

Sufiana K. Malik,  
Muhammad Ajmal Chaudry  
Pakistan

## Concept Building of Elementary Level through Activity-Based Instruction

### Abstract

The presented article was an attempt to explore the differential concept building by teaching students of the elementary level through activity-based instruction. An experiment was conducted in a public sector secondary school on students of grade 6 in teaching of social studies. The major finding of the current showed that concept building was made easier and understandable by teaching students with the use of activity-based instruction as compared to lecture-based instruction in teaching of social studies. It was further explored that the academic achievement of students taught with the use of activity-based instruction was significantly better than that of students taught with the use of lecture-based instruction. Therefore, it was suggested that the effects of activity-based instruction can be investigated by teaching other subjects using this method and teachers may be trained in how to teach their respective subjects with the use of the activity-based teaching method.

**Keywords:** *activity-based instruction, elementary level, students, social studies, concept understanding*

### Introduction

Teaching is a practical human activity in which two individuals are involved: the teacher and the learner, i.e., the senior (the teacher) and the junior (the learner/student). Certainly, it is an interaction between the teacher and the learner for the purpose of learning. In this interaction the teacher helps the learner in the learning process. The teacher selects a lot of learning experiences for the purpose of learners'

learning. In one lesson he/she may adopt more than one teaching method in order to enhance students' learning. It is the requirement of the education system that at different levels of education different subjects are taught. Some of them are core subjects whereas some are electives. Core subjects are common and essential for every student to study whereas in the elective subject system the student selects subjects according to his/her own needs and interests. At the elementary level social studies is one of the subjects that students have to study as a core subject and they have no choice to opt for it.

## **Teaching and Learning of Social Studies**

Teaching and learning are both active processes in which the teacher is functioning in order to present the content material in class, on the other hand, students are active as they have to incorporate new knowledge, behaviors, and skills the teacher presents and instructs in. Therefore, both entities interact with each other toward the attainment of their common goals of learning. Learning cannot happen in a passive environment since it is itself an active process. At the same time, learning through activity/by doing has a lasting effect on students and it is helpful in modifying students' thinking and behaviour. Learning is a process through which thinking and behaviour of individuals is changed in the desirable direction in order to achieve the national objectives of education and this learning can be conveniently achieved by teaching them by conducting practical activities.

Activity-based instruction is based on the philosophy of learning by doing. A popular Chinese proverb describes the theme of activity-based learning: "I hear, and I forget. I see, and I remember. I do, and I understand" (Confucius)

Janicki, Peterson (1980), and Swing conducted a study to investigate the naturally occurring aptitude-treatment interaction with three teaching approaches to social studies: lecture-recital, inquiry, and public issue discussion. The results of the experimenter-constructed test outcomes showed the lecture-recitation approach was superior. Different approaches were good for different abilities. (Source: [www.eric.ed.gov/ERICwebportal](http://www.eric.ed.gov/ERICwebportal) retrieved on March 20, 2010).

Dr. Bob Kizlikn ( 2009) claims that Social Studies that should be part of the curriculum for the purpose of helping students understand human interactions that occurred in the past, are occurring now, and are likely to occur in the future. The reason for this understanding is that they may help students develop and nurture values that will make it more likely for them to be able to determine what is the right thing for any situation and do it, especially when doing the right thing is hard.

One of the objectives of school is to make students productive members of society, to teach them to be responsible citizens of society, social values, and to make them adjust to the environment. For this purpose some specific subjects are taught at the school level. Among these subjects, social studies is the subject in which students learn about social values, their duties as responsible citizens and manners of living within society. The objectives of teaching social studies can be fully achieved if this subject is taught through students' active involvement in conducting practical activities because active participation in learning enhances its effectiveness in concept building. Social studies is a subject expected to cover the following topics/areas:

- Character education
- Law related education
- Current events
- Citizenship/civics education
- Values/Moral education
- Literacy and social studies
- Technology and social studies
- Humanities
- Student Service projects (social action) Global Education (reference: [www.csus.edu/](http://www.csus.edu/) retrieved on September 24, 2009).

Beeghly and Prudhoe (2002, p. 139) maintain that most social studies curricula are still influenced by an approach known as expanding environment. This suggests that young children need to first study topics with which they have personal connections with. Today leading social studies educators suggest that while the approach is still relevant, topics need to include a global perspective, so that early on children are cognizant of the wider world.

Zarillo (2000) suggests that primary children not only need to learn about houses found in their immediate environment, but also about those in the larger world and about different kinds of dwelling in the world and reasons for the differences.

Generally, a lecture is considered as the most classical and traditional method of instruction. The lecture method is considered as a traditional approach to teaching. According to Hunter (1982), lectures have a bad reputation; "Telling not teaching" as the saying goes.

Sharif Khan and Akbar (1997) are of the opinion that it is a very traditional method. Its history goes back to the period when there was no printing; knowledge was communicated by the teacher to the student orally.

Teaching social studies by relating text material to students' real life can enhance their concept understanding. Problem solving is one of the best methods used

in the teaching of social studies for developing thinking skills, problems solving skills and for imparting content related to students' real life. Students find solutions to problems posed by the teacher. They think, argue, discuss facts and concepts and come to solutions gradually by thinking out their various dimensions and systematically come to a conclusion. According to Nickerson (1994), there are three approaches to problem solving:

#### Polya's Four Steps

- Understand the problem
  - Devise a plan
  - Carry out the plan
  - Look back

#### Hayes' Six Steps

- Find the problem
- Represent the problem
- Plan the solution
- Carry out the plan
- Evaluate the solution
- Consolidate gains

#### Bransford and Stein's IDEAL

I=Identify the problem

D=Define and represent the problem

E=Explore possible strategies

A=Act on the strategies

L=Look back and evaluate the effects of your activities.

A field trip or field study is also a good instructional strategy where students learn the theoretical material in class and then they personally visit the place or the situation in the field, which is how their concept understanding is enhanced. Deutschman (1992) reports that field study is a planned learning experience which involves an educational trip to places where students can observe first hand and study directly in a real life setting.

Tuning Fork, Violin and Clarinet (2005) paper on Activity-based Teaching For Effective Learning, presented at the ITE Teacher Conference (2005), showed that learners participated actively in creating their own knowledge rather than being passive knowledge consumers. At the end of this interactive session, both the teacher and the students had a feeling of achievement and contentment. Incorporating activities in the lesson provided a hope in tackling practical problems by using one's own resources. A significant increase in the results was observed in terms of an increased understanding of the topic and improved interpersonal

skills. This approach was well appreciated by both the students and the staff, as the final result of teaching and learning was achieved.

## **Rationale**

Current methods of social studies teaching in Pakistan are mostly based on the talk and walk method, in which the teacher only tells students about some concept. He/she may read from the textbook or ask some student to read the passage from the textbook and at the end students may be asked to write down that lesson in their notebook as homework. In this way, the whole process of teaching and learning goes on until the book is finished and students have learnt orally some part of it for the purpose of passing an examination. It is observed that through the teaching of social studies the desired/set objectives for this subject at the elementary level are not being achieved through the talk and walk method of teaching. That is why desirable social changes that are expected from students are almost invisible in students. It has been observed in Pakistan that generally students of the elementary level do not take interest in the subject of social studies. It has been generally observed that it is common practice that social studies is a subject taught using the textbook reading method or through the lecture method. There is a need to teach social studies through activity teaching methods.

The researcher herself has more than twenty two years of experience in the field of teaching and educational administration. Her own experience in the teaching of social studies, her discussions with her teaching staff and an analysis of students' academic performance during various years in social studies, made her explore the reason why students' scores in social studies are low. For this purpose she planned to conduct a pilot study in order to give directions to her study according to students' needs and interests. Therefore, she directly approached a group of students of the 6<sup>th</sup> grade to find out the reasons for their low scores in social studies and to learn their views about the current teaching methods of social studies (SS) and the suggested methods/activities in the teaching of SS. At the end of a session with the students of the 6<sup>th</sup> grade she was able to give directions to her study and she decided to conduct experimental research in the subject of SS and explore the effectiveness of the traditional instruction and activity-based instruction with reference to students' academic performance in social studies at the elementary level.

The main purpose of social studies teaching is to promote the knowledge of the individual about himself, the country and the world around him, the significance of national problems, the development of social and moral consciousness and the

values that should lead to healthy living in an egalitarian society. Pakistan's national education policies, especially the national education policy, lay emphasis on character building and critical thinking development in students. This objective can be better achieved by teaching students with the use of different kinds of practical activities.

After going through the literature on social studies available in books and research reports, the researcher realized that no research has been conducted into this problem in Pakistan, therefore the researcher decided to conduct a research study to find out the effect of the activity teaching method on students' concept understanding.

### **Statement of Problem**

The research problem was to explore the effectiveness of the activity-based teaching method and the lecture teaching method in concept building understanding at the elementary level.

#### **Objectives of the Study**

The following were the objectives of the study:

1. to find out the effectiveness of the activity-based teaching method in concept understanding;
2. to measure differences in students' academic achievement in classes taught with the use of the activity-based method and the lecture method.

### **Hypotheses of the Study**

The following were the hypotheses of the study:

1. There is no difference in the concept understanding of students taught with the use of the activity-based and lecture teaching methods.
2. There is no difference in the academic achievement of students taught with the use of the activity-based and lecture teaching methods.

### **Delimitation of the Study**

The study was delimited to the:

1. assessment of the effectiveness of the activity-based teaching method;
2. female public sector elementary schools only;
3. female students in grade 6 in the sample institution
4. teaching of social studies for grade 6 only.
5. measuring differences in the achievement of students taught with the use of the activity-based and lecture teaching methods.
6. exploring differences in concept building of students taught with the use of the activity-based and lecture teaching methods.

### **Population of the Study**

All the students studying in the public sector institutions in grade 6 and the teachers teaching the 6<sup>th</sup> grade social studies subject were the population of the study.

### **Sample of the Study**

The sample for conducting the experiment for the study was selected randomly from students studying in grade six at a public sector girl secondary level school at Mianwali (Punjab, Pakistan). 50 female students studying in grade six were selected randomly from the sample institution in order to conduct the experiment.

Two elementary school teachers were randomly selected, who were teaching social studies to grade six. These teachers were selected on the equal basis of their academic B. A. professional qualifications C T (Certificate in Teaching) and 6–8 years of teaching experience.

### **Research Instrument of the Study**

The researcher developed a teacher-made test in order to collect data for the study. This test had two parts. One part was for measuring the students' achievement in the subject of social studies and the second part was for assessing the students' concept building ability in the subject of social studies taught with the use of the activity-based teaching method and the lecture method.

### **Validation of Research Instrument**

The teacher-made tests were developed by the researcher bearing in mind the objectives of the study. One was pretest and the other was posttest. Both tests were validated through experts' opinion and through try out. The team of experts from the National University of Modern Languages, Islamabad, examined the developed test. A try out was taken on a small number (10 students) not included in the sample for the study. Cronbach's alpha was .87. Some items in the tests were modified in the light of the experts' opinions and in the light of the test results. After the experts had validated them for the sample, they were administered to the target sample.

### **Procedure of the Study**

The study was experimental in nature. For achieving the objectives of the study a posttest control group design was adopted for conducting the experiment. For this purpose, 60 students were selected randomly from the students of grade 6 of a public sector secondary school. The selected students were divided into two

groups comprising 30 students in each. One group, who was to be taught with the use of the activity-based teaching method, was the experimental group, whereas the group that was to be taught with the use of the lecture method was the control group. The students were randomly assigned to the experimental and control groups. The teachers were randomly assigned to teach the experimental and control groups. The teacher who was to teach using the material designed by the researcher was trained in the teaching of that particular content by the researcher. For treatment purpose, the researcher designed activities for the content of chapter one and two of social studies for the 6<sup>th</sup> grade. These activities were designed according to the nature of the content. The following activities were included:

1. Mind mapping
2. Map reading
3. Problem solving
4. Multiple choice questions
5. Showing pictures related to content
6. Drawing
7. Presentations

## **Data Analysis and Results**

The data for Social Sciences (SPSS) were analyzed using Statistical Package; one sample t. test was applied for data analysis.

### **Results of Hypothesis 1**

There was no difference in the concept understanding of the students taught with the use of the activity-based and lecture teaching methods.

**Table 1.**

Group	N	Mean	df	t	Sig. (2-tailed)
Control group	30	47.10	29	24.541	.000
Experimental group	30	69.16	29	30.093	.000

Level of Significance = .05

### **Results and Interpretation**

Table 1 shows that the performance of the experimental group (activity-based teaching method) was significantly better than that of the control group (traditional

teaching method). The mean score of the experimental group was significantly higher (69.16) than the mean score of the control group (47.10). Hence, hypothesis 1 was rejected and it was concluded that the activity-based teaching method had a better impact on the students' concept understanding as compared to the traditional, lecture teaching method.

### Results of Hypothesis 2

There was no difference in the achievement of students taught with the use of the activity-based teaching and lecture methods.

**Table 2.**

Group	N	Mean	df	t	Sig. (2-tailed)
Control group	30	49.24	29	25.273	.000
Experimental group	30	64.09	29	29.104	.000

Level of Significance= .05

### Results and Interpretation

From data analysis it is evident that the performance of the experimental group (activity-based teaching method) was significantly better than that of the control group (lecture teaching method). Hence, hypothesis 2 was rejected and consequently it was concluded that the mean scores in the teacher-made achievement test were higher (64.09) in the experimental group than in the traditional group (49.24), which indicated that the activity-based teaching method had a better impact on the students' learning achievement in the subject of social studies as compared to the traditional group.

### Recommendations:

Bearing in mind the major findings of the presented study, the following recommendations are suggested for teachers and curriculum planners:

1. Learning becomes more effective and a playful activity when teachers involve students in practical learning activities, when the content is presented not orally, but is enriched by various types of learning activities. Active participation in learning activities enhances the effectiveness of the instruction method.
2. In the activity-based teaching method students actively participate and hence learn by doing and learning by doing enhances their understanding of concepts.

3. Students' involvement in classroom activities may raise students' interest in learning and it can further enhance their learning achievement.
4. It is apparent from the results of the presented study that the activity-based instruction method is more effective for concept understanding in the teaching of social studies. A further experiment can be conducted on the teaching of general science, mathematics, and English at the elementary level using the activity-based instruction method.
5. The same methods may be tried out for teaching of secondary level subjects and differences may be investigated.
6. Teacher training workshops and seminars may train teachers in how to teach in their respective subject areas through the activity-based instruction method. In addition, they may be encouraged to teach with the use of the activity-based instruction method by offering special incentives.
7. More research should be carried out to explore the effectiveness of the activity-based instruction method on students' motivation in learning, and developing the passion for team work in students.

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