Measuring Effectiveness of Schools in India: A Multiple Stakeholder Framework

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Abstract
Multiple stakeholder perspective has emerged as one of the most acceptable ways to measure organizational effectiveness. This paper uses input variables in a multiple stakeholder perspective to develop a model of effectiveness for evaluating a not-for-profit educational organization. The critical stakeholders in the school appear to be the principal, teachers and the students as they affect the effectiveness of the school directly and indirectly through influencing other stakeholders.

Schools are uniquely moral organizations (Greenfield, 1995). They have a strong moral grounding that may not necessarily exist in corporates. They work as loosely coupled systems (Orton & Weick, 2000; Weick, 1976) as a result of which, their management becomes different from corporate organizations. For instance, while consumers as customers may be powerful stakeholders in corporate organizations, students as customers in educational organizations may not have much say in the product (the curriculum). Additionally, while service to customers in corporates is generally driven by profit motive, service in schools is primarily driven by the service and welfare motive (Newman & Wallender, 1978).

Gamoran and Dreeben (1986) contest that not every school system is loosely coupled. There may be schools that are run like bureaucracies and even within loosely coupled schools, coordination between various subsystems would exist through various factors like professional norms, common socialization, flow of resources etc. While elementary schools conform more to the image of the rational bureaucracy, secondary schools fit the image of anarchy or loosely coupled systems (Herriott & Firestone, 1984).

Due to their functioning as loosely coupled systems, we feel that it is important to study how the different subsystems come together to contribute to effective functioning of a school. For the purpose of this paper, instead of using the normal output approach (Cunningham, 1977), we have taken the input approach to study effectiveness. We present a model of effectiveness to demonstrate how the different subsystems need to work together to contribute to a school's success.

Multiple Measures of School Effectiveness

The structure and functions of schools are undergoing a change across the globe. From a primarily academic orientation, schools are now encouraging students to participate in other activities like sports, social service, community service etc. Miskel, McDonald and Bloom
(1983: 50) define organizational effectiveness for schools in terms of “quantity and quality of outputs, adaptability and participant attitudes such as job satisfaction”. The criteria for measuring effectiveness appear to need a broader canvas to go beyond educational effectiveness and take into consideration the changing focus of child education.

Among the existing measures of school effectiveness, student achievement, as operationalized by standardized scores in mathematics and reading seem to be the predominant measure (Peterson, 1984; Sweetland & Hoy, 2000). In a review of 40 studies, Hallinger and Heck (1996) found that most of the studies used student achievement to measure school performance although some of the studies did use additional measures to evaluate school effectiveness. The measures of reading, writing and arithmetic have been classified by Uline, Miller and Tschannen-Moran (1998) as instrumental activities. They have discussed additional criteria to measure effectiveness and have named them as expressive activities. Expressive activities included teachers’ trust in colleagues and principal and school health. In their study, Uline et al. (1998) found that these six variables explained 72% of the variance in effectiveness.

All these factors that are used as measures to evaluate school effectiveness are influenced by a multitude of individuals. For example, a teachers’ job satisfaction may influence the quality of teaching and hence student learning. These output factors may also influence some input variables. A school’s effectiveness would attract brighter students, teachers and principals. These would further add to the school effectiveness. We have taken the view of these individuals as independent stakeholders in a school and explored how these stakeholders may have an influence on a school’s effectiveness.

While measurement of school effectiveness has been dominated by outcome indicators, some studies have also made an attempt to assess process indicators such as educational opportunity (Petty & Green, 2007). However, we have not come across any paper that has looked at the input indicators. For this paper, we have adopted a multiple stakeholder approach (Connolly, Conlon & Deutsch, 1980) and used input indicators to develop a model for school effectiveness.

In order to develop this model, we carried out a brief literature search to bring out factors that impact school effectiveness. We next classified these factors by the stakeholders who impact them. Using the multiple stakeholder perspective, we have then proposed a model to measure school effectiveness.

**Factors Impacting School Effectiveness**

Goddard, Sweetland and Hoy (2000) reviewed literature to assess other factors that impact school effectiveness. Some of these factors include “strong principal leadership, high teacher expectations for student achievement, an emphasis on basic skills, an orderly environment and frequent systematic evaluation of students” (p. 685). Another factor that Goddard et al. (2000) found to be important is consistent academic emphasis (e.g. Hoy & Sabo, 1998) conveyed through various norms, socialization processes and systems in the school. Size of the school, socioeconomic and cultural background of the students etc. may also influence school effectiveness (Carpenter, 1971; Peterson, 1984). Principal related factors that are measured...
mainly have principals’ leadership style. Organization related factors measured are orderly environment, size of the school, organizational health and academic emphasis.

All the above factors are influenced by the stakeholders in the school. The stakeholders in organizational effectiveness models are usually defined as owners, employees, customers, creditors, suppliers, people in the distribution network, government etc. Drawing a parallel for educational institutions in terms of stakeholders may not be appropriate because of the differences in values, preferences and powers that the stakeholders in organizations and educational institutions have.

**Stakeholder influence on effectiveness**

Hall (1972) identified the following stakeholders in schools – principals, teachers, students, school board members, administrative staff, superintendent of the school, and parents. Principals, students and teachers have a stronger influence on each other and on the development of school culture (Heckman, 1993) and school effectiveness. Administrators and parents work on the periphery and while influencing the school effectiveness, are not involved in the day-to-day functioning and have a weak influence (Figure 1). Apart from this, the community that the school operates in may also be a stakeholder. That community may define many aspects of the school. For instance, religious schools in many parts of the world have part of their curriculum decided by the community that they operate in.

![Stakeholder Influence on School Effectiveness](image_url)

**Figure 1. Stakeholder Influence on School Effectiveness**
While literature is available on some stakeholders like administrators, principals, teachers and students, there is a paucity of literature on parents and communities and their influence on organizational effectiveness. There is no literature available on the role played by non-teaching/support staff in school effectiveness. Using the available literature, the paper develops a multiple stakeholder model for measuring school effectiveness.

**School board members / superintendent of the school / trustees / management committee**

The school board or management committee provides administrative control in the school and can be clubbed as they work at the periphery of the school. They may be responsible for the flow of resources and may be the ones who provide the vision to the school. They may not be involved in the day to day functioning of the school but may still keep control through various means. We will use the term administrators to describe this group of stakeholders. While in the European or American context the term administrator has a different meaning; in the Indian context, it is used to describe a person who works as the head of board of trustees or the promoter/financial contributor to the school.

The administrators may impact a principal’s effectiveness by controlling principal’s work like time utilization, motivation, learning on the job, stress etc. (Peterson, 1984) They may also be able to control the learning opportunities provided to the principal and teachers by controlling sponsorship and other resources (Young, Peterson & Short, 2002). They would additionally impact the quality of teachers and principal by the decisions they take for hiring, promotion, sending for training programs etc. e.g. Blasé (1988) proposed that favoritism exhibited by administrators could result in reducing the quality of teachers in school and also lower their motivation and initiative.

Based on the above review, it appears that in order for a school to be effective, the administrators need to provide sufficient autonomy to the principal to permit her to function independently, encourage professional development of teachers and principals through various training and development programs, ensure effective utilization of resources, and ensure objectivity in personnel decisions like hiring, promotions, rewards and recognitions, feedback etc. The administrators need to demonstrate a balance between providing autonomy and objectivity in decision making on one hand and exercising control over the macro issues on the other hand. Some of the measures that can be used to assess if administrators are contributing to school effectiveness are depicted in Figure 2.

**Principals**

Principals greatly influence the way a school evolves and performs. A principal needs to perform various functions to be an effective leader. The principal’ role seems to have moved from use of power and formal authority to a more enabling leader. Blasé and Blasé (1999, 2002) report the role of principal as direct assistance to teachers, group and staff development, curriculum development, action research, enhance student achievement, encourage reflective thinking and voice in teachers etc. However, in practice, this role has been primarily limited to “inspection, oversight and judgment of classroom instruction” (Blasé & Blasé, 2002: 14). Breeden, (1985: 41) found the average amount of time spent by the principals on the five functions mentioned
was: Maintenance 51.7; School academic program 16.1; Pupil control 12.1; Extracurricular activities 12.7; Personal 7.4.

The results of this suggested that (Bredeson, 1985: 31), “behavior of the school principal is the single most important factor supporting high quality educational programs…..while schools make a difference in what students learn, principals make a difference in schools”. Ostroff and Schmitt (1993) in fact suggest that a high turnover of principals in the school would lead to instability in the school and reduce its effectiveness.

On the other hand, principal effectiveness and school effectiveness seem to be correlated with each feeding the other. A study by Winter and Morgenthal (2002) found that school achievement has a high impact on potential applicants’ decision to take up the job of the principal.

Others studies (e.g. Chapman & Boyd, 1986) show that the principal’s style of leadership – using formal authority or participative style, influence teachers’ job satisfaction. In order to get her colleagues to be cooperative and to be initiative taking, the principal needs to have an open working style (Blasé, 1988) and use her influence for the benefit of subordinates (Johnston & Venable, 1986).

Research on leadership throws up broadly three types of leadership styles – bureaucratic, participative and transformational. Of these, the bureaucratic leader works with formal systems and prefers to maintain the organization. The participative leader involves multiple stakeholders in various decision processes and works towards improving the organization. The transformational leader seems to be most effective when the organization is undergoing a change or restructuring process. In an empirical study, Leithwood, Leonard and Sharratt (1998) found that transformational leadership had the maximum effect on organizational learning. The transformational principal provides the vision (Licata, Teddlie, & Greenfield, 1990; Wasserstein-Warnet & Klein, 2000) and the intellectual stimulation to encourage greater teacher commitment and student learning and sets a personal example when encouraging innovation (Day, Harris & Hadfield, 2001).

For a principal to contribute to school effectiveness, the principal thus needs to have a participative or transformational leadership style depending on the school objectives and adopt attributes mentioned in figure 2.
According to Ostroff and Schmitt (1993), some of the factors that could influence school effectiveness are student-teacher ratios and governing structure of the school. A low student-teacher ratio would increase the learning environment in the school due to the higher degree of attention that teachers would be able to devote to the student.

Organizational structure – formality and hierarchies may affect the job satisfaction of teachers. A school that is privately run may be more effective as compared to a state run school. This is because of more hierarchical levels and greater number of rules and regulations that would be required to control a public school. This would reduce the flexibility and autonomy in the school. As the number of administrative levels in a school increase, teachers perceive the school as restrictive, regimented and formalized and teachers may feel less satisfied with their jobs (Carpenter, 1971). Similar to the principal’s leadership style, teachers also respond positively to positive internal environment, participation and mutual trust (Ostroff & Schmitt, 1993).
Teacher empowerment through autonomy, participative decision making in curriculum design, involvement in decision process, administrative functions etc. had a positive effect on organizational learning and school effectiveness (Alutto & Belasco, 1972; Conway, 1976; Marks & Louis, 1999; Sweetland & Hoy, 2000). Teachers that are diagnosed with having potential for initiating some new systems that could influence student learning may also be formally given certain responsibilities (Mitchell & Spady, 1983) to increase their empowerment. Teacher commitment is directly and indirectly influenced by support provided by the principal in the form of clear expectations, fair evaluation, staff recognition, clarity of goals, support and encouragement, discussions about instructional practices, help in teaching related problems etc. (Singh & Billingsley, 1998).

Literature on teachers working in teams (Crow & Pounder, 2000; Pounder, 1999) suggests that teamwork leads to organizational effectiveness. Teams lead to a significantly higher level of skill variety in work, better understanding of students, growth and general satisfaction, professional commitment, work group helpfulness and effectiveness and internal work motivation and teacher efficacy. The researchers suggest that interdisciplinary teams may be formed but they should be relatively homogenous. For instance, teachers of subjects like fine arts, sports etc. may form one team and teachers of core academic subjects like science and mathematics may form another team.

Teacher expectation of students may also lead to an increase in student achievement (Miskel et al., 1983). This means that teachers would need to encourage an environment of learning and communicate their expectations to students so that students may work towards them.

Lastly, the design of teacher’s compensation may impact effectiveness. Kelley, Heneman and Milanowski (2002) discussed the effect of school based performance awards (SBPA) on teacher motivation. Empirical evidence seemed to suggest that SBPA increases the student achievement which is an important predictor of school effectiveness. However, the researchers caution that linking pay to performance may lead to some negative outcomes like narrowing the curriculum, warping teaching practice etc. The factors that would impact a teacher’s effectiveness are mentioned in figure 2.

**Students**

As mentioned earlier, student output in terms of academic achievement or non academic outcomes have been used as output indicators of effectiveness. E.g., on the basis of a literature review, Ostroff and Schmitt (1993) identified four areas to measure student’s satisfaction with the school as a measure of performance – Student’s achievement (output quality), student’s satisfaction (external evaluation), students’ self-efficacy (internal control) and school efficiency. Kelley et. al. (2002) operationalized school performance using “an index developed from student assessment scores in seven academic subjects, and school level indicators such as student attendance, retention, drop-out rates and successful transition to adult life” (p. 375).

Student learning is directly related to student achievement. We feel that it is important to understand factors that contribute to superior academic and non academic outcomes in order to understand predictors of student effectiveness. Students derive maximum learning from active
instructional methods like work in small groups or laboratories (Yair, 2000). In his 1973 paper, McClelland points out two important issues – the first, students’ performance in school is also a function of their socioeconomic background and second, that performance in schools is not a predictor of later career success. Subsequent studies (Harker & Nash, 1996) have brought out the impact of student’s innate abilities and socioeconomic background on their academic achievements. The second point has been also been supported by various other studies (e.g. Gray & Wilcoxon, 1995; Griffith, 2002). Given this perspective, we would question the use of student achievement alone as the criteria for assessing school effectiveness.

A review of literature on whether gifted students should study in homogenous or heterogeneous groups resulted in conflicting findings. An empirical study by Shields (1996) over a period of one year reveals that in homogenous groups, gifted students gain in terms of academic self-concept, independent development, self-acceptance and peer relations. The author recommends that for talented students, the option of being able to study in homogenous groups must be available and “teachers must be trained in appropriate strategies for individualization and enrichment.

For the regular students, the recommendation was to have heterogeneously grouped classroom to help them “develop their potential and avoid the conflicts, boredom and self-consciousness that may find in a regular classroom” (Shields, 1996: 321). A study by Caldas and Bankston (1998) found that, concentration of African American students or segregation of these students from white students had a negative effect on student achievement. One of the implications was that mixing of students results in enhanced academic achievement for African American students. These studies do not mention the effect on achievement of white students alone.

Further empirical research is required to study the effect of separation of students on the basis of their performance on both the high achievers and lesser achievers. The assumption here is based on goals setting theory (Latham & Locke, 2002). Since the referents for less achieving students may change to other less achieving students due to this separation, their achievement may actually be reduced from its current level. In such a case, a normative decision may be required to be taken on whether to separate the students or not. We tentatively propose heterogeneous classrooms with the rider that the gifted students be monitored to ensure there is sufficient motivation for them to perform. All the contributing factors are depicted in figure 2.

Parents

Just as recruitment of principals depends on the achievement levels of schools, similarly, when given the choice, parents also prefer to enroll their children in schools that show good results and are high on achievement parameters (Bauch, 2000). One of the results of parent choice has been that schools have had to revamp quite a few aspects of their functioning to attract good students.

Parents may have their children’s best interest at heart when they look for preferential treatment to be given to their child based on their own standing in the community (Blasé, 1988). However, teachers felt that interference by parents caused problems with instruction and control of students in the school. Not much literature is available on the effect of parents on school effectiveness. However, we feel that in this information age where parents are much more aware of what is
happening around them and are consequently more demanding, a lot more factors would influence their impact on a school than the factors mentioned in figure 2.

Multiple stakeholders and organizational effectiveness

Figure 2 shows the factors that influence the effectiveness of a stakeholder. The symbols given in the brackets reflect whether the relationship is positive or negative. For instance, more collaborative behavior on the part of the principal leads to organizational effectiveness. Parents demand for preferential treatment for their children may lead to personnel and discipline problems that could negatively influence organizational effectiveness.

Although the figure may represent a linear relationship, these variables do not have a linear relationship with organizational effectiveness. They may directly influence effectiveness or may influence effectiveness through other stakeholders also. For instance, teachers’ job satisfaction is one of the measures of organizational effectiveness. Hence, higher satisfaction would lead to greater organizational effectiveness. Teachers’ job satisfaction also influences student learning. Better learning would get reflected in achievement scores. These scores are again a measure of organizational effectiveness. Similarly, while principals influence school effectiveness, an effective school would also attract better principals. Hence a lot of interaction and two-way effects come into picture. While implementing this model, the higher-level interactions would have to be kept in mind.

Conclusion

At the time of implementation of the model, each of these factors would need to be considered and discussed with the founder and the principal. Criteria would need to be developed on which to evaluate the school effectiveness and the exercise would need to be communicated to all the stakeholders. After the implementation, the model may need to be refined further to suit the Indian schools and the Indian education system.

The scope of schools has broadened from imparting academic curriculum to all round development of students. Schools are considered as preparatory grounds for the adult life. The effectiveness of the school may influence what the child imbibes as a student.

Since different constituencies assess the effectiveness based on their perspective, one of the core assumptions is that all the constituencies cannot be satisfied simultaneously (Tsui, 1990). Hence the different stakeholders of a school may have different priorities based on which they would judge the effectiveness of a school. While parents may only look at their wards grades and efficacy scores to evaluate school effectiveness, teachers may look at opportunity for their growth and development as a measure of school effectiveness. Intensive coaching by teachers may be required for students to receive good grades leaving inadequate time for the teachers to spend on their own growth and development.

Another assumption is that for organizational adaptation, the constituencies will have to make a strategic choice and identify the critical constituencies in the organization (Hrebinia
1985). Since both teachers and students would form critical constituencies for a school, the management may need to balance the requirements of both to ensure effectiveness of school.

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