

School Effectiveness Research - findings and reflections
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I Research Findings

I.1 Explaining differences in pupil attainment – getting it right.

That there are differences in pupil attainment levels between different social classes is hardly news to researchers, educators or education policy-makers. However there seems to be a popular belief that lower attainment amongst pupils from low SES areas can be explained by their social inheritance measured in terms of socio-economic situation, ethnicity, parental educational level and the cultural capital of the family. This is borne out in the public discourse on the difficulties facing the Swedish education system. In an article in *Dagens Nyheter* (22 May 2005) Ibrahim Baylan, the then Minister for Education, is quoted as saying that differences in educational outcomes had increased and that “social background plays a decisive roll” in accounting for these differences. A report published by The Swedish National Agency for Education (2006) with the aim of assessing equity trends in the Swedish school system found that a pupil’s parental education level is “important in determining the expected performance of the student” (p. 23). This way of accounting for differences in student outcomes is symptomatic of the current public discourse on education in Sweden and internationally and reflects a deterministic view of expected educational outcomes in terms of socio-economic and ethnic background. According to Pierre Bourdieu (2003) “...scholastic success mainly depends on inherited cultural capital and on the propensity to invest in the education system (and that the latter varies with the degree to which maintained or improved social position depends on such success) ...” (p. 122). There is an inherent risk in this analysis of differentiation in education outcomes of falling into a deterministic trap. These differences have traditionally been explained in terms of SES and genetic inheritance. This explanation has provided stakeholders with a convenient release from responsibility for the provision of a standard of schooling that transcends factors that are external to schools. The focus for failure has been on the individual pupil and background factors. This implies a denial or unwillingness to acknowledge the role of school effects on individual pupil attainment.

In explaining low performance by referring to background factors and in failing to recognize individual and group efficacy, the construction of knowledge regarding pupil attainment has succeeded in inculcating society with the belief that intelligence is unevenly spread amongst different groups in society and that all schools provide equal access to the best possible education that the state can offer. It is up to the individual pupil to utilise and navigate the system as best they can in order to achieve the highest possible attainment for themselves. The fact that an ever-increasing body of students fail to reach the levels of attainment to which various states aspire is the fault of SES, ethnicity, and a failure to integrate into the host society. A further argument has been that pupils fail due to a lack of necessary resources.

I.2 School Effectiveness Research and The Paradigmatic Shift.

School Effectiveness research provides a counterbalance to this deterministic approach and acknowledges the agency of educators and pupils alike. According to Ron Edmonds (1979a) “We can, whenever and wherever we choose, successfully teach all children whose schooling is of interest to us. We already know more than we need in order to do this. Whether we do it must finally depend on how we feel about the fact that we haven’t so far” (p. 32). Referring to the American education system Edmonds (1979b) has said that “there has never been a time in the life of the American public school when we have not known all we needed to in order to teach all those whom we chose to teach”. These words were written almost thirty years ago and yet in 2008 we are still discussing possible solutions

and approaches to the problem of differences in student attainment across social and ethnic societal groups in spite of the considerable quantity and quality of research findings over the past three decades.

Research during the 1960s and 1970s was more concerned with addressing issues of equality of opportunity than specific school effects. Education, it was hoped, could be used as a tool with which to combat social and racial inequality. In 1966 James Coleman published a report entitled *Equality of Educational Opportunity* that concluded a large-scale study of 645,000 pupils in 4000 primary and secondary schools. The results of Coleman's study were deemed to demonstrate that there was no significant correlation between educational attainment and schooling. The "Coleman Report" was included in a reassessment of statistical data from a number of studies by Christopher Jencks, *Inequality: A Reassessment of the Effect of Family and Schooling in America (1972)*. Jencks argued that his findings demonstrated that "equalizing the quality of high schools would be reduced cognitive inequality than one per cent or less" (quoted in Rutter, Maughan, Mortimore and Ouston, 1979, p. 2). The report further suggested that "additional school expenditures are unlikely to increase achievement, and redistributing resources will not reduce test score inequality" (quoted in Rutter et. al. 1979, p. 3). The conclusions reached by Coleman and Jencks suggested a social-deterministic interpretation of their research findings suggesting that since differences in social and economic background were clearly greater than those between schools then these factors were likely to have a greater effect on individual attainment/ outcome variables. This would appear to be corroborated by the findings of Smyth and Hannan (2000) who note that examination performance in Ireland is closely linked to socio-economic background. Figures for third level entry show that in 1997 64 percent of school leavers higher professional backgrounds went on to third-level education while only 17 percent of those from unskilled manual backgrounds went on to third-level education. (Smyth & Hannan, 2000 p. 119). In a reanalysis of Coleman's Equal Opportunity Survey Edmonds and Frederiksen (1979) identified a number of what they felt were effective schools. The "Coleman Report" did recognise that schools had the possibility of having a positive effect on pupil attainment in the case of the most disadvantaged students (Mortimore, 2002) This was in stark contrast to a study carried out by the Rand Corporation (Averch, Carroll, Donaldson, Kiesling and Pincus, 1972) that argued that there was very little evidence to suggest that schools could make any difference. Mortimore suggests that had Coleman and Jencks had access to micro variables such as school "ethos", attitudes their findings might have been somewhat different.

I.3 PESOC – climate change.

The concept of "ethos" is central to the research findings of School Effectiveness Research and is defined by Rutter (1979) as "the set of values, attitudes and behaviours which will become characteristic of the school as a whole" (p. 179). A question that arises when presenting School Effectiveness Research to practitioners is often how we define effectiveness. A number of definitions have been presented over the years. An early definition used by Mortimore was that an effective school is one "in which students progress further than might be expected from a consideration of its intake" (Mortimore, 1998, p. 319). This was later elaborated on and a new definition was proposed:

An effective school regularly promotes the highest academic and other achievement for the maximum number of its students, regardless of the socio-economic backgrounds of their families. (Mortimore, 1998, p. 319)

What factors characterise effective schools? The list of characteristics of effective schools has expanded and been elaborated upon greatly over the years. An early list of five factors used in the United States is as follows:

- Strong educational leadership from the principal/headteacher;
 - High expectations of student achievement;
 - An emphasis on basic skills;
 - A safe and orderly climate;
 - Frequent evaluation of pupil progress on achievement
- (Reynolds, Creemers, Stringfield, Teddlie & Schaffer, 2002, p. 11)

MacGilchrist, Myers and Reed (1997) provide a good definition in a work that is designed specifically for educational practitioners. They provide eleven characteristics found in effective schools. These are as follows:

1. Professional leadership	Firm and purposeful A participative approach The leading professional
2. Shared vision and goals	Unity of purpose Consistency of practice Collegiality and collaboration
3. A learning environment	An orderly atmosphere An attractive working environment
4. Concentration on teaching and learning	Maximization of learning time Academic emphasis Focus on achievement
5. Purposeful teaching	Efficient organization Clarity of purpose Structured lessons Adaptive practice
6. High expectations	High expectations all round Communicating expectations Providing intellectual challenge
7. Positive reinforcement	Clear and fair discipline Feedback
8. Monitoring progress	Monitoring pupil performance Evaluating school performance
9. Pupil rights and responsibilities	Raising pupil self-esteem Positions of responsibility Control of work
10. Home-school partnership	Parental involvement in their children's

11. A learning organization

School-based staff development. (p. 6)

Cheng writes, "...school effectiveness is the extent to which a school can adapt to the internal and external constraints and achieve the multiple goals of its multiple constituencies in the long run. (Scheerens and Bosker 1997; p. 11)

According to Bamburg and Andrews (1991) effective schools share the following conditions:

- "The presence of a clear and focused mission.
- Instructional leadership by the principal
- High expectations for students and staff
- Frequent monitoring of student progress
- The presence of a positive learning climate
- Parent or community involvement
- Emphasis upon student attainment of basic skills" (p. 12)

Other factors that research has identified include:

- Positive relationships based upon mutual respect between staff and pupils
- Concentration on teaching/learning through maximization of learning time, academic emphasis and focus on achievement and the attainment of basic skills.
- A learning organization with school-based development.
- Shared goals and values

Research in Sweden has included these factors within the concept of schools pedagogical and social climate or PESOK, which is defined by Grosin (1996) as:

"the expectations values and norms concerning the aims, possibilities and restrictions of schooling and the school which are held by the principal, school leaders and teachers and which determine their conduct towards their colleagues and students." (p. 7)

Research findings within the area of school effectiveness research (SER) have generated considerable interest and discussion since they have resulted in a paradigmatic shift in how we view the possibilities presented by schools. More recent research findings in England, USA, Canada, Holland, Sweden and Canada along with other countries have confirmed the findings of Brookover and Rutter that there exist considerable school effects on pupil performance particularly when one views a schools ability to raise pupil attainment levels. These effects and possibilities for positive change can be seen within the context of schools pedagogical and social climate. The area of SER is now well established primarily in western countries and in particular in Great Britain, USA, Australia and Holland.

Schools are not static organizations but are constantly moving, becoming more or less effective. Whether a school moves toward or away from effectiveness depends ultimately upon the conditions of its administrators, teachers and students. In general, the more a schools administration is appropriate, its teachers are prepared to teach, and its students are ready to learn, the more effective the school will be. A school's culture and climate influence it's

movement toward or away from effectiveness but at some point this influence flows through students, teachers and –or administrators.

A school's movement from ineffectiveness to effectiveness and vice-versa is not linear; there is more than one way to become an effective school and there is more than one way for an effective school to sink into ineffectiveness. If no concerted effort is made to make a school effective or maintain it once it has become effective, it is likely to deteriorate into ineffectiveness.

Leadership has mainly to do with building culture while management is concerned mainly with creating and maintaining organizational structure. Administrators need to focus on both culture and structure but in the interest of effectiveness they should emphasize one over the other depending upon how prepared teachers are to teach. Similarly, within classrooms, teachers have to focus both on culture and structure but, to maximize effectiveness, they should emphasize one over the other depending upon how ready students are to learn (Slater & Teddlie, 1992, p. 28).

I.4 But does it work internationally – we're so different?

One of the criticisms that was levelled against SER during the 1990's was its failure to produce evidence of universally identifiable criteria of effectiveness. David Reynolds and his team (2002) examined both ineffective and effective schools in nine countries across the globe. They were able to show that the main characteristics of effective schools travel across national borders and transcend cultural, social, geographic and demographic factors. They wrote:

“It is clear that many of the concepts that have formed the intellectual backbone of the school effectiveness research and practice movement internationally, concerning the quality of the headteacher/principal, the nature of school expectations, and the extent to which the school level potentiates the quality of the classroom experience, *do* travel in explaining why some schools are effective in a wide variety of different country contexts. They also travel in explaining variation between schools in their effectiveness in different socio-economic status contexts... We cannot stress this too highly: many factors that make for good schools are conceptually quite similar in countries that have widely different cultural, social and economic contexts. The factors hold true at school level, but the detail of how school level concepts play out within countries is different between countries. At the classroom level, the powerful elements of expectation, management, clarity and instructional quality transcend culture”. (p. 278-279)

Traditional explanations for differences in pupil attainment based upon SES and genetic inheritance lose all credibility in the light of SER research findings. We know all we need to know in order to educate our youth. That we fail to do so is a political and social issue. We cannot pretend that this research does not exist and we owe it to our children to utilise its findings in order to improve schools. The field of School Effectiveness and Improvement is constantly developing and increasing our knowledge regarding what is possible and indeed what is not possible in terms of school development. For as long as we deny large groups in society the very best education that we can offer, then policy documents that proclaim equal access to and opportunity in education, ring hollow. If we ignore the enormous potential for schools to educate socially adapted individuals who value education, mutual respect and positive social values then we take upon ourselves a heavy burden in terms of accounting for the exclusion of low-SES groups, and in particular, ethnic minorities. How can a society

demand that ethnic minorities integrate into the host society when the teachers who teach the children of these groups have already given up all hope of educating them before they even enter in through the school doors for the first time.

Reynolds et al (ibid) most interesting observation was perhaps that it is the small things that count in creating a positive PESOC in a school and that it is not only at the conceptual level that factors related to effectiveness are the same across national borders, but also the precise details of these factors are the same and often look identical in different countries. Interestingly they were able to show that class-size and effectiveness are not necessarily related. Neither did they find any evidence that increased resources were likely to lead to greater effectiveness.

II REFLECTIONS

II.1. The culture in effective schools

As mentioned the culture in effective schools is among others characterized by a synthesis between the knowledge-focused school and the caring-focused school. Indications for this were present in both Rutter et al. (a.a.) and Mortimore et al. (a.a.) but it was in Sammons et. al. (a.a.) who really penetrated the question. The results presented were unambiguous. In fact all the schools that were characterized as effective according to student outcome in exams were also found to manage the contradiction between these two pedagogical approaches appropriately.

In Sweden, at the school political level as well as teacher-training and continued teachers studies level there has for decades been a heavy focus on student care in the primary and secondary school. So this side of the teacher training and practice in the primary and secondary school is no problem. What is needed is more influence from the culture characterizing the knowledge-focused school. This culture has recently received more emphasis in school policy in Sweden and will hopefully give rise to the kind of synthesis between focus on knowledge *and* pupil-care found in effective schools.

II.2. PESOC as an indicator for what is needed in our time

What characterizes the climate in effective schools is in all probability bearing the stamps of the period. How could it for example be understood that effective schools are characterized by an instructive and pedagogical leadership where the local schools administrator and/or the headmaster take the main responsibility for the teaching quality and evaluation of student outcome, something which traditionally has been taken by teachers?

One of the explanations is probably that the shift to a goal and outcome based system with high goals has placed successively higher demands on teachers. Within the former relative five graded system in Swedish comprehensive school it was in fact accepted that 25% of the students would not achieve a pass grade. Even if there was no officially accepted level for what constituted a pass grade it was informally accepted that a pass grade constituted a three on a five step scale

According to the actual curriculum (Lpo 94) it is the officially stated goal that all (extra bold type by LG)) students shall pass in all subjects. That puts higher demands on teachers and creates a need to break their isolation and instead introduce a more cooperative organisation which is a result of educational and instructive leadership and where teachers work together to

plan, evaluate and improve teaching and student outcome. These are fundamental changes. Effective schools are culture instigators!

The same could be said about the evident and common norms according to the individual rights and demands which characterize the culture (PESOC) in effective schools. Earlier teachers could rely on widely accepted societal norms concerning the relationship between children, youth and adults, especially teachers. These norms are today severely damaged which face us with two alternatives. The first is that each teacher takes his or her own responsibility for the creation and maintenance of the norms in their own classroom. That is not an easy matter and many teachers fail. There is some evidence that these problems partly explain the more frequent use of student active teaching methods in the Swedish comprehensive school which means that the more frequent use of such teaching styles make it easier to uphold order in the classroom and teaching.

Effective schools though, give rise to a second alternative, namely that the norms are restored at the school level. This means that the teachers in these schools get back the support that was taken away from them through societal development. The connection between the choice of teaching methods and order in the classroom can very well also be seen here as the principal behind the flexible choice of teaching methods in effective schools and secondly that interactive teaching of the whole class, which certainly demands order in the class room, is one of the teaching methods used in effective schools.

II.3 School effects on student social adjustment

There is probably not one important study which doesn't include student outcome as an dependent variable. But the definition of an effective school which we are using in our own research includes also student social and personal adjustment to school. One of the bases for this choice is the report by Rutter et al. (op.cit). Rutter himself is not a school researcher but in fact a very famous researcher on child- and adolescent psychiatry. It was within that research that Rutter and his colleagues noticed that children and adolescents attending different schools that had students with similar social backgrounds had very different outcomes and adaptation to school. . The schools also had the same prerequisites according to resources as well as administration and organisation. These observations as well as earlier school research was the basis for the decision to initiate the research project Fifteen Thousand Hours. The aim was to understand and explain the observations already mentioned. The researchers not only studied **educational development** but included variables to measure their social adjustment within school (behaviour and attendance) as well as outside school (delinquency).

A student was termed delinquent if she or he was officially cautioned or found guilty of an offence in a Juvenile Court on at least one occasion. The analysis showed that there was no correlation between either the social or the ethnic composition of the student body and delinquency. Researchers also had access to data on student prior knowledge namely the results from a reading test which all students take at the age of eleven before entry to the secondary level.

The analysis showed that schools which had a relatively high rate of students with unfavourable prior knowledge had two kinds of problems, first the students were still behind in all school subjects and secondly they had a higher rate of delinquent students.

SER then raises the question of school as an institution for socialisation with the ability to prevent or (in the worst case) contribute to student social misconduct. At the same time the results presented indicate that these two possibilities are based on the ability of the individual school to contribute to student's educational development. If all the primary schools from which the students were recruited had managed to teach the students to read, then perhaps fewer or none of the students in the investigated secondary schools might have been delinquent.

The interpretation of the results based in social and psychological theory was that all students want to be seen and to get feed back on their performance and to feel that they *are* somebody. But some could not do that according to school norms and what was expected from them by the teachers. They simply did not have enough knowledge; probably because they had poor reading ability. Instead they joined student gangs with leaders of their own who had negative attitudes towards the school. And in that social context it gave more credit and was more important to **shoplift during lunch** than to perform according to school norms and values. Often some of these gang leaders have contacts with criminal gangs outside school offering another arena for a career.

Are these results and analyses relevant for understanding differences between student outcome and social adjustment in Swedish schools? The main question is if the general results and analyses made in international research on school effects and effective schools are relevant. The second question is if the discussion and analyses of school effects on student social and personal adaptation are of interest for the Swedish school context.

These two questions were raised and answered in Grosin, (2004). The research was longitudinal, 650 students in 21 middle schools were followed from level 6 to level 9 in secondary school. The main result was that the most important explanations for differences in student outcome as well as personal and social adaptation among the students were the pedagogical and social climate (PESOC), especially the expectations held by the principal and the teachers relating to student outcome and conduct. This means that the main question was given a positive answer.

Other variables which explained differences was Student prior knowledge and The Home Curriculum, which means parental support and attitudes towards school.

We also included the questions of student adaptation within school (misconduct) and outside school (delinquency). The aim was to replicate Rutter et al. (op.cit) The investigation included students at the age of 12 as well as 15. We posed the question of delinquency only for the 15 years old. But we had data on student conduct for both year groups which meant that we could test the hypothesis concerning a correlation between student outcome and conduct which was relevant for the year group. The analysis showed that the variable explaining most variance according to student misconduct was their prior knowledge before entering the middle school. The variable explained 37% of the variance in student conduct. This means that the correlation between the two variables was 0,61 and significant at the 0,01 – level.

The judgment by the students of PESOC according to if they found the teaching at their school in accordance with what has been found characterizing teaching in effective schools explained another 10% of the variance. The correlation was 0,32 and significant at the 5% - level.

Taken together so far the results confirm what was found by Rutter et al.

We then analysed delinquency, based on anonymous reports from the students when they were 15 years old and were to leave secondary school. The analysis showed that the variable which correlated highest with delinquency was the judgement of student knowledge by the middle school teachers which was done at the transition to secondary school. The variable explained 50% of the variance. The correlation then was 0,71 and significant at the 0,01 – level. Other variables that contributed to the variance was the students judgement of the PESOC (19 %, $r = 0,44$, sign. 0,01). Finally the Teacher norms judged by the students also contributed, (6%, $r = 0,24$, sign. 0,05). Together 75% of the variance was explained.

The results from the study in general were that SER seemed to have great relevance for describing, explaining and understanding differences between student outcomes as well as their social and personal adjustment. Specifically the result from the Rutter study concerning the connection between prior knowledge and student adaptation outside school, more precisely delinquency, was replicated.

II.4. School matters

SER differs from the popular point of view that it is a students' individual abilities which determines their achievement and social development and in fact school's different outcomes. Instead the pedagogical and organizational qualities are enhanced. This view means also that you open for the thesis that School really matters and that it matters deeply. Consequently schools are of fundamental importance for the development of children and youths according to both pure outcome and social development. Good schools, and potentially then most schools, can play a preventive role in terms of adolescent antisocial behaviour which is another hint of what a great impact the schools can have.

Another interesting illustration to the possibilities presented by schools was interestingly demonstrated by a documentary film which was produced and broadcast by the Swedish television during spring 2008. The film followed a 9th grade class in a Swedish comprehensive school, with students with serious problems in terms of both educational attainment and social conduct. For one term they were taught of by a group of highly skilful teachers. What happened was that all the students experienced a metamorphosis both in educational attainment and social adjustment. Grades improved enormously for all the students and for some of them, from very poor to excellent. One way of describing the results is that all the students in the class got their chances in life totally changed as well as their freedom of choice.

The result of the experiment is in line with what has been found in SER. First it supports the view from SER that it is not the students who are the problem. As Ron Edmonds (1979) stated, they are all educable. Whether they get the opportunity to realise their possibilities depends on the school, PESOC and teaching quality.

At the same time this enormous pedagogical effort took place thanks to some extremely talented, engaged and independent teachers, is not a solution to the problems which many schools are facing. School improvement cannot be based on recruitment of especially talented teachers for the evident reasons that there are not enough such geniuses. Instead the solution to problems with student outcome and adjustment, that many schools face, is that the head teacher can initiate and develop a PESOC which creates an adequate pedagogical and social support, which is a prerequisite for good performance by the vast majority of teachers. The

geniuses manage under all circumstances. The rest of us could do well, not to say very well, in the right circumstances. The problems many schools face is how to develop the PESOC which makes it possible for the teachers to reach their teaching goals which means that the students reach theirs. The geniuses though can also contribute to the quality of the whole school if they are engaged in the school improvement efforts, especially regarding development of subject teaching and teaching methods. It should also be mentioned that Teacher Education also is of great importance.

II.4. Cause and effect

That SER points to the fact that the reason for what is happening in schools is dependant on inner culture and PESOC has important consequences for how you analyse and try to handle problems. Let's illustrate this by discussing the difficult problem of bullying. When schools face this problem the focus of analysis is often the students directly involved. Certainly it is right to confront the offender and to take care of the offended but you should not restrict the efforts to that. SER makes it evident that the main action should be quite different. Firstly, in this case as in the problem with for example poor student attainment and conduct, the basic reasons are not the students. The real thief in the drama is the PESOC. The social side of PESOC (look to the first part of his paper for details) is about mutual respect, common social rules and a student focused approach as well as principals for order and sanctions towards those students who violate the order. A school with a good PESOC will probably never experience problems with bullying and if it happens it will easily be taken care of.

This way of viewing bullying is supported by the research and intervention programmes of Dan Olweus (ref). The program is scientifically validated and has demonstrated good results. The main concepts in the Olweus intervention program are as follows:

- A school environment characterized by warmth, interest and engagement from behalf of the adults,
- Distinct rules against misconduct
- Consequent use of non - physical and non - hostile sanctions against those who violate the rules,
- Adults at school as well as at home who take the role of authorities

The parallel to the social elements in PESOC is quite evident. The optimistic assumption then that effective schools don't have problems with bullying is simply that the measures and principals which according to Olweus need to be implemented to solve problems when you face bullying are already there in such schools. Effective schools act preventively!

On the other hand, taking different measures against for example bullying with the view that the problems in fact mainly exist at the individual level and mainly concern the individuals directly involved, could be damaging and counter-productive because the measures address the symptoms rather than the root cause of the problem. Then there is even a risk that the real problems will be deepened and the PESOC of the school will worsen.

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