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An Investigation on Different Strategies to Develop Educational Achievement of School Students

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Abstract – Improving student achievement is vital for our nation’s competitiveness. Scientific research shows how the physical classroom environment influences student achievement. We outline policy implications of the scientific findings—noting relevant policy audiences—and specify critical features of classroom design that can improve student achievement, especially for the most vulnerable students. Recent evidence about the effects of class size on academic achievement from randomized experiments points to positive effects of small classes. However, the evidence about the mechanism producing these effects is less clear. Some scholars have argued for mechanisms that would imply greater effects of small classes for low-achieving students.

We studied how specific motivational processes are related to the salience of mastery and performance goals in actual classroom settings. Students who perceived an emphasis on mastery goals in the classroom reported using more effective strategies, preferred challenging tasks, had a more positive attitude toward the class, and had a stronger belief that success follows from one’s effort. Students who perceived performance goals as salient tended to focus on their ability, evaluating their ability negatively and attributing failure to lack of ability.

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INTRODUCTION

Achievement goal orientations are presumed to differ as a function of situational demands, as well as to vary across individuals. There is, in fact, considerable research evidence that situational demands can affect the salience of specific goals, which results in differential patterns of cognition, affect, and performance. For example, when social comparison has been made salient, students have focused on their ability, and these self-perceptions have mediated performance and affective reactions to success and failure. By contrast, when absolute standards, self-improvement, or participation have been emphasized, students have focused more on their effort and task strategies.

Much of the evidence that has linked different goal orientations with specific motivational processes has amassed from laboratory studies and not from research in ongoing classroom settings. In classroom situations, the informational cues that may serve to emphasize one goal or another are often mixed and tend to be inconsistent over time. Even students in the same classroom may differ in the degree to which they

focus on certain cues, as well as how they interpret them. These individual differences may result from home influences, prior experiences, or differential treatment by teachers. Thus the extent to which any student adopts a mastery or performance goal orientation depends on how each student constructs the social reality of the classroom for himself or herself.

The importance for students of developing ways of thinking and strategies that can help them to process information, plan study activities, monitor their attention, and sustain a motivation for learning has been addressed by many.

Recent research on achievement motivation has focused on identifying different types of goal orientations among students, the motivational processes that are associated with these different goals, and the conditions that elicit them. These goal orientations have been contrasted as task involved versus ego involved, as learning oriented versus performance oriented, and as mastery focused versus ability focused. Because the conceptual relations among task, learning, and mastery goals and among ego, performance, and ability goals are

convergent, these perspectives have been integrated and are hereafter identified as mastery and performance goals, respectively.

With a performance goal orientation, there is a concern with being judged able, and one shows evidence of ability by being successful, by outperforming others, or by achieving success with little effort. A performance goal reflects a valuing of ability and normatively high outcomes. With a mastery goal, importance is attached to developing new skills. The process of learning itself is valued, and the attainment of mastery is seen as dependent on effort.

In this study, we focused on general learning strategies, those that can be applied to multiple contexts and that ought to enhance learning across knowledge domains. Learning strategies of this type serve to regulate and monitor time, concentration, effort, and comprehension and are related to what others have called support strategies, self-instructions and self-monitoring, or strategic thinking. Although there has been considerable research on students' knowledge or awareness of these strategies, there has been little attention as to how the context of learning affects students' actual use of these strategies.

Low achievement is strongly – but not universally – associated with disadvantage. It works in various ways, some of them connected with poverty itself – its attendant stresses, poor housing, even poor nutrition and health – and social class. A key factor is the 'home learning environment': the amount parents read to their children, the number of books in the home, the degree to which parents support their children's education in and out of school (Sylva et al., 2004). In the study cited, the home learning environment was only moderately associated with factors such as social class and parental education levels, and what parents did with their children had a more important impact than their own background or circumstances. Even more strongly: 'In the primary age range the impact caused by different levels of parental involvement is much bigger than differences associated with variations in the quality of schools. The scale of the impact is evident across all social classes and all ethnic groups' (Desforges and Abouchar, 2003). The critical impact of parenting is noted in a number of studies, especially in helping children to overcome early disadvantage.

The effect of social class emerges clearly in other research. Educational performance has been strongly linked with cognitive factors measured in children as early as age three; cognitive deficits have been found to be much more common among children of 'manual' parents than among children of 'professional' parents (Feinstein, 2003). Language development is a further factor: a young child in a professional-class home will hear every day more than three times the number of words heard by a child in a home where the parents are of low socioeconomic status; parents in such homes also tend to interact verbally with their children

less than professional parents. Slow language development can impair later comprehension and learning, even the acquisition of numeracy (Clegg and Ginsborg, 2006).

Education is an activity or process, which modifies the behavior of a person from instinctive to human behavior (Taneja, 2003, p.9). This definition reveals the innate truth that education aims at discovering aptitudes as well as to progressively prepare man for social activity; because of this, education through which the basic needs (food, shelter and clothing) are provided is necessary for the survival of the society.

This study addressed the increasing importance of the student's academic achievement measured by the test scores, through examining study habits of students in its relation. So a question arises in mind whether this factor is related to academic achievement or not? This was an effort to search for the relation.

PARTICIPATION OF TEACHER IN ENHANCEMENT OF LEARNING ACHIEVEMENT

India has one of the largest networks of schools in the world. During the last five decades the system has grown manifold in size both in terms of institutions and enrolment. Some say, that the nature of Indian education system shifted from an elite system to a system of mass education. For instance, the number of primary schools was around 200,000 in 1950, which is at present more than 600,000. If one were to take into consideration the number of alternate schools that have sprung up in recent years, and include the upper primary and secondary schools, the network consists of more than a million schools.

Traditionally, school education acquired immense importance in the post-Independence period and with the consequent expansion of the system, the role of the school teacher also underwent a significant transformation. An important consequence of the expanding system of schools, with ever increasing enrolment and acquiring of mass character, has been the increase in complexity of school management. The changing pace of technology development like ICT and knowledge revolution has made the job of the teacher more demanding. They are required and should be encouraged to assume the new roles and responsibilities for ICT to improve the quality of education and access to education by learners in an informal and non-formal education setting. (Govinda, 2002) The system demands new knowledge and skills from the teacher and head teachers. It also demands greater capability at the school level to respond to the emerging diversity in the student population and among those entering the teaching profession. In effect, changes in the characteristics of the system have made the role of the school teacher even more critical than what it was earlier. Has the State, which is the main provider of education in the country, responded to the changed reality? Has the teacher

become more empowered? Have adequate efforts been made to equip the teacher to face the emerging challenges? What is the current reality with respect to status, roles and functions of the teacher and the head teachers in India? And how can we come out from this challenge? These are few issues which need attention especially now when the country is moving towards becoming a knowledge centre and quality education has become determinate in such process.

The role of education in improving the choice and quality of lives, enhancing social and economic productivity, and initiating the process of empowerment and redistribution of resources is well-documented in the past fifty eight years of research. Despite India's commitment to provide "free and compulsory education for all children until they complete the age of 14" and achieve Universalization of Elementary Education (UEE) and Millennium Development Goal (MDG) with substantial improvement in the quality, the average years of schooling has remained low at less than three years. Around 35 million children, are still estimated to be out of school and the percentage of girls and other disadvantaged sections is disproportionately high among these children.

Various state sponsored efforts at national, state and district levels are currently underway across India, aiming at accelerating the pace of UEE and MDG. In some areas, notable small-scale initiatives by non-governmental organizations and other representatives of civil society are complementing state-sponsored efforts.

There has been a growing realization that a system-wide transformation is crucial for the attainment and sustainability of the goal of UEE and MDG with improved quality. The objectives of improved access and increased participation, reduced drop-out rates and enhanced learning achievements cannot be met and sustained without improving the quality, effectiveness and efficiency of services in the elementary education system. The organizational structures, processes and practices determine the effectiveness of the whole system to a large extent, including the delivery of the final output and achievement of the ultimate goals. Some of the initiatives that are underway specifically focus on development of academic as well as management processes, and intend to function as catalysts and harbingers of this systemic change.

There is a need to take stock of the critical managerial and accountability issues in elementary education in order to consolidate the achievements, identify the gaps and set future goals. Some initiatives have already been implemented in the past and there is sporadic evidence of institutional reforms having been initiated in some states. However, the available literature appears to be limited either to the activities

and interventions undertaken by the project/programmes, or isolated examples in some areas. Even the interventions and processes initiated by these programmes, or other small initiatives, have rarely been assessed from the point of view of a system-wide transformation. Therefore, a fresh assessment of existing role and responsibility of teacher in the context of class room management, in elementary education as a whole, was considered necessary to determine the future course of action to achieve the goals of UEE and MDG, and raise levels of systemic effectiveness. In addition, a number of other measures initiated in other sectors, like Local Self Government and Rural Development, have had a direct impact on elementary education management, and the last few years have witnessed rapid changes in this respect. Any effort to understand and review the elementary education system must take note of this fact as well. (Jha, Baxi, and Saxena, 2001).

ACADEMIC ACHIEVEMENT

The Indian society is a hierarchy ridden society. In terms of caste, it may be classified into four broad categories, namely: the Upper Caste, Other Backward Caste (OBC), the scheduled Caste (SC) and Scheduled Tribe (ST). The STs and SCs in Indian society have been subjected to various kinds of sufferings including lagging in academic achievement, personality etc.. Students' academic achievement and educational attainment have been studied by different researchers. Many of them have a focus on parents' education and occupation (Akinsanya et al., 2011). Fathers' earnings are linked to their children's educational attainment. Rothman (2004) observed that the most important factors associated with the educational achievement of children are not race and ethnicity but parental educational levels, parental occupational status etc.

Self-concept is an important notion in child development. In recent years, renewed interests in the studies of the self-concept and adolescents have led educators to become interested regarding self-concept. Various researchers have defined self-concept in various ways. It is defined as the value that an individual places on his or her own characteristics, qualities, abilities and actions. The importance of self-concept within educational settings has been addressed by several scholars. It is the totality of a complex, organized and dynamic system of learned beliefs, attitudes and opinion that each person holds to be true about his or her personal existence. Franken (2004) stated that self-concept gives rise to possible selves and it creates the motivation for behavior. Some researchers have also been done in this area in India and various definitions of self-concept have also been given by different researchers. Saraswat and Gaur (2001) described self-concept as the individual's way of looking at

himself as well as way of thinking, feeling and behaving. According to Ahluwalia (2009) self-concept seems to be a comprehensive and exhaustive area which can represent the personality at large and which gives direction to the whole life. Like Self-concept, student's academic achievement and educational attainment have been studied within different frameworks. Academic achievement has always been the centre of educational research and a major aim of education. The academic developments of the child continue to be the primary and most important goal of education (Bala, 2011). It has become an index of child's future in the competitive world. Now-a-days, children are becoming more and more concerned about their academic achievements and at the same time, there are students who may be bright but perform poorly despite the good learning facilities in their homes as well as their schools. Among the factors that contribute to the pupil's poor academic achievement is low achievement motivation (Muola, 2010). Achievement motivation is used to mean the pupil's need or drive towards the achievement of success in academic work. According to Slavin (2006), achievement motivation is what gets one going, keeps one going and determines where one is to go. A great deal of research has found that students high in achievement motivation are more likely to have increased levels of academic achievement and have lower dropout rates. According to Gesinde (2000), achievement motivation could be seen as self determination to succeed in academic work. Several studies have reported positive relationship between motivation and academic achievement and success. There are various factors that affect the various levels of self-concept in adolescents such as gender, ethnicity, social class etc.. Moreover, it is of decisive importance to focus upon multiple variables which include gender, caste, low levels of father's education, father's occupation etc. which may contribute to self-concept, academic achievement and achievement motivation. Although social class is the strongest predictor of educational achievement, it intersects in complex ways with other factors, notably gender and ethnicity. Age and gender had differential associations with various self-concept dimensions.

DESIGNING CLASSROOMS STRUCTURAL FEATURES TO DEVELOP STUDENT ACHIEVEMENT

According to the National Center for Education Statistics, more than half of public schools reported needing to spend money on their school buildings to bring them up to good condition. The most commonly reported structural inadequacies included windows, plumbing, and temperature regulation/ventilation. Schools that serve a higher concentration of children on free or reduced lunch were more likely to report structural inadequacies. Inadequate school facilities are related to worse test scores, even when taking into account (by statistically controlling for) the socioeconomic status and racial makeup of students. One study did not find this relationship between

structural condition and student performance in Wyoming; however, a reason could be the way that structural conditions were assessed. It has been suggested that assessing the structural conditions with the educational purpose in mind is a better predictor of student performance than engineering assessments of structural quality. For each structural aspect, we critically examine the evidence and note exceptions or contingencies where relevant.

Lighting - Students exposed to more natural light (i.e., daylight) in their classrooms perform better than students exposed to less natural light. Students who were exposed to a larger amount of daylight in their classroom had higher math and reading test scores than students who were exposed to less daylight in their classroom (2%-26% higher, depending on school district), even after statistically controlling for student population characteristics such as socioeconomic status and race. According to the National Center for Education Statistics (Alexander & Lewis, 2014), 16% of schools with permanent buildings and 28% of schools with temporary (i.e., portable) buildings have natural lighting that is unsatisfactory or very unsatisfactory. Although incorporating more daylight into classrooms may be beneficial, it should be done carefully, to avoid visual discomfort and temperature increases.

Temperature - The optimal temperature range for learning appears to be between 68° and 74°. In an experiment on effects of temperature on learning, male undergraduates performed best on a test of word associations when they had learned those associations in a 72° room, and performed significantly worse as temperatures became more extreme in either direction.

Accessibility - Ensuring adequate structural quality is important for all students and is particularly so for students with disabilities. For example, students with hearing loss may find it particularly difficult to discriminate the teacher's words from competing background noise. One study that modified the classroom physical environment (e.g., acoustic quality, seating arrangements, visual stimulation, and classroom organization) improved academic engagement for deaf and hard-of-hearing students, although it could not isolate which factor(s) made the difference.

Once schools have achieved minimum structural conditions, do students have what they need to succeed? Work in psychology and education has demonstrated the importance of environmental features that we term the symbolic classroom. These symbols include wall décor and objects that are displayed in classrooms. Far from being trivial details, these features powerfully affect classroom culture.

CONCLUSION

Although there has been extensive research on classroom climate over the years, much of this research has focused on student achievement as the outcome measure. For students to learn to their full potential, scientific evidence suggests that the classroom environment must be of minimum structural quality and contain cues signaling that all students are valued learners. Of course, the redesign of classrooms must be considered within the context of a set of larger factors that promote educational attainment, such as curriculum development and teacher training.

If academic failure is to be forestalled and standards improved, it is inescapable that schools from elementary level should provide relevant values and stimulating academic environments. Students should not be condemned but be encouraged and linked to teachers with whom they can establish reflective intellectual companionship that will help improve study habits.

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