

## School Effectiveness: A Key To Academic Success

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### Abstract

*The concept 'school effectiveness' refers to a body of research which investigates the factors responsible for determining school performance. It is also an educational movement that explores the determinants of school success. Research in school effectiveness has been widely undertaken by many researchers and institutions. For the last two decades several theories of educational effectiveness or school effectiveness have been designed and what they have in common is the focus on the importance of learning level, teacher effectiveness and individual student factors. Some theories lay the emphasis on internal factors such as teaching and learning and others focus on leadership and culture as necessary conditions for achieving school effectiveness. This part of the paper discusses the history, the correlates, the characteristics, the processes, and the approaches and models of School Effectiveness.*

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### Introduction

The school effectiveness research originates from reactions to the findings of two groups of social scientists who are James Coleman and his team of researchers (Coleman et al., 1966), and Christopher Jenks and his collaborators (Jencks et al., 1966). Though both the studies come from two different disciplines, (i.e., sociology and psychology), their conclusions were similar. The controversial Coleman report concluded that the family background and the socio-economic status were the crucial factors of student achievement. Jencks (1966) contributed to Coleman's findings, illustrating that the quality of school has no influence on student achievement. Prompted by Coleman's report, the researchers and policy makers of the U.S.A designed "compensatory programs" in order to transform the behavior of socially disadvantaged students. In fact, it is their research that lays the foundation for school effectiveness studies by various social scientists who identified deep insights into educational effectiveness. They asserted that all children can learn successfully irrespective of their socio-economic status.

The School effectiveness research began in the United Kingdom and the United States. The studies of Ronald Edmonds (1979: p.11) explored the correlates of school effectiveness, involving correlational studies focusing on the relationships between the outcomes of schooling and the characteristics of schools and classrooms. He conducted research in inner-city school in the U.S where students from lower strata of society were able to equal or surpass the national average. His well-known article "Effective Schools for the Urban Poor" drew the attention of other researchers to the study of school effectiveness. He identified a set of correlates and it was called the five-factor model. They are the characteristics of school effectiveness.

1. Strong Administrative leadership
2. High Expectations
3. Basic Skills acquisition
4. Capacity to divert school energy and resources
5. Frequent monitoring of people's progress

([https://dclu.langston.edu/cgi/viewcontent.cgi?article=1026&context=mccabe\\_theses](https://dclu.langston.edu/cgi/viewcontent.cgi?article=1026&context=mccabe_theses)) P.11

In such studies, the characteristics of school effectiveness are correlated with student achievement. These characteristics are called correlates which are considered the means of achieving high quality education. It is believed that all children whether they are poor or rich, male or female, black or white will gain basic knowledge and develop basic skills to be successful. According to Kirk, D.J et al. (2004: p.2) The seven common correlates are the following:

1. Clear School Mission
2. High expectation for Success

3. Instructional leadership
4. Opportunity to learn and time on task
5. Safe and orderly environment
6. Positive Home-school relations
7. Frequent Monitoring of student progress

Such correlational studies came under severe criticism from several social scientists. In the U.K and Netherlands, the school effectiveness research was rooted in research on teacher effectiveness and teacher behavior. The researchers took advantage of the results of earlier studies and the criticism of these studies. For the last 25 years, the research into school effectiveness has improved considerably on research design, and the sampling and statistical techniques. Major studies were carried out by Mortimer et al. (1988) in the U.K and by Teddie and Springfield (1993) in the U.S.

## 2.2. School Effectiveness - From correlates to Characteristics

As a reaction to the study of correlates of school effectiveness, major studies were carried out by incorporating new statistical methods of analyzing the data. It is possible to identify several characteristics of effective schools in terms of school effectiveness. Rutter et al. (1979: p.2) identified the following eight main characteristics:

1. School ethos
2. Effective classroom management
3. High teacher expectations
4. Teachers as positive role models
5. Positive Feedback and treatment of students
6. Good working conditions for staff and students
7. Students given responsibility
8. Shared staff-student activities

(<http://cw.routledge.com/textbooks/9780415485586/data/chapters/08DefiningEffectiveSchools.pdf> p.2)

The set of characteristics proposed by Rutter was found inadequate by other researchers. Mortimer et al. (1988 as cited in Stoll, L.A 1992: p.25) found out that a number of schools were effective in academic areas and social areas as well. Those schools had the following 12 characteristics:

1. ***Purposeful leadership of the staff by the head***  
This occurred where the head understood the school's need, was actively involved in it, but was good at sharing power with the staff. He or she did not exert control over teachers, but consulted them, especially in decision-making such as spending plans and curriculum guidelines.
2. ***Involvement of the deputy head***  
Where the deputy was usually involved in policy decisions, pupil progress increased
3. ***Involvement of teachers***  
In successful schools, the teachers were involved in curriculum planning and played a major role in developing their own curriculum guidelines. As with the deputy head, teacher involvement in decisions concerning which classes they were to teach was important. Similarly, consultation with teachers about decisions on spending was important.
4. ***Consistency among teachers***  
Continuity of staffing had positive effects but pupils also performed better when the approach to teaching was consistent
5. ***A Structured Day***  
Children perform better when their school day was structured in some way. In effective schools, pupils' work was organized by the teacher who ensured there was plenty for them to do yet allowed them some freedom within the structure. Negative effects were noted when children were given unlimited responsibility for a long list of tasks
6. ***Intellectually challenging teaching***  
Not surprisingly, pupil progress was greater where teachers were stimulating and enthusiastic. The incidence of higher order questions and statements was seen to be vital – that is where teachers frequently made children use powers of problem solving
7. ***A work-centered environment***  
This was characterized by a high-level pupil industry, with children enjoying their work and being eager to start new tasks. The noise level was low, and movement around the class was usually work-related and not excessive

**8. *A limited focus within sessions***

Children progressed when teachers devoted their energies to one particular subject area and sometimes two. Pupil progress was marred when three or more subjects were running in the classroom.

**9. *Maximum communication between teachers and pupils***

Children performed better when they had more communication with their teacher about the content of their work. Most teachers devoted most of their time to individuals, so each child could expect only a small number of contacts a day. Teachers who used opportunities to talk to the whole class by, for example reading a story or asking a question, were more effective.

**10. *Thorough record keeping***

The value of monitoring pupil progress was important.

**11. *Parental involvement***

Schools with an informal open-door policy which encouraged parents to get involved in the process of education proved to be more effective.

**12. *A positive climate***

An effective school has a positive ethos. Overall, the atmosphere was more pleasant in the effective schools.

(Mortimore et al., 1988)

Several researchers began to work on school effectiveness and brought out more characteristics. Weindling(1989: p.3) identified the following key features of effective schools:

1. An emphasis on learning
2. The learning environment
3. Purposeful teaching
4. High expectations
5. Shared vision and goals
6. Professional leadership
7. Monitoring progress
8. Home-school partnerships
9. Monitoring progress
10. Home-school partnerships
11. Pupils' rights and responsibilities
12. Positive reinforcement
13. Staff-development
14. Outside support

(<http://cw.routledge.com/textbooks/9780415485586/data/chapters/08DefiningEffectiveSchools.pdf>p.3)

Reynolds (1995: p.3) pointed out that all characteristics can be included in the following 7 factors:

1. The Nature of leadership by the head teacher
2. Academic Push
3. Parental Involvement
4. Pupil Involvement
5. Organizational Control of Pupils
6. Organizational consistency across lessons in the same subjects, different subjects in the same years and across years
7. Organizational constancy

(<http://cw.routledge.com/textbooks/9780415485586/data/chapters/08DefiningEffectiveSchools.pdf>p.3)

At first sight, all these characteristics look the same, but there are several differences among them. For Mortimore (1988), the purposeful leadership is the most important characteristic of School effectiveness. The main determinants of school effectiveness are leadership by the head and the deputy head, and also the involvement of teachers in decision –making. On the other hand, student learning is the most important factor of school effectiveness according to

Weindling. The Louisiana School Effectiveness Study (Teddlie &Stringfield, 1993) was a program of in fact four studies. The first study which was a pilot study started in 1980 and the fourth study finished in 1992. In their third study they identified the differences between effective schools and ineffective schools with respect to high time on task, the presentation of new material, encouragement of independent practice, high expectations, positive reinforcement, a small number of interruptions, discipline, student work displayed, and the appearance of classroom. They illustrated the differences by comparing

J.F.Kennedy Elementary School and Coolidge Elementary School. They showed that Kennedy School is effective and the other is ineffective. They pointed out the factors responsible for effectiveness and ineffectiveness.

### 2.3. School Effectiveness – From Characteristics to Processes

An overview of research into the characteristics of school effectiveness, researchers identified the processes involved in school effectiveness. Scheerens and Bosker (1997) reviewed the constructs and instruments used in school effectiveness to collect information about school and classroom processes. Sammons et al (1995) identified nine processes involving specific actions which are crucial for effective schools. Figure 8 shows the processes of effective schools based on Sammons et al. (1995: p.12) and the corresponding actions.

No	Processes	Actions
1	Processes of Effective Leadership	<ul style="list-style-type: none"> <li>➤ Being firm and purposeful</li> <li>➤ Involving others in the process</li> <li>➤ Exhibiting Instructional Leadership</li> <li>➤ Frequent personal monitoring</li> <li>➤ Selecting And Replacing staff</li> </ul>
2	Processes of Effective Teaching	<ul style="list-style-type: none"> <li>➤ Maximizing class time</li> <li>➤ Successful grouping and organization</li> <li>➤ Exhibiting best teacher practices</li> <li>➤ Adapting practice to particulars of the classroom</li> </ul>
3	Processes of Developing and Maintaining a pervasive focus on learning	<ul style="list-style-type: none"> <li>➤ Focusing on academics</li> </ul>
4	Processes of producing a positive school culture	<ul style="list-style-type: none"> <li>➤ Creating a shared vision</li> <li>➤ Creating an orderly environment</li> <li>➤ Emphasizing positive reinforcement</li> </ul>
5	Processes of creating high, and appropriate expectations for all	<ul style="list-style-type: none"> <li>➤ For students</li> <li>➤ For staff</li> </ul>
6	Processes of emphasizing student responsibilities and rights	<ul style="list-style-type: none"> <li>➤ Responsibilities</li> <li>➤ Rights</li> </ul>
7	Processes of Monitoring Progress at all levels	<ul style="list-style-type: none"> <li>➤ At the school level</li> <li>➤ At the classroom level</li> <li>➤ At the student level</li> </ul>
8	Processes of Developing staff skills at the school site	<ul style="list-style-type: none"> <li>➤ Site based</li> <li>➤ Integrated with ongoing professional development</li> </ul>
9	Processes of involving parents in productive and appropriate ways	<ul style="list-style-type: none"> <li>➤ Buffering Negative influence</li> <li>➤ Encouraging productive interaction with parents</li> </ul>

Figure 8: Processes of School Effectiveness  
( <https://files.eric.ed.gov/fulltext/ED389826.pdf> p.12)

All these processes differ in content and level within educational system. Some processes are located at the classroom level and some are found at the school level. According to Creemers (1998), it is possible to criticize this list, like the others, upon conceptual, theoretical and empirical grounds, for example the definition of the five factors, the location of the factors, and the empirical support that these factors receive in research. This is still one of the issues in the recent debate on school effectiveness.

### 2.4. School Effectiveness – From Processes to Theoretical Models

After the 1990s, researchers of school effectiveness started looking for appropriate theoretical models that would provide a comprehensive framework for school effectiveness. In the literature of the models of educational effectiveness, three basic approaches have been used. First, the economic approach focuses on estimating the relationship between the ‘supply of selected purchased schooling inputs and educational outcomes controlling for the influence of various background features’ (Monk, 1992, p.308). This model assumes that when the input increases, it results in increments in outcomes. The main finding of these models was that the relation between input and outcomes is a complex phenomenon. Moreover, these studies show that

reducing student/teacher ratio and/or increasing the amount of funding education per student need not guarantee higher student outcomes. As a result, a new evidence-based policy making approach was introduced in order to enhance school effectiveness. This approach emphasized student background factors such as personality, learning aptitudes, and motivation and other variables associated with classroom experience. On the other hand, the sociological aspect focuses on those factors which show the educational background of students, gender, social-capital, and peer group. Creemers (1988) states that two dimensions of measuring school effectiveness emerged from this perspective concerning the quality and the equity. Moreover, the sociological perspective raises attention for process variables which emerge from organizational theories such as the school climate, culture and structure for contextual variables.

One of the most influential models of school effectiveness is the model designed by Carrol (1963: p.2). Figure 9 shows Carrol's Model of school learning.

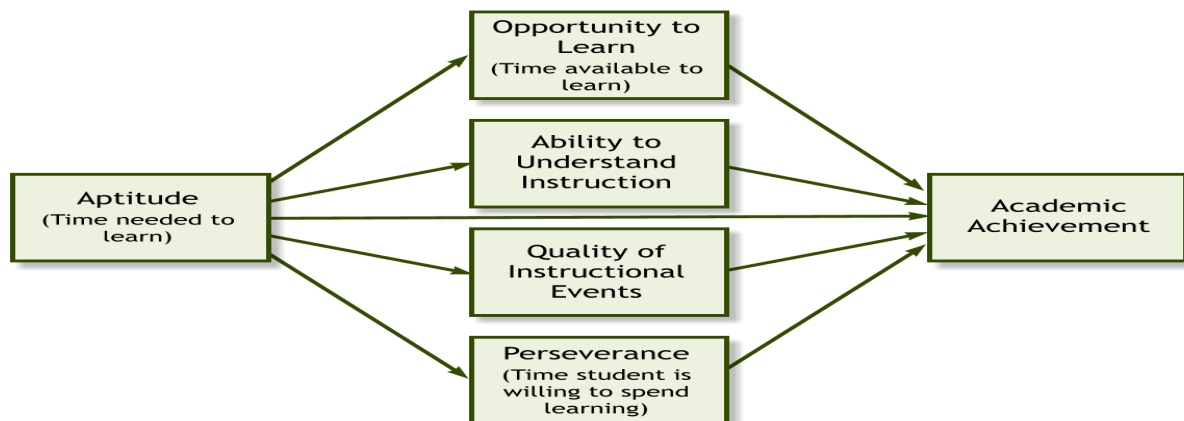
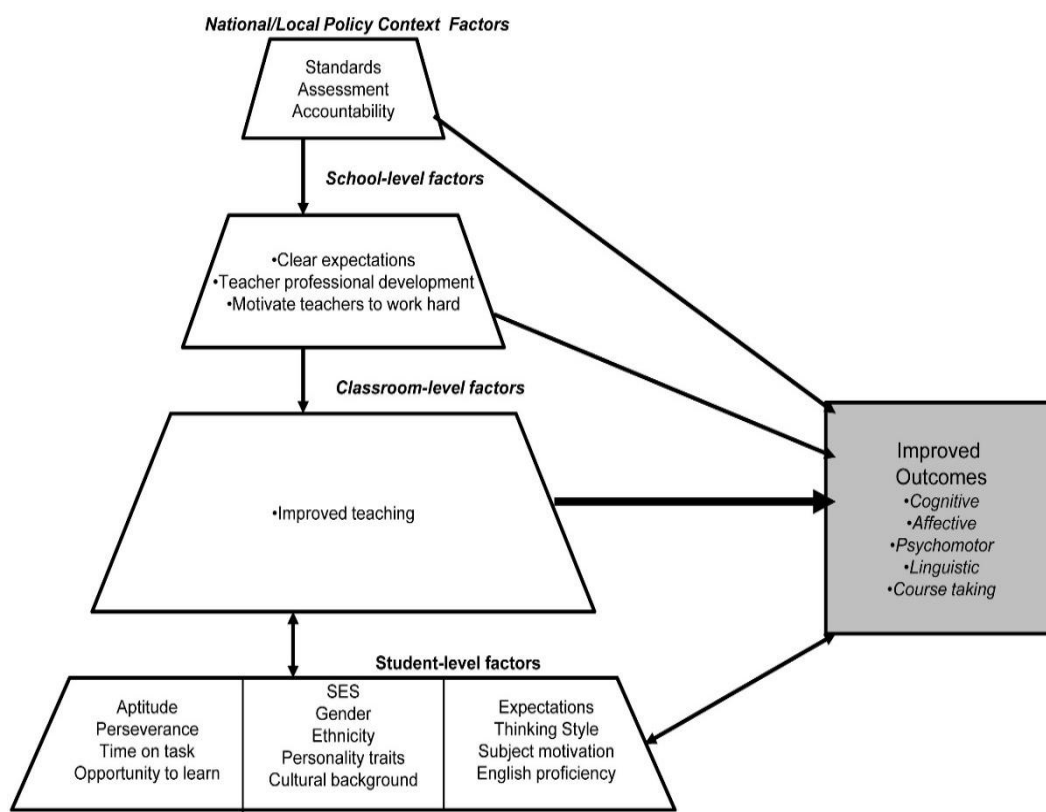


Figure 9. Carrol's (1963, 1989) model of school learning  
(<https://www.researchgate.net/lite/publication> p.2)

Carrol's model was very popular because it showed the characteristics of education relevant to the processes of instruction and individual student characteristics which are important for an effective learning. The validity of this model was authenticated by many studies. He brought to light the crucial aspects of learning in schools such as time, quantity and quality of instruction. According to this model, the degree of student mastery is the function of the ratio of the amount of time spent on learning tasks to the total amount of time they need. The time actually spent on learning tasks is defined in terms of three variables: 1) Opportunity (the time allowed for learning). 2) Perseverance (the amount of time in which students are willing to involve themselves in learning), and 3) Aptitude (the time needed to learn). The model can be criticized because it is more of an instructional model than a teaching model. Carrol (1989) himself stated that the quality of learning needed more elaboration.

It is Carrol's model which provided the basis for Bloom's mastery of learning (Bloom 1968). Bloom elaborated the relationship between time, perseverance, aptitude and the quality of instruction. As a result of this elaboration, this model exerted a tremendous influence on educational systems and practices. A consistent line of reasoning was developed in models and theories of educational effectiveness between learning outcomes and learning theories resulting in instructional processes at a classroom level and school and contextual conditions for maintaining the quality of instructional level (Creemers, 1994; Slavin, 1996, Schreens, 1993; Slater & Teddlie, 1992).



**Figure 10. Revised Theory of Educational Effectiveness (Creemers&Kyriakides 2008)**  
[http://dx.doi.org/10.7575/aiac.ijalel.v.6n.2p.1\\_p.2](http://dx.doi.org/10.7575/aiac.ijalel.v.6n.2p.1_p.2)

The model proposed by Carrol and the elaboration by Bloom lead to the creation of a comprehensive model of school effectiveness, which includes four levels: the student level, the classroom level, the school level, and the context level. The model designed by Creemers&Kyriakides (2008 as cited in Azhkiyah 2017: p.2) combines all key concepts at each educational level and shows how the levels in the model influence student outcomes. Figure 10 shows the model proposed by Creemeers and Kyriakides.

The school effectiveness as a body of research started with identifying correlates that could possibly determine the effectiveness of a school. As these correlates were found inadequate, researchers began to identify the processes involved in school effectiveness. These processes came under severe criticism; as a result, the proponent of school effectiveness brought to light new theoretical models of school effectiveness. Though the models helped many educational systems move towards effective schooling, some researchers are skeptical about the success rate of these models. Fullan (1991) states that school effectiveness 'has mostly focused on narrow educational goals, and the research itself tells us that almost nothing about how an effective school got that way and it stayed effective. Teddlie and Roberts (1993) suggest that effectiveness and improvement representatives do not cooperate automatically, but tend to see each other as competitors. In some countries the balance between school effectiveness and school improvement is lost. Sometimes there is a lot of effectiveness research going on, but is not linked to school improvement.

The issue of making schools effective has become a matter of serious concern for educators who are looking for specific factors which will lead to school effectiveness. Magulod, G.C. (2016: p.3) observes that *awell-planned school will gear up expected outcomes of education that will facilitate good social, political and economic emancipation, effective teaching and learning process and the academic performance of students.* The contemporary research in school effectiveness focuses more on achieving maximum educational outcomes with regard to investment of resources and effort. Burusic.J. et al (2016: p.11) recommends that *in the current post-modern society, schools need to focus on transfer of social values, development of social and artistic skills and primarily on the development of the capacity to transfer, evaluate and synthesize knowledge, as well as on metacognitive skills.* With technological advancement, the modern research in school effectiveness is bound to make a great impact on educational outcomes.

In such a scenario, the bellow ISW Model of Al Barwani and Osman (2011) can be a viable alternative to school effectiveness models (Al-Mekhlafi 2019). It is an attempt to bridge the gaps found in the school

effectiveness research and establish a balance between effectiveness and improvement aspects. If put into practice, the ISW is sure to provide a comprehensive paradigm which will address all issues relevant to a rapid development of educational systems and practices in Oman. The driving forces of ISW are bound to enhance school effectiveness and promote a great deal of school improvement so that the schools in Oman can produce graduates who will compete at the global level.



*Innovation Sustainability Wheel (Al Barwani& Osman 2011)*

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figure 9 'Carrol's (1963, 1989) model of school learning' retrieved from

(<https://www.researchgate.net/lite/publication> ) in October 2018

Figure 10

[https://www.researchgate.net/publication/233327892\\_Using\\_the\\_Dynamic\\_Model\\_to\\_develop\\_an\\_evidence-based\\_and\\_theory-driven\\_approach\\_to\\_school\\_improvement](https://www.researchgate.net/publication/233327892_Using_the_Dynamic_Model_to_develop_an_evidence-based_and_theory-driven_approach_to_school_improvement)

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