# Drofesorado

Revista de currículum y formación del profesorado



Vol. 15, N° 3 (Diciembre 2011)

ISSN 1138-414X (edición papel) ISSN 1989-639X (edición electrónica) Fecha de recepción 16/10/2011 Fecha de aceptación 04/12/2011

# ESCUELAS EFICACES, EQUIDAD Y EFICACIA DOCENTE: UNA REVISIÓN DE LA LITERATURA

Effective Schools, Equity and Teacher Effectiveness: A Review to the Literature



Pam Sammons and Linda Bakkum University of Oxford, Department of Education. E-mail: pamela.sammons@education.ox.ac.uk

#### Resumen:

En este artículo se ofrece una introducción a la literatura sobre eficacia escolar, equidad e investigación del profesor eficaz. Se resume y amplía un extenso informe y se discuten definiciones de escuelas eficaces e ineficaces y el debate en torno a ellas. Asimismo, se destacan los hallazgos realizados a través de estudios investigando los procesos dentro de las escuelas eficaces, teorías de liderazgo exitoso y prácticas de enseñanza que han probado mejorar los resultados de los estudiantes. Además, se discuten algunas de las implicaciones que la investigación en eficacia escolar ha tenido en la relacionada pero distinta tradición en investigación sobre mejora. Se concluye que la educación no puede remediar la exclusión social por sí misma, pero cobra un significado importante en la implementación de políticas dirigidas a combatir la desventaja social. Finalmente, se proporciona una lista de recomendaciones para el desarrollo de políticas que promuevan la mejora.

Palabras clave: Escuelas Eficaces, Equidad, Eficacia del Profesor.



#### Abstract:

This paper offers an introduction to the literature on school effectiveness, equity and teacher effectiveness research. It summarises and extends a larger report and discusses definitions of effective and ineffective schools and the surrounding debate. It further highlights research findings of studies investigating the processes within effective schools, theories of successful leadership and teaching practices that have proven to improve to students' outcomes. Moreover, it discusses some of the implications school effectiveness research has had on the related but distinct school improvement research tradition. It concludes that education cannot remedy social exclusion by itself but remains an important means of implementing policies intended to combat social disadvantage. Finally it provides a list of recommendations for policy development to bring about improvement.

Key words: Effective Schools, Equity, Teacher Effectiveness

#### 1. Introduction

This article summarises the findings of a larger school effectiveness and equity report (Sammons 2007) and it highlights key features and findings of school/educational effectiveness research (SER). It identifies some of the issues involved in measuring effectiveness and identifying more effective schools. What are the main messages from SER for practitioners and policy makers concerned to create more successful schools? It also draws on some of the school effectiveness literature that has come out since the publication of the original document. It expands the original report even further by highlighting some of the literature concerned with teacher effectiveness and effective teaching practices.

The varied level of student attainment can be attributed to a range of factors. These are *individual characteristics* (age, birth weight, gender), *family socio-economic characteristics* (particularly family structure, parental background: qualification levels, health, socio-economic status, in or out of work, and income level), *community and societal characteristics* (neighbourhood context, cultural expectations, social structural divisions especially in relation to social class). Research has drawn attention to the influence of family *cultural capital*, particularly the powerful impact of the child's home learning environment, especially in the early years, as a predictor of attainment. *Educational experiences* constitute one of several factors. School effectiveness research focuses on exploring the role of educational experiences and influences but does not seek to ignore or marginalise the role of other factors, particularly family background.

The central focus of SER concerns the idea that, 'schools matter, that schools do have major effects upon children's development and that, to put it simply, schools do make a difference' (Reynolds & Creemers, 1990: 1). How can we try to measure the influence of schools, and by implication, of teachers, on their students? This deceptively simple question lies at the heart of SER, which seeks to disentangle the complex links between the student's 'dowry' (the mix of abilities, prior attainments and personal and family attributes) which any young person brings to school, from those of their educational experiences at school.

School effectiveness research is commonly associated with compulsory schooling, however, recent SER type studies of institutional effects are also addressing other areas of education including pre-school settings and nurseries (Sammons et al, 2008; Melhuish et al., 2008; Sylva et al, 2010), and colleges and higher education settings that serve students who are beyond the compulsory school leaving age (Marsh, 2007). Given these developments the term *educational effectiveness research* (EER) is becoming increasingly used (Creemers et al., 2010; Reynolds, 2010; Teddlie, 2010). This is a more appropriate description because it



recognizes the broader remit of recent research (Creemers & Kyriakides, 2008) and a wider focus of enquiry than just the study of the effects of individual schools.

#### Definitions of effectiveness and value added

An effective school has been defined as *one in which students progress further than might be expected from consideration of its intake. An effective school thus adds extra value to its students' outcomes, in comparison with other schools serving similar intakes.* In order to assess value added, measures of individual students' prior attainment are needed to provide a baseline against which subsequent progress can be assessed. Other factors such as gender, socio-economic status, mobility and fluency in the majority language used at school have also been shown to affect progress. In addition to prior attainment, SER studies seek to include such factors in assessing the impact of schools. Saunders (1999) offers a detailed analysis of the development of the value added concept. School effectiveness research does not seek to measure the impact of schooling as a whole; instead it examines differences in the impact of one institution in comparison with another, taking account of intake. It is recognised that there can be internal variation in effectiveness at the department or class level, and teacher effects tend to be substantially larger than school differences.

A number of studies have sought to quantify the size of school effects on student outcomes. Effect sizes are generally found to be much greater in studies of developing countries and seem to reflect a greater influence of resources, and variability in the availability of trained teachers and textbooks and materials. On average, schools account for around 5 -18% of the achievement differences between students after control for initial differences. The research that generated this finding also indicates that classroom level or teacher effects tend to be substantially larger than school effects (Scheerens and Bosker, 1997). Teacher effects emerge strongly in primary school studies. For example in Australia the percentage of variance in value added measures of achievement, controlling for intake differences in students' prior attainments and background characteristics, put the class contribution at 55% for mathematics and 45% in English at the primary level (Hill, 1997). The combined school and teacher effect may vary between 15% and 50%, depending on the outcome and sample studied. In an international review Van Damme et al. (2006: 16) argue that school effects are 'moderately large'.

Another way of considering the size of school effects is to consider the difference between *outliers* (significantly more or less effective schools) in terms of their impact on average attainment in public examinations. A large longitudinal study of secondary schools in Lancashire showed that, for a student of average prior attainment at age 11 years, the difference in total GCSE points score was 14 points (equivalent to the difference between obtaining 7 grade B or 7 grade D GCSEs) between the most and least effective schools (Thomas & Mortimere, 1996). In the *Improving School Effectiveness* study in Scotland, the difference reported was equivalent to six Standard Grades at Grade 3 (MacBeath & Mortimore, 2000) These differences can be important in shaping life chances; it should be noted that Grade C at GCSE and Grade 3 at Standard Grade are seen as necessary for higher study in the UK.

George Leckie, however, offers some criticism to the traditional approaches explaining variation in pupils' test scores and observes that conventional studies of school differences in educational achievement use multilevel modelling techniques to take into



account the nesting of pupils within schools' (2009, p552-53). He notes that, 'educational data are known to have more complex non-hierarchical structures.' As such he argues that 'neighbourhoods and the schools that are attended in earlier phases of education may also explain variation in pupils' test scores as may movements between schools and between neighbourhoods over time' The study found that though relatively small in comparison to secondary schools, neighbourhoods and primary schools explain a significant, proportion of the variation in pupils' GCSE achievement. The study further reveals for pupil mobility to have strong negative association with progress. It also suggests that the frequency and time at which pupils move between schools are important factors determining the (negative) impact affecting their outcomes. In this study primary schools are deemed as important as secondary schools in terms of the remaining unexplained progress, suggesting that schools continue to have an effect on pupils long after they have left them.

#### 3. Competing definitions of good schooling

School effectiveness research has been subjected to a variety of criticisms and this has been particularly marked in the UK where the pragmatic concerns of SER with identifying 'what works' in education, and a perceived lack of attention to theoretical concerns and the influence of social structure have been attacked. There has also been disagreement about the purposes, and therefore the outcomes of schooling. The response of the SER researchers is that they seek to make a distinctive contribution to the debate about educational quality by the careful identification and study of different aspects of school life and their relationships to a range of student outcomes (including academic and affective and social behavioural) about which there is fairly widespread agreement. Rather than attempting to define 'good', and thus by implication 'bad' schools, SER research focuses deliberately on the narrower concept of effectiveness which concerns the achievement of educational goals using specific measures of cognitive progress, social or affective outcomes. It is argued that effectiveness is a necessary but not sufficient condition for any acceptable definition of a 'good' school (Sammons 1999).

The study of a broad range of student outcomes - cognitive, social and affective - is needed to provide a satisfactory picture of school effects. As well as being important in their own right, evidence indicates that social and affective measures of student outcomes such as attendance, attitudes to school, behaviour, motivation and self-esteem can act as intermediate outcomes which affect, and can themselves be influenced by students' attainment and progress. The promotion of better cognitive outcomes should never be seen as an alternative or in some way a barrier to concern with social and affective outcomes or vice versa (Smyth 1999; Opdenakker & Van Damm, 2000). Relationships are likely to be reciprocal. Improving a student's attainment and learning can improve self-esteem, engagement and attitudes to school and vice versa. While the relationships between school effects on social, affective and academic outcomes may not be very strong at the individual level (except for behaviour and attainment) correlations are usually in a significant and positive direction. Research by Sammons (1996) has shown that in relation to school effects there is also evidence of weak positive associations between effectiveness in academic and affective domains. Moreover, students' perceptions or feelings of school 'connectedness' have been shown to account for 13 -18% of the variation in adolescent emotional distress in the US as shown by Resnick and colleagues (1997). US research (Battish et al., 1995; Battish & Hom, 1997) has drawn attention to the relationship between students' sense of their school as a community and lower involvement in 'problem behaviours' such as drug use and delinquent



behaviour. They concluded that where schools are experienced as communities, students' psychological resilience may be enhanced.

The question of whether school effects differ for specific groups of students is important to the promotion of social inclusion and equity'. The monitoring of differences in educational outcomes helps to focus attention on the size of the equity gap and is a necessary backdrop to attempts to identify and raise the achievement of 'at risk' groups, particularly for ethnic minority and low SES students. A major systematic review of SER concluded: 'Schools matter most for underprivileged and/or initially low achieving students. Effective or ineffective schools are especially effective or ineffective for these students' (Scheerens and Bosker, 1997:96)

# 4. Effective School Processes

A range of studies have sought to identify the 'key characteristics' of effective schools through statistical analyses of measures that are found to be significant predictors of differences in student outcomes, after taking into account intake differences. In addition contrasting case studies of outlier schools, those identified as particularly effective or ineffective, has often been used to illuminate understanding of what makes a difference and helps such schools to be more effective.

A number of reviewers have identified common features concerning the processes and characteristics of more effective schools based on studies conducted during the last 30 years. These include: achievement oriented teachers with high expectations; sound educational leadership; good consensus and cohesion within the school team, a high quality curriculum; ample opportunity to learn; a favourable, orderly and safe school climate; a considerable evaluative potential in the school; a high degree of parental involvement; a favourable class climate; high effective learning time through excellent class management; structured instruction; the encouragement of autonomous learning; differentiation (adaptive instruction) and frequent sound feedback to students about their work.

The correlates of effectiveness identified by researchers have been mapped and distilled into nine process areas (Panel 1). (Teddlie and Reynolds, 2000)

Panel 1: The Processes of Effective Schools Processes components of the process

The processes of effective leadership	Being firm and purposeful Involving others in the process Exhibiting instructional leadership Frequent personal monitoring Selecting & replacing staff
2. The processes of effective teaching	Unity of purpose Consistency of practice Collegiality and collaboration
3. Developing & maintaining a pervasive focus on learning	Focussing on academics Maximising school learning time
4. Producing a positive school culture	Creating a shared vision Creating an orderly environment Emphasising positive reinforcement



5. Creating high & appropriate expectations for all	For students For staff
6. Emphasising responsibilities & rights	Responsibilities Rights
7. Monitoring progress at all levels	At the school level At the classroom level At the individual level
8. Developing staff skills at the school site	Site based integrated with ongoing professional development
9. Involving parents in productive & appropriate ways	Buffering negative influences Encouraging productive interactions with parents

Case study research of highly effective and highly improved schools has tended to identify similar features of successful practices.

#### 5. Features of Ineffective schools

It is generally recognised that ineffective schools are not merely mirror images of those that are more effective. Rather than simply lacking the key features of effective schools, they are likely to share specific features and problems that have a particular link with culture and staffing. A review of studies concerning the characteristics of *ineffective* schools highlights four aspects: lack of vision; unfocussed leadership; dysfunctional staff relationships and ineffective classroom practices.

Such ineffective classroom practices, in turn, are often characterised by inconsistent approaches to the curriculum and teaching. There are generally lower expectations for students of low socio - economic status (SES). Classroom activity often involves an emphasis on supervising and communicating about routines, with low levels of teacher-student interaction and low levels of student involvement in their work. Student in these ineffective classrooms tend to perceive their teachers as people who do not care, praise, provide help, or consider learning as important; and in these classrooms there is more frequent use of criticism and negative feedback (Stoll & Fink, 1996).

A negative culture is often found to contribute to the poor performance of less successful schools. As pointed out by Reynolds: 'The ineffective school may also have inside itself multiple schools formed around cliques and friendship groups . . . there will be none of the organisation, social, cultural and symbolic tightness of the effective school' (1995:61). Building on this it has been observed that such tightness appears to be a particular requirement for academic effectiveness in the context of the inner city (Hopkins 2001). Research in the Netherlands has drawn similar conclusions (Van de Grift & Hootven, 2006).

# 6. Leadership

School effectiveness research has drawn attention to the importance of school leadership as a key characteristic of effective schools. Leadership judged to be poor is a well



- documented feature of ineffective schools according to inspection evidence in the UK (Matthews & Sammons, 2004; Mulford et al., 2004).

There are several leadership theories and their effect on student achievement, for example *transformative* and pedagogical/instructional leadership. Robinson and her colleagues (op. cit. 2008) suggest that transformational leadership is less likely to result in strong effects upon pupil learning and achievements. They argue that because pedagogical/instructional leadership is focused on effective teaching and learning it is likely to have a larger impact on pupil outcomes. Their analysis showed that the impact of pedagogical leadership is nearly four times that of transformational leadership. Research in English schools (Day et al., 2011) found, however, that this was a false distinction and that successful schools implemented a synergy of the two approaches.

Moreover, school improvement research has highlighted the headteacher's or principal's role in the turn around of ineffective or failing schools and its importance for schools in disadvantaged contexts and a major review for the National College of School Leadership highlights 'strong claims' about school leadership, including:

- School leadership is second only to classroom teaching as an influence on pupil learning.
- Almost all successful leaders draw on the same repertoire of basic leadership practices.
- The ways in which leaders apply these basic leadership practices not the practices themselves demonstrate responsiveness to, rather than dictation by, the contexts in which they work.

Research shows that school leaders improve teaching and learning indirectly and most powerfully through their influence on staff motivation, commitment and working conditions (Leithwood et al 2006). A recent study shows the importance of a model of leadership practice that promotes an orderly and favourable behavioural climate, positive learner motivation and a learning culture that predicts positive changes in pupil behaviour and attendance as intermediate outcomes that themselves promote improvement in attainment. (Sammons et al. 2011: 97)

#### 7. Teaching and learning

SER studies have drawn attention to the centrality of teaching and learning and of classroom processes in determining schools' overall academic effectiveness (Scheerens & Bosker 1997; Hill & Rowe, 1998). As noted by Sammons et al. (1995) the quality of teaching and teacher expectations has the most significant role to play in fostering students' learning and progress. Despite this, the earlier mentioned indirect leadership effects on student achievement, whole-school processes, including leadership processes, remain influential because they provide the overall framework within which teachers and classrooms operate.

Reviews of teacher effectiveness literature have identified a number of characteristics of effective teachers:

- they teach the class as a whole;
- they present information or skills clearly and animatedly;



- they keep the teaching sessions task-oriented;
- they are non-evaluative and keep instruction relaxed;
- they have high expectations for achievement (give more homework, pace lessons faster and create alertness);
- They relate comfortably to students (reducing behaviour problems).

Research (Scheerens, 1992; Muijs & Reynolds, 2005) has identified the features of 'structured teaching' as particularly relevant to promoting cognitive attainment in the basic skill areas especially in schools serving higher proportions of socio-economically disadvantaged groups. Furthermore, reviews of constructivist approaches to teaching in comparison with more traditional approaches indicate that there is little evidence that these boost attainment levels and results indicate that such approaches may be less appropriate for younger, low attaining and low SES groups tending to widen the achievement gap (Van der Werf, 2006).

Research on teacher effectiveness in the UK has developed a model which links three factors (professional characteristics, teaching skills and classroom climate) to progress. The teacher's role in creating an 'excellent classroom climate' is stressed. In primary schools outstanding teachers scored more highly in terms of behaviours related to high expectations, time and resource management, assessment and homework. At the secondary level the biggest differences were in high expectations, planning and homework. HayMcBer identified three factors as important in shaping learning opportunities in the classroom these are: lack of disruption; encouragement to engage; and high expectations (2000).

In addition to the extensive research on general teaching behaviour, much has been written about specific *effective teaching skills* (E.g., Kyriacou, 2007; Philpott, 2009), different teaching styles (Eg. Opdenakke & Van Damme, 2006), and different models of teaching, which specify particular types of learning environment and approaches to teaching (Joyce et al., 2005, 2008). These studies have showed that variations in teaching behaviours contribute much to teachers' effectiveness in the classroom. In addition they reveal a high degree of consensus concerning the *generic features of effective teaching*. A recent summary (Iraj-Blatchold, forthcoming) of more effective practice from qualitative analyses of observation field notes in the EPPE research reveals that important factors in effective teaching are: Organisation, shared goals, positive classroom climate, behaviour management, collaborative learning and personalised teaching and learning.

In their extensive review of teacher effectiveness, highlighting much of the literature on effective teaching and effective teaching practices Ko and Sammons (Forthcoming) observed that in effective schools it is likely that there are a higher number of teachers who typically use more effective practices. In an ineffective school the reverse is usually the case, thus one of the most important factors that distinguishes effective from ineffective schools is the proportion of effective teachers. However, the review also suggests that assessing teacher effectiveness is a very complicated matter and suggest that a stronger emphasis on students' social behavioral and affective as well as their cognitive outcomes is necessary to obtain a rounded picture of teacher effectiveness.



# 8. Effective and Improving Schools serving Disadvantaged communities

A review of improving schools in disadvantaged settings suggests that such schools focus on:

- Teaching & learning
- Enhancing leadership capacity
- Creating an information rich environment
- Creating a positive school culture
- Building a learning community
- Promoting continuous professional development
- Involving parents
- Engaging external support. (Muijs et al., 2004)

While the challenges facing schools serving disadvantaged communities may be greater, the characteristics of successful schools in such contexts are not radically different from those that have been reported in the SER as a whole, although approaches to teaching may benefit from greater use of structured approaches and direct instruction, and more use of observation and professional development for teachers related to the improvement of classroom practice.

A set of 12 case studies of successful low SES secondary schools in Canada drew a number of conclusions about what aspects seemed to contribute to their success in difficult environments. Discussion of this research concludes that these secondary schools helped reduced social inequalities by stressing clear expectations and supportive structures and services which motivated their students. Structured classroom instruction and 'traditional' standards of behaviour and a respectful, secure school climate with warm relationships are also noted. 'High expectations coupled with support and warm relationships are especially effective in schools serving at-risk populations.' (Raham, 2002: 9) Further broadly comparable findings and conclusions have been outlined using 21 High Performing High Poverty schools in the US (Carter, 2001).

A set of 18 primary school qualitative case studies of high attainment Welsh primary schools in disadvantaged settings, provides further evidence of the important role of leadership as at the core of these schools' success and in creating a learning and achievement centred culture with a strong moral purpose (James et al. 2006). It focuses on the important and original concept of 'mindset' as a feature of core culture in relation to effectiveness. This includes a confident, problem solving group attitude, coupled with proactive optimism, a high level of reflectivity, high ideals and expectations and a culture of praise, warmth, and care.

In the US case studies of schools that have achieved high levels of success with students from low SES backgrounds indicate that the schools place a high priority on the importance of raising and maintaining standards, recognize the need for improvement and have a strong moral purpose. They have a strong collective belief that all students can succeed (high expectations). The principals demonstrate strong leadership and recognize that this includes all levels in the school, including the classroom. There is an emphasis on building strong teams within the schools (Cawelti 1999).



However, despite much research indicating the positive effects of leadership and teaching on school and student outcomes, more recent results from a five-year study of leadership and learning in the US indicate that student poverty, diversity and school phase (primary or secondary) can significantly moderate the positive effects of school leadership on pupil achievement (Wahlstom & Louis, 2009; Gordon & Louis, 2009).

Engel and her colleagues (2010) conducted a small-scale, but interesting study into the nature of effective schools serving socially disadvantaged communities. Their findings are mostly consistent with the existing literature; however an additional, generally overlooked dimension emerged from their data. It strongly suggests the importance of the shared nature of inclusive values: successful inclusive schools have a strong ethos of inclusion' (p.150). They argue that inclusion, as it relates to educational effectiveness, is more than a set of strategies or practices. Rather, inclusion appeared to be the central ethos of each school, which it worked to construct in dialogue with pupils, families and surrounding communities. They concluded that: 'an ethos of inclusion - permeating the entire school, and in various ways infecting the community it serves - is central to the success of schools seeking to address major problems of social inequality and exclusion' (p.153).

# 9. Implications for School Improvement

The SI movement considers schools as social organizations while inquiring into the processes associated with improvement. The successful implementation of change has underpinned much of the work in this area and usually involves a bottom up rather than top down approach to change (Chapman, 2011). School improvement efforts require a particular focus on the processes of change and understanding of the history and context of specific institutions, and depend upon the active support and engagement of practitioners (Gray et al., 1999; Joyce et al., 1999).

A comprehensive analysis of highly successful improvement programmes demonstrates a number of shared principles or features. Effective school improvement programmes:

- Focus closely on classroom improvements;
- Utilise discrete instructional or pedagogical strategies, i.e. they are explicit in the models of teaching they prescribe;
- Apply pressure at the implementation stage to ensure adherence to the programme;
- Collect systematic evaluative evidence about the impact on schools and classrooms;
- Mobilise change at a number of levels within the organisation, including the classroom, departmental and school level;
- Generate cultural as well as structural change;
- Engage teachers in professional dialogue and development;
- Provide external agency and support. (Harris 2002)

Until recently there has been relatively little interaction between SER and SIR and as such two distinct research traditions have developed (Chapman, 2011). SER can help provide the necessary knowledge base to inform and stimulate the development of policies and practical initiatives to improve schools and the quality of students' educational experiences.



(Sammons, 2011) A recent model for school improvement argues that successful schools shows a fairly close degree of agreement with the existing knowledge base of what has been found to be features of more effective schools and the emphases in school improvement research. (Pearson 2011): This model was partially influenced by a major 22 country study conducted by McKinsey and Co (2011), investigating education systems that were identified as showing significant improvement.

Approaches differ between those that are seen to be organic (suggesting broad principles or general strategies for improvement) and those that are seen to be more tightly structured and specific. More tightly structured research based programmes tend to have a stronger and more lasting influence and to be associated with greater change in student outcomes, these are sometimes termed mechanistic programmes (lbid). The need for a close degree of 'fit' between programme and the developmental needs of the school has been emphasised by some authors. They distinguish three types:

- Type 1: Strategies that assist failing schools to become moderately effective tend to need a high level of external support and involve a clear and direct focus on a limited number of basic curriculum and organisational issues to build confidence and support to continue. Often the identification of 'failure' acts as a catalyst for change.
- Type 2: Strategies that assist moderately effective (more typical) schools to become effective. Such strategies are less likely to involve external support or intervention and are more likely to be school initiated.
- Type 3: Strategies that assist effective schools to remain so. Here external support
  may be welcomed or even sought out but is not necessary (Hopkins et al. 1997;
  Harris, 2002). The momentum for improvement comes from within these already
  effective schools

# 10. School Improvement Interventions Based on SER

Some researchers have played a key role in the design of improvement interventions that draw upon the SER tradition.

- 1. Improving the Quality of Education for AII (IQEA) offers schools a developmental approach which blends school improvement and effectiveness methods in fostering positive change. This ongoing development and research informed project involves a large number of schools in England and has been operating for over a decade. The approach involves higher education consultants working in collaboration with schools which have opted to participate in an improvement project (Harris, 2002) Features include:
  - Setting a clear and unifying focus for the school's improvement work.
  - The collection of data on its performance as a precursor to initiating an improvement strategy.
  - Creating a School Improvement Group (SIG) at an early stage to carry forward the school's development agenda.
  - A considerable emphasis on *staff development*.



2. The 'High Reliability Schools' (HRS) concept was created in the mid-1990s as an answer to global calls for school reform, in which many other projects had failed. A HRS encourages the success of all of its students' learning and public examination performance through support, feedback and evaluation. They depend upon research-based significant bodies of knowledge to assure instruction effectively supports student learning. The most important bodies of knowledge in this area are: teacher effectiveness, school effectiveness, middle management effectiveness, teacher professional development and enquiry, datarichness, specific intervention and school improvement. The fundamental characteristics of HRSs are a school-wide focus on a small number of goals, combined with a commitment to implement any reform with unusually high reliability. Specific reforms may be chosen by the faculty and administration either through an examination of prior research, or through analysis of "best practice."

In HRS schools, the efforts of its administration, teachers, and students focus on developing a limited number of core activities that have demonstrated consistent, high levels of student learning. The school also encourages support and commitment from parents and agencies for the goals of the school. To attain these consistent high levels of success, the HRS school faculty includes in their core goals a commitment to high levels of student attendance and support and expectation for the academic success of all students. The inclusion of these two goals is based on repeated research findings that students learn best when consistently attending a school that expects the students' best efforts academically. To support these goals, the HRS school works to create standard operating procedures (SOPs) and a system of monitoring these procedures to assure the school is reliably working to attain the goals. A system is also established to assess the effectiveness of the standard operating procedures and for identifying flaws in them and validating appropriate changes (Teddlie et al. 2000)

#### 11. Comprehensive School Reform

The systematic approach found in IQEA and HRS is more common in the USA where so-called Comprehensive School Reform (CSR) models have received considerable attention and investment. They are school improvement programmes that have been specially developed and tested and are intended to be replicable in different contexts. Funding and training are key components along with a high level of school staff commitment to the programmes. A major meta - analysis of CSR in US concluded that CSR models were effective across the range of school poverty levels and that The strongest evidence of effectiveness was found for three different CSR models: *Direct Instruction, School Development Program,* and *Success for All.* These can all be viewed as examples of detailed, structured, research based improvement programs rather than loosely structured approaches. The successful expansion of CSR shows that research based models of improvement can be brought to scale across many schools and varying contexts (Borman et al., 2003).

Within the school improvement movement self-evaluation has become increasingly important as a lever to increase school's effectiveness. There are many models, frameworks and definitions associated with the processes of self-evaluation. Chapman's (2011) review of School Self-Evaluation for School Improvement can be a useful starting point for developing an understanding of the self-review process and the key debates surrounding it. In the review it is also pointed out that definitions and understanding of the process also vary from country to country and sometimes from region to region within countries. The OECD country reviews



provide information regarding many different examples of schools' self evaluation practices and their strengths and weaknesses.

#### 12. Conclusions and Key Messages

In conclusion, the SER tradition has not attempted to define and identify 'good' or by implication 'bad' schools. SER focuses, instead on the narrower concept of effectiveness in fostering better educational outcomes for students. Within this framework, an emphasis on students' social and affective as well as cognitive outcomes is necessary to obtain a rounded picture of effectiveness.

A number of common features of effective schools and effective teaching have been identified in research conducted in a range of countries. SER, therefore, provides an important evidence-base on the correlates of effective schools and teachers and has stimulated school improvement initiatives at national and local level. The SER knowledge base appears generally applicable but is particularly relevant to schools serving socioeconomically disadvantaged communities. School effectiveness and improvement literature highlights the importance of school (and in secondary schools, departmental) culture. The impact of leadership by key individuals, usually the principal, in promoting the change process is also evident. A clear focus on a limited set of aims shared by staff is associated with more successful improvement initiatives, in particular increasing the school's focus on the teaching and learning process. Linking whole school planning and specific classroom pedagogical approaches to improvement is likely to have a greater impact on student outcomes than strategies which focus on just the school or on just the classroom level in isolation. It must be recognised that successful school improvement cannot be externally mandated but involves careful and realistic planning and the conscious commitment and involvement of teachers and leaders in schools (Stringfield, Ross & Smith 1996).

Messages from research, development projects and evaluations suggest that by focussing on school culture, addressing the quality of teaching and learning and by monitoring students' academic progress and their social and affective outcomes schools can work towards improvement.

Though schools certainly matter, health, housing, income and the home learning environment remain powerful influences and 'joined up' policies aimed at combating social exclusion are called for. It has been concluded that 'significant educational reform is more likely to occur when school and home are jointly addressed (Hopkins et al., 2005:6).' Multiagency approaches are receiving increasing attention in a number of countries with the development of full service, extended and new community schools. The way school influences may either reduce or alternatively compound the powerful impact of social disadvantage requires further investigation by SER.

Education cannot remedy social exclusion by itself but remains an important means of implementing policies intended to combat social disadvantage. Interestingly the biggest estimated impact in the research tends to be in early years schooling and the smallest in secondary (Ibid: 22). The social empowerment argument is a vital one, because over three decades of SER research suggests that the life chances of students from socio-economically disadvantaged backgrounds in particular are enhanced by effective schools, those which foster both cognitive progress and promote social and affective outcomes including motivation, self-esteem and student involvement.



This review of SER and the implications for school improvement suggest that a greater emphasis needs to be given to developing policies and creating schools systems that:

- Encourage collaboration and create a positive culture for learning with high expectations;
- Recognise that schools serving disadvantaged communities are likely to need extra support to attract and retain good teachers and leaders;
- Ensure that planning for improvement is seen as the norm, encourage reflective practice and institutional self-evaluation;
- Maintain an emphasis on fostering students' progress and promoting other important affective and social behavioural educational outcomes and recognise that the two are complementary
- Monitor equity in outcomes for different student groups and focus on reducing the achievement gap, with greater attention to the benefits of early intervention;
- Celebrate, study and spread successful practice;
- Use both research and inspection evidence to promote improvement;
- Do not regard widespread failure for specific student groups as inevitable and ensure that disadvantaged groups are offered the highest quality educational experiences;
- Recognise that schools do make a difference, that good teaching matters and that we already know much about strategies and practices which foster success for all students.

This article and the earlier report do not intend to suggest that SER is a universal panacea, but it intends to 'map the terrain', by summarising and making the current knowledge base more widely accessible. It is a potential as a resource for practitioners and policy makers seeking to bring about improvement. It provides an illustration of how this tradition of enquiry can inform, empower and challenge educators to make schools more successful for more students more of the time. The challenge for the future remains for countries to improve educational access and enhance the quality of education experienced by all students but particularly that of 'at risk' disadvantaged/ minority student groups, to promote greater equity in outcomes, enhance life chances and encourage the development of informed, active citizens.

#### References

- Battistich, V., Solomon, D., Kim, D., Watson, M., & Schaps, E. (1995). Schools as communities, poverty levels of student populations, and students' attitudes, motives, and performance: A multilevel analysis. *American Educational Research Journal*, 32(3), 627-658.
- Battistich, V. & Hom, H. (1997) The Relationship between Students' Sense of Their School as a Community and Their Involvement in Problem Behaviours, *American Journal of Public Health*, 87, 12, 1197-2001.
- Borman, G., Hewes, G., Overman, L. & Brown, S Comprehensive School Reform and Achievement: A Meta Analysis, *Review of Educational Research*, Vol. 73, No. 2, pp. 125-230.



- Cawelti, G. (1999) *Portraits of Six Benchmark Schools Diverse Approaches to Improving Student Performance*, New York: Education Research Service.
- Carter, S. C. (2001) No *Excuses: Lessons Learned from 21 High Performing, High Poverty Schools*, Washington: Heritage Foundation.
- Creemers, B.P.M & Kyriakides, L. (2008) *The Dynamics of Educational Effectiveness: A Contribution to Policy, Practice and Theory in Contemporary Schools,* Abingdon: Routledge
- Creemers, B.P.M, Kyriakides, L., & Sammons, P. (Eds) (2010) *Methodological Advances in Educational Effectiveness Research*, Abingdon: RoutledgeTaylor Francis.
- Engel, L., Holford, J., & Pimlott-Wilson, H. (2010). Effectiveness, inequality and ethos in three english schools. *International Journal of Sociology and Social Policy*, 140-154.
- Day, C., Sammons, P., Leithwood, K., Hopkins, D., Gu, Q., Brown, E. with Ahtaridou, E. (in press) *School Leadership and Student Outcomes: Building and Sustaining Success.* Maidenhead: Open University Press.
- Gordon, M. & Louis, K. S. (2009) Linking parent and community involvement with student achievement: Comparing principal and teacher perceptions of stakeholder influence, *American Journal of Education*, 116(1), 1-31.
- Gray, J., Hopkins, D., Reynolds, D. &Wilcox, B. (1999) *Improving Schools: Performance and Potential*, Buckingham: Open University Press.
- Harris, A. (2002) School Improvement What's in it for schools?, London: RoutledgeFalmer.
- Hay McBer (2000) Research into Teacher Effectiveness: a model of Teacher Effectiveness, Report by Hay McBer to the Department for Education & Employment June 2000. London: DfEE.
- Hill, P & Rowe, K (1998) Modelling Student Progress in Studies of Educational Effectiveness, *School Effectiveness & School Improvement*, 9, 3, 310-333.
- Hopkins D (2001) *Meeting the Challenge An Improvement Guide for Schools Facing Challenging Circumstances*, Report prepared for Department for Education and Employment's Standards & Effectiveness Unit, Nottingham: University of Nottingham.
- Hopkins, D., Harris, A., West, M., Ainscow, M. & Beresford, J. (1997) *Creating the Conditions for Classroom Improvement*, London: David Fulton Press.
- Hopkins, D., Reynolds, D. & Gray, J. (2005) School Improvement- Lessons From Research, Nottingham: DfES.
- James, C., Connolly, M., Dunning, G. & Elliott, T (2006) How Very Effective Primary Schools Work, London: Paul Chapman.
- Joyce, B., Calhoun, E., & Hopkins, D. (1999) *The New Structure of School Improvement Inquiring Schools and Achieving Students*, Buckingham, Open University Press.
- Ko, J., Sammons, P. (2010) Effective Teaching: A review of research.
- Kyriacou, C. (2007). *Effective teaching in schools-Theory and practice* (3<sup>rd</sup> Edition ed.). Cheltenham: Nelson Thornes.
- Leckie, G. (2009). The complexity of school and neighbourhood effects and movements of pupils on school differences in models of educational achievement. *Journal of Royal Statistical Society*, 537-554.



- Leithwood, K., Day, C., Sammons, P., Harris, A. & Hopkins, D. (2006), *Seven Strong Claims About Successful School Leadership*, Nottingham: National College for School Leadership.
- MacBeath, J & Mortimore, P (2001) Improving School Effectiveness, Buckingham: Open University Press.
- Matthews, P & Sammons, P (2004) Improvement through Inspection: An evaluation of the impact of Ofsted's work, London: Ofsted/Institute of Education. <a href="http://www.ofsted.gov.uk/publications/index.cfm?fuseaction=pubs.displayfile&id=3696&type=pdf">http://www.ofsted.gov.uk/publications/index.cfm?fuseaction=pubs.displayfile&id=3696&type=pdf</a>
- McKinsey & Company. (2011). How the World's Most Improved School Systems Keep Getting Better.

  McKinsey & Co. .
- Melhuish, E., Sylva, K., Sammons, P., Siraj-Blatchford, I., Taggart, B., Phan, M. & Malin, A. (2008), Preschool Influences on Mathematics Achievement, *Science*, 321, 1161-1162.
- Mortimore, P (1998) *The Road to Improvement: Reflections on School Effectiveness*, Lisse: Swets & Zeitlinger.
- Muijs, D. & Reynolds, D. (2005) Effective Teaching: Evidence and Practice, London: Sage.
- Muijs, D., Harris, A., Chapman, C., Stoll, L. & Russ, J. (2004) 'Improving Schools in
- Socioeconomically Disadvantaged Areas A Review of Research Evidence', *School Effectiveness and School Improvement*, Vol.5 No 2, pp149-175.
- Mulford, W., Silins, H. & Leithwood, K. (2004). *Educational Leadership for Organisational Learning and Improved Student Outcomes.* Dordrecht: Kluwer Academic Publishers.
- Opdenakker, M. & Van Damme, J (2000) Effects of Schools, Teaching Staff and Classes on Achievement and Well Being in Secondary Education: Similarities and Differences Between School Outcomes, *School Effectiveness and School Improvement*, Vol. 11, No. 2, pp65-196.
- Opdenakke, M.-C., & Van Damme, J. (2006). Teacher characteristics and teaching styles as
- effectiveness enhancing factors of classroom practice. Teaching and Teacher Education, 22(1), 1-21.
- Pearson (2011) An approach to school improvement, Pearson, June 2011 (Needs editing)
- Philpott, J. (2009). *Captivating your class: Effective teaching skills.* London: Continuum Raham, H (2002) Looking Inside High achieving Low-Income Schools, *Education Analyst Society for the Advancement of Excellence in Education* Winter 2000, pp 8-9.
- Reynolds, D. (1995) The effective school: An inaugural lecture, *Evaluation and Research in Education*. Vol. 9, no. 2, pp. 57-73.
- Reynolds, D. (2010). Failure Free Education? The Past, Present and Future of School Effectiveness and School Improvement. London: Routledge.
- Resnick, M. D. et al (1997) Protecting Adolescents From Harm Findings from the National Longitudinal Study on Adolescent Health, *Journal of the American Medical Association*, 278, 823-832.
- Reynolds, D. & Creemers, B. (1990). School Effectiveness and School Improvement: A Mission Statement. School Effectiveness & School Improvement, 1(1): 1-3.
- Robinson, V. M., Lloyd, C. A., & Rowe, K. J. (2008). The impact of leadership on
- student outcomes: An analysis of the differential effects of leadership types.



- Educational Administration Quarterly, 44(5), 635-674.
- Sammons, P. (2007) School effectiveness and equity: making connections. Executive summary. CfBT.
- Sammons, P. (2011) School Self-Evaluation for School Improvement: What works and Why?
- Sammons, P., Hillman, J. & Mortimore, P. (1995). *Key Characteristics of Effective chools: A review of school effectiveness research.* London: Office for Standards in Education [OFSTED].
- Sammons, P, Thomas, S & Mortimore, P (1997) Forging Links: Effective Schools and Effective Departments, London: Paul Chapman, ISBN 1-85396-349-6.
- Sammons, P., Anders, Y., Sylva, K., Melhuish, E., Siraj-Blatchford, I., Taggart, B. and Barreau, S. (2008), 'Children's Cognitive Attainment and Progress in English Primary Schools During Key Stage 2: Investigating the potential continuing influences of pre-school education, *Zeitschrift für Erziehungswissenschaften*, 10. Jahrg., Special Issue (Sonderheft) 11/2008, 179-198.
- Sammons, et al. (2011) Exploring the impact of school leadership on pupil outcomes. Results from a study of academically improved and effective schools in England, International Journal of Educational Management, 25 (1) 83-101
- Saunders, L (1999) A Brief History of Educational 'Value Added': How Did We Get To Where We Are?, School Effectiveness & School Improvement, 10, 2, 233-256.
- Scheerens, J. & Bosker, R. (1997). The Foundations of Educational Effectiveness, Oxford: Pergamon.
- Smyth, E. (1999) *Do Schools Differ? Academic and Personal Development among Pupils in the Second Level Sector*, Dublin: Economic & Social research Council.
- Stoll, L & Fink, D (1996) *Changing Our Schools: Linking School Effectiveness and School Improvement*, Buckingham, OUP.
- Stringfield, S., Ross, S. and Smith, L. (1996) *Bold Plans for School Restructuring. The New American Schools Design.* Lawrence Erlbaum Associates. Mahwah. New Jersey.
- Sylva, K., Melhuish, E., Sammons, P., Siraj-Blatchford, I. & Taggart, B. (2010) *Early Childhood Matters: Evidence from the Effective Pre-school and Primary Education Project*, Abingdon:

  RoutledgeTaylorFrancis.
- Teddlie C, Kochan S & Taylor D (2000) 'The ABC+ Model: Three variations on a context sensitive diagnostic and feedback model for school improvement. A paper presented at AERA, New Orleans, April 2000.
- Teddlie, C. & Reynolds, D. (2000) *The International Handbook of School Effectiveness Research*, London: Falmer.
- Teddlie, C. (2010). The Legacy of the School Effectiveness Research Tradition, in A. Hargreaves, A. Lieberman, M. Fullan & D. Hopkins (Eds.). *The Second International Handbook of Educational Change*. Dordrecht: Springer
- Thomas, S. & Mortimore, P. (1996). Comparison of value-added models for secondary-school effectiveness. *Research Papers in Education*, 11, (1): 5-33.
- Van Damme, J., Opdenakker, M.C., Van Landeghem, G, Fraine, B., Pustjens, H. & Van de gaer, E. (2006) Educational Effectiveness: An introduction to international and Flemish research on schools, teachers and classes. Leuven: Acco (Academische Cooperative Vennootschap cvba).



- van de Grift, W & Houtveen, T. (2006) *Weaknesses in Under-performing Schools*, Paper presented to the International Congress for School Effectiveness and Improvement, Fort Lauderdale Florida January 3-7 2006.
- van der Werf (2006) *General and differential effects of constructivist teaching*, Keynote presentation at the annual meeting of the International Congress for School Effectiveness and Improvement, Florida 3-6 January 2006.
- Wahlstom, K. & Louis, K. S. (2008) How teachers experience principal leadership: the roles of professional community, trust, efficacy, and shared responsibility, *Educational Administration Quarterly*, 44, 458-95.