

META-ANALYSIS OF GLOBAL TRENDS OF SCHOOL EFFECTIVENESS RESEARCH AND ITS IMPACT ON SECONDARY LEVEL SCHOOLS IN WEST BENGAL

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1.1 INTRODUCTION:

Meta-analysis is a quantitative and formal research design used to assess the results of existing research to derive conclusions. A meta-analysis is actually analysis of analysis that combines the results of multiple previous studies. Meta-analysis is some total output of multiple previous studies addressing the same question.

In societal context School Effectiveness Research play a very important role for predicting education. We cannot think about education without proper effective enhancing criteria. But to identify those determinants we have to go through different dimensions of School effectiveness.

School effectiveness is seen as the degree to which schools achieve their goals, in comparison with other schools that are 'equalized', in terms of student-intake, through manipulation of certain conditions by the school or the immediate school context.

1.2 DEFINITIONS OF EFFECTIVENESS:

1. Effectiveness is the production process of an organization can be summed up as a transformation of 'inputs' into 'outputs'.

2. Inputs include pupils with certain given characteristics and financial and material aids. Outputs include pupil attainment at the end of schooling.

3. The transformation process o within a school can be understood by means of instructional methods, curriculum choices and organizational preconditions that make it possible for pupils to acquire knowledge.

Effectiveness can now be described as the extent to which the desired level of output is achieved.

1.3 Back Ground Study:

School effectiveness and Students' perceptions of teacher Caring: A multilevel study

By Joachim Ramberg, Sara Brolin Låftman, Ylva B Almquist (March 19, 2018) shows that the effective schools literature has shown that school-contextual aspects matter for students' academic and social outcomes.

The relationship between students and teachers has been a worldwide research topic of interest for many years, and a vast amount of studies have confirmed its role as a predictor of students' academic outcomes and social adjustment (Roorda, Koomen, Spilt, & Oort, 2011; Thapa, Cohen, Guffey, & Higgins-D'Alessandro, 2013; Wentzel, 2009).

A key aspect of the student-teacher relationship concerns the students' perceptions of how their teachers care for them (Muller, 2001; Teven & McCroskey, 1997; Wentzel, 2012).

Teacher caring has previously been identified as an important factor for increasing student motivation and learning in the literature of effective schools (Comadena, Hunt, & Simonds, 2007; Velasquez, West, Graham, & Osguthorpe, 2013).

Based on well-known distinctions in organizational science (e.g. Mintzberg, 1979; De Leeuw, 1982), the following categories can be used as a framework to further distinguish elements and aspects of school functioning:

- goals;
- the structure of positions.
- the structure of procedures.
- culture;
- the organization's environment;
- the organization's primary process.

These kinds of conditions will be referred to as modes of schooling. Modes are considered as conditions that, in principle, may be manipulated by the school itself or by outside agencies that have control over the school.

Among these modes, goals have a specific role. In organizational-effectiveness thinking, goals can be seen as the major defining characteristic of the effectiveness concept itself. In the previous section it was established that different goals, or effectiveness criteria, can be used to assess effectiveness.

Finally, one of the tasks of the organization may be considered to be ensuring that goals or attainment targets are shared among the members of the organization.

This is particularly relevant for organizations such as schools, in which teachers traditionally have a lot of autonomy.

In control theory the phenomenon of unifying the goals of organizational sub-units (i.e. departments and individual teachers, in the case of schools) is known as 'goal co-ordination'. 'Pupil selection' is a condition that would generally fall outside the definition of school effectiveness, since the specific interest in the value added by schooling, over and above the impact of the innate abilities of pupils, precludes the consideration of this option.

Types of Indicator: The Student Level Outcome Indicator(China Model)2019:Based on Cognitive domain, Behavioral Domain & Effective Domain.

School Level Indicator based on School Management, Teaching and Quality Factor

School Context based on Gender, Location,Grade phase of Schooling and SES.

MODELS OF SCHOOLING AS PER PREVIOUS STUDY(Scheerens and others)

Goals:

Various effectiveness criteria.

Priorities (cognitive – non-cognitive).

Attainment level and distribution of attainment.

Goal co-ordination.

Physical Structure

- management structure.
- support structure.
- division of tasks and positions.
- grouping of teachers and students.

Procedures

- general management
- production management
- marketing management.
- planning co-ordinating
- personnel management (among which hrm, hrd)
- controlling assessing
- financial and administrative management
- co-operation

Culture

- indirect measures
- direct measures

Environment

- routine exchange (influx of resources, delivery of products)
- buffering
- active manipulation.

Primary process

- curricular choices
- curriculum alignment.
- curriculum in terms of restructuring instructional process.
- pupil selection
- levels of individualization and differentiation
- instructional arrangement in terms of teaching strategies and classroom organization.

The results of the early effective-schools research converged more or less around five factors

Five-factor model of school effectiveness(Jaap Scheerens in 2000)

- educational leadership;

- emphasis on the acquiring of basic skills;
- an orderly and secure environment;
- high expectations of pupil attainment;
- frequent assessment of pupil progress.

Numerous reviews on school effectiveness have been published since the late seventies. Examples are

- Purkey and Smith (1983) and
- Ralph and Fennessey (1983),Walberg 1984,1985 Doyel, Fraser et all1987
- Levine and Lezotte (1990)
- Scheerens (1992)
- Creemers (1994)
- Reynolds et al. (1993),
- Sammons et al. (1995), and Cotton (1995).
- Schereens (2000)
- (Roorda, Koomen, Spilt, & Oort, 2011; Thapa, Cohen, Guffey, & Higgins-D'Alessandro, 2013; Wentzel, 2009).
- Wentzel, 2012)
- Types of Indicator: The Student Level Outcome Indicator(China Model)2019

There is fairly wide consensus in the reviews on the main categories of variables to be distinguished as effectiveness-enhancing conditions, even when one compares earlier with more recent reviews.

Doyle (1985) defined School Effectiveness as follows :

- teaching goals are well defined.
- the curriculum to be followed is carefully split into learning tasks and followed accordingly;
- explains clearly what the pupils must learn;
- frequently asks questions to identify what progress pupils are making and whether they have understood;
- pupils have ample time to practice what has been taught, with much use being made of 'prompts' and feedback;
- skills are taught until mastery of them is automatic;
- the teacher regularly tests the pupils and calls on them to be accountable for their work.

Meta-analyses by Walberg (1984) and Fraser et al. (1987) explored the following teaching components:

- reinforcement;
- special programmes for gifted children;
- structured learning of reading;
- cues and feedback;
- mastery learning of physics;
- working together in small group.

According to Bhattacharyya. D.(2018) School Effectiveness may be divided into two parts :

1) Intra School Effectiveness Component

2)Inter School Effectiveness Component

Intra School Effectiveness component includes 1) Effective curricula 2)Effective School Environment 3) Effective Teaching Learning

Inter School Effectiveness Component includes 1) Education Policy Perspective 2)Funding 3)Extension activities.

According to Vandevoort, Amrein-Beardsley, and Berliner (2004)

The quality of a teacher is one of the most important factor in School Effectiveness research and how well a child learns. Actually schools are being evaluated based on their students' performance on a state mandated test given every year for the betterment of the total process.

School Effectiveness determinants:

The two main purposes are

- 1) Teachers Accountability,
- 2)Assuring quality and facilitating improvement of institutional atmosphere .

In Indian Context Dave rightly pointed out that teachers accountability and Performance shaping the classroom and similarly Kleinhenz&Ingvarson, 2004 predicts that organizations responsibility for developing and implementing

methods for assessing their performance that respect the complexity and depth of their professional knowledge and practice are determining factor for School Effectiveness.

The majority of educators agree with the fact that holding teachers accountable is imperative for student learning to take place. However, a lively debate surrounds the question of how accountability is established and about the place and value of professionalism in accountability (Bullough, Clark, & Patterson, 2003)

. According to Gallagher (2002) schools such as Vaughn Elementary in Los Angeles, California evaluate teachers in ten domain areas, and teachers are not only evaluated by their principal, but by peers and themselves, too. Teachers are rated on a scale of one to four on each standard. This school found that the alignment between taught and tested curriculum, both in terms of content and cognitive demand, is a highly significant predictor of student performance. This study did make it clear, however, that no single measure should be seen as the sole criterion for judging performance rather than combining both the Intra and Inter Cultural Determinants for academic success.

1.4 OBJECTIVES OF THE STUDY:

- To study the School Effectiveness determinants at higher secondary level.
- To study school effectiveness research at higher secondary level in terms of review of related studies through meta analysis.
- To find out the relationship among components of school effectiveness research.
- To extract components relating to School Effectiveness Research.
- To find out a model of school effectiveness research.

1.5 METHODOLOGY: Different Independent Qualitative and statistical measures leading to Meta Analysis:

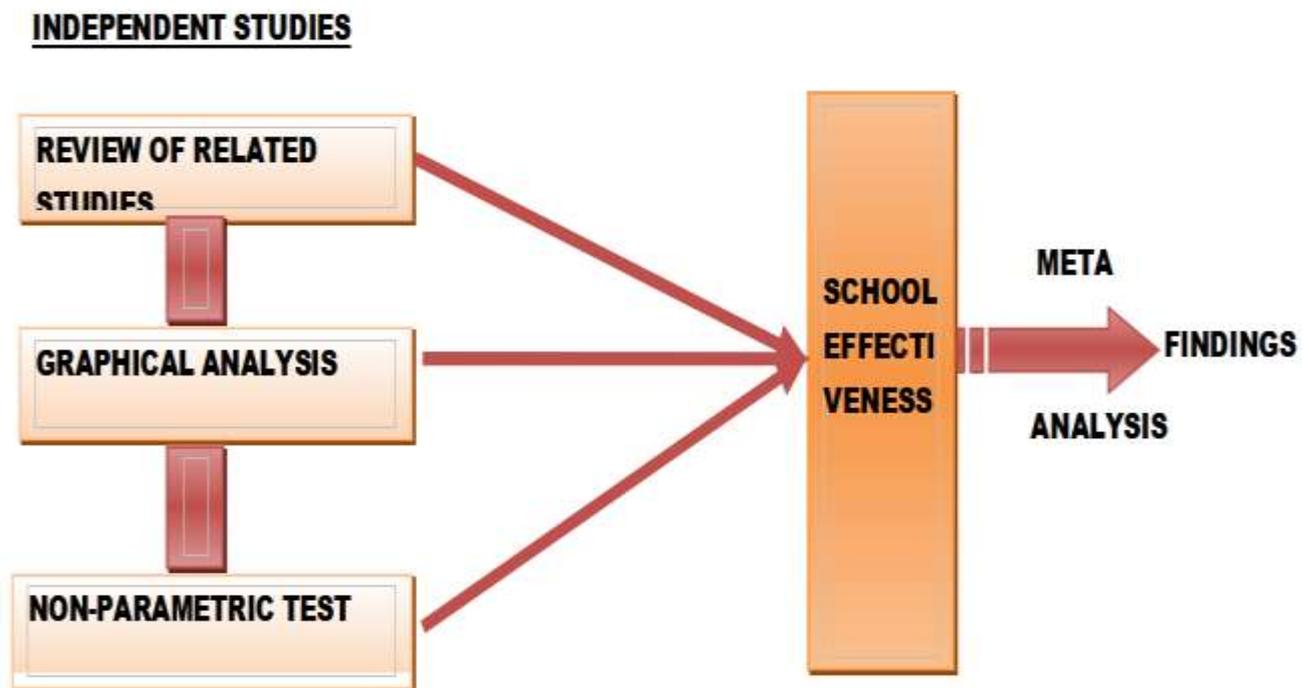


FIG: PROCESS OF META-ANALYSIS

The research is based on Meta-Analysis based on stated diagram.

TOOLS USED:

A standardized Questionnaire regarding School Effectiveness Research based on meta-analysis has been used as a device for collecting data.

Standardization:

The Questionnaire applied for identifying components of School Effectiveness research through Meta Analysis. Initially 50 components have been extracted from review of related studies followed by Chi Square analysis. The analysis has been done on the basis of 400 students of 11 th grade students in West Bengal.

It was observed almost all the items of school effectiveness research have been significant through Chi Square analysis. Therefore to identify the reality a series of component regarding school effectiveness research have been applied on 1200 students of 11 th grade almost different corners of West Bengal and necessary data have been collected to make an overall conclusion.

Reliability:

Items are considered to be highly reliable and the correlation coefficient has been found to be 0.872 calculated from test- retest method.

Validity:

Content validity has been highly maintained during study.

Population:

11th grade students in West Bengal are considered as population. Some selected schools of 11th grade students are used as sample. Questionnaire has been applied for collecting data and the sampling technique is purposive in nature.

1.6 LIMITATIONS:

Meta analysis of school effectiveness research demands a wide range of Data of previous studies as well as its application in the present school education system has been greatly challenged by the pandemic situation .Most of the determinants are extracted from the different studies available either in internet or through its application in different form of quantitative approach through meta-analysis. The study is limited within a particular area where the survey has been conducted. Survey result may be tested in hypothetical form but it appears to the investigator to find out meta analysis results through Statistical package.

1.8 Significant component from graphical Analysis extracted from graph and the listed component below whose % response is more than 50%.

- 1.Collaboration
- 2.Collegiality
- 3.Efficacy
- 4.Common Language
- 5.Equity Pedagogy
- 6.Physical set-up
- 7.Co-scholastic activity
- 8.Student teacher Relationship
- 9.Shared Vision
- 10.Policy and Goals
- 11.Structured teaching
- 12.Structred Routine
- 13.Activity Based Curriculum

- 14.Cultural extension
- 15.Remedial Measure
- 16 .Evaluation Procedure

1.9 Findings:

Meta analysis is a unique approach of research methodology to explore the research objectives. In the present study through meta analysis of School Effectiveness Research successfully related components of school effectiveness have been identified . With the help of previous studies and present status a model has been suggested to find our school effectiveness research to explore its present status to conclude my report:

PERSPECTIVE MODEL OF SCHOOL EFFECTIVENESS RESEARCH:

Goal Oriented Perspective:

Quality curricula
Structured teaching
Policy and Goals

Shared vision

Physical Set-up

Process oriented Perspective

I) Inter Perspective component of School Effectiveness Research
Collaboration

Common Language

Cultural Extension

II) Intra Perspective of School Effectiveness Research
Remedial Measure

Collegiality

Equity Pedagogy

Student Teacher Relationship

Structured Routine

Co Scholastic Activity

OUTCOME BASED PERSPECTIVE

Efficacy

Evaluation Procedure

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