urban School against the Odds A Multilevel Conceptual Model for Improvement based on a Multivariate analysis of Student Perceptions

The complexity of challenging school contexts dictates the use of a post positivist methodology, in which both quantitative and qualitative data are used to provide a clear picture of how schools function effectively in such environments and how they

can be improved. Effective triangulation of multiple evidence sources must include a multivariate analysis of alternative measures of school effectiveness such as the perceptions of students, who must be positioned at the heart of school improvement efforts. This requires a fundamental rethink of how school effectiveness is measured and an understanding of which measures of performance advantage and disadvantage schools in challenging circumstances. This methodology is not 'positivism in drag': the legitimate problems of reductionism, causality, uniqueness and generalsiability that arise from the deployment of quantitative research methods must be actively discussed and mitigated through a mixed methods approach.

The adoption of a class advocacy theoretical positioning, within this post positive methodology, enables moral and ethical issues together with alternative traditions of school reform to be considered within an overall approach that unashamedly reflects the interests of working class students growing up within multiply disadvantaged communities. It is recognised that this will invariable involve acts of political defiance as part of a transformational shift away from the dominant school effectiveness and school improvement paradigms.

Although this study has attempted to contribute to current theory in the shape of developing a multilevel model and articulating a new paradigm for school serving students with multiple disadvantage, the real focus has been to identify and explain 'what works'.

7.3 Implications of the Research Findings

This study unequivocally demonstrates that the personal lead provided by the headteacher, strongly supported by the leadership team, is the most significant predictor of improvement in especially challenging contexts. However, the single biggest issue for the education system over the next few years is the supply of good school leaders. Consequently, we urgently need to develop an alternative strategy from the current 'one size fits all' NPQH model of leadership development

that will identify and develop future leaders of schools in challenging urban contexts.

This will necessitate a radically new approach. I strongly believe that the conceptual model derived here should form the core element of context-driven school-based training for headteachers under the direct day to day tutorage of existing successful heads working in these specific contexts. This requires a proper re-evaluation of training programmes for headteachers with modelling of good practice being the most effective training methodology.

The evidence gathered in this thesis strongly supports the view that success is predetermined by a strong focus on a finite number of high impact improvement strategies – the 21 variables highlighted here. However, whist the responsibility to ensure a tight focus sits firmly at the door of the headteacher, this has often been hard to achieve for the inexperienced headteacher or those that lack grit and real determination. This is often made more difficult given the plethora of Government initiatives – many of which have a 'tenuous at best' impact on improvement – and yet demand attention, especially by less experienced and newly appointed headteachers. This point is neatly summed up by Simon Jenkins (Sunday Times 15 June 2008):

> *"We eulogise the simplistic managerial skills of an Alan Sugar, yet refuse to apply the lesson to the public sector. Top-down public administration in Britain is now obsessively complex.*

Government policy must therefore re-focus the school improvement agenda away from structural changes, from pushing complex lists of effectiveness criteria and creating status hurdles for those colleagues who choose to work in challenging contexts and work more consistently to support them in doing what makes the most difference.

There has been more than one reference in this thesis to the notion of a single coherent school improvement conversation or framework. A good place to start is the development of a generic approach to school review and self-evaluation that goes beyond a watered down OFSTED inspection framework. We have shown that a single document can be the vehicle to record current evaluations of progress, identify areas for improvement and store key school policy documents. These headings could be easily amended to reflect the school improvement factors extracted in this study. Furthermore, the factors can be sharpened to become 'Improvement' or 'Effectiveness' criteria as part of a new rapid school improvement framework.

7.4 Contribution to New Knowledge

School improvement and effectiveness literature is a crowded field, so why should anyone read this thesis and why is it important? This answer lies in three distinct aspects: the context; the methodological approach and the findings.

There is very little existing research evidence that identifies 'what works' in especially challenging contexts and this is the first known study that has sought to identify the size and effect of 'factors' that can be statistically claimed to be correlated to school improvement in such contexts. This study therefore identifies the means by which an ineffective school has succeeded 'against the odds'.

This has required a unique post positivist methodological approach that brings together four interrelated strands:

i. The collection and analysis of student's perceptions as a holistic proxy measure of what has caused improvement;

ii. Looking at the problem through a mathematical lens using multivariate analyses in the shape of Factor Analysis, Multiple Regression and Multivariate Analysis of Variance;

iii. My position as a headteacher-researcher enables a narrative to be developed from the inside and then used to make important strategic decisions, testing routinely and rigorously the impact of changes through empirical research;

iv. The adoption of a class-advocacy theoretical position.

The outcomes of the study are unique since the research has succeeded in identifying the size, specific combination and complex relationships between school improvement factors in a challenging school context. In turn this has led to the development of a unique dynamic multilevel rapid school improvement model. Implicit in the school improvement strategy was a re-evaluation of the existing school improvement and effectiveness paradigms leading to a proposed new paradigm for schools facing challenging circumstances.

7.5 Legitimate Questions and Solutions

Significant attempts have been made in this study to minimise potential criticisms of the methodology. Academic researchers remain sceptical about the ethics of researching children. Consequently, possible ethical objections based on my role as a headteacher-researcher and the researching of children resulted in the engagement of an experienced external consultant to administer questionnaires and conduct focus group interviews. This followed advice given by the University of Greenwich Research Ethics Committee, who gave permission to proceed with the study. The same consultant also assisted in the interpretation of the school improvement factor that makes specific reference to the role of the headteacher.

The multivariate statistical analyses were conducted rigorously to ensure that all assumptions on which these techniques are based were met. Legitimate questions about the reductionist nature of Factor Analysis and mathematical causality have been extensively discussed leading to these issues being sensibly labelled as

'looking for a finite number of high impact strategies' and 'what works' respectively. Two possible limitations of this research remain:

i. is the derived school improvement model unique given that factor analysis provides an infinity of equivalent solutions?
ii. is the model generalisable to other challenging contexts or indeed all schools?

The research has been conducted rigorously from within but yet under intense external scrutiny – both professionally and academically. The school improvement strategy has clearly worked in the case study context and the multilevel model has been tested as part of a two-stage research design. So whilst it is not possible to claim mathematical uniqueness, the convergence of the findings with existing literature and external validation strongly suggest that if there is another model it would have been found.

7.6 Future research

The twin issues of uniqueness of solution and generalisability requires further research that concentrates on testing the multilevel model in other contexts, conducting more research using student perceptions and further developing a new paradigm for schools in especially challenging urban contexts.

It can only be claimed that the derived multilevel model works in a specific challenging case study context. Consequently, it needs to be tested in order to identify whether it can be generalised to similar contexts and whether it can be transferred to other contrasting types of school. This will involve testing the school improvement variables, factors, sub-factors and the overall multilevel model in a range of different contexts

A further issue arises from context. It is possible that disadvantaged students and their families living in challenging contexts have a much more sharpened

awareness and understanding of factors that have caused change and improvement and which have the potential to change their lives and future opportunities. This opens up the possibility of a latent agenda that supports the measurement of students' perceptions in some particular contexts but not in others. On the other hand it is perfectly possible that this could be the basis of a school effectiveness model rather than purely a school improvement model. In other words it may work in all contexts and be truly generalisable. Given the convergence with some of the factors of effective schools (Sammons et al., 1995) it is important to test the model in as many contexts as possible. Central to this will be a more refined set of categories of school context that focuses on the proportion of students with significant and multiple disadvantaging barriers to learning.

There is an urgent need for more truly post positivist studies of school improvement factors, particularly those employing quantitative data and alternative measures of school effectiveness such as students perceptions and CVA. To do so will require identifying more effective and holistic measures of school effectiveness and student achievement.

More work is required on how to research students' perceptions that in turn will facilitate a greater understanding of the significant part students and their families can play in driving and supporting key change in schools. Further research in the very challenging subset of particular "schools in difficulty" is required to build further on notions of an alternative paradigm for schools in especially challenging urban environments.

7.7 Recommendations

(i) Leadership training for prospective head teachers of challenging schools

There is an urgent need to develop high quality leadership training programmes and associated materials specifically focused on especially challenging contexts. The outcomes from this study provide an ideal starting point.

The importance of combining instructional, emancipatory and transformational leadership styles identified in the study suggests that some head teachers might be more suited to challenging school leadership than others. In short: context, values and beliefs matter. Greater attention must therefore be paid to identifying potential leaders in challenging contexts and then modelling effective behaviours in such environments under the tutorage of existing successful challenging school heads.

Serious thought should be given to the notion of a two-year 'probationary' period for newly appointed headteachers, much like that for Newly Qualified Teachers.

(ii) Robustly test the multilevel model in similar and contrasting contexts

This recommendation focuses on what does and doesn't work in challenging schools and the extent to which the model derived in this study is generalisable and sustainable over time. Initially, this research should ideally be replicated in other improving schools in similar contexts in order to confirm the size and mix of school improvement factors and to robustly test the multilevel model. Similarly, the meaning and definition of the variables in the model requires further debate and testing.

Although this study has identified factors that ***have*** contributed to school improvement further research is required to identify those aspects of government policy that do not contribute to the improvement agenda and hence are redundant in successful school improvement programmes.

Further work is required on how to maintain the necessary conditions to sustain improvement in schools that are succeeding "against the odds". This will involve an analysis of how the size and effect of school improvement factors change over time and how the key aspects of momentum and pace can be developed and maintained.

(iii) Investigate credible measures of effectiveness in challenging schools

More school improvement studies should focus on using student perceptions to measure improvement and to build a knowledge base and secure practice in using young people's views and actions in a constructive way that contributes to school improvement.

Further work is required to identify more robustly and accurately the most challenging schools and the levels of complexity they face. This requires a more detailed investigation of how schools can measure the number and proportion of highly vulnerable students with multiple disadvantages and complex social needs.

A robust identification of alternative and more effective measures of effectiveness in especially challenging schools is required. Contextual value-added measures are no more than a promising start to considering this issue. Detailed research is necessary into the appropriateness of such measures, particularly when Qualifications and Curriculum Authority admit there is a 30% error in grades awarded at key stage 2 (Newton, 2005), one of the critical variables in the CVA formula.

(vi) Further academic dialogue about a new paradigm for challenging schools

The proposed alternative paradigm for schools operating in especially challenging circumstances requires further academic debate and dialogue. Despite recent attempts there is a paucity of research in especially challenging schools. Furthermore, issues pertaining to schools in such contexts are largely debated and researched from school effectiveness and school improvement positions. I assert that this is why school improvement efforts in especially challenging schools are largely reliant on successful individual head teachers operating in a largely idiosyncratic way.

Consequently, appropriate research methods, theoretical perspectives and assumptions within a dedicated paradigm are essential to transforming the lives of working class, multiply disadvantaged children and their families. It is recognised that the alternative paradigm proposed in this study is simply a starting point, or merely another contribution, to the debate.

Regardless of theoretical debates about paradigm shifts there is an urgent need for a single coherent framework and dialogue for the specific subset of schools in especially challenging urban circumstances.

7.8 The Final Word

High quality research almost always produces results that make good common sense. In schools in disadvantaged contexts, the most successful headteachers bring about improvement as a matter of instinct often using largely idiosyncratic and more often personalised leadership styles. This study has sought to identify the key antecedents of improvement that, whilst they cannot guarantee success, their adoption in all schools will at least change the probabilities of success. It should not be forgotten however that:

> *"Quality is never an accident; it is always the result of high intention, sincere effort, intelligent direction and skillful execution; it represents the wise choice of many alternatives"* (William A Foster).

I hope that in some small way this study will enable senior leaders in schools, academic researchers and other professionals operating in similarly challenging contexts to chart a more secure and confident way forward. One thing is certain - we must attract and develop the most able leaders to join the real challenge in education: that of 'breaking the link between social circumstance and achievement at the hard end of the market' through sharpening professional practice.

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Appendix A: Confirmatory Questionnaire Open-Ended Responses

	What else might have helped the school to change?
1	The teachers paying more attention to students.
2	The student's participation in protest and support through the difficult times.
3	
4	I believe the students have helped our school to change by achieving our grades and above. They've opened many facilities more education such as after school chubs.
5	I think the students helped a lot to change the school because they wanted to learn in a good environment.
6	Teacher support towards students. The students hard work.
7	Don't know
8	I think it's been all covered
9	
10	
11	Better staff
12	It has been all covered
13	No I think its bin covered
14	Getting a new headteacher More teachers, so that classes don't have supply teachers
15	I think it has all been covered in section 2
16	The students themselves wanted the school to improve The rest has been covered.
17	More revision classes. Teachers are dealing better with students.
18	More revision classes held Teachers deal better with students
19	Us, by improving our grades which gives a good example of the school.
20	Mr Cross and us the students as us getting good grades improves the school has better teachers and it shows that our students learn better.
21	I believe the students (especially year 11) have changed the way the school students operate and the willing of teachers forming good relationships providing fun exciting clubs and also better teachers have come to the school.
22	The students and teachers Teachers are organised, and are ready to deal with a problem
23	The school has thoroughly explained the importance of doing well and how it could help us on the future. The high ability of the students and them being a role model for younger students
24	In my opinion there are many reasons for the improvement of the school such as strong leadership from the head teach and motivated students as well great teachers.
25	Mr Cross himself. Since he came he knuckled down on everything and everyone and within his first 3 months of him being here he got us off speacil measures so I think it's down to him.
26	The proposal of closure bringing the school together, making us realise that we must change.
27	
28	I think that one main thing that helped school improve has to be student attitudes to school. As more teachers are employed I think more fun activities actually prevent such bad behaviour gaven by students.
29	The New Head teacher, Mr. Cross, changed the way things were being done e.g.New school day, longer lunch. He also employed better subject teachers that actually know what they are doing and get the best potential out of the students.
30	Having new teachers to help students in areas which needed it like science has helped improve students performance massively.

31	Better teachers' more authority, less victimisation, teachers could have been more blunt an dedecated to their job. But overall all is great and better.
32	Parents Students attitudes Parents, students, teachers contribution
33	The things that helped school to change was the motivation of students to get the best of what they can and get better education.
34	
35	Students, teachers, parents.
36	The threat of the school closer, made the school work harder to make sure it has improved the most since 2004.
37	Co-operation of students and some teachers. Parents Community Government Teaching quality Better teachers
38	Better teachers Teaching quality improves Seirious rules put in place
39	Overall the joint effort of everyone who wanted and worked for improvement, persistance and not giving up.
40	The change of teachers attitudes Also making the lessons more fun and exciting for students.
41	Parents getting involved to support the school and Mr Cross having the school at heart. He trys his best.
42	
43	That teachers have been changed, which made students improve. Making lessons more better and more intersting environment.
44	More after school clubs Revision club Better school meal Better qualified teachers
45	The attitude of students parents to help the school and students to progress and improve The support given by parents and the community
46	Student should make good progress
47	It would help if we had more educational trips to go on.
48	
49	to have a better learning to have a better teachers to have a say about stuff
50	I don't know.
51	Don't know
52	
53	I think that the Year 11 should go on more trips because me personally have only been on one and that was in Year 7.
54	More trips!!!
55	
56	Mr Cros and same teachers
57	
58	The way some teacher's treat students. Teacher's should stop being sexiest. Teacher's should not blame everything in students.
59	Other tings I think might have helped the school to change is ---------
60	
61	Other things which helped the school get better was when Mrs Cross came he improved for the better.
62	
63	
64	Students have helped the school to change not just the teachers.

65	The school need a make over and it needs better resources.
66	Teatchers should be more strict with the students and teactchers should take things more seriously.
67	
68	
69	The students
70	More support Students help more, pay more attention
71	After school clubs Help with coursework
72	Me
73	Me
74	
75	
76	Healthier school dinners
77	What are school lunchs like
78	Mr Cross coming to the school. Money
79	Money Smaller classed Trips
80	
81	In my opinion the school did it best and all of the things in school are good and I think there is nothing to change.
82	
83	The rules at the school
84	
85	Improve the area of the school for example; Lunch hall, outside areas etc.
86	Don't change
87	Mr Crosses strictness towards all students
88	A strict head teacher has changed the school rapidly
89	Head teacher changer most of the things.
90	More after school clubs
91	Don't know
92	Nope
93	
94	The students theselfs
95	No
96	
97	Make the football pitch better (Astro turf) Make lessons more fun
98	Someone of the shit teachers lefted and better ones came.
99	Bad teachers have lefted and good teachers came
100	
101	People enjoying school
102	
103	
104	School lunch is disgusting

Appendix B: Focus Group Meeting with Parents

Meeting Name: Parent Group
Facilitator Name: Chris Banks
Report created on: March 4, 2008

1. Hurlingham & Chelsea Research Project: Parent Group

1. Hurlingham & Chelsea Research Project: Parent Group

1. Playspace 1: Capturing the change: Parent perceptions of the school in 2004
2. Playspace 1: Factors that account for the rapid improvements in the school now
3. Playspace 1: Improvements in the future
4. Playspace 1: Any other comments and issues you want to raise

1.1. Capturing the change: Parent perceptions of the school in 2004

1. Playspace 1: What do you think were the biggest problems the school faced in 2004?
2. Playspace 1: Why do you think this was the case?
3. Playspace 1: In what ways did it change and how do you think this was achieved?

1.1.1. What do you think were the biggest problems the school faced in 2004?

1. terry: Too many pupils in the school. Not a very strong leadership team .discipline was slack in the classroom.
2. jankara: The level of work was not up to standard. student learning level was low.
3. joyce: No real leadership and too many children. When my daughter was a victim of bullying I was told by head of year that she brought it on herself.
4. angela: there was a lot of bullying
5. angela: my son was a victim of bulling
6. **Theme:** **low standards; very crowded -not organised and explains why bullying started & continued; discipline was slack and kids go away with poor behaviour; learning was limited and support was "thin" and teaching was poor; HT was not "visible"**

1.1.2. Why do you think this was the case?

1. terry: Weak leadership.some teaching staff did not seem committed.
2. jankara: The old headteacher was not strong enough to lead the school. and that what caused low leaning .
3. angela: cos there was a very week partnership between the students and the teachers and also parents
4. joyce: the old head had left due to sickness so a deputy stood in and never seemed to have a good team.
5. joyce: no leadership and didn't seem to work with parents to make things better brushing bullying under the carpet
6. **Theme:** **leadership was poor; weakish team at top; some tried hard but were isolated individuals; not working with parents; denial about the problems and extent of the issues**

1.1.3. In what ways did it change and how do you think this was achieved?

1. terry: new headteacher new strong leadership team better staff . discipline was improved with basic ground rules.
2. jankara: the head teacher change. better communication between the parents.started getting students opinions of the schools achievement.
3. terry: pupils seem to improve under the new leadership and valued being part of the school.
4. angela: thanks to Mr cross and his way of leadership and also with new teachers and working with the kids and parents the school changed and it became much better so much better that I was happy for my daughter to come to this school
5. terry: pupils behaviour got better under the new leadership team they seem to value themselves as part of the school.
6. joyce: Mr cross came along and took onboard the school got together a great team of leadership out routed any teachers who were not prepared to work his way they were out of a job here. he bought about big changes working with parents children and staff and assured us things were going to move onwards for the better. my daughter saw policeman in school he took onboard a case to exclude a pupil for bullying.
7. **Theme:** **leadership counts; pupils were listened and started to value themselves and the school; behaviour was targeted; staff were "sorted"; communication was better especially with parents**

1.2. Factors that account for the rapid improvements in the school now

1. Playspace 1: Using the students' list, which are the three most significant in your view and why these ones?
2. Playspace 1: Other factors not listed you think explain the school's rapid improvement, if so what are they and why?

1.2.1. Using the students' list, which are the three most significant in your view and why these ones?

1. angela: 1
2. terry: 1.1 school as improved under headteacher.
3. terry: 7 staff always contact you to inform the parents as to how your children are doing or not doing.
4. angela: the school has a very good head master and good teachers that care about the children
5. terry: 15. students enjoy school and the lessons and this creates good behaviour.
6. angela: 11 the students feel much better about coming in to school every day
7. joyce: 1,everthing starts from the top and then works downwards.4, if they are focused then the children learn better.15, it will further the children's learning if they are focused and where problems occur dealt with appropriately.
8. jankara: 1,4,9.if there is strong leadership this shows that the school standard on teaching will improve and so will the students way of learning. 4. the school will still be improving and the teacher will have a better understanding on who the students work at school. 9. student can have the right to feel free to talk about their examinations and can ask for help without feel

depressed.

9. angela: bulling is no longer tolerated
10. **Theme:** **leadership;**
11. **Theme:** **focus on learning and achievement**
12. **Theme:** **respect; support for exams; behaviour managed well. Task was too difficult because many if not all are important The youngster have it "right".**

1.2.2. Other factors not listed you think explain the school's rapid improvement, if so what are they and why?

1. angela: none
2. jankara: none
3. joyce: a good governing body
4. terry: none

1.3. Improvements in the future

1. Playspace 1: List anything else you think might make the school even better and say why.

1.3.1. List anything else you think might make the school even better and say why.

1. joyce: Being able to have more chances for the children to be able to have more vocational and improve the public image of the school to get rid of the nasty whispers.
2. terry: to make the school a kind of flagship of fulham so that we would be oversubscribed.
3. joyce: cutting the school roll number down
4. jankara: Keeps the level of improvement going. And achieve better than the last results.

Facilitator's notes

The above are verbatim responses from participants in the session.They should be treated as confidential. The participants were however content for the respondents' names to remain.

One of the participants was accompanied by his daughter (an ex-pupil) who typed her Father's responses. It was clear from discussion that he understood the questions and contributed to the discussion. The other participants were happy with this arrangement.

The editing process comprised of a simple spell check and change using the standard Microsoft Word Spellcheck application.

The highlighted themes **(in red)** were discussed after the full sets of responses were reviewed by the groups of participants. These themes – mainly points of agreement from the review process – were completed by the facilitator at the time and only with the full agreement of the group. As such they form an integral part of the verbatim record of the proceedings of the consultation session.

Chris Banks
5.3.08

Appendix C: Focus Group Meeting with Teachers

Meeting Name: **Staff Group**
Facilitator Name: **Chris Banks**
Report created on: **March 4, 2008**

1. Hurlingham & Chelsea Research Project: Staff Group

1. Hurlingham & Chelsea Research Project: Staff Group

1. Capturing the Change: Staff Perceptions of the School in 2004 - level and nature of "challenge"
2. Factors that account for the improvements in the school now
3. Improvements in the future

1.1. Capturing the Change: Staff Perceptions of the School in 2004 - level and nature of "challenge"

1. What was the school like in 2004 in terms of standards & behaviour?
2. What was the school like in 2004 in terms of teaching and learning and overall expectations?
3. How would you describe the school's culture and ethos in 2004?
4. How would you characterise the leadership of the school in 2004?
5. What was the public image of the school like in 2004?

1.1.1. What was the school like in 2004 in terms of standards & behaviour?

1. Low standards from students - staff working hard but accepting behaviour that was below a minimum expected. teachers and classes governed through behaviour management and not teaching and learning.
2. very poor standards very little tracking of ability and apply strategies to support students needs. Classroom behaviour was a matter of great concern no consistent standards were applied by teachers, behaviour outside class was very worrying.
3. in terms of standards achievement and attainment was low. this was compounded by poor teaching and low expectations. lack of rigor in terms of planning and curriculum development. behaviour was extremely challenging. little respect for staff or each other. incidents of violence, bullying, racist incidents, etc. were high. regular conflict between staff and students, students and students and staff and staff.
4. standards of the behaviour in 2004 was quiet concerns and the head and staff were focusing the minimum expectations
5. Standards in 2004 were very low. rules were seldom enforced; students ran the classrooms, corridors and the school. punctuality to lessons was poor. exercise books were messy, planning was seldom checked, the school was untidy and messy,
6. poor behaviour terrible standards chaos too many students large turn over of staff disruption
7. **Theme:** **low standards, very poor behaviour, issues of control, students unsupported, no consistency, no**

accountability

1.1.2. What was the school like in 2004 in terms of teaching and learning and overall expectations?

1. some good practice but in general the focus of teacher's work was not on teaching and learning. lessons were rarely planned and the quality of student's work showed low expectations in terms of achievement. there was not a shared understanding of what constitutes good teaching and learning.
2. poor expectation if any little or no tracking of work some teachers struggling to deliver
3. overall expectations were low. Focus on behaviour and crisis management as opposed to longer term strategies. teaching was not to engage and challenge but to control. however, again staff seemed to run a lot of extra curricular coursework/revision clubs so wanted the students to achieve but it didn't seem possible in the classroom environment.
4. curriculum was disorganized, achievement wasn't tracked, poor record keeping, no consistent approach to planning, lessons were chaotic, lessons seldom achieved their planned outcomes - if they existed, outcomes weren't necessarily key
5. the in terms of teaching and learning has some concerns such as long term planning, poor records of the students attainments, lack of control of the challenging students
6. very poor, no consistent procedures were in place, the day to day running did not seem to accept that teaching and learning is at the heart of being a school. Very low standards in terms of planning, taking into account how students handle the tasks and what needed to be the next step in their learning. no accountability by the managers andy indicatives by individual teachers were responded to in a strange and ad hoc manner
7. **Theme:** **very low expectations. poor or no planning; focus on control; tracking weak; no accountability; some attempts to help youngsters; some working hard but often in isolation; high turnover and lots of supply staff; no lead from top on T/L and seemed preoccupied with appearance and not substance; lack of priorities and focus so no sense of moving forward = frustration and being disheartened**

1.1.3. How would you describe the school's culture and ethos in 2004?

1. lack of positive culture or ethos. lots of bullying at all levels. no strong lead to form vision for school. culture led to failure of many students. some staff did not seem to enjoy working with young people.
2. headteacher seemed to be intent on playing power games with the staff and the LEA this fragmented the school so it had no central focus and the constant shifting of what we were all supposed to be doing kept changing almost on a daily basis , a recipe for disaster
3. reactive, aggressive, bunker-mentality; us v them; isolated;
4. despite the behaviour problems and constant conflicts over this, there did seem to be a sense of community in the school. Outside of the classroom the students were very friendly and their willingness to attend after school

clubs did surprise me. however, there seemed to be a culture of acceptance and 'giving up'. students were governing the classes and not the adults.

5. too negative, not moving forwards, lack of parents support, the students hard to control.
6. low work ethos students playing and challenging culture of the street students did not want to work teachers upset and distressed
7. **Theme:** **negative, low morale; unity in diversity amongst staff (bonded us but created often a negative attitudes towards kids); some staff got on well together superficially; bullying at all levels was endemic - abiding sense of survival**
8. **Theme:** **Poor collective ethos masked some caring relationships**

1.1.4. How would you characterise the leadership of the school in 2004?

1. lacking focus or clarity. no sense of priority. leadership did not model high expectations. not working as a strong, cohesive team. lack of lead and lack of accountability.
2. wrong school for the existing head could not handle the challenges was way out of depth
3. it begun when leadership had just changed. there seemed to be some resistance amongst the staff body to the change. very strong characters at the top who seemed to have a clear vision that they were willing to share. there seemed to be more middle managers who had a pastoral rather than teaching and learning role.
4. there seemed to be no clear planning the head seemed to nurture some staff in order to manage change nothing was presented in a clear way there was little debate and views did not seem to be taken into account.
5. poor leadership, poor support toward the staff. the school future was on serious concerns
6. no vision, poor management, reactive, poor planning, distant, disparate
7. **Theme:** **Group content that the responses were an accurate and shared summary**

1.1.5. What was the public image of the school like in 2004?

1. negative public image. Not many community links. the negative image seemed to be exaggerated by the public.
2. dire no creditability, antagonistic parents non supportive no understanding that we were part of a community this is down to the in fighting and the political intrigues that were happening
3. school for hooligans don't send your child there terrible reputation
4. very poor within the community though there was a sense that there had been a golden age which had not really been the case.
5. before there was a mistaken belief amongst parents that H7C was a good school but it was believed to be problematic by the residents and by other local schools
6. the public image was poor.
7. **Theme:** **there never was a golden age, but there was a belief it did exist**

8. **Theme:** **local community was very negative**
9. **Theme:** **lots of bad publicity**

1.2. Factors that account for the improvements in the school now

1. Using the students' list, which are the three most significant in your view and why these ones?
2. Other factors not listed you think explain the school's rapid improvement, what might these be & why?

1.2.1. Using the students' list, which are the three most significant in your view and why these ones?

1. 1. strong leadership from headteacher 2. students are taught well 3. curriculum is relevant. 1. strong leadership has permeated all aspects of school 2. teaching and learning key to improving school 3. curriculum better meets needs of all students
2. 20, this is why students come to school if they don't know how they are doing there is not point.1 strong leadership is central to moving a school forward, sharing the vision and enabling everyone to make their contribution creates the whole4 senior staff focus on learning and achievement regular monitoring and sharing of good practice drives learning forward
3. the head teacher provides strong leadership of the school - previously seemed to be a lack of vision and consistency. new leadership provided an end goal with clear vision of how to get there. staff are committed to the school and its improvement - majority taken on board all that leadership have said to do. supportive and great students-teacher relationships. Work long hours and track progress. Our lessons are well structured and organised - planning catered to the classes, well differentiated, engaging, c
4. no 1: teachers have been given a vision of where the school is being lead and what needs to be done to improve; there has been a strong focus on improving structures so that there is a stronger focus on the needs of students no 2: building new toilets and having children eat properly has had a huge impact on the way they understand they are viewed by the schoolNo18: the size of classes does make quality marking easier and more regular and means its easier to focus on teaching and learning rather than behaviour.
5. strong leadership good teachers students treated well these factors contribute to improvement over time as this dissipates through the school ethos and culture
6. 1-the head provides strong leadership of the school, and full support of the teachers across the school, the materials, resources, and the maintenance of the school was targeted well.5-the behaviour in general improved quiet well.
7. **Theme:** **good and accurate list as it stands**

1.2.2. Other factors not listed you think explain the school's rapid improvement, what might these be & why?

1. because of adversity we have become a community that is moving forward
2. staff committed to improving opportunities for students from generally disadvantaged backgrounds

3. okay
4. okay
5. ok
6. real drop in pupil numbers safer smaller school

1.3. Improvements in the future

1. **What would make the school even better and why?**
2. stability which would enable the recruitment of excellent staff
3. get the LEA to leave us alone
4. more positive reinforcement for the students and extra curricular activities (seem to have a huge focus on academic achievement but don't seem to praise for much else).
5. more energetic quality staff and teachers
6. gain a good public image. full support of the local authority.

Facilitator's notes

The above are verbatim responses from participants in the session. They should be treated as confidential. The participants' names have been removed at their request.

The editing process comprised of a simple spell check and change using the standard Microsoft Word Spellcheck application.

The highlighted themes **(in red)** were discussed after the fulls set of responses were reviewed by the groups of participants. These themes – mainly points of agreement from the review process – were completed by the facilitator at the time and only with the full agreement of the group. As such they form an integral part of the verbatim record of the proceedings of the consultation session.

Chris Banks
5.3.08

Appendix D: Focus Group Meeting with Students

Meeting Name: **Student Group**
Facilitator Name: **Chris Banks**
Report created on: **March 4, 2008**

1. Hurlingham & Chelsea Research Project: Student Group

1. Hurlingham & Chelsea Research Project: Student Group

1. Capturing what has changed since you were in Year 7
2. How are things now?
3. About you

1.1. Capturing what has changed since you were in Year 7

1. How did you and others behave when you were in Year 7?
2. What was the teaching like when you were in Year 7?
3. What were the best things about school when you were in Year 7?
4. What were the worst things about school when you were in Year 7?
5. What did others - parents, friends & others - say about the school when you were in Year 7?

1.1.1. How did you and others behave when you were in Year 7?

1. good
2. Year 7 was all a joke to me, I didn't take school seriously. it was all fun and games.
3. in year 7 everyone was laid back and didn't really take school seriously
4. We were bit crazy because we didn't have a care in the world.
5. We didn't really listen to the teachers or respect them. our education was not important to us
6. immorally, outrageous,
7. eratic,immoral,crazy,wild and not concentrating on work
8. childish
9. **Theme:** **childish, did not take it seriously, laid back**

1.1.2. What was the teaching like when you were in Year 7?

1. Completely terrible.
2. The teaching wasn't as good as it is now so it was bad!
3. the teaching was not bad
4. The teachers tried but they weren't listened to by the students. the lessons weren't very well planned
5. some teachers didn't care as much
6. students controlled teachers all the work we did was from text books and most teachers didn't care about students education
7. The lessons weren't well planned. teachers would try to teach us but the students weren't concentrating and never listened to them
8. the only problem we had was that we had many supply teachers
9. English, maths and science in my opinion was always

		taken seriously. However, other subjects weren't really taken seriously. Students attitude towards learning was appalling.
10.		The teachers didn't care for us or our education and we had control of them the whole time and the teachers just didn't want anything to do with us
11.		xeerxes is weird
12.	**Theme:**	**teaching was not good, lots of supply teachers, lessons not planned, low standards, kids had lots of influence and control**

1.1.3. What were the best things about school when you were in Year 7?

1.		lunchlunchlunchlunchlucnchhhhhh
2.		meeting new people coming to a new school
3.		making trouble with your friends and being a bit silly
4.		Lunch time ruled and watching daily fights were awesome.
5.		new friends
6.		lunch times and running around the school
7.		school finished early reallllllyyy earlier
8.		there were a lot more after school activities such as dance etc. we had a lot of days where we could wear our own clothes
9.		Having the teachers in the palm of our hands.
10.		school finished early
11.		wearing whatever you liked. non school uniform days at the end of terms and school. adventurous school trips and an early finish to the school day
12.		fizzy drinks
13.		lunch time the food tasted so good specially the pizza and pasta also school finished at 2-30
14.	**Theme:**	**early finish, lunch and fast food, non uniform days, running around and being silly**

1.1.4. What were the worst things about school when you were in Year 7?

1.		there were a lot of fights and some kids would get bullied
2.		The big boys would bully me for yu-gi-oh cards
3.		bare fights
4.		head teacher was lost
5.		a lot of fights it was like there were no rules at all nobody cared what they did
6.		we were missing out on a valuable part of our education
7.		----------
8.		teacher got moved too
9.		Lotssss of fighting and we had a weird head teacher!
10.		teachers in yr 7 were laid back
11.		there was a fight everyday also the school didn't have any discipline and the lessons where boring
12.		mrs gilchrist uff
13.	**Theme:**	**Fighting, bullying, no discipline, little learning, HT**

1.1.5. What did others - parents, friends & others - say about the school when you were in Year 7?

1.		school is wacky
2.		I don't want my child coming here, pish posh
3.		They said my school was terrible and should move to a better one but I kept faith in my school and went through thick and thin to get where I am today.

4. I cant believe you are going to that school
5. whenever anyone mentioned Hurlingham and Chelsea school they would say it was rubbish,
6. Friends use to say you go to a really bad school even though it weren't that bad.
7. it wasn't respected
8. that's a really bad school isn't it
9. Hurlingham and Chelsea sucks!
10. not a good school
11. it was deemed as a bad school
12. I was ashamed to tell my cousins that I went to Hurlingham and Chelsea all my friends in other schools said it was failing.
13. I swear they bring guns and knives to your schools
14. Hurlingham and Chelsea was really bad
15. Some people would disagree and say that the school depends on the children and how they act. if they want to learn and make the school good they would do it
16. don't kids get beaten up everyday there
17. dey sed da skl was lyk a prison, we wernt allowd out at lunch and da teacha's thought dey wer greasyyy! my mum complaind that there wasnt any h/w. my friend and fam sed dat my skl was off endzzz
18. **Theme:** **bad reputation amongst everyone we spoke to or to us,: it was not as bad as it was made out to be**

1.2. How are things now?

1. In what ways have your behaviour & attitudes and those of other students changed now?
2. Has the teaching changed now and if so, in what ways?
3. What has been the most useful in helping you to improve your work and to support your learning?
4. How would describe the school now to someone else and say why?
5. What do you feel other people - your friends, parents, others - think about the school now?

1.2.1. In what ways have your behaviour & attitudes and those of other students changed now?

1. we are much more focused with our learning
2. Thing have improved. However, the science and p.e department is corrupt
3. we want to learn and are happy being at school
4. Now things are really good no fights I learn!
5. we are more focused as we want to achieve high grades
6. we have a lot of respect for the teachers because we understand that our education is very important
7. The behavior now has improved a lot more. everybody takes learning seriously and I think that is down to the new teachers in the school
8. students respect teachers and the same for teachers also students are motivated to learn
9. we are good people :)
10. I enjoy school much more
11. the behaviour of mine and my peers have improved
12. my behaviour and attitude is very positive but not too concentrated as I believe everyone needs some humour in there life and without it your childhood is wasted and other students have the same attitude which is why I think the school has picked itself back on

		its feet.
	13.	I now want to learn
	14.	right now I have a good relationship with teachers
	15.	in year seven I was laid back, I argued a lot with students and sometimes teachers but now I take things a lot more seriously
	16.	the year is joke
	17.	better teachers:)
	18.	hold tight xerxes
	19. **Theme:**	**take school seriously, motivated, respect both ways, concentrate and want to achieve**

1.2.2. Has the teaching changed now and if so, in what ways?

1.	we have better teacher now
2.	the lessons are more organised and well planned
3.	As we got new teachers, the teaching improved a lot more.
4.	the teachers have realised that they need to be a bit more stricter
5.	the teachers respect us and so we respect them back
6.	teachers motivate us to do work whereas in yr 7 they did not
7.	teaching has changed. Better teachers! more rules. e.g no hoodies, no mobile phones
8.	the teachers are more confident with their teaching
9.	The quality has exceeded my expectations certainly in the most important subjects and the teachers attitude towards the students is not being a full teacher but going round boundaries to help us out every now and again.
10.	the lessons are not just
11.	te
12.	x
13.	the teachers know what they are doing and teaching and so it is easier for us to participate
14.	the lessons are not just text books it is more exiting
15.	since I have been in this school the standard of teaching has improved dramatically as teachers take time to plan there lesson which makes lessons more exciting
16.	teaching has changed in many ways. Firstly, the standard of teaching has improved dramatically due to the raised expectations given to us by the school. secondly Mr Cross has made it clear that the teachers need to improve to make our school better. due to the proposal of closure
17.	l,;'#
18.	:)
19.	=)
20. **Theme:**	**much better teaching standards, better planning, more respect, better teachers**

1.2.3. What has been the most useful in helping you to improve your work and to support your learning?

1.	better relationships with the teachers
2.	new motivated teachers
3.	teachers pushing us to be our best!
4.	the teachers have supported us throughout it all
5.	----------
6.	revision after school and on the weekend before important exams

7. we help each other now and we are more friendly
8. teachers support helps a lot
9. there are many extra curricular activities
10. such as revision clubs
11. 9.y.0
12. oh ye, revision on weekends near 2 exams =)
13. certain teachers have given us massive support, and have stood by us even through the threatening proposal of closure on our school
14. there are a number of reasons why my work has improved such as strong leadership from the head teacher and rest of the teachers also better teachers
15. **Theme:** **support, good relationship, revision classes**

1.2.4. How would describe the school now to someone else and say why?

1. it ight
2. the school is a massively improving school
3. a very improved school
4. it seems like a completely different place
5. my school is great we have soooo much fun
6. you wouldn't recognise it
7. lesson are not as boring as the use to be
8. a place where children now want to learn and get good grades
9. it is a very good school where you can learn just as well as anywhere else
10. brilliant fantastic exhilarating outstanding out of this world amazing top notch top banana pick of the bunch
11. (.Y.)
12. we have fun as well as learning
13. and learning is overall better
14. I would describe the school now in a very different light to te way I would before. I would describe it as outstanding, high achieving and very moral towards w
15. better, has stepped up its popularity and reputation in other boroughs and areas
16. the school is an exciting multicultural secondary school with good results and motivated teachers
17. : work

1.2.5. What do you feel other people - your friends, parents, others - think about the school now?

1. g
2. o
3. o
4. d
5. its good
6. when they ask me and I tell them its much better they believe me
7. from looking in newspapers they will see that our school is very improving
8. don't believe me*
9. its getting good but still not good enough but den I just say silencio I learnt dat from spanish
10. they would describe it as boombastic alifantastic
11. students rep it in a good way and so others agree its good
12. it is a better school with a better reputation
13. it ight, could be better, more school trips, non school uniform days, more trips
14. right now other people will have seen the dramatic

improvement however there is still prejudice

1.3. About you

1. In what ways have you changed personally since you were in Year 7?
2. How has the school helped you?

1.3.1. In what ways have you changed personally since you were in Year 7?

1. I have got more confident
2. I'm more rowdy, girls have made me stronger
3. I have got a lot more confident
4. I am always talking and laughing
5. I have matured to a great extent, you could say that it's a bildungsroman!!
6. a lot more mature
7. take school a lot more seriously
8. I have matured
9. I am taking my life more seriously
10. I have realised that life doesn't work in your way but it's been exceptionally enjoyable and become matured and has been a good life experience.
11. I enjoy school and have fun with my friends
12. we have gone from boyztomen
13. school is much better so I have changed a lot in good way of course like I'm always laughing
14. stronger person
15. laughing*
16. too shy
17. in year 7 I was a hyperactive underachieving student who got off on a bad step since then I have gotten good result before I used to be excluded but now I am mature
18. **Theme:** **confident, matured, happier, take life seriously most of the time**

1.3.2. How has the school helped you?

1. my friends have helped me grow as a person
2. The school hasn't helped me, hold tight mum!
3. new teachers helped me focus a lot more in lessons, they motivated me to learn
4. I have had many experiences at school which have made me grow as a person
5. friends of course help you through school
6. it has made me a better person
7. school has helped me because I have some really good friends that I will miss so much
8. learning
9. friends form this school has helped me
10. the teachers have taught me life lessons
11. the school has helped by providing me with equipment and also most teachers stay after school to help us if we ask
12. It has provided me a very good education as far as I am concerned and have met some great people in my time and hope our relationships may continue in further life as they have made great contributions in life's problems
13. the school has helped he achieve so much, and it has helped me achieve good grades

Facilitator's notes

The above are verbatim responses from participants in the session. They should be treated as confidential and the participants' names have been removed.

The editing process comprised of a simple spell check and change using the standard Microsoft Word Spellcheck application.

The highlighted themes **(in red)** were discussed after the full sets of responses were reviewed by the group of participants. These themes – mainly points of agreement from the review process – were completed by the facilitator at the time and only with the full agreement of the group. As such they form an integral part of the verbatim record of the proceedings of the consultation session.

Chris Banks
5.3.08

UNIVERSITY OF GREENWICH

RESEARCH ETHICS COMMITTEE

APPLICATION FORM

Philip Cross
[Student Number: 000036416-9]

February 2008

[Second reapplication – for final approval by Chair's Action]

the UNIVERSITY *of* GREENWICH

CONTENTS

RESEARCH ETHICS COMMITTEE
APPLICATION CHECKLIST

APPLICATION REFERENCE:

for office use only

Name of Applicant: Philip Cross	
School: Education and Training	
Title of Research: Creating a resilient and sustainable school improvement culture against the odds	
Papers to be attached	**tick if attached**
• Participant Information Sheet	✓
• Letters (to participants, parents/guardians, GPs etc)	✓
• Full Proposal (incl. signed agreement of indemnity if necessary)	✓
• Questionnaire(s)	✓
• Financial Statement/Declaration	
• Advertisement	
and Annexes if applicable:	
• Annex I - Consent Form	✓
• Annex II - Research Involving Participants under 18 years of Age	✓
• Annex III - Drugs and Medical Devices	
• Annex IV - Research Involving Human Tissue	
• Annex V - Ionising Radiation	
• Annex VI - Risk Assessment Form	

- It is the responsibility of the investigators to ensure that all associated staff are informed of research projects and are told that they have the approval of the Research Ethics Committee.
- If data is to be stored, either electronically or in hard copy, in such a way as to make it possible to identify individuals then the project must comply with the Data Protection Act 1998. Please consult your School's Records Co-ordinator, the Committee Secretary or University Data Protection Officer for advice.
- The Committee Secretary **must** receive immediate notification of any adverse or unforeseen circumstances arising out of the research.
- The Committee **must** receive notification:
  - when the study is complete (except in the case of University of Greenwich MPhil & PhD students and professional doctoral researchers, e.g. EdD, who are monitored via the Research Degrees Committee)
  - if it fails to start or is abandoned
  - if the investigators change and
  - if any amendments to the study are made

SECTION 1: DETAILS OF APPLICANT(S)

1. Applicant

Surname: Cross	**Forename:** Philip	**Title:** Mr
School/Department: Education and Training		**Tel:** 0208 331 8058
Campus: Avery Hill		**Fax:** 0208 331 9504
Home address:	32 Elm Grove, Orpington, Kent, BR6 0AB	
Home Tel: 01689 816723	**E-mail:** pcross@hurlchel.lbhf.sch.uk	
Title of Research:	Creating a resilient and sustainable school improvement culture against the odds	

2. Other workers and departments/institutions involved

a. Hurlingham & Chelsea School
b.
c.

3. Project Supervision

Name of Research Supervisor & their contact information: Francia Kirchington, Principal Lecturer, University of Greenwich. [f.kinchington@gre.ac.uk]
Programme of Study (if applicable): EdD MPhil / PhD / EdD / Masters by Research / MSc/ MA/ BSc / BA / DipHE / other *(please specify)*

4. Signature of relevant persons

I undertake to carry out research involving human participants in accordance with those Principles of the Declaration of Helsinki which are attached (see Appendix 6) and any research involving animals in accordance with the appropriate code of practice (details of which are given in the Guidelines for Applicants – see Annex VII). In the case of a research degree, I confirm that approval has been given by the Research Degrees Committee. I agree to conform to the requirements of the Data Protection Act 1998 and Freedom of Information Act 2000. **Signature of applicant** Date 16 November 2007
I have discussed this project with the applicant and I approve it **Signature of Supervisor** Date
I have discussed this project with the applicant and I approve it **Signature of Director of Research or Head of School** Date

Please answer these questions for ALL the investigators involved

5. State your professional qualifications in the field of study

- Master of Arts (MA) in Education;
- National Professional Qualification for Headteachers (NPQH);
- Preparation for Headship (Long Course);
- Mathematical Association Diploma in the Management of Secondary Mathematics Departments;
- Postgraduate Certificate in Education (PGCE) with Distinction in the Theory of Education;
- B.Sc (Honours) Degree in Mathematics (II:2).

6. State your current membership of professional, or other, bodies which set ethical standards of behaviour or practice such as the British Psychological Society, Nursing and Midwifery Council, and medical Royal Colleges etc.

- General Teaching Council;
- National Union of Teachers;
- Association of School and College Leaders;
- Mathematical Association;
- British Educational Leadership, Management and Administration Society.

7. Who is your employer (where is your payslip issued from)?

- Hurlingham & Chelsea School, London Borough of Hammersmith & Fulham.
  Hammersmith & Fulham Council,
  Education Department,
  Town Hall,
  King Street,
  London, W6 9JU.

8. Are you a member of a medical protection organisation? NO

Are you a member of any other protection organisation? (NUT & ASCL) YES

Are you provided with insurance by any professional organisation? *(University of Greenwich)* YES

(please state which organisation in each case)

9. Primary purpose of the Research

- Educational qualification YES
- Publicly funded trial or scientific investigation NO
- Non-externally funded research NO
- Commercial Product Development NO
- Other externally funded research (Please specify)..... NO
- Other (Please specify)..... NO

SECTION 2: DETAILS OF THE PROJECT

1. What is/are the principal research question(s) posed by this research?

What are the contributory factors that cause rapid improvement in an 'Especially Challenging Urban School'?

The following supplementary questions will frame the research design

(a) How do we define an especially challenging urban school?
(b) What does the literature tell us about the critical aspects of school improvement in especially challenging urban schools?
(c) What do students perceive to be the contributory factors implicit in the rapid improvement of an especially challenging school?
(d) What do students perceive to be the contributory factors implicit in the rapid improvement of a subject area in the same school?
(e) What do parents, staff, governors and the local community consider to be the contributory improvement factors?
(f) What are the external threats that can divert school improvement efforts and how can they be overcome?

2. Outline of the proposed project *(a brief description must be given here in lay terms. It is <u>not acceptable</u> to complete questions by referring to the sections in the UREC forms)*

Two year groups (n~240) of students aged 14-16 will be asked to complete a questionnaire to give their perceptions of the most important aspects of the school improvement process in the case study school.

Exploratory and confirmatory factor Analysis using Principle Components Analysis (PCA) will be used to extract the most important school improvement components from the data.

In order to interpret the components extracted from the PCA effectively, a stratified random sample of students' parents, teachers and other stakeholders will be interviewed in more detail.

The aim of the research is to establish a conceptual multi-level rapid school improvement model for an especially challenging urban school.

3. State the personal experience of the applicant and of any assistants involved with participants in the study in the field concerned. *(In the case of student or non-experienced applicants, please state the name and experience of the supervisor, and the degree of supervision).*

Since September 2004 I have been undertaking my second Headship at Hurlingham & Chelsea School in the London Borough of Hammersmith and Fulham. This extremely challenging urban school came out of 'Special Measures' within four terms of my arrival as headteacher. The school was described by OFSTED (2005) as 'rapidly improved' with 'rapid improvement in test and examination results'. Between September 2006 and April 2007 the Local Council tried to force through a proposal to close the school but I led a strong campaign that ultimately led to the closure proposal being withdrawn.

During my previous four and a half years of Headship at Medway Community College, the school improved rapidly, gaining DfES School Achievement Awards in 2 of the 3 years they were in existence. An OFSTED inspection [2003] described my leadership as 'transformational' and 'exemplary'.

I am a member of the following professional bodies: the British Educational Leadership, Management and Administration Society (BELMAS); the National Union of Teachers (NUT); the Association of School and College Leaders (ASCL); the Mathematical Association (MA).

I regularly speak at local and national conferences related to school improvement in especially challenging urban contexts. Locally I am the Secondary Headteachers representative on the Hammersmith and Fulham Schools Forum and Headteacher's Liason group.

4. What do you consider to be the main ethical issues or problems that may arise with the proposed study and what steps will be taken to address these?

4.1 Main ethical issues:

- Confidentiality *and Privacy*: allowing students, teachers and parents to express their views freely;
- Reliability *and Coercion: recognising that my professional status might affect the perception of participants as to their freedom to choose not to participate and also possibly bias their responses.*

4.2 The school context and ethical issues

4.21 The OFSTED (2005) 'Framework for Inspecting Schools' requires all schools to engage in a process of school self-evaluation. *"Schools must listen to and do something about the views of their stakeholders".* (OFSTED, 2005). 'A New relationship with Schools: Improving Performance through School Self-Evaluation', para 2). Furthermore: *"Experience shows the most effective schools are those which are well organised to collect, analyse and evaluate evidence drawn from ... gathering and considering the learners', parents', teachers' and other stakeholder views and perceptions about the quality of the schools provision".* (ibid., para 21)

4.22 As a direct result of working effectively within the spirit of the new OFSTED Framework the case study school has developed a culture of seeking stakeholder views and acting on them. Hence, the conduct of the research and the feedback of results via the SEF (School Self-Evaluation Form) sit firmly within the recognised good practice that exits within the school. The most recent inspection of the case study school judged that the schools self-evaluation documentation was 'outstanding' (OFSTED, 2005). *I see this research as an extension of our work in this area.*

4.24 I am a member of the GTC (General Teaching Council), have an enhanced CRB check conducted on a regular basis and am well aware of my responsibilities of being *'in loco parentis'*. My school is bound by the Freedom of Information Act and as the head teacher I am fully aware of my responsibilities in this area.

4.25 The EdD is a professional doctorate and consequently the purpose of the research is solely to impact on improving practice and contributing to the research base on school improvement in challenging contexts. All of my findings will be fed back to stakeholders.

4.3 Steps to be taken to address ethical issues

The Research Ethics Committee meeting held 30th November 2007 identified a major concern with my research, namely: the potential conflict between my professional role and the conduct of the research. As a result of this feedback it has been decided to engage an external consultant, skilled in seeking the views of students, to conduct the questionnaire and the focus interviews. The case study school is unique and the suggested option of conducting the research in a different school undermines the whole notion of my work over the past 4 years. However, further consideration is being given to the possibility of conducting a parallel study in a similar context. Interview notes and questionnaire responses will be stored for one year after the date of publication of the thesis.

The questionnaire

4.31 Only *students in Years 10 and 11 (14-16 year olds)* at the school will be involved in the research.

4.32 A positive decision has been taken not to use a postal questionnaire:

- *Experience in the school shows that response rates from students, parents and teachers is very poor and a sample in excess of 100 (Kline, 2004) is required if the Principle Components Analysis is to be meaningful. The potential cohort of 240 year 10 and 11 participants therefore provides for a good sample size;*
- *Experience of children shows that reliability is more likely to be assured if the questionnaire is carefully explained to groups in an environment where the independence and privacy of responses can be guaranteed.*

4.33 The large scale questionnaire of students' perceptions will be conducted in groups of approximately 30 in the school lecture theatre (seating capacity 100). This provides ample space for participants to be well spaced and hence guarantee privacy and anonymity of responses.

4.34 Since the questionnaire will now be carefully explained and conducted by an external consultant, anonymity is guaranteed and issues of coercion by the researcher are negated. No names will be specified on the questionnaires.

Focus Group Interviews

4.35 Three separate focus group interviews (teachers, students and parents) of 6 participants will be conducted by an external consultant. The focus groups will be selected to form a stratified random sample to reflect gender, ethnicity, ability or status.

4.36 Focus group interviews will be conducted in the school conference room which will provide ample room to allow privacy.

4.37 'Zing' facilitation software will be used to structure the interviews with a pre-prepared question template. This enables an accurate confidential electronic transcript to be obtained immediately.

5. State the intended value of the project, giving necessary scientific background. *(If this investigation has been undertaken previously with human participants, please explain why it*

needs to be repeated).

Research into school improvement in especially challenging circumstances has concentrated predominantly on large-scale literature reviews, small scale projects, single case studies, such as those documented by OFSTED, and reports of practitioners (Potter et al, 2002; Harris & Chapman, 2002, 2004; Harris et al, 2003). In England there is little empirical evidence about improving schools in challenging circumstances (Chapman & Harris, 2004) and no known studies that have focused on the consumers of the education provided – the students. To date there has not been an in-depth analysis of 'factors' that can be statistically claimed to be correlated to school improvement in such contexts. A number of features make this study unique, most notably:

- The focus on student perceptions as 'consumers of', as well as 'participants in', the school improvement process;
- Through empirical research it attempt to identify correlates of improvement in an especially challenging but improving context.

The study is important because it responds to two recurring criticisms in the literature: the lack of detailed research into ineffective schools (Brown, Duffield & Riddell, 1997; Reynolds, 1994) that have improved (Gray et al, 1993; Stoll, 1993) and the necessity to attempt to identify the means by which some schools in especially challenging contexts succeed 'against the odds' (Maden & Hillman, 1993).

6. Where exactly will the study take place, i.e. where will the interaction with participants take place, e.g. online, laboratory, primary care trust, etc?

The questionnaire will be administered in the school Lecture Theatre with participants organised into groups of 30. The focus group interviews (sample size = 6) will take place in the conference room. On this basis both venues provides ample room to ensure privacy and anonymity to respondents.

7. Have collaborating departments or departments whose resources will be needed, been informed and agreed to participate? YES

8. State likely duration of the project, including proposed start and finish dates where available.

It is anticipated that the both the questionnaire and the focus group interviews will take place between November 2007 and February 2008.

9. What is the expected total duration of participation in the study for each participant, e.g. 20 minutes to complete a questionnaire, an hour for an interview, etc?

It is anticipated that the questionnaire will take a maximum of 20 minutes to complete and the focus group interviews will take approximately one hour.

10. What monitoring arrangements will be in place to check if any new ethical issues emerge during the project?

The project will be closely monitored by my supervisor, Francia Kinchington. Should any problems occur it is anticipated that the normal complaints procedures in operation at the school will take precedence.

11. Specify whether the following procedures are involved:

Any invasive procedures, e.g. venepuncture.	NO
Any intrusive procedures, e.g. questionnaire(s), interview, diary, focus groups.	YES
Physical contact.	NO
Any procedure that may cause mental distress, in particular if dealing with vulnerable participants, e.g. young, mentally ill, elderly, etc.	NO
Patient records or data with no other direct participant contact.	NO
Prisoners or others in custodial care.	NO
Adults with incapacity (physical and/or mental).	NO
Testing a medicinal product or device.	NO
Children/Young persons.	YES

Outline the procedures involved in your study. *If samples are to be taken, state **type, frequency** and **amount** and whether this is part of their normal treatment. If Radiological Investigations are part of the procedures please indicate the number and frequency of exposures and total calculated dosage – see Annex V.*

Questionnaires:

Will be conducted by an external consultant in groups of 30 in the school Lecture Theatre, which can seat up to 100. Students will be well spaced out to ensure privacy of responses. The purpose of the study will explained carefully and students will be given the option not to take part before they enter the Lecture Theatre.

Interviews:

The 'Zing' facilitation software will be used. A template containing all questions will be pre-installed on the system. An *experience external consultant will go through each question, one at a time.* Participants will complete their responses anonymously by using a key board. The system allows more detailed and searching questions to be asked as the interviews develop. Once the interviews are complete the responses will be exported to a Microsoft Word document *and stored securely for further processing.*

12. What are the <u>potential</u> adverse effects, risks or hazards for research participants from the interventions?

See 2.13 below.

13. What is the <u>potential</u> for pain, discomfort, distress, inconvenience or changes in lifestyle for research participants?

It is recognised that this research does provide the potential for coercion of participants. However:

- *The questionnaire and interviews will be conducted by an external consultant not known to respondents;*
- *Participants will be given the option not to take part and may opt out at any stage without any adverse consequences;*
- *Participants will be fully advised of the nature of the research and its purpose.*

14. What is the <u>potential</u> benefit for research participants?

As well as contributing to the research knowledge based on school improvement and school effectiveness the outcomes of the study will be used to bring about further improvement in the case study school. All stakeholders will have had their voices listened to throughout the school improvement programme and this will be reinforced at each stage of the study. The outcomes will be used to identify further areas for improvement during the next stage of the improvement process.

15. What is the <u>potential</u> for adverse effects, risks, hazards, pain, discomfort, distress or inconvenience for the researcher(s) themselves (if any)?

None

16. Does the research involve any of the following:

- working in a laboratory and/or medical establishment? NO
- working with or abstaining from hazardous substances? NO
- working with sources or ionising radiation? NO
- working in an environment where either the participant or the researcher could be at an increased risk of harm, either physically or mentally, e.g. working in an isolated environment, where unreasonable peer pressure/intimidation could apply, etc. NO

If YES to any of these items, you must complete a full risk assessment (see Annex VI). In addition, in the case of ionising radiation, including the administration of X-rays, you must also complete Annex V.

SECTION 3: RECRUITMENT OF PARTICIPANTS/CONSENT

1 In how many and what types of host organisation(s) is it intended that the proposed study will take place?

The project will be undertaken at Hurlingham & Chelsea School.

2 How will you approach and recruit participants for the study? If controls are to be included please state how they are to be selected and attach a copy of the advertisement if used.

Questionnaire:

- *All students in Years 10 and 11 (14 to 16 year olds) who were at the school during the school improvement programme will be eligible for involvement in the study.*

Focused Interviews:

- *Three separate focus group interviews (teachers, students and parents) of 6 participants will be conducted by an external consultant. The focus groups will be selected to form a stratified random sample to reflect gender, ethnicity, FSM (students), ability (students) or status (staff).*
- *Those selected will be approached via letter to seek their active involvement in the study.*

3 **Please specify the type and number of participants to be used in this project, the selection criteria and the exclusion criteria** (Note: names of student participants receiving educational credits and/or payments in commercial sponsored research must be notified to the appropriate Head of School, University of Greenwich)

What are the principal inclusion criteria, e.g. healthy participants, in-patients, clinic attenders, etc? (please justify)

- *The need to measure the impact of the school improvement factors over a four year period requires that only those students, parents and staff connected with the school throughout the period March 2004 to July 2007 are eligible for participation in the study.*
- *On this basis, all students in years 10 and 11 will be eligible to participate in the questionnaire. The focus interview samples will be selected from those meeting the eligibility criteria outline above.*

What are the principal exclusion criteria? (please justify)

- *None. Having reflected on the nature of the participants and previous experience of managing school self-evaluation processes, it is not necessary to exclude any potential respondents.*

4	**Are participants to be included under the age of 18?** *(if YES, please fill in Annex II: Research Involving Participants under 18 years of age – NOTE: it is the researcher's responsibility to ensure any enhanced check from the Criminal Records Bureau that may be required is obtained before the research commences)*	YES
5	**Is any form of human tissue to be used in this study?** *(if YES, please fill in Annex IV: Research Involving Human Tissue – PLEASE ENSURE YOU READ THE GUIDANCE NOTES)*	NO
6	**Please attach a copy of the Participant Information Sheet** *(see Guidelines for Applicants – Annex VII for details)*	
7	**Is written consent to be obtained using the UREC consent form? *(Annex I)*** *Written consent is being sought in the case of participation in the focus interviews. Due to the need to keep questionnaire responses anonymous no written consent is sought for participation in the questionnaire.*	YES
	Is a form other than the UREC consent form to be used? *Parent consent form* ***(if YES, please attach a copy)*** *See Annex VI*	YES
8	**Will payments be made to participants, e.g. reimbursement of expenses, incentives or benefits? *(if YES, please give details)***	NO
9	**What arrangements have been made for participants who might not adequately understand verbal explanations or written information, e.g. where English is not a first language or they have low functional literacy?** *Where respondents do not have an adequate understanding of the English language an interpreter will be present for both the questionnaire and participant interviews.*	

SECTION 4: INSURANCE/FINANCIAL INTEREST

1.	**Is the project covered by University of Greenwich Public Liability Insurance** *(i.e. it involves healthy participants and is conducted by a University of Greenwich employee or student – PLEASE ENSURE YOU READ THE GUIDANCE NOTES)*?	YES
2.	**If you are a NHS Trust employee, have you checked with the Hospital Management to ensure that arrangements are in place to provide indemnification and/or compensation in the event of a claim by, or on behalf of a participant?** *(please give details)*	Not applicable
3.	**If neither Section 4.1 nor 4.2 (above) applies, what arrangements have been made to provide indemnity and/or compensation in the event of a claim by, or on behalf of, participants for negligent harm?** Not applicable	
4.	**Please specify any financial or other direct interest to you or your department arising from this study. A full declaration** should be included in this space, or on an attached sheet. None	

SECTION 5: RESEARCH GOVERNANCE

1.	**Does the project need to comply with the requirements of the Research Governance Framework for Health and Social Care?** http://www.dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsPolicyAndGuidance/DH_4008777	NO
2	**Does your funding body require you to comply with any other specific Research Governance Framework/Procedure, e.g. ESRC, Standard Research Council conditions for the award of Grants, etc.?**	NO
3	**If "Yes" to either Section 5.1 or 5.2 has the proposed project been approved by the nominated scientific/peer reviewers?**	Not applicable
4	**If "Yes" to either Section 5.1 or 5.2 has the Research Sponsor[1] approved the proposed project?**	Not applicable
5	**If "Yes" to either 5.3 or 5.4 please attach evidence to confirm this. If "No" to either Section 5.3 or 5.4 please provide details of the project's current status** Not applicable	

[1] The sponsor is responsible for confirming everything is in place to enable the research to begin, e.g. written agreements between parties, funding, approvals and procedures for quality assurance, monitoring and reporting.

ANNEX I: PARTICIPANT CONSENT FORM *(Focus Interviews for students, staff and parents)*

the
UNIVERSITY
of
GREENWICH

You have been invited to take part in a research project that seeks to establish the causes of the significant improvements that have taken place at Hurlingham & Chelsea School since September 2004.

Title of Research: Creating a resilient and sustainable school improvement culture against the odds	
Investigator's name: *To be confirmed*	
To be completed by the participant/patient/volunteer/informant/interviewee/ parent/guardian (delete as necessary)	
1. Have you read the information sheet about this study?	YES/NO
2. Have you had an opportunity to ask questions and discuss this study?	YES/NO
3. Have you received satisfactory answers to all your questions?	YES/NO
4. Have you received enough information about this study?	YES/NO
5. Which researcher/investigator have you spoken to about this study?	*TBC*
6. Do you understand that you are free to withdraw from this study:	
• at any time?	YES/NO
• without giving a reason for withdrawing?	YES/NO
• without affecting your future with the University/studies/medical or nursing care?	YES/NO
7. Do you agree to take part in this study?	YES/NO
Signed	Date
Name in block letters	
Signature of investigator	Date

Please note:

- For persons under 18 years of age the consent of the parent(s) or guardian(s) must be obtained or an explanation given to the University Research Ethics Committee and the assent of the child/young person should be obtained to the degree possible dependent on the age of the child/young person.
- In some studies witnessed consent may be appropriate.

The consent form **must** be signed by the actual investigator concerned with the project after having spoken to the participant to explain the project and after having answered his or her questions about the project.

This Project is Supervised by: Francia Kinchington
Contact Details (including telephone number): 02083318058 **University of Greenwich, Mansion Site, Bexley Road, Eltham, London, SE9 2PQ.**

ANNEX II: PARTICIPANT INFORMATION SHEET

the UNIVERSITY of GREENWICH

What has led to the improvement in your school?

Creating a resilient and sustainable school improvement culture against the odds

You have been invited to take part in a research project that seeks to identify the contributory factors that cause and then maintain rapid improvement in 'Especially Challenging Urban Schools'.

The study aims to provide answers to the following questions about Hurlingham & Chelsea School:

(a) *What was the school like when it was placed in Special Measures by OFSTED in 2004?*

(b) *What does research in other similar schools tells us about how to improve results?*

(c) *What do students, teachers and parents think has led to the improvements to date?*

(d) *What do students think has led to the improvements in the English Department at the school?*

(e) *What are the external threats that have worked against school improvement and how have they been overcome?*

Research into school improvement in especially challenging circumstances has concentrated predominantly on large-scale literature reviews, small scale projects; single case studies, such as those documented by OFSTED, and reports of practitioners.

In England there is little research evidence about improving schools in challenging circumstances and no known studies that have focused on the consumers of the education provided – the students. To date there has not been an in-depth analysis of 'factors' that can be statistically claimed to be linked to school improvement in such contexts. A number of features make this study unique, most notably:

- *The focus on student perceptions as 'consumers of', as well as 'participants in', the school improvement process;*
- *Through statistical analysis of the data collected, the research attempts to identify what has caused the improvement in an especially challenging but rapidly improving context.*

The study is important because it responds to two major criticisms in existing research literature: the lack of detailed research into ineffective schools that have improved and the necessity to attempt to identify the means by which some schools in especially challenging contexts succeed 'against the odds'.

The information that is collected from those taking part in the research project will be completely anonymous and remains confidential at all times. The data will be stored on computer and held securely by the research team for one year after the study is complete. It will then be destroyed.

You should be aware that a report of the findings from the study may be published in the future but all information collected from participants will remain confidential and anonymous at all times. At any stage during the collection of the data you may choose to opt out of the project without any impact on your relationship with the school and/or your education or career. The research is being supervised by Francia Kinchington at the University of Greenwich, who may be contacted at the address or telephone number below.

Francia Kinchington
Avery Hill Campus
Mansion Site
Bexley Road, Eltham
London
SE9 2PQ
Telephone: +44 (0)20-8331 8058

ANNEX III: RESEARCH INVOLVING PARTICIPANTS UNDER 18 YEARS OF AGE

Title of Research: Creating a resilient and sustainable school improvement culture against the odds	
1. In what way, if any, does the proposed investigation benefit the individual participant? For example, identifies a particular need for support or intervention As well as contributing to the research knowledge base on school improvement and school effectiveness the outcomes of the study will be used to bring about further improvement in the case study school. All stakeholders will have had their voices listened to throughout the school improvement programme and this will be reinforced at each stage of the study. The outcomes will be used to identify further areas for improvement during the next stage of the improvement process.	
2. Is parent's/guardian's consent to be obtained? *(If YES, in what form - verbal, written witnessed etc? Please attach a copy of the relevant forms – If NO explain why not?)* **Questionnaires:** Parental consent is not deemed appropriate due to the age of the participants (15 and 16) and the fact that student's views are sought on a regular basis in the school as part of our school self-evaluation procedures. *This also enables confidentially and anonymity to be preserved.* **Interviews:** Parental permission will be sought via a letter (Annex 6) with a tear off slip as a record of consent. *All participants will be required to complete the participant consent form (Annex 1)*	NO YES
3. Will the child's or young person's assent/consent be sought and if so how? *(If YES, in what form - verbal, written witnessed etc? Please attach a copy of the relevant forms – If NO explain why not?)* **Questionnaires:** *Student consent will therefore be sought verbally and they will be informed before participation that they may opt-out before they enter the Lecture Theatre. In addition, each questionnaire indicates that:* *(a) it is part of a study that may be published;* *(b) it will remain confidential at all times;* *(c)the respondent can choose not to complete it.* **Interviews:** Student consent will be sought via the Participant Agreement Form (Annex 1)	NO YES
4. **Are the risks of the investigation judged to be minimal or nil and if so how?** *(please attach a risk assessment form if necessary)* *Through adopting all of the changes recommended by the Research Ethics Committee meeting held 30th November 2007 I believe that the risks are negligible. The potential conflict between my professional role and the conduct of the research has been resolved by the intention to engage an experienced external consultant, who meets the strictest requirements of working with children.*	YES
5. **Does the applicant and/or any researcher with direct contact with a child or young person have formal Criminal Records Bureau clearance?** *(If YES, please attach a certified copy or a signed undertaking from the researcher that the required clearance has been obtained).*	YES
6. Will another adult be present at all times during periods of interaction between the researcher and child/young person and if YES who? Another qualified experienced teacher with a full CRB check.	YES
7. **Have arrangements been made to provide counselling/support for any child or young person who may become psychologically affected as a result of the research?** If YES please give details: Due to the experience of the investigator, the age of the participants and other safeguards in place this is unnecessary. Interviews will be held in groups with another qualified teacher present. Whilst not expected any issues that may arise will be dealt with under the school's existing care, guidance and support procedures.	NO
Signature of applicant	**Date 16.11.07**

ANNEX IV: CONFIRMATORY QUESTIONNAIRE

the UNIVERSITY of GREENWICH

What has led to the improvement in your school?

You have been invited to take part in a research project that seeks to establish the causes of the significant improvements that have taken place at Hurlingham & Chelsea School since September 2004 when you were in year 7. During this time the school has seen standards rise rapidly. Please can you complete all sections of the questionnaire.

Very Important

How strong would you rate the overall **improvement** at Hurlingham & Chelsea since you joined the school in year 7 - on a scale of 1 to 10?
(1 being the lowest rating and 10 being the highest)

1	2	3	4	5	6	7	8	9	10
(please circle)									

Section 1: About You

Are you?	Male	
	Female	
Which of these best describes you?	White	
	Mixed Race	
	Asian or Asian British	
	Black or Black British	
	Chinese or other	
	Don't Know	
Do you receive Free School Meals?	Yes	
	No	
	Don't Know	
Do you receive extra help at school with your learning or behaviour from someone other than your teacher?	Yes	
	No	
	Don't Know	
What National Curriculum Levels did you get at the end of Year 9?	English	
	Mathematics	
	Science	
Have you ever been excluded from school (or had a managed intervention At the Childerley Centre)?	Yes	
	No	
Have either of your parents been to University?	Yes	
	No	

Please note: *(a) this questionnaire is part of a study that may be published in the future;*
(b) this research forms part of the Doctorate in Education (EdD) programme for Mr P. Cross;
(c) all questionnaires will remain confidential at all times;
(d) you can choose not to complete this questionnaire.

Section 2: Factors that have contributed to school improvement

In this section of the questionnaire you are asked to consider the extent to which each of the following factors could have led to improvements and make an accurate judgement on how important you think that factor was.

When asked the same question almost two years ago you provided a very long list of possible improvement factors. In order to be more precise about what things have made the difference - this list that you originally identified has been reduced statistically to the 21 factors shown below.

For each of the statements below please can you please indicate by circling the position [1=strongly disagree to 7=strongly agree] the extent to which that factor has contributed to the big improvements at Hurlingham & Chelsea.

Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

1	The head teacher provides strong leadership of the school	1 2 3 4 5 6 7
2	The school provides a safe and clean environment with good resources for learning.	1 2 3 4 5 6 7
3	The curriculum is relevant and strongly structured, with opportunities to study vocational and academic courses and to get help with basic skills.	1 2 3 4 5 6 7
4	Senior staff focus on learning and achievement	1 2 3 4 5 6 7
5	Issues of bullying, racism and anti-social behaviour are taken seriously	1 2 3 4 5 6 7
6	The school employs good teachers	1 2 3 4 5 6 7
7	Staff are committed to the school and its improvement	1 2 3 4 5 6 7
8	There are good relationships between staff and students	1 2 3 4 5 6 7
9	There is good extra-curricular support in preparation for examinations	1 2 3 4 5 6 7
10	Students have a positive attitude to school and want to do well	1 2 3 4 5 6 7
11	Students are treated fairly and with respect	1 2 3 4 5 6 7
12	Students are taught well	1 2 3 4 5 6 7
13	The work of the school is regularly monitored (such as teachers observing each other's lessons) and improvements are made as a result.	1 2 3 4 5 6 7
14	Our lesson are well structured and organised by teachers	1 2 3 4 5 6 7
15	Student behaviour is managed well	1 2 3 4 5 6 7
16	Teachers model the behaviour expected of students	1 2 3 4 5 6 7
17	External threats to the school (such as OFSTED, Special Measures and the Council closure proposal) are dealt with well.	1 2 3 4 5 6 7
18	Classes are generally small (compared to the average of 30 in all schools) and there are mainly mixed ability groups	1 2 3 4 5 6 7
19	Students are expected to work hard and do their best.	1 2 3 4 5 6 7
20	There is good feedback on students progress so that they know how to improve	1 2 3 4 5 6 7
21	Parents are kept informed of students progress	1 2 3 4 5 6 7

Section 3: Other than the list in Section 2, what other things do you think might have helped the school to change?

Section 4: What would make the school even better?

ANNEX V: INITIAL QUESTIONNAIRE

the
UNIVERSITY
of
GREENWICH

Transforming a Failing School in an Especially Challenging Urban Context:
An identification of the Contributory Factors of Rapid School Improvement.

We would like to invite you to take part in a research project that seeks to establish what causes significant improvements in schools during the time they are in 'Special Measures'. Please can you complete the following questionnaire. At the top of the next page you are asked a simple question:

How important do you think each variable shown below was to the improvements in your school during the time the school was in special measures [March 2004 to November 2005]?

You are asked to consider each factor that could have led to improvements and make an accurate judgement on how important you thinks that factor was.

Each of the factors included in the questionnaire has been suggested by students or staff in previous questionnaires.

For each of the statements below please can you please indicate by circling the position [1=strongly disagree to 7=strongly agree] the extent to which that statement has contributed to the big improvements at Hurlingham & Chelsea.

Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

Please note: *(a) this questionnaire is part of a study that may be published in the future;*
(b) this research forms part of the Doctorate in Education programme for Mr P. Cross;
(c) all questionnaires will remain confidential at all times;
(d) you can choose not to complete this questionnaire.

We would like to thank you in advance for your help in what is a vitally important project. By completing the questionnaire you may help us understand more about how schools in difficulty can be improved quickly for the benefit of students and staff alike.

How important do you think each variable shown below was to the improvements in your school during the time the school was in special measures [March 2004 to November 2005]?

Please can you indicate on the scale by circling the position [1=strongly disagree to 7=strongly agree] the extent to which you believe that statement has contributed to the big improvements at Hurlingham & Chelsea.

Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

1	There are stricter rules and stricter staff	1	2	3	4	5	6	7
2	The headteacher provides strong, purposeful, positive & effective leadership	1	2	3	4	5	6	7
3	Getting rid of teachers who don't care	1	2	3	4	5	6	7
4	Improved communication with parents, including ringing and writing home	1	2	3	4	5	6	7
5	Insistence on students looking smart and wearing uniform	1	2	3	4	5	6	7
6	Staff that stay longer in the school	1	2	3	4	5	6	7
7	There is a determined, strong and purposeful Leadership Team	1	2	3	4	5	6	7
8	The school is cleaner and brighter with no litter or graffiti	1	2	3	4	5	6	7
9	Students are encouraged to respect others	1	2	3	4	5	6	7
10	The headteacher provides clear direction for the work of the school	1	2	3	4	5	6	7
11	Bullying is taken seriously and dealt with effectively	1	2	3	4	5	6	7
12	Parent-teacher meetings are more informative	1	2	3	4	5	6	7
13	There has been a significant reduction in racist comments	1	2	3	4	5	6	7
14	Students now have a more positive attitude to school	1	2	3	4	5	6	7
15	The school listens to students views and acts on them	1	2	3	4	5	6	7
16	The way people talk to each other has improved	1	2	3	4	5	6	7
17	Whole staff working together as a team	1	2	3	4	5	6	7
18	There are clear, firm and consistent discipline procedures	1	2	3	4	5	6	7
19	The headteacher is high profile and walks the school	1	2	3	4	5	6	7
20	The worst behaved students have been removed from the school	1	2	3	4	5	6	7
21	The quality of teaching has improved	1	2	3	4	5	6	7
22	There are clear behaviour management policies	1	2	3	4	5	6	7
23	There are hard working staff committed to the school and school improvement	1	2	3	4	5	6	7
24	Teachers 'expect' all students to achieve	1	2	3	4	5	6	7
25	Students [and parents] receive regular reports on their progress	1	2	3	4	5	6	7
26	Problems that arise are dealt with by teachers	1	2	3	4	5	6	7
27	Attendance and punctuality is taken seriously and followed up	1	2	3	4	5	6	7
28	The headteacher is committed to high standards and academic achievement	1	2	3	4	5	6	7
29	There is higher quality display work around the school	1	2	3	4	5	6	7
30	Teachers now manage behaviour well	1	2	3	4	5	6	7
31	The recruitment of good new staff who want to teach children	1	2	3	4	5	6	7
32	Insistence on a calmer atmosphere around the school	1	2	3	4	5	6	7
33	Students want the school to improve	1	2	3	4	5	6	7
34	Teachers showing students how to behave	1	2	3	4	5	6	7
35	Good support is offered to students with difficulties	1	2	3	4	5	6	7
36	Being in Special Measures and OFSTED telling us what to do to improve	1	2	3	4	5	6	7
37	Students feel more comfortable in the school and it is a 'safe' place to study	1	2	3	4	5	6	7
38	A clear and innovative management structure is in place	1	2	3	4	5	6	7
39	There are better relationships amongst students	1	2	3	4	5	6	7
40	In lessons teachers explain carefully to students what they are to do	1	2	3	4	5	6	7
41	Daily assemblies provide a more organised start to the day	1	2	3	4	5	6	7
42	The new Leadership Team is working well as a team	1	2	3	4	5	6	7

43	There is more concentration on work and students are expected to learn	1	2	3	4	5	6	7
44	The leadership style is characterised by openness, trust and honesty	1	2	3	4	5	6	7
45	There is stronger discipline and less disruption in the classroom	1	2	3	4	5	6	7
46	There is a focus on teaching and learning	1	2	3	4	5	6	7
47	Pupils are keen to succeed and willing to learn	1	2	3	4	5	6	7
48	The headteacher & Leadership Team are skilled in the management of change	1	2	3	4	5	6	7
49	Work is marked frequently and/or feedback helps students to improve	1	2	3	4	5	6	7
50	Data about school performance is analysed and shared effectively	1	2	3	4	5	6	7
51	There is a broad and balanced curriculum	1	2	3	4	5	6	7
52	There are better relationships between staff and students	1	2	3	4	5	6	7
53	Expectations are higher and students are expected to adhere to the rules	1	2	3	4	5	6	7
54	Lessons are more structured	1	2	3	4	5	6	7
55	Students understand that the school must improve	1	2	3	4	5	6	7
56	The improved lunchtime arrangements	1	2	3	4	5	6	7
57	Staff treating students with respect	1	2	3	4	5	6	7
58	Better organisation of the school day & timetable	1	2	3	4	5	6	7
59	High standards of behaviour are 'enforced'	1	2	3	4	5	6	7
60	There is a wide range of extra-curricular activities and after school clubs	1	2	3	4	5	6	7
61	There are clear roles and responsibilities for staff with lines of accountability	1	2	3	4	5	6	7
62	Students are expected to learn and teachers push them to do well	1	2	3	4	5	6	7
63	The Leadership Team regularly observes lessons	1	2	3	4	5	6	7
64	Students are set targets for improvement	1	2	3	4	5	6	7
65	The headteacher has generated a belief in a culture of self improvement	1	2	3	4	5	6	7
66	Good teachers who display good humour & establish excellent relationships	1	2	3	4	5	6	7
67	There is an agreed & consistent approach to teaching & learning across school	1	2	3	4	5	6	7
68	Good practice is modelled by senior staff	1	2	3	4	5	6	7
69	There are clear expectations of what is expected of students and staff	1	2	3	4	5	6	7
70	The Leadership Team effectively analyses & monitors school performance	1	2	3	4	5	6	7
71	Students helping out and taking on positions of responsibility	1	2	3	4	5	6	7
72	There is consistent and effective leadership & management	1	2	3	4	5	6	7
73	Students who do well are rewarded for their efforts	1	2	3	4	5	6	7
74	The school vision and expectations are clearly and regularly communicated	1	2	3	4	5	6	7
75	The redecoration and building work have improved the environment	1	2	3	4	5	6	7
76	Everyone is treated fairly	1	2	3	4	5	6	7
77	Behaviour is managed consistently	1	2	3	4	5	6	7
78	Lessons are better planned and in advance	1	2	3	4	5	6	7
79	There are less children in the school	1	2	3	4	5	6	7
80	There is a consistent approach across the school	1	2	3	4	5	6	7
81	School policies, procedures and structures are clear and coherent	1	2	3	4	5	6	7
82	The school is focused on success and improvement	1	2	3	4	5	6	7
83	The targeted revision and coursework sessions help to improve results	1	2	3	4	5	6	7
84	The Leadership Team regularly check exercise books	1	2	3	4	5	6	7
85	Teachers are exposed to good whole school development and training	1	2	3	4	5	6	7
86	Students progress is tracked effectively	1	2	3	4	5	6	7
87	There is good support and encouragement from teachers	1	2	3	4	5	6	7
88	The improved quality of healthy food	1	2	3	4	5	6	7
89	The school concentrates on a small number of achievable goals	1	2	3	4	5	6	7
90	The headteacher has a clear vision for the future of the school	1	2	3	4	5	6	7

ANNEX VI: PARENTAL CONSENT FORM

the UNIVERSITY of GREENWICH

Date: <date>

Dear <Parent/Carer>,

Re: Involvement in a research project into the improvements at Hurlingham & Chelsea
<forename> <surname>

<forename> has been invited to take part in an important research project that is trying to identify the factors that have led to the improvements at Hurlingham & Chelsea. As part of this study it is intended that 6 students in years 10 and 11 to will be interviewed by an external researcher to seek their views on the progress that has been made at the school and what has led to the improvement in examination results. This research forms part of my own Doctorate in Education (EdD) programme at the University of Greenwich and is being supervised by Francia Kinchington whose contact details are given at the bottom of this form.

The invited participants will provide a balance of gender, ethnicity and previous performance at the school. The interviews will be conducted as a group by an experienced consultant in the presence of another member of the Leadership Team.. Before the study begins the purpose of the research will be carefully explained to students and I have enclosed a Participant Information Sheet to give you more details of the research.

You should be aware that a report of the findings from the study may be published in the future but all information collected from participants will remain confidential and anonymous at all times.

This research has the full support of the Governing Body of the school but there is no obligation for students to take part and there will be no adverse consequences if your consent is not provided.

I would be grateful if you could indicate your consent, or otherwise, for <forename> to be involved in this research study by returning one completed copy of this form to me at the school. The second copy is for your information.

As a direct result of this study we hope to identify good practice as well as highlight other things that we must do to improve standards further. Once the report is complete you will receive a full copy of the research findings.

Yours sincerely

Phil Cross
Headteacher

Student: <forename> <surname> *Parent/Carer: <parent/carer>*

☐ *I agree to <forename> taking part in the school improvement study outlined in the attached documentation*
☐ *I do not agree to <forename> taking part in the school improvement study as outlined.*

Parents signature: _____ Date: _____

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