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Amitha V
PhD Research Scholar,
Smt VHD Central Institute of
Home Science, Sheshadri Road,
Bangalore, Karnataka, India

Dr. Vijayalaxmi AHM
Associate Professor,
Smt VHD Central Institute of
Home Science, Sheshadri Road,
Bangalore, Karnataka, India

Multiple intelligence approach in the school curriculum: A review article

Amitha V and Dr. Vijayalaxmi AHM

Abstract

Contemporary Educationists and psychologists emphasises that the education system stresses not to train children to learning by force and harshness, but direct them to it by what amuses their minds, so that one may be a better able to discover with accuracy, the peculiar bent of the genius of each. They also opine that, traditional schooling systems have been predominantly created by people who were unaware of the extraordinary diversity and potential of human learning. Hence traditionally, classroom settings were teacher-centered where the teacher often talks at the students instead of encouraging them to interact, ask questions or make them understand the lesson thoroughly. It is only recently that we have begun to truly understand that each and every one of us is a unique individual with innate predispositions and unique ways of perceiving and interacting with the world. Gardner (1983) pioneer in the field of multiple intelligence theory, in his long time effort in educational reform has showed that education based on multiple intelligences of pupil and their active involvement as one of the important factors in effective learning. Several other researchers who have examined the influence of multiple intelligence approach in the classroom have also found the same results. Hence this article makes an effort to understand the influence of Multiple Intelligence in the school curriculum. Various research articles associated with this subject have been reviewed and an effort has been made to put them together to draw a conclusion on the same. The reviews revealed that Multiple Intelligence teaching approach has improved the academic achievement, teacher-student relationship and better classroom management.

Keywords: Multiple intelligence, traditional teaching, teacher-student relationship, classroom management

Introduction

Traditional schooling systems have been predominantly created by people of earlier period who were unaware of the extraordinary diversity and potential of human learning. In majority of the schools till today, the classroom teaching usually follows a traditional method of teaching, where every student is been taught in one direction. Here the student is just listening to the teacher and the student may or may not understand the subject, which causes disinterest in the student about that particular subject. In this type of teaching method, individual needs are not met and large group teaching does not seems to be beneficial.

Traditional teaching methods also deemed restricted to some degree. Traditionally, classroom settings are teacher-centered where the teacher often talks at the students instead of encouraging them to interact, ask questions or make them understand the lesson thoroughly. Most classes involve rote learning, where students depend on memorization without having a complete understanding of the subject. Just by passing the tests, consisting of descriptions, matching and other forms of indicators are all that matter to complete the curriculum. Long lectures and dictations, rote memorization and little interaction in the classroom often leave students less attentive and less engaged. They are prone to skipping classes and missing lessons altogether. Moreover, students in a traditional class have little opportunity to interact with their classmates or their teacher.

Moreover the traditional method as teaching has created a mindset or paradigm as to what "smart" or "intelligent" is, who has potential or ability to be smart, and how we can or cannot become smart based on the academic test scores. This has clearly influenced current educational practices. It is still common educational practice to use the score from standardized intelligence tests to qualify children for various special programs. It is assumed these tests measure intelligence accurately and meaningfully.

Correspondence

Amitha V
PhD Research Scholar,
Smt VHD Central Institute of
Home Science, Sheshadri Road,
Bangalore, Karnataka, India

The recent time educators opposing this view advocate that the traditional methods of teaching and a one-fit-for-all-sizes approach is unfit to meet with today's competitive world (Beas Dev Ralhan, May 29, 2014).

It is only recently that researchers have begun to truly understand that each and every one of us is a unique individual with innate predispositions and unique ways of perceiving and interacting with the world. Educational researchers who are interested at educational reform have focused on the learner or student, be a young child in preschool or an adult bent on acquiring a new skill. It is clarifying to have such a focus and, indeed, any efforts at reform are doomed to fail unless they concentrate on the properties and potentials of the individual learners. Multiple Intelligence has partaken of this general focus; to foster a range of intellectual strengths in students

Gardner in his long time on an effort in educational reform in the research has showed that success depends upon the active involvement of student as one of the important factors in learning. The theory of Multiple Intelligences includes the notion that each person is smart in all seven types of intelligences identified by him. Every person is smart to varying degrees of expertise in each of the intelligences, stronger in some ways and less developed in others.

According to Gardner's theory, one form of intelligence is not better than another; they are equally valuable and viable (Gardner, 1983) ^[6]. Gardner's Multiple Intelligences theory has been considered as very useful model for developing a systematic approach in nurturing and teaching children and honouring their individual needs and strengths within a classroom setting.

Fischer (1997) ^[5] undertook qualitative research focusing on Howard Gardner's Theory of Multiple Intelligences- a cross-case survey was conducted to answer 'Does teaching to a student's individual intelligence as defined by Howard Gardner have an effect on student's progress?' Progress was defined as steady improvement or advancement in a particular area. It was found that the use of Gardner's Theory in school did serve to heighten student's progress in an indirect way. It was found that the use of Gardner's theory enabled educators to create learning environments that enabled all types of students to learn better.

Research on multiple intelligences with regard to inclusion in school curriculum in improving academic achievement, interaction, teacher-student relationship and better classroom management has been reported widely. Numerous studies were intended to find out the impact of multiple intelligence in the school curriculum. However, these studies don't reach to similar conclusions but, have reported the significance of academic enhancement using multiple intelligence approach. Some of the reviews in this context are discussed in the following pages.

AIM: To find out the influence of multiple intelligence inclusion in school curriculum

Objectives

- To understand the importance of Multiple intelligence approach in the classroom
- To study the relationship between academic achievement and multiple intelligence approach
- To understand the association between teacher-student relationship and multiple intelligence approach
- To discover the relationship between students behaviour in the classroom and multiple intelligence approach

Methodology

Initially a literature survey was carried out to collect research studies related to multiple intelligences. Several research studies related to multiple intelligences inclusion in school curriculum were collected from various sources like, books, journals, online publications, etc. The collected articles were reviewed and were grouped under different headings. The articles categorized based on academic achievement, student's interaction, teacher-student relationship, better classroom management. are discussed under results and discussions.

Results and discussions

Multiple intelligence classroom vs traditional classroom

Oral & Dogan (2007) found out the effect of the course materials based on Multiple Intelligence Theory upon the intelligence groups' learning process. In conclusion, the results proved that the materials prepared according to Multiple Intelligence Theory have a considerable effect on the students' learning process. This effect was particularly seen on the student groups of the musical-rhythmic, verbal-linguistic, interpersonal-social and naturalist intelligence.

Osman, et.al, (2007) ^[15] study was to investigate the effects of multiple intelligences (MI) teaching approach on 8th Grade students' achievement in and attitudes toward science. Empirical evidence indicated that compared to traditional teaching, the MI teaching approach significantly increased 8th Grade students' achievement and attitudes toward science.

Kale, P. (2008) ^[11] carried out a research on, 'A comparative study of the Effectiveness of the Multiple Intelligences – based teaching and traditional classroom teaching of a topic in history.' The results reveal that MI based teaching was more effective as compared to the traditional teaching method. Most of the students participated in the activities related to their predominant intelligence.

Suzanna Gangi (2011) ^[18] this literature review investigated the instructional strategy of differentiated instruction and how Howard Gardner's theory of multiple intelligences (MI) can be used as a method to differentiate instruction. The MI theory explains how every person perceives the world through each of their intelligences. Specifically, this review will draw upon the research from 1983-2011 regarding using the MI theory as a way to differentiate instruction, resulting in greater student achievement in the elementary grades K-6. Using multiple intelligences to differentiate instruction will assist teachers to accommodate the learning needs of all students.

MI and Academic achievement

Gaines and Lehmann (2002) ^[7] conducted a study and found that the use of MI strategies improved the students' reading comprehension ability and it enhanced their academic performance as well.

Davis (2004) ^[2] designed a study to increase the academic achievement of 4th-grade students in science. The problem to be solved was that 4th-grade students in a rural elementary school exhibited low academic achievement in science. The researcher utilized the multiple intelligences (MI) theory. Twenty students completed and turned in science class work assignments daily, displayed appropriate behavior for learning during science, and displayed a positive attitude about learning in science. Analysis of the results indicated that there was a significant improvement in students' academic achievement.

Diaz-Lefebvre (2004) ^[3] conducted a study among 2,400 students who completed classes that incorporated MI instead of traditional classes and found increased student

achievement.

Hickey (2004) reported increased student achievement in music, literature, history, and geography. MI-based units were developed and implemented in various classrooms by teachers enrolled in multiple intelligences course. The five case studies revealed an increase in student engagement and participation. The five case studies provided clear examples of student success attributed to MI based instruction.

Onika *et al.* (2008) ^[8] studied the effects of the MI teaching strategy on the academic achievement. The results suggested that performance on a post mathematics assessment for students exposed to MI showed considerable increase when compared to those taught using direct instruction.

Yalda Delgoshaei and Neda Delavari (2012) ^[20], study aimed to find out multiple-intelligence (MI) approach for education's impact on cognitive maturity of pre-school children. Applying MI approach in the classroom as a educational method results increasing in all five domains of pre-school children's cognitive development with 99% significance.

Teacher-Student Relationship and academic achievement

Kosar (2003) ^[12] investigated the effects of cooperative learning on the achievement of 7th class students in the subject of Social Studies. The sample comprised 40 students of 7th class equally placed in experimental group and control group on the basis of scores obtained in the social studies annual examination. In this experiment of two weeks, "cooperative learning using multiple intelligence approach resulted in higher achievement as compared to routine method of teaching social studies".

According to Iqbal (2004) ^[10] by using Multiple Intelligence approach Cooperative learning is more effective as a teaching learning technique for mathematics as compared to traditional teaching method. Students in cooperative groups outscored the students working in traditional learning situation, but in cooperative groups, they have no obvious supremacy over students taught by traditional method in retaining the learnt mathematical material using multiple intelligence approach. Low achievers in cooperative groups have significant superiority over high achiever.

Majoka, (2011) study was conducted to compare the effect of cooperative learning and traditional methods of teaching on 7th class student's academic achievement in the subject of social studies. Analysis of the data revealed that cooperative learning appeared to be equally effective for teaching multiple intelligence based social studies to the high achievers, average-achievers and low-achievers at elementary level.

Ra'ed and Adnan, (2012) ^[16] study explored the effect of cooperative learning group division based on multiple intelligences theory and previous achievement on acquiring physical concepts. The study showed that there was a statistically significant difference in acquiring concepts due to the interaction between cooperative learning based on multiple intelligences theory and previous achievement.

MI and Classroom behaviour

After reviewing the literature on behavior, experts state that children's behavior is labeled as problematic when it disrupts students in the environment around it (Goldstein, 1995). Many teachers feel that when students do not cooperate, the classroom becomes disruptive. As considered the needs of children to improve their classroom behaviors, the researchers decided to try a different approach. By using the Multiple Intelligence Theory, they realized one could focus on classroom environment rather than on the individual behavior

of children.

Bruce Campbell, (1990) ^[1] in an action research project was undertaken to explore student reactions to a multiple intelligences-based instructional model. Student behaviour, attitudes, and abilities to work in non-traditional ways such as with music, movement, visual arts and cooperation were studied. The results revealed that students previously identified as having behavioural problems made significant improvement in their behaviour and parents reported frequently that behaviour improved at home, more positive attitudes about school were exhibited, and attendance was increased.

Erb (1996) ^[4] Use of Multiple intelligence activities and co-operative learning for increasing academic output & decreasing inappropriate behavior. In his project intended to increase student's responsibility for their own learning in order to increase academic output and decrease the incidence of inappropriate behavior. Post-intervention data indicated an increase in student's responsibility for their own learning through an increase in academic output data and decrease in the incidents of inappropriate behavior.

Highland, Sara; et.al., (1999) ^[8] Hypothesizing those young students would exhibit fewer classroom behavior problems when engaged in activities linked to their strengths and interests, this study examined the use of Gardner's multiple intelligences to improve student behavior. Misbehaviour such as talking out, not keeping their hands to themselves, being off-task, not cooperating, and not participating was documented by means of classroom observations and anecdotal records. The intervention was comprised of 16 classroom lessons using each of the 8 intelligences; lessons were implemented in October and November of the school, year. Anecdotal records, progress reports, and report cards were used to document changes in student behavior. Each student's strongest intelligence was identified, and it was determined if the student was behaving properly during a lesson geared toward that particular intelligence. The results suggested that 77 percent of students showed an improvement in their behavior when working on activities geared toward their strongest intelligence. Behavior improved from September to November.

Hilyer (2007) ^[9] Developed and implemented intervention strategies for underachieving and at-risk middle level students. This study measured the changes in students' attendance, behaviour, and self-esteem. It was reported that improvements might be due to the active and engaging strategies provided by the treatment. It was further stated that this improvement might help more students to find success at the middle level and reduce the number of drop-outs from school before their graduation.

Suleyman, (2015) ^[17] the preliminary results of the study show that teachers who use multiple intelligence based teaching activities can control their classes easier than the ways they used when they applied traditional teaching approaches. As a result, using different types of activities which are related to learners' intelligence can both foster a positive climate and help the teachers to control their classes.

Conclusion

It can be concluded from the above article that, Multiple intelligence approach is gaining importance over the traditional teaching method. The studies discussed above have clearly indicated that multiple intelligence approach is more beneficial than traditional approach in meeting the individual academic needs of children. Multiple intelligence approach

also brings better academic achievement, appropriate students behaviour and efficient classroom management. All the studies point out to the significance of teaching based on Multiple Intelligences theory.

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