International Journal of Advanced Educational Research

ISSN: 2455-6157

Impact Factor: RJIF 5.12 www.educationjournal.org

Volume 2; Issue 5; September 2017; Page No. 83-92



Making economics classrooms exciting: Role of experiential learning

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Abstract

A classic Indian economics classroom at the secondary level is characterized by a teacher dictating notes or a book reading and underlining session, boredom, monotony and distracted students, hardly paying attention to what is going on in the class. Students are often found writing note slips to one another, whispering or day dreaming due to lack of engagement in the classroom. A reason for this could be poor, non-exciting and demotivating classroom environment. There is absence of activities or experiences that encourage dialogue, involve students, or require them to perform mental or physical action. Hence, lethargy prevails. Teaching and learning is completely textbook centred, which makes students believe that the textbook is the only source of knowledge. It is also noted, that the teachers expect the students to master particular sections of the textbook, encouraging rote learning. Many a time's children are given ready-made answers to typical questions that are repeated in the exams. It is noticed that all teaching learning activities are planned for scoring well in the exams i.e. pedagogy is solely examination oriented. Thus, in the Indian scenario, there is a much felt need to digress away from the traditional chalk and talk method and assess how well child centred approaches can fit the frame. This inquiry then is based on how do children in Indian classrooms feel the difference when they are taught with experiential learning and when they are given live experiences of learning. How the attitude of pupils is built up and how their attitude changes with regard to learning per say, and also regarding Economics; so is to say how perceptions of children are formed towards economic learning and how this perception changes when they are taught with experiential learning tasks. When students of economics in an Indian classroom are taught with a different method and are given a chance to experience learning, how does it redefine their perceptions on economics learning, the key findings indicate that not only is there space for experiential learning in an Indian Economics classroom, but once exposed to this learning style, students to tend to enjoy learning and take more interest and participate in classroom activities. They definitely prefer this learning style over the tradition chalk and talk or notes dictation methods.

Keywords: making economics classrooms, experiential learning

1. Introduction

1.1 Experiential Education

Experiential Education is a philosophy of education that stresses on interaction between learner and teacher based on infusion of direct experience to facilitate interaction between the content and the learning environment. Experiential learning is one of the methodologies of teaching under experiential education.

Association for Experiential Education (USA) defines experiential education as "A philosophy that informs many methodologies, in which educators purposefully engage with learners in direct experiences and focussed reflection in order to increase knowledge, develop skill, clarify values and develop people's capacity to contribute to their community". The concept of Experiential Education was popularized by John Dewey. He talks about the important role of quality and educative experience in learning in his book "Experience and Learning" (1938). Dewey stresses on the relationship between learning and the quality of experience the learner is exposed to in the process of being educated. He believed that child learns throughout his life by organizing facts by way of internalizing experiences or building onto prior experiences or perceptions

and knowledge. He thus highlights an educator's role as exposing the learner to new and quality educative experiences. In his book Experience and Learning, Dewey recognizes that not all experiences facilitate learning. He throws light upon experiences that can be "mis-educative" i.e they do not fulfil the purpose or objective they are designed for, more dangerously at times, such experiences may retard learning rather than facilitating it or may restrict future educative experiences. He uses this to criticize traditional (simply focusing on acquisition of predefined knowledge and texts; developing specific skills under a strict code of order and conduct in the school: merely enforced transmission of information in information packets called textbooks) as well as progressive methods (completely rejecting role of authority in teaching learning; a more democratic set up does not guarantee quality of educative experiences) of teaching, arguing that they lacked giving the learner correct kind of experience to attain objectives of education. According to Dewey, "sound experience involves continuity and interaction between the learner and what is learned" which he also calls "experience continuum"; stressing that experience should be chosen in a way that it positively contributes to experiences of

the future e.g. experiences that arouse curiosity, motivation to learn, know etc. He uses this "continuum" as classifying an experience as being useful or not. Thus, Dewey values experience on the basis of interaction and continuity.

Quoting from Dewey's "Experience and Education" (1938): "[w]e always live at the time we live and not at some other time, and only by extracting at each present time the full meaning of each present experience are we prepared for doing the same thing in the future. This is the only preparation which in the long run amounts to anything. All this means that attentive care must be devoted to the conditions which give each present experience a worthwhile meaning."

1.2 Experiential Learning

Experiential learning, also referred to as "learning through action", "learning by doing", "learning through discovery and exploration" and obviously, "Learning through experience" is one of the pedagogical practices under experiential education. The concept of experiential learning was popularized by David A. Kolb, who drew heavily from the works of John Dewey, Kurt Lewin and Jean Piaget. All of them highlighted how a learner constructs his own knowledge by engaging and interacting with his learning environment. According to Kolb, "Learning is the process whereby knowledge is created through the transformation of experience" (Kolb, 1984, 38) [22]

1.3 Rationale behind Experiential Learning

The rationale behind experiential learning is that exposing a child to meaningful, well planned and directed experiences that stimulate actions and thought, augments learning and performance of a child; it gives the child a chance to play an active role in the process of classroom learning, than being a mere recipient of textbook knowledge. It gives the child the freedom of self-expression and freedom of thought, allows him to construct his own knowledge and to reflect on his ways of perceiving situations and things.

The lecture method of teaching, most widely used teaching method, rarely offers such stimuli, since it is a teacher centred method in which the teacher does most of the talking. This methodology is detrimental to a child's creativity and new thoughts. "Students become quickly disengaged when the educator does most of the talking" (Wurdinger & Rudolph, 2009) [53].

Learning by direct hands on experience is more far reaching and is retained much longer and against mere reading or listening.

Wurdinger and Rudolph (2009) [53] have discussed five broad approaches to experiential learning, and claim that these would make the classroom environment more motivating and encouraging. The five method are: Project Based Learning, Problem Based Learning, Service Learning, Place Based Learning and Active Learning.

1.4 Need for the study in the Indian Context

A classic Indian economics classroom at the secondary level is characterized by a teacher dictating notes or a book reading and underlining session, boredom, monotony and distracted students, hardly paying attention to what is going on in the class. A reason for this could be poor, non-exciting and

demotivating classroom environment. There is absence of activities or experiences that encourage dialogue, involve students, or require them to perform mental or physical action. Hence, lethargy prevails.

Teaching and learning is completely textbook centred, which makes students believe that the textbook is the only source of knowledge. It is also noted, that the teachers expect the students to master particular sections of the textbook, encouraging rote learning and pedagogy is solely examination oriented.

The teacher's targets of course completion within the given time frame seems to steal the show leaving hardly any place for providing beneficial experiences to learners. Thus, teaching and learning revolves around lecturing, underlining, memorizing and reproducing facts, thereby, retarding creativity, discovery, understanding and also ignores development of key skills like communication, presentation, confidence etc.

Thus, in the Indian scenario, there is a much felt need to digress away from the traditional chalk and talk method and assess how well child centred approaches can fit the frame. When students of economics in an Indian classroom are taught with a different method and are given a chance to experience learning, how does it redefine their perceptions on economics learning. This is an important inquiry because teachers and students have a misnomer about experiential learning since there is a belief that experience is something different and teaching and learning is all about classroom delivery: that the teacher must deliver and the children must listen and they will understand. So learning somehow is taken for granted through certain specific methods which the teacher is comfortable at, and not which the children are comfortable at. Hence, here there is a gap. Experiential learning focuses on studying and learning economics through childrens' perspective.

Another gap is the belief among teachers that experiential learning is not possible in Indian classrooms with Indian children under the given Indian syllabi because of the fixed period of time in which the teacher must complete the syllabus. Hence, completing the syllabus remains the sole focus of the teacher, taking learning for granted again.

Since most children in the Indian scenario have not experienced this style of learning economic, therefore they do not have the taste of it. There is also a need to find out how children value different methods of teachings and a need to explore students' preferences in this regard. From here flows the problem of the study, the objectives of the study and the related research questions that have been listed in the following sections.

1.5 Objectives of the Study

- 1. To personally experience the experiential learning methodology for the children. This was possible by preparing a subject based module to teach through live experiences the chapter "People as a Resource" at secondary level Economics (class IX). The module was self-prepared and self-taught by the researcher.
 - Since the children had already studied this chapter, the objective is to test the use of a different method of teaching: teaching through live experiences.
- 2. After creating space for experiential learning and giving

the students live experiences about a topic in Economics as secondary level, the second objective is to conduct and inquiry with regard to changes in attitude of the children with respect to three specific areas that are an integral part of the learning process: attitude towards Economics as a subject, Attitude towards Economics Classroom and Economics Homework.

1.6 Research Questions

This study is an attempt to out answers to the following research questions:

- Is there space for experiential learning in the Indian Economics Classroom?
- What methods of teaching are preferred by learners?
- What is the learners attitude towards economics, economics classroom and economics homework?
- Is there any change in learners' attitude after being exposed to live experiences in learning?
- How well do experiential learning strategies fare against the lecture/book reading method in the students' perceptions?

1.7 Delimitations

- The study covers only one economics classroom. Therefore there is a limitation in generalizing the results.
- The study covers only one method of experiential learning.
- The study focuses at the teaching of economics only at the secondary level

2. Review of Existing Literature

2.1 Review of related documents: NCF Position Paper on Social Sciences

The NCF position paper highlights the importance and concerns for relating the curriculum to the learners' life experiences. It sees teaching of economics critical for developing an analytical and creative mindset. Clearly, it requires the teachers to move ahead of the chalk and talk methods and provide students with valuable experiences that can fulfil the desired targets of developing learners' skills. It promotes the idea of experiential and non-coercive classroom environment as a basic requirement for making teaching and learning interesting, participatory and enjoyable. Focussing on the fact that economics is a behavioural science, Learning experiences should be designed so that provide the learner with opportunities to develop skills and also reflect upon his behaviour, thereby preparing active, responsible and reflective members of the society.

2.2 Review of Existing Literature

It is argued that experiential learning and innovative practices inspire and motivate students to learn and contribute towards a better educated society with reflective citizens (Wudinger and Rudolph, 2009) [53]. Unfortunately, class room teaching is still dominated by lecture methods (Huba and Freed, 2000), which result in students attention span of not more than 15-20 minutes (Hoover, 2006). In the words of Wurdinger and Carlson (2010) [54]

"Students become quickly disengaged when teachers do all the talking and do not allow active participation in classrooms" (Wurdinger and Carlson, 2010) [54]

Wurdinger and Calson, 2010 [54], found that most faculty depends upon lecture methods because only a few of them learned how to teach otherwise.

Research also reveals that though teachers follow traditional lecture and passive methods of teaching, students prefer to be taught by active methods, where in students actively engage in the teaching learning process (Harper *et al.* 2002; Levine & Cureton 2002) [41, 23]. Quoting from a study by Wurdinger and Carlson (2010) [54]:

"Students listen most of the time, and when they are allowed to talk, it is only to answer a question. When asked how do they feel about such experiences, they use terms such as bored, oppressed, devalued and ripped off"

"If institutions and educators want to improve learning environments and increase retention rates, it is argued that they should consider embracing more active methods of learning that inspire and motivate students to learn." (Wurdinger and Rudolph, 2009) [53].

Quoting from a reasearch study of Koontz et al. (1995) [48]

One of the most obvious benefits of experiential learning to the casual observer is the motivation of the participants" (p.269)

Therefore, multiple other ways of classroom teaching learning have been suggested. To mention a few, these include: Cooperative learning, problem based learning, discussion method, activity based learning etc. (Moore, 2009) [31]. Active learning strategies may also incorporate role plays, simulation, debates, presentations, case studies and drama(Wurdinger and Carlson, 2010) [54]. These are different approaches under experiential learning. The idea is for the teacher to recognize that although learning content is important, learning from the process lies at the heart of experiential learning (Northern Illionos University). Experiential learning techniques may also be coupled with traditional techniques. From Spencer and Eynde (1986) [45]:

"Experiential Learning, at least in small doses, and with appropriate subject matter can be a valuable addition to the tool kit of the Economics Instructor."

Studies conducted across disciplines confirm the benefits of experiential learning. A few have been highlighted in the context of teaching of economics. Watts and Becker (2006) [40] concluded, after a detailed 10 year survey of teaching economics at undergraduate level that lecture method was most dominant and other methods that promoted students active participation were not just rarely found but also had a slow growth during the decade 1995-2005.

Cardell *et al.* (1996) ^[13] found out that performance of economics undergraduates improves significantly when taught through lecture cum laboratory method, as against simple lecture method. Quoting from their study:

"Lecture-Discussion Format may be the least effective way to teach economics" (p.454)

It has also been found that when students work in small groups as experimenters, participation and learning of behavioural economics and experimental approach to research enhances (Egber and Mertins, 2009) [57].

Experimental research in teaching of economics confirms

benefits of problem solving approach in strengthening students understanding of economics concepts on one hand and also is preferred by students since it allows active participation, critical thinking exercises and a break from routine lecture methods (Sepncer & Eynde, 1986) [45]. Survey studies also indicate a clear student preference towards experiential learning activities in economics (Hatrey, 2009). Further it has been found, that students prefer memorizing facts when they are worried about test grades, when grades are not an issue, the prefer active learning techniques as against lecturing and rote learning(Machemer and Crawford,2007) [25], quoting from their study:

"Any activity, be it active, cooperative or traditional, that directly relates to improving exam performance was the most values of all"; "Students valued anything that they perceived as improving exam performance" (Machemer and Crawford, 2007) [25].

It is worth noting that all the above studies were carried out in economics class rooms either at the undergraduate level or with economics scholars at Ph.D level, that too in the non-Indian context. Further, tudies that were carried out at the school level did not focus on teaching of economics, they mostly looked at teaching of science or mathematics. The worthiness and usefulness of experiential learning remains to be evaluated at the school level, in the Indian context.

2.5 Conclusion

The researchers personal experience, (being a product of the Indian schooling system), observations of economics classrooms and discussions with secondary school children, reveal that the Indian economics classroom lacks the essence of helping a child connect these above mentioned objectives and economic problems and issues with his daily life, even though he sees a great deal of them around him. Economics for him, is a subject which begins in the class room and end with the ring of the bell. There is no experience he carries home, excited to tell his parents or other friends about; no experience that helps him come closer to the problems of the society and economy he lives in

At the secondary level, a student is introduced to economics as a subject for the first time, in this sense, it is new to him. Thus, it becomes even more important on part of the teacher to make class room activities interesting so that students do not view this 'new' subject as a burden, but rather enjoy it.

Thus, there is a clear rationale for experiential learning in an economics classroom; improving pedagogy of economics. Since the learner is introduced to the broad economic concepts and issues in class IX and X (under general education), in this research it has been attempted to find out the options and challenges for experiential learning methods in class IX. It also tries to assess students' attitude towards this change in classroom teaching and learning organization.

In the Indian context, there has been no study so far that looks at importance, effectiveness, need, scope, challenges or students and teachers attitude towards experiential learning at school level in pedagogy of economics. Thus, this study differs from other studies on the basis of country context and level of education (school). In this sense, it is felt that this research will make some contribution to the stock of existing

knowledge on experiential learning.

3. Research Design

This section gives a blue print of the steps followed in the research conducted, precisely highlighting the design of the teaching module prepared and the pre-test post-test methodology adapted to measure students' attitudes. Besides this, the section focuses on data collection issues giving detailed description of the population under study, the sample selected, development and logistics of the teaching module, tools of data collection and techniques of analysis.

The first objective of the study is to develop an experiential learning module covering a topic from the Economics syllabus and test the same in an economics classroom. The second objective is to see how student's attitude towards the subject, classroom and homework change as they are exposed to learning through live experiences.

3.1 Designing the Module

As stated earlier as above, the first objective of the study was to personally experience the experiential learning methodology for the children. This was possible by preparing a subject based module to teach through live experiences the chapter "People as a Resource" at secondary level Economics (class IX). The module was self-prepared and self-taught.

The module gives a blue print of all the experiential learning tasks (and related learning objectives) that were performed by the students in the 6 sessions conducted. The module incorporated a set of activities in done in class and given for home tasks that would provide live experiences and facilitate learning. The focus was to provide live experiences to the students and also plan out classroom sessions, such that they would provide an enriching platform to the students to share their experiences with one another and learn from others experiences too.

The tasks designed for the students are based on the chapter "People as a Resource" of the NCERT Economics class IX Textbook. The chapter focuses on building consciousness of learners towards the fact that they, as human beings can become productive assets of the society by investing in their education and health. The chapter provides information regarding benefits of good health and education, along with educational and health facilities provided by the government. The study aims at supplementing this information by connecting it with the students' lives with the help of experiential tasks the students will perform during the course of the study. The aim is to develop a temperament towards personal health care and a passion for education in the lives of the students.

The six sessions were spread out over a time period of almost a month: from the first session on 29th December 2015 till the last visit on 21st January 2015 (A total of 24 days which covers 2 weeks of winter break too). The logistics of placing the activities and sessions were worked out keeping in mind the holiday schedule of the students. The winter holidays were used for providing experiential holiday tasks explained in the module.

The tabular version of the module, gives a detail of the experiential tasks, reasons for why were they incorporated and handed over to children and also the expected learning

outcomes from the tasks.

Table 1

Session Day	Topic	Experience/Class Task/Home Task	Benefit From Experience	Learning Outcomes
Day 1 8:30am- 9:00am (Session I)	Preliminary Survey	Since this is the first day with students, the preliminary survey will be conducted. For homework, students will be asked to reach the section on education and story of Shakal from their textbook. (This would be the background reading for the next session) As a developmental task, they will be asked to write down an experience from their lives wherein education has benefitted them.		
Day 2 7:45am – 8:45 am (Session II and III)	Education: Personal and social benefits Plus, assigning holiday tasks related to healthy activities	Students will be asked to share the experiences they have written in the previous task allotted to them. Showcasing a short film (3minutes) differentiating the lives of educated and uneducated. Class discussion on personal and social benefits of education. Followed by showcasing another short film on how an educated child can help an uneducated one (30 seconds). Experiences: Students will be given home tasks related to healthy lifestyle habits: Meditation, Physical activity, receipts of healthy food items. Experience: Students will be given home tasks related to healthy lifestyle habits: Meditation, physical activity, recopies of healthy food items, etc.	Students learn from each others' experiences as to how education safeguards them against exploitation of any kind. Students develop temperament towards living a healthy life, develop healthy habits like morning walks, healthy food intake, medication etc. Aim is to positively influence the lives of the learners.	Students acknowledge the personal and social benefits of education. Students draw themes of benefits from education: Income, status, health, mobility etc. They develop a positive attitude towards education. Identify that education can help them tap their potential of becoming productive resources. Realize that education coupled with health is required to become a productive asset.
Day 3 (Return From Break) 12:10 pm to 12:40pm Session IV	Health and Education	Facilitate classroom discussion on how experiences helped the students.	Students recognize that they themselves can look after their health and living a healthy life is in their own hands.	To help students know the importance of health and education in leading a meaningful life.
Day4 7:45am to 8:50am	Data Analysis Skills And types of economic activities	Use of a presentation and worksheet with data on literacy rates and health infrastructure. Use of chart showing: 1. Economic and non economic activities. 2. Primary, secondary and tertiary activities		To enable learners to analyze tabulated data, equip them with skills of presenting data in the form of diagrams and line graphs. To enable learners to identify and classify different types of activities.
	Final Survey	Students were given a questionnaire at the end of this session so they could fill it up at home. This was the post test.		

3.2 Measuring Attitudes of the students (pre-test and post-test Design)

As stated in the first section, the second objective of the study was to find out what attitude did the students have towards the three integral elements of the teaching learning process: attitude towards Economics as a Subject, attitude towards Economics Classroom and attitude towards Economics Homework; and then to see how do these attitudes change when the students experience learning through live experiences and are exposed to this new method of learning economics.

In order to check for changes in attitude, an experiment was worked out that followed a pre-experimental design. The design can be given the following representation following one group, pre-test post-test design:

 O_1 X O_2

Where O_1 is the observation on the basis of pre intervention attitude scale, X symbolizes the intervention and O_2 is the

observation based on post intervention attitude scale. This is a pre experimental group design since there is lack of a control group in our study.

Thus, the corresponding methodology consists of three steps: Step1: Conducting a preliminary survey to see students attitude towards economics as a subject and economics classroom. The opinionnaire consisted of 10 statements measuring attitude towards economics as a subject, 20 statements relating to attitude towards economics classroom and 10 statements measuring attitude towards economics homework. The opinionnaire was prepared following the guidelines of a Likert type attitude scale with 5 options for opinions on varying degrees on each statement: Strongly Agree, Agree, Indifferent, Disagree and Strongly Disagree. Step2: Intervention: Providing experiential tasks based

Step2: Intervention: Providing experiential tasks based activities to the students. These have been discussed in the module. The module presented at the end of this section presents an outline of the classroom organization and tasks

given to students, along with their expected learning outcomes.

Step3: Repeating the survey to check for changes in the attitude of the students towards economics as a subject, classroom and homework. Besides this, collecting feedback from students regarding the tasks given to them through classroom discussions was also done during the sessions.

The pre-test post-test design uses the learning tasks of the module as an intervention. This allows the researcher to collect preliminary attitudes of the students using a Likert type attitude scale (discussed in data collection section); provides space for intervention through implementation of the module(as discussed in the section above) and post intervention allows the researcher to collect attitude of the students using the same tool.

Since this partly an experimental study also, that intends to see changes in attitudes and perceptions of the students, it allows for testing of the following hypothesis:

Statement of Hypothesis testing attitudes towards Economics As a subject

H₀: There do not exist significant difference in the attitudes of the students towards economics as a subject in the pre and post attitude tests.

H_A: The attitude of the pupils towards economics as a subject in the post test differs positively and significantly from that in the pre-test.

Statement of Hypothesis Testing Attitudes Towards Economics Classroom

H₀: There is no significant difference in the attitudes of students towards Economics classroom in the pre and post attitude tests.

H_A: The attitude of the pupils towards economics classroom in the post test differs positively and significantly from that in the pre-test.

Statement of Hypothesis testing Attitudes towards Economics Homework

H₀: There is no significant difference in the attitudes of students towards Economics homework in the pre and post attitude tests.

H_A: The attitude of the pupils towards economics homework in the post test differs positively and significantly from that in the pre-test.

3.3 Data Collection

Data collection is an integral part of the research. Data was collected through interaction with the field. The study involved extensive fieldwork and interaction with students that yielded the data required in the research. Data emerged not just out of the survey oppinionnaires given to the students as pre tests and post tests, but extensive data also emerged out while the experiential learning module was being implemented and in the interactive sessions with the students when small informal feedback were taken from time to time. The write ups of the students were also an important data source.

This section is devoted to explaining the data collection processes and tools.

Population and Sample Selection

The primary objective of the study is to expose the students of Economics in India to a new learning style: Experiential Learning. As explained above, in section 3.1 this was done through development and implementation of an experiential learning module based on the actual syllabi of the students. Since the study is limited to the Indian context, all secondary level students of economics in India form the population for the study. However, since it is practically not possible to cover the entire population under the study, sampling was undertaken. Schools were approached with the proposal of the study and meetings with the principals were held. Thus, the sampling technique was that of voluntary sampling, since the school that volunteered to provide space for research was

Once the school was finalized and the section was allotted, a series of activities were conducted. This involved implementation of the designed module by way of conducting sessions with students and assigning them tasks that would provide them with live experiences. Data collection also took place alongside the implementation of the module. Data was collected regarding students attitude towards economics as a subject and economics classroom using questionnaires. Data was also collected on students' perceptions towards experiential learning with discussions with students during and at the end of the six interactive sessions. Data was primarily collected on the first and the last day when the questionnaire was administered. Besides this, student feedback was collected informally too by in class discussions. Thus, the data collected, is both quantitative and qualitative in nature.

Tools of Data Collection

selected.

Likert Type Attitude Scale for Collecting Pre test and Post Test Attitude Scores

The primary data collection tool that has been used in the study is that of an opinionnaire or attitude inventory, designed on the basis of Likert's five point rating Scale. This kind of a rating scale is made up of several statements reflecting attitude towards an object or a phenomena and is followed by 5 degrees of varying opinions towards the same: Strongly Agree, Agree, Indifferent, Disagree, Strongly Disagree. The Likert type rating scale was used in the study since it is can be easily understood and interpreted by the students. Also, this type of a scale helps to quantify qualitative data, for e.g. it allows one to represent attitude (a qualitative phenomenon) in the form of a number that can be used for testing later.

The opinnionaire was designed with the objective of measuring students' attitude towards economics as a subject and their classroom organization and homework tasks given to them. The same opinionaire was used for collection of pre-test and post-test attitude scores. The tool was validated under the guidance of the supervisor before the survey was conducted.

Design of the tool

The tool was divided into three parts and had a total of 40 statements, reflecting both positive and negative attitude, followed by 5 opinions of varying degrees. Students were instructed to check one that suits them the best. The first ten statements focussed on attitude towards Economics as a

subject, the next 20 statements on economics classroom and the last 10 on economics homework.

Besides these, two open ended questions were included: the first demanded the students to indicate if they felt studying economics was important or not with a suitable reason. The other demanded them to provide a brief description of their economics classroom.

Write ups of the students

Besides the quantitative data collection discussed above, qualitative and descriptive data has been collected in the form of write ups from students with regard to the live experiences given to them.

Students were asked to write a 100 word experience paragraph each covering how they felt about the tasks given to them and if they felt these tasks had led to any change in their lives and if they would not only follow these activities in future but also recommend and suggest others to do the same. These experience paragraphs have been analysed to draw inferences about students' experiences, perception and outlook towards the entire experiential learning style.

Thus, the data collected comprises of qualitative and quantitative data.

Techniques of Data Analysis

As mentioned above, the data collected is both qualitative and quantitative in nature. Accordingly, both qualitative and quantitative techniques of data analysis have been employed. Thus, for data analysis,

- 1. The pretest and post test attitude scores of the students have been analyzed using t test.
- 2. The written experiences of the students have been analyzed

For the analysis of attitude scores, means of the pre test and post test attitude scores have been computed. The t test has been employed to check for significant differences in the pre test and post test mean attitude scores.

For analysis of students write ups, themes have been drawn out from their writings to interpret their perceptions about the learning activities and live experiences.

These have been discussed in greater details in the next section.

4. Data analysis and inferences

This section is focused on analysis of the data collected through the tools discussed in the previous section and on the inferences drawn from the same. The section reveals findings of the study.

4.1 Analysis of written experiences of students.

As a part of the study, students were given experiential tasks for their holidays, related to the chapter "People as a Resource" from their class IX Economics textbook.

After performing the "Healthy Holidays" tasks, students were asked to record their experiences in about 100 words. Out of the 37 students who were covered in the study, 20 completed the holiday task and gave their write ups. The analysis of their write ups leads to the following inferences:

The following key themes were observed in most of the write ups, as most of the children emphasized on the following words:

"Enjoyed", "Energized", "Fresh", "Fitness", "Happy", "Refreshing", "Exciting",

"Benefitting", "Healthy", "Active", "Motivating"

Students reported that this was the best holiday homework they ever got in their lives. They said that activities like morning walks, meditation, playing sports not only gave them physical and mental fitness, but also increased their concentration and made them more focussed when they did holiday homework of other subjects.

Write ups reveal that not only would they want to continue with these activities in their lives, but would also suggest others (friends in their neighbourhood, family members, cousins etc) to practice such healthy activities. Students reported that these holiday tasks were a break from their routine "boring" work of making book marks or writing questions and answers. They described these as the "best and memorable" winter holidays. Many students vowed to continue the healthy habits and called this their new year's resolution.

Besides these, during the informal feedbacks taken during the sessions, students did share that they looked forward to these classes and were always keen to know what was coming up next for them. Worth mentioning is the level of excitement and motivation during the second seesion, when students were shown short clips on education. At end of the clips, students clapped and requested for a replay. This is a clear indication of high level of motivation, attention and favourable attitudes of the students.

4.2 Quantitative Analysis

This involves computation and interpretation of the attitude scores from the attitude inventory, applying t test to pre and post attitude scores and drawing inferences from the same about students' attitude towards Economics as a subject, Economics classroom and Economics homework.

Analysis of students attitudes: Pre-test

In the pre-test, the class attitude towards all the three dimensions to teaching and learning was found out to be negative. The average class attitude score towards economics as a subject was 2.82, towards economics classroom was 2.53 and towards economics homework was 2.35.

Analysis of responses in percentage terms reveals that out of the 37 respondent students, 22(59.5%) students had a negative attitude towards Economics as a subject, 2 students (5.4%) has a neutral opinion and the remaining 13 students (35.1%) had a positive attitude towards the same. Further, it was seen that a majority of students, 86.5% students had a negative attitude towards Economics classroom and only a handful of them (4 students) had a positive attitude towards the same. Also, again a majority of students(86.5%) had a negative attitude towards the economics homework too, and the remaining few (13.5%) had a positive attitude towards the same.

In addition to these attitude scores, in the descriptive answers in the pre-test, students described their economics class as full of boredom, non excitement, monotony etc. and thus even reported that economics subject was a burden for them. They reported that their homework only incorporated textbook questions and answers and encourage learning for

reproduction in tests.

Consequently, in all the three cases, attitude of majority of the students was skewed to the negative range.

Analysis of Students Attitudes: Post-test

In the post-test, students were required to fill up the same attitude inventory on the basis of classroom experiences in the interactive sessions and holiday tasks assigned to them. This time, calculations revealed a positive attitude of students towards all the three dimensions. The average class attitude score towards economics as a subject was found out to be 3.72, towards economics as a subject as 3.75 and towards economics homework as 3.70.

Analysis of responses in percentage terms reveals that out of the 37 students, 30 (81.1%) had a positive attitude towards Economics as a subject, only 1 student (2.7%) and the remaining 6 students (16.2%) has a neutral and negative attitude respectively towards the same. With regard to attitude towards economics classroom, in the post test out of the 37 students, 32 students (86.5%) had a positive attitude and remaining 5 students (13.5%) had a negative attitude with respect to post test attitude towards economics homework, out of the 27 students, 29 students (78.4%) had a positive attitude, 2 students (5.4%) had a neutral opinion and 6 students (16.2%) continues to have a negative attitude.

In addition to the attitude scores, students now described their economics classroom as innovative, full of enjoyment and high on activity. They reported that they looked forward to the interactive sessions.

These findings indicate sharp shifts in attitudes of the students.

The t test

To see if the attitude scores differed significantly in the pre test and the post test, t test was employed. The t test was applied individually to the 3 sets of attitude scores. High t values in all the 3 cases revealed that there was a significant difference in the average attitude score of the students in the post test, confirming that the intervention did positively impact the students' attitude.

The rejection of the three null hypotheses indicates that students had a preference for experiential learning styles and enjoy learning from live experiences.

5. Findings, Conclusion and Scope for Future Research

Key findings of the study come from the previously states twin objectives of the study. As discussed in previous sections, a module was framed on one chapter 'People as a Resource' from the syllabus of class IX, which included activities to provide live experiences to the students. Before and after the module was taught to a set of 37 students, attitude tests were conducted to study the attitude of the students' towards Economics as a Subject, Economics Classroom and Economics Homework. These have been referred to as the Pre-test and the Post-test in the study. The entire data collected was tabulated, quantified and the results were interpreted in the 4th chapter. Emanate from the whole experience are some of the key findings which will be presented in this chapter. This section thus focuses on the key findings of the study conducted followed by the concluding

remarks, and finally provides suggestions for future research.

5.1 Key Findings

The key findings can be related directly to the research questions, as stated in the first section.

Space for experiential learning was created by developing an experiential learning module and teaching students through live experiences. Analysis of students' feedback in the previous section, yields that students described their holiday experiences as 'enjoyable', 'refreshing', 'motivating', 'exciting' and gave them a break from the routine holiday homework of writing answers or making bookmarks etc. In their experiential write ups students have written that this was their 'best holiday homework' and this was 'the best start to the new year'.

This implies that students did positively value the experiential tasks given to them during their winter holidays.

Besides their write ups, classroom environment was always marked with high level of motivation, excitement and zeal. Students were always excited to know what was coming up next for them in the interactive sessions.

Next, to study the attitudes of the students towards economics as a subject, economics classroom and economics homework, pre-tests and post-tests were conducted, wherein students had to fill up an attitude inventory.

In the pre-test, the class attitude towards all the three dimensions to teaching and learning was found out to be negative. The average class attitude score towards economics as a subject was 2.82, towards economics classroom was 2.53 and towards economics homework was 2.35. In addition to these attitude scores, in the descriptive answers in the pre-test, students described their economics class as full of boredom, non excitement, monotony etc. and thus even reported that economics subject was a burden for them. They reported that their homework only incorporated textbook questions and answers and encourage learning for reproduction in tests. Consequently, in all the three cases, attitude of majority of the students was skewed to the negative range.

In the post-test, students were required to fill up the same attitude inventory on the basis of classroom experiences in the interactive sessions and holiday tasks assigned to them. This time, calculations revealed a positive attitude of students towards all the three dimensions. The average class attitude score towards economics as a subject was found out to be 3.72, towards economics as a subject as 3.75 and towards economics homework as 3.70. This indicates sharp shifts in attitudes of the students. In addition to the attitude scores, students now described their economics classroom as innovative, full of enjoyment and high on activity.

To check if these difference in attitudes scores in the post test were significant or not, the t test was employed and the null hypothesis was rejected in all three cases. Rejection of the null hypothesis indicated that students attitude did change positively towards economics as a subject, economics classroom and economics homework. In other words, students did have a preference for experiential learning styles and enjoyed learning from experience.

In sum, the key findings indicate that not only is there space for experiential learning in an Indian Economics classroom, but once exposed to this learning style, students to tend to enjoy learning and take more interest and participate in classroom activities. They definitely prefer this learning style over the tradition chalk and talk or notes dictation methods.

5.2 Concluding Remarks

To conclude, it can be reiterated that there does exist immense space for experience based learning in Economics in the Indian context. It is also, safe to conclude that students' attitudes and perceptions are formed on the basis of how they are made to engage with the course content.

What is therefore required is, the willingness on the part of the teachers for a little hard work and preparation, coupled with a lot of creativity and enthusiasm, giving importance to the children and their learning. Focus should be giving such experiences that learning is a consequence of those experiences and not a conscious mental activity that requires a lot of effort and memorization on part of the student. The teacher must create a learning environment that encourages engagement and motivation of the learner.

Moreover, it is required that the resources, activities and tasks provided to the learner are in accordance with their interest level. It is importance to recognize that the activities and experiential learning tasks are not out of the way of the syllabus; they have to be related and integrated to the content as well as the life of the children.

Experience based learning not only makes learning more interesting to the learner, but also makes learning a more meaningful activity on one hand, an a time saving one on the other. Therefore, learning must be a natural consequence of experience.

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