Theory of Multiple Intelligences in Classrooms: A Case Study of Karachi

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Abstract: *For decades, scientists and scholars have been trying to understand the nature of intelligence, and not surprisingly, intelligence has always been connected with education. Many theories, models and concepts in education have been accepted and practiced throughout the world. Among them, Howard Gardner's theory of Multiple Intelligences is considered a breakthrough, as it challenges the traditional views of intelligence. It has been embraced by a range of educational theorists abroad and significantly applied by teachers.*

This study aims to explore how exactly the theory of MI differs from the conventional theories of intelligence, extent of effectiveness it brings into the academic design of schools. It also seeks to find what opportunities the schools were providing to children to maximize their learning. It collaborates the findings with the type of intelligences the school caters to and the level at which intelligences are catered to, in the private, public and community-based schools.

Keywords: *Education, Multiple Intelligences, public schools, private schools, community-based schools*

1. INTRODUCTION

"Intelligence" is used interchangeably with "smart", "bright" and "clever". In the West, a person was spoken of as smart if he or she was quick or had a good memory; while in the non-western societies; the term signified being moral and wise [1]. Moreover, there are two different ways in which intelligence is defined; intelligence being related to interpersonal skills as in traditional[1] societies and intelligence focusing on being literate and providing the means to shape technology and advance industry in industrial societies [2].

During the passage of history, many scientists, psychologists and scholars around the world sought to understand the nature of intelligence. This urge and interest to realize the dynamics of intelligence was accentuated in the late 19th and 20th centuries, during which many scholars devised certain techniques for measuring intelligence [3]. Thus, in the 1900s, an intelligence test was developed by a talented psychologist named Alfred Binet, whose discovery came to be called the "intelligence test" and his measure for intelligence as the IQ.

Binet's IQ test was designed to measure which youngster would succeed and which would fail in schools [4], it is no surprise that it focused on capacities that are important for success in school i.e. the ability of logic and language. It served to set apart individuals who are fair well in linguistic and logical exercises, from those who cannot exhibit these two traits fairly.

2. THEORY OF MULTIPLE INTELLIGENCES

Over the past decade, the concept of general intelligence has been questioned. A number of innovations have been suggested by researches and conducted all round the globe. One such is the concept of Multiple Intelligences, formulated by Howard Earl Gardner who continues to represent a leader in this field, as he argued for a view of intellectual capabilities broader than assumed from scores on Intelligence Quotient (IQ) types of standardized tests. The main idea of the MI theory is accepting 'intelligence' as to being plural – intelligences. Gardner challenges the singularity of intelligence as proposed by the IQ test by stating, "It's not how smart are you, it's how you are smart" [1].

The theory of MI advocates for the existence of nine different intelligences to account for a broader range of human potential in children and adults. These nine intelligences are present in different compositions and with different percentages in every human being; and are the verbal-linguistic intelligence, logical-mathematical intelligence (these two being dominant); visual-spatial intelligence, body-kinesthetic intelligence, musical intelligence (artistic intelligence); interpersonal intelligence; intrapersonal intelligence (personal intelligence), naturalist intelligence and very recently, existentialist intelligence.

3. MI AND EDUCATION

Even though the theory of multiple intelligences was never established specifically for an educational setup, yet

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[1] By definition, traditional society is one in which people agricultural activity is the basic source of sustenance and majority of the population is engaged in ensuring an adequate supply of food

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it has been significantly embraced by a number of educationists all around the world. Gardner believes that educators see an evident relation between the theory and their educational practices [4]. The reason that this theory made into the hearts and minds of educators is the long-striven goal of education i.e. to increase student understanding. Understanding is the underlying goal of any educational pursuit, for without which, learning remains superficial and of no practical output. To gain understanding, one exposes a mind to crucial and repetitive exercises. Mastery of a concept or theory requires repeated exposure to the same content but in different ways and contexts by exposing student to various real-life problems and encouraging them to utilize their faculties in understanding that specific subject.

The theory of MI aids educational policy because it renders a broader vision to the approach of education, as it involves educators opting "for depth over breadth" by advocating for deep understanding of themes or subjects through a set of intelligences [5]. In order to achieve understanding, it is important to "abandon the misguided effort to cover everything" [4]. Covering many concepts in a given time duration compromises on the essential factor of 'learning for understanding' and hence, of building on the strengths of each individual. MI supports the idea of delving deeper into a subject by negotiating between quality over quantity.

In contravention to the practice of the conventional theory of a unitary form of intelligence, which measures the two dominant skills of linguistic and logical intelligence, MI also aids to marginalize students who fail to demonstrate the traditional academic intelligences. This is the sense of respect that MI associates with every individual, something that the schools themselves purport.

4. METHODOLOGY

The methodology for the study was the case study approach and convenience sampling was used. Since the researcher belongs to a semi-government organization, which deals with private, public and community-based schools, the schools used as sample in this research are from the private, public and community sector, into which access was not very difficult. A sample size of three (03) schools was selected from each cohort of the school system for the study.

Extensive desktop research and literature review was conducted to explore the concept of MI in greater detail. Books, primarily, authored by Dr. Howard Gardner, founder of the theory of MI, were studied along with available material on the worldwide web. These documents were able to provide the fundamentals, on the basis of which field research was then conducted.
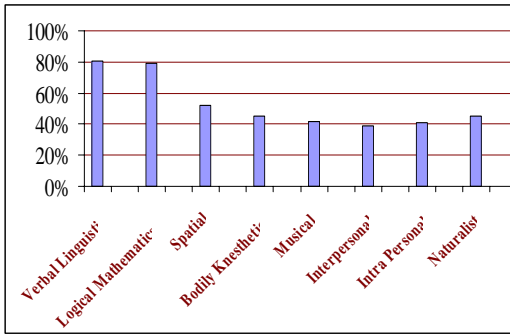
Also, field visits were conducted to selected schools to determine how the schools in Karachi correlate with the theory of MI. For the school visit, there were two kind of tools employed in this research; one was an interview-based semi-structured questionnaire to elicit information from the Principal/Head of the school and the other was a classroom observation form to gauge what strategies are being employed in classrooms to meet the various intelligences of children. Observations were conducted in two grades from each school; one from primary section and the other from secondary section. All schools received the researcher for a period ranging from 08:00 am to 01:00 pm, for two days each, to have an in-depth observation.

5. RESULTS AND FINDINGS

Data was analyzed in three directions; sector-wise analysis of the kind of intelligences catered to; sector-wise comparison between primary section and secondary section; and sector-wise analysis of Principals' comments.

Data analysis with respect to importance given to different intelligences in public, private and community-based schools; both primary and secondary sections

In the schools of all the three sectors, it was observed that schools placed much importance on the two dominant intelligences i.e. verbal-linguistic and logical mathematical, while strategies to enhance or trigger the other intelligences remained on the lower side. This was more apparent in the public schools as the state-run schools had inherent proclivity for promoting literacy and numeracy more than any other kind of intelligence. It was also found out that the community schools inadvertently focused on to catering to the other intelligences of students, along with the two dominant ones. This was due to no liability of conforming to the state curriculum and having a free hand to follow the curriculum emerging form the needs of the community, at least up to the grade of VIII. As far as private schools are concerned, strict adherence to the curriculum is adopted but which has prospects for students to maximize their learning through different ways.

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Graph 1: Importance given to different intelligences in all the three sectors

Graph 2: Comparison between primary and secondary sections in all three sectors (where 1=verbal, 2=logical, 3=spatial, 4=kinesthectical, 5=musical, 6=interpersonal, 7=intrapersonal, 8=naturalist)
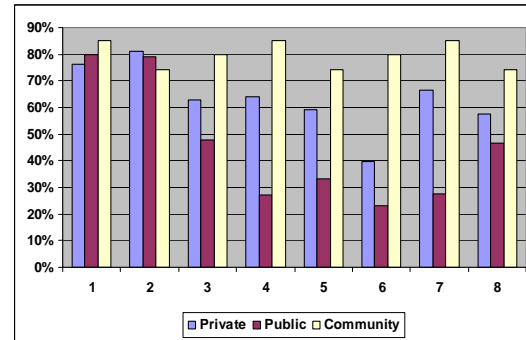
Data analysis with respect to primary section and secondary section in public, private and community-based schools

It was observed that throughout the schools in all the three sectors, there was a gradual dip in the strategies used in the classrooms and the opportunities given to children to develop the various intelligences they have according to progression in grade level. This shows the lack of importance given to other forms of educational methodology once children move on to higher grades. On inquiring with the Principal of the school, the general perception was to prepare students for the oncoming Board Examinations.

Specifically, the comparative analysis between primary and secondary sections of private schools show that focus on enhancing the verbal and logical intelligences increases as the level of grades increase.

In community-based schools, with the progression in grade level, generally schools tend to place more emphasis to promote the two dominant intelligences. The three artistic intelligences lose their places as well, but not as profoundly as the private schools. As for the two personal intelligences, it increases with higher grades. This owes to the incorporation of theatres, role-plays and dramas as is the trademark of community-based schools now, which uses these methodologies for awareness- rising as well.

The graphs of schools show that the importance of standardized system of education is so significant that even those schools that start with an understanding of children as having various faculties, revert to the traditional concept of teaching.

Sector-wise analysis of principal's comments

The Principal or Head of the schools were also interviewed in order to elicit crucial information that could not be gauged through classroom observations. This also gave an additional base to see if the Principal's comments corroborated with the teaching strategies in schools or not. The interview with the Principal mainly involved questions to understand the following:

Assessment technique employed in school

According to the analysis, the assessment of students in public-based school, at both primary and secondary levels, was based on written examinations, which were conducted at a fixed period. The same was true for the private schools, as the school focused on preparing children for the O-levels examinations or the Board Examinations; so, the assessment techniques were congruent to the kind of content and aligned with the formal state-based education. In all of the community-based schools, the assessment system included the 'periodic' progress of a child in one way or the other, rather than assessing a child only at the mid and/or at the end of the academic session, which is also what the theory of MI suggested.

Role of teachers

Teachers' role in the classrooms according to the respondents in all the sectors was that of a role-model, though the private school focused on teachers who are more of facilitators, whom the students do not fear as they traditionally did.

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Classroom setting

Classroom setting in all the sectors were based on a chair and desk system, though the private schools also made use of group system of education in certain cases. In community schools, floor sittings and desks were also available and at most instances, the class broke down to small groups for a certain activity that set the show for collective drawing, role-play preparation etc.

Charts with the names of fruits and vegetables are put in classrooms, whenever available, in all the three sectors; though, this was more apparent in private schools where schools had soft boards to display children artwork or charts made by the teacher for students' learning. In community schools, there was a system of wall magazine, which was a replica of the regular magazine. It consisted of children's poems, stories, drawings and other relevant pieces of information on a board specified for the purpose, while there was a clear dearth of attractive displays in public schools.

Curriculum the school followed

In all the three sectors of schools, curriculum followed was that of the Sindh Textbook Board; though the public school syllabus only focused on these prescribed text boards with absolutely no room for any other supplementary material. The private sector, additionally, followed the CIE (Cambridge International Examination) course, while the community-based school employed various modules in their course design which were developed in-house keeping in mind the issues emanating from the community. Also, the Sindh Textbook Board syllabus was condensed to do away with repetitions.

Level of parental involvement

Parents normally come to the school randomly to check if their children are present there. Some of them visit the school to enquire about their children's academic progress. At occasions, the school celebrates national events in which parents are invited to attend. Parental involvement in private schools was given due regard. Parents are regularly invited to attend the PTMs (Parent-Teacher Meetings) in school, to discuss the student's progress. Additionally, parents are also called at times to discuss emerging issues regarding their children. Parents are also allowed to observe their students in class to see how well they behave and how learning takes place and to attend special events. Community schools drew on volunteers among the parents and the community at large to assist the school in conducting vocational training sessions as in embroidery, cooking, handicraft-making etc.

The goal of school

As per the comments from the Principals of the public school, the main goal of school was to produce literate citizens for the country. The goal of all the private schools was to produce children to compete in a challenging world, while the community-based schools mentioned that the holistic development of the child was the main mission of the school.

6. RECOMMENDATIONS

By the findings of the study, a number of suggestions are recommended for, to cater to a wide range of intelligences in children and to make education more meaningful:

- A paradigm shift is necessary, especially, in terms of evaluating success. It is important to understand how classroom teachers, parents and others view the psychological construct termed 'intelligence'. If for them, intelligence is a show of memorizing well and producing what the teacher wants in a pen and paper test, then there is needed a vital change in thinking and attitude.
- An in-depth understanding of the concept of MI is necessary. This can be done through capacity building of teachers, educators and practitioners and formal trainings to realize the theory of MI in detail. Similarly, parents and community members should also be made to join the league in understanding the same.
- There is also a need for a change in belief that maturity and seriousness does not come by through plays and games; hence, complete negation of incorporating opportunities for development of children in senior classes is drastic. It should be understood that both primary and secondary sections should get opportunities to develop themselves through plays, games, dramas, exhibitions, presentations etc. with varying levels of experience according to progression of grades.
- The state can also help promote the holistic learning of children by shifting their emphasis from the three Rs (reading, writing, arithmetic) to learning, as a whole. The undue and unwanted stress of memorization and the two dominant intelligences (verbal-linguistic intelligence and mathematical intelligence) so inherent in the state curriculum should be contained. Hence, the state examinations, as the Board Examinations, should appreciate other intelligences of the child as well.
- Where resources in public schools are concerned, the government should increase the budget for

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education, which currently amounts to 2.1% of the total budget. The public schools and the state should concentrate more on quality rather than an impressive quantity. Budget should be utilized for bettering the school environment through provision of resources and capacity building of teachers.

- The concept of public-private-partnership plays a very important role in which the corporate sector, local philanthropists, and high-profiled civil society can work together in generating funds for better working of the schools through extended resources and capacity building of teachers.

7. CONCLUSION

In general, MI is not an alien product in the school system and is being appreciated in schools already, not in name, but in practice. It calls for realizing the fact that the educational system requires a lot to be improved. It promotes respect for the children, who are the most important element of society, by introducing fair and humanistic methods of teaching, assessing and facilitating children. The least schools could do is to work on intangibles as to not comparing children etc, introducing a culture of thinking in classrooms etc.

Through this study, the apparent thing is that MI is in play, somewhere less, and somewhere more. Though the schools, be it, private, public and community-based, are emphasizing on the two dominant intelligences viz. verbal-linguistic and logical-mathematical intelligences, yet the other intelligences as put forward by Dr. Gardner is being considered, though unintentionally and not as major and vital components. The other intelligences are mostly met through extra-curricular activities, which is treated more of a stepsibling to the mainstream education and is taken as a formality in schools.

It has also emerged as a result of the study that the community schools are better followers of the MI theory, though, again, inadvertently. This owes to the fact that most of these schools are funded by donors, both local and international, and flaunts a certain level of freedom from adhering to the state curriculum. That does not say that community-schools do not follow the syllabus prescribed by the state but it has a relatively freer hand in injecting alternative curriculum. Moreover, as per the donor demands, the community school education is based on research on the community it is established within. So, making use of the knowledge of the culture and needs of the community, the education is thus provided accordingly. As far as private schools are concerned, strict adherence to the curriculum is adopted but which has prospects for students to maximize their learning through different ways. However, the public schools showed a bleak picture with a clear emphasis of promoting literacy and numeracy more than anything else.

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