

**A STUDY OF THE DEVELOPMENT AND IMPLEMENTATION
OF AN INSTRUCTIONAL STRATEGY INCORPORATING
THE THEORY OF MULTIPLE INTELLIGENCES**

**An ABSTRACT OF
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1.0 INTRODUCTION

Everybody wishes to succeed in life. And to attain success, people leave no stone unturned. Over the years one means that has shown people the way to success is education. However, there are three main hurdles that often make people stumble and at times even fall, namely, the IQ scores, marks or percentages secured by individuals in various qualifying examinations, and the instructional strategy. It has been the general practice that based on the scores on these two people are judged, labeled and treated. These two scores show whether an individual is intelligent or not. But whether the intelligence of an individual can be measured or not clarity needs to be established as to what intelligence really is. Further, the academic progress of an individual largely depends on the instructional strategy that is being followed in our educational system. This study dealt with the development **and implementation of an instructional strategy incorporating the theory of multiple intelligences**

1.1 MULTIPLE INTELLIGENCES

In his career long research Howard Gardner realized that the I.Q. index although did provide an indication of one's general intellectual ability, it definitely was not the all of an individual's intelli-

gence. How could such a complex reality as intelligence have been possibly measured with a single score? He further posited that the intelligence of an individual is a multiple reality. And so he at first proposed seven intelligences, namely, the Linguistic Intelligence, Logical Mathematical Intelligence, Spatial Intelligence, Bodily – Kinesthetic Intelligence, Musical Intelligence, Interpersonal Intelligence, and Intrapersonal Intelligence. To these seven he added an eighth one, the Natural Intelligence and after his further exploration into the subject he has now added the ninth one also, namely the Existential Intelligence. In future, however, there could be some more added to the list provided they pass the eight tests, which form the basis of Multiple Intelligences discussed in the next section.

1.2 BASIS OF MULTIPLE INTELLIGENCES

The nine Intelligences are called intelligences because these pass the eight tests / evidences, namely:

1. Potential isolation by brain damage.
2. The existence of Savants, Prodigies, and other Exceptional Individuals.
3. A distinctive development history and a definable set of expert “End State” performances.
4. An evolutionary history and evolutionary plausibility.
5. Support form psychometric findings.
6. Support form experimental psychological tasks.

7. An identifiable core operation or set of operations, and
8. Susceptibility of encoding in a symbol system.

1.3 THE PRESENT STUDY

The present study was an attempt to investigate the effects and implications of an instructional strategy which incorporated in it the theory of Multiple Intelligences.

1.4 RATIONALE OF THE STUDY

For both, the appropriate education of the individuals as well as for their true evaluations, we need to go beyond today's instructional strategies employed in our educational system. It is time that the students are instructed and evaluated wholesomely. There is a need of a paradigm shift in the process of instruction to as well as evaluation of students. The theory of Multiple Intelligences offers us precisely that. The theory of Multiple Intelligences definitely opens before us a door of enormous possibilities in the field of education. At the same time, it compels us see the process of education itself in a radically and tremendously challenging way. And because it shakes the very understanding of the human person, it becomes inherently challenging. The theory itself, though not in the present terminology, propounded way back in 1983 has neither been received enthusiastically nor has it been incorporated in the Indian educational system. Except for some Action Researches and works by the very advocates of the theory, no one has carried out any research as far as its implementations are concerned. After having

realized the potentialities thrown before us, the researcher feels therefore challenged to explore the possibilities of the implementation of the theory in the actual teaching learning process, hence the present research.

1.5 TITLE OF THE STUDY

The present study was titled: "A Study of the Development and Implementation of an Instructional Strategy incorporating the theory of Multiple Intelligences".

1.6 CLARIFICATION OF TERMS

The phrase "instructional strategy incorporating the theory of Multiple Intelligence" is shortened as the MI Instructional Strategy. Hereafter, in the rest of the discussion it will be used as such.

1.6.1 DEVELOPMENT

The phrase 'development of the instructional strategy' means the researcher familiarizes the sample teachers with the theory of Multiple Intelligences. Having got them familiarized with the theory, he then helped them remodel the lesson plans incorporating the theory of Multiple Intelligences. The process of remodelling lesson plans which also contained the tools for evaluation is the development of the instructional strategy.

1.6.2 MI INSTRUCTIONAL STRATEGY

The term instructional strategy is used here to mean both the teaching as well as the evaluation processes. In the MI instructional strat-

egy, instead of the usual lecture method of teaching, students are instructed with the help of the remodeled lesson plans incorporating the theory of Multiple Intelligences. These remodeled lesson-plans incorporate elements that would meet the needs of students' various learning preferences / styles so that students learn with ease. Activities like acting, hands-on exercises, group discussion, a minute of quiet reflection, singing, number games, drawing and sketching etc. are incorporated in the teaching process. These activities are intended to meet the needs of individuals who show a wide range of preferences in their learning styles. For the purpose of evaluating the performances of the students again, instead of the usual teacher made tests which generally are based on linguistic, logical mathematical and to a certain extent spatial intelligences, the modified teacher made tests would also include test elements from the domains of other intelligences like musical, bodily-kines-thetic etc.

1.6.3 MULTIPLE INTELLIGENCES

These are the nine intelligences of a human person as recognized and being popularized by Gardner. They are the Linguistic, Logical Mathematical, Spatial, Bodily-Kinesthetic, Musical, Interpersonal, Intrapersonal, Naturalistic and Existential Intelligences. In the future, there could be others too.

1.7 DELIMITATION OF THE STUDY

The present study was delimited to the teachers of one school and

the students of Standard VIII of the same school following the Indian Certificate of Secondary Education, (ICSE) syllabus situated in Namchi, the South district of Sikkim.

1.8 OBJECTIVES OF THE STUDY

The present study was carried out with the following research objectives:

1. To map the Multiple Intelligences Profiles, (MIP), of teachers as well as that of the students.
2. To enable teachers carry out instructions using the MI instructional strategy.
3. To assess the achievement of the students following instructions in the Multiple Intelligence way.
4. To assess the Teachers' instructional behaviour as the result of the training in the theory of Multiple Intelligences.

1.9 RESEARCH QUESTIONS

The research was conducted with the following research questions in mind:

1. Could the MIPs of teachers and students affect the teaching and learning processes?
2. How could the theory of Multiple Intelligences be implemented in the Instructional strategies?
3. Will there be any significant contribution of the theory of Multiple Intelligences in the teaching learning process?

4. Would there be any change in the perception and motivation of the teachers due to the implementation of the Multiple Intelligences theory in the teaching learning process?

1.10 DESIGN OF THE STUDY

It is a quasi experimental study following a quasi experimental design.

1.11 TOOLS

The following tools were employed for this study:

1. Cumulative Record Cards of students.
2. Teacher-made Achievement tests.
3. Observation, Unstructured interviews, Anecdotal records, and Motivation scale.
4. Two Multiple Intelligence Inventories:
 - i. Multiple Intelligence Inventory for Adults by Armstrong.
 - ii. Multiple Intelligence Inventory by McKenzie.

1.12 SAMPLING

All students of Standard VIII and, although all the teachers of the school were given the orientation programme on the theory of Multiple Intelligences, only the teachers teaching in Standard VIII constituted the sample of the study. The school, situated in the south district of Sikkim, as well as the sample were chosen purposively according to the geographical feasibility and the consent of the head of the institution.

1.13 DEVELOPMENT AND IMPLEMENTATION OF THE INTERVENTION PROGRAMME

- i. The researcher developed the training materials for orienting the teachers in the theory of MI.
- ii. Having developed the training materials, the researcher then organized two workshops each of one week duration to familiarize the teachers with and initiate them in the theory of MI and its promises in the field of education. During these workshops the teachers were assisted in remodelling the lesson plans according to the theory of MI. Subjects chosen for remodelling the lesson plan were Mathematics, Science, and Language.
- iii. The Multiple Intelligence Profiles, (MIPs), of students and teachers were mapped with the help of MIP inventories.
- iv. Teachers were assisted in implementing the transactions of the remodelled lesson plans in the actual classrooms. These remodelled lesson plans had a variety of activities, like acting/role modelling, singing, group discussions, drawing and sketching, individual quiet reflections for two minutes, hands on exercises, etc. embedded in them. The researcher observed these classes and recorded the information.
- v. The researcher assessed the motivation of both students and teachers.
- vi. Achievements of the students were assessed with the help of the teacher made tests.

1.14 DATA COLLECTION AND THEIR ANALYSES

Qualitative analysis of the qualitative data collected with the help of Cumulative Record Cards, (CRCs), and the unstructured interviews of the students prior to the intervention programme provided the background information about the students. During the first workshop the MIPs of students as well as that of teachers were mapped and analyzed. The analysis showed the natural and preferential intelligences of students and teachers. During the entire course of the intervention programme with the help of Observation Schedules, Unstructured interviews, Anecdotal Records, and the Motivation Scale qualitative data were collected and analyzed qualitatively. The analysis provided information about the self perceptions of students and teachers, their motivations as per their respective roles, students' attitudes towards their peers, teachers' attitudes as perceived by the students towards them, and the learning styles of students. Finally, the quantitative analysis of the data collected from the teacher made achievement tests revealed the contributions of the instructional strategy which incorporated in it the theory of MI.

1.15 FINDINGS

The analyses of the data revealed that the instructional strategy incorporating the theory of Multiple Intelligences had a multiplying effect. It affected directly the students and the teachers. Further, it affected the parents and the society in general indirectly as well. Effects of the instructional strategy incorporating the salient

features of the theory of Multiple Intelligences in this study may be enumerated as follows:

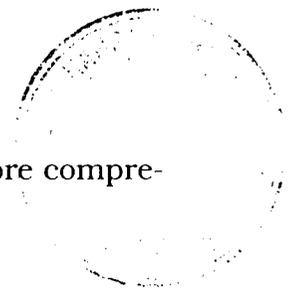
1.15.1 ON STUDENTS

1. The motivation levels of the students increased.
2. The self perception and self confidence of the students improved.
3. Students grew in awareness of their personal preferential styles of learning.
4. It helped students appreciate the merits of Cooperative Learning.
5. The academic achievements of the students improved.

1.15.2 ON TEACHERS

1. Teachers became aware of their natural preferences.
2. Knowledge of the fact that students had different styles of learning, they were able to modify their styles of instructions so as to meet individual needs.
3. Knowledge of the MIPs of the students helped teachers to understand them better.
4. Realization that each one of them was intelligent differently, and hence 'incomplete', they grew more cooperative among each other.
5. The self perceptions of the teachers were modified.
6. Being aware of the different learning styles and the MIPs of the students teachers adopted methods (MI techniques)

of evaluations of the students which were more comprehensive.



1.15.3 ON THE PARENTS

1. Parents showed greater concerns for the education of their children.
2. Parents provided atmospheres at home which were more conducive for study.
3. Parents guided their children and motivated them for life according to the particular natural proclivities of their children.

1.15.4 ON THE SOCIETY

1. The social atmosphere too appreciably changed.

1.16 IMPLICATIONS

The study shows that with the incorporation of the theory of MI in the instructional strategies the entire teaching-learning atmosphere in the school improved. Taking this study as a pilot study, (which was limited to one class only), and which proved was beneficial both to students and teachers alike, the theory of MI could be incorporated in a much larger scale in an educational institution. In fact, the MI theory may even be adopted by the entire educational system of the nation.

1.17 SUGGESTIONS FOR FURTHER RESEARCH

Every research fulfills at least two functions, first, it acknowledges

its limitations, second, and thereby paves the way for the possibilities of further and more detailed research in the field from different perspectives.

Therefore, spurred on by the results of the present study, to list a few, it is suggested that,

1. the implications of the theory of MI in the field of education may be studied on a larger scale involving the entire school.
2. the effect of the theory of MI on the construction of school curriculum could be studied.
3. the organization of the school curriculum could be studied in the light of the theory of MI.
4. the effect the theory of MI on the self perception and motivation of parents and administrators could be studied.
5. the development of more appropriate instructional methodologies could be studied.

1.18 CONCLUSION

The study of the development and implementation of an instructional strategy incorporating the theory of multiple intelligences revealed that, although not altogether a new concept, the theory of MI definitely has the potential to transform the entire educational system. As the entire instructional process would be according to the preferential styles of learning of the students, the process of learning will be a joyful act. Consequently, dropout rates would come down, dreams of universal retention would be realized so that

an educational system of the nation would have less to worry about the wastage and stagnation. Further, if understood and applied rightly, it can bring about a total transformation in human relationship and thereby in the human living itself. It would lead to a better understanding of individuals' strengths and weaknesses. Better understanding of individuals' strengths and weaknesses would in turn lead to better employability of individuals. And when individuals are placed where they actually belong to, are best fitted, there will not only be job satisfaction among the individuals but it will also lead to greater productivity. With greater productivity of individuals society in general would be more productive. That would lead to the economic development of the individuals which in turn would usher in the greater economic development and prosperity of the nation. Such is the potential of the theory of Multiple intelligences.

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