

## **Impact of Discussion Method on Students Performance**

### **Dr Fazalur Rahman**

Lecturer

Department of Early Childhood Education & Elementary Teacher Education

Allama Iqbal Open University (AIOU)

Islamabad

E-mail: fazalaiou@yahoo.com

### **Jaddi khan khalil**

Senior English Teacher

Government Higher Secondary School No 4 Peshawar

### **Prof Dr Nabi Bux Jumani**

Professor, Department of Education, International Islamic University(IIU)

Islamabad

E-mail: nbjumani@yahoo.com

### **Dr Muhammad Ajmal**

Lecturer, Department of Distance, non formal & continuing Education

Allama Iqbal Open University (AIOU)

Islamabad

E-mail: drajmal@aiou.edu.pk

### **Dr Samina Malik**

Assistant Professor, International Islamic University(IIU)

Islamabad

### **Muhammad Sharif**

Principal

Oxford Model Public school Rawalpindi

Pakistan

### **Abstract**

*Teaching is an art of assisting students to learn. All good teaching is characterized by proper teaching method. This study was undertaken to investigate the effectiveness of teaching methods in the subject of social studies. The study was experimental in nature and a pretest/posttest control group design was used. The sample of the study consisted of 62 students of grade 10<sup>th</sup>. The students were grouped into control and experimental groups equally. Both groups were pre-tested. Two teaching methods (discussion and lecture method) were used in the study. The experimental group was taught with discussion method along with lecture while the control group was taught with lecture method only. Four lessons were selected in the subject of social studies. Duration of each period was 45 minutes. The experiment was continued for one month. Pretests and Posttests were developed for each topic. The results of pre-tests revealed that there was no significant difference in the performance of both groups. While the results of post-tests revealed that there was significant difference in the mean score of both experimental and control group. The results of the study indicated that mean score of the experimental group was higher than the control group. It was concluded that discussion method was more effective than lecture method. The study recommended that teachers may prefer discussion method in teaching of social studies.*

**Key words:** *Discussion method; lecture method, social studies; experimental study.*

### **Introduction**

Social studies are taught in Pakistani school under the title of Pakistan studies at secondary level. It is taught in schools as a compulsory subject from secondary level to degree level. However, it is taught under the title of social studies from class first to class eight. Almost all the universities are offering the subject at advance level. Pakistan is an ideological state. There is diversity in cultural, ethnic, and social aspects in various communities inhabiting the country. Pakistan studies is taught in our schools by different teaching methods such as lecture method, discussion method, text book method, project method, study tours, problem solving method, team teaching, inquiry approach etc. Lecture method is most widely used method whole discussion method has the potential to bring about a positive change in the teaching of Pakistan studies.

However, it is the teacher who selects the strategy according to the needs of students. Nayak & Singh (1997) described that a best scheme of education becomes a bad scheme if the teachers handling it are bad; even so a bad scheme can, in practice, be made a good one, if the teachers are good. Teaching methods are patterns of teacher behavior that occur either simultaneously or in sequence in a verified way. Choosing specific teaching methods that best achieves course objectives is one of the most important decisions a teacher faces. Knowing what methods are available and what objectives each method is best suited for, help teachers make this decision more easily. Most people, when asked about teaching methods, start by identifying two main types of instruction-lecture and discussion-which are on the opposite ends with many exciting possibilities in between. The coming paragraphs described both lecture and discussion methods in details: Joseph (1998, p. 5) says that lecture method is basically narration that will signify what we usually call explanation or description. A lecture is a narrative technique of delivering verbally a body of knowledge according to pre prepared scheme of action as cited by International Dictionary of Education (1991). According to it, in lecture method fact or principle is presented orally to groups of students who take notes, have little or no participation in learning, and experience passive rather than active learning.”

The lecture technique should not be confused with the supplying of information by the teacher. According to Walker (2002) there are three main reasons to use the lecture format:

1. To transmit information,
2. To create interest,
3. To promote understanding

According to Moore (1999) lecture can be used to effectively survey the structure of knowledge in a particular area as well as suggest the connection between cases and real decision-making, reaches students at an emotional level, and provides necessary motivation for learning difficult material.

Good lectures have certain qualities that determine the effectiveness of the method. Lectures can be good or bad depending on these qualities. The effectiveness of a method can be determined by studying the degree to which its objectives are achieved. IUB (2001) has described the following objectives of lectures:

1. Exercising/gaining control of the class
2. Highlighting major ideas
3. Setting the stage for forthcoming activities
4. Showing one's own interest for the subject
5. Providing a model of good communication skills.

There are different types of lecture method as described by Kumar (2003), GSU Master Teacher Program (2003) and Lieux (1997):

1. **The expository lecture:** It is what most students' think of when they hear that the teacher lectures a lot. The instructor does most of the talking and at times allows students to ask questions of clarification.
2. **Illustrated lecture:** It can take up different forms for example; transparencies, filmstrips, slides, projected and non-projected pictures, diagrams, maps, charts, and blackboard writings. These are meant to catch the attention of the learners and must be prepared carefully. They must be visible to the audience and the audience should know the relevance of the illustration. Illustration become part of the lecture when they are well planned well prepared and well presented.
3. **The Lecture – Recitation:** In this teacher does most of the talking, but often stops and asks students specific questions or requests students to read prepared material. In the lecture - recitation, the direction of interaction is either teacher to class, teacher to individual student, or individual student to teacher.
4. **Lecture-cum-Demonstration:** This type of teaching serves a positive purpose as the students' keen observation during demonstration enables them in comprehension. Demonstrations are often useful when concepts are being developed. It is helpful in teaching of skill-subjects, sciences and languages. Lecture cum demonstration is suited particularly to the students who have limited ability to think abstractly.
5. **The interactive lecture:** It encourages student-to-student interaction. In this the instructor begins with a 15 to 25 minute mini-lecture and then asks the students to form learning groups and complete an assignment based on the mini-lecture.
6. **Lecture cum buzz sessions:** In this process the whole class is divided into small groups (five to ten students) after the lecture is delivered. For few minutes (usually five minutes) buzz session is organized on particular aspect of the lecture. The groups, leaders then report back to the whole group. As the students are much involved, the content of the lecture become more meaningful to the students.

It is evident that lecture method is flexible because teacher can adopt themselves to the subject matter, achievement level of students, time limit, available apparatus and equipment in a very short period of time.

According to University of Pittsburgh (2006) a lecture can be an effective method for communicating theories, ideas, and facts to students. The primary aim of every lecturer should be to make sure that they communicate effectively with their students. In order to do so, a lecturer should try to achieve clarity of delivery, clarity of expression and clarity of structure.

Gage and Berliner (1988, p. 401) have referred the conclusion of (Bligh, 1972; Mckeachie, 1967; Mcleish, 1976; Verner&Dickson.1967) about lecture method suitability. These are briefly presented as follows:

- i. The basic purpose is to disseminate information
- ii. The material must be organized and presented in a particular way for a specific group.
- iii. It is necessary to arouse interest in the subject.
- iv. Students need to remember the material for a short time.
- v. It is necessary to provide an introduction or directions for learning task that is going to be taught through some other teaching method.

Teachers need to orient their students properly at the start of lecture. Such orientation is particularly important at the start of a course, module or series of lectures, when the students are meeting for the first time. Lecture method is based on certain psychological principles as quoted by (Walker, 2003).

1. The learner should meaningfully react to the stimuli of the teacher's teaching so that learning takes place.
2. The teacher should be aware of the needs of the learner.
3. Since attention span of students is not too long the teacher should keep up the interest by injecting humorous comments, modulating his voice, and summarizing the topic.
4. The teacher should have a realistic idea of his own teaching ability and the learning capacities of the students. Learning outcomes is essential for growth and progress in the lecturing process.
5. As it an auditory medium the concept is converted into mental pictures by the students and then understood. The teacher should take time to build these mental pictures, connecting the new concepts with the known, moving from simple to difficult ideas, banking on his communication ability.
6. The teacher uses an understandable language and it depends on factors such as difficulty level of vocabulary, right examples, fluency, pronunciation of words, rate of speaking etc.
7. The lecture method can be an effective method of instruction due to its versatility. It is virtually limitless in application, either to situation, subject matter, or student age and learning ability. At the same time it can be one of the least effective methods if improperly used. The lecture method is more effective when visual aids, models, or some form of group participation are used. Similarly the discussion along with learning material method when properly used can develop in the students' higher learning skills. It can give the students increased capability for generalization and transfer, a sense of the relevance of learning, and the ability to analyze, synthesize, and apply what is learned (Walker2003).

It can be summed up that teachers should focus on the desired learning outcome and make decisions about pacing and curriculum emphasis so that students may have every opportunity to learn. Teacher should use teaching methods that suit both the content and the students. A teacher may use a variety of teaching methods including discussion method. Discussion is a process whereby two or more people express, clarify and pool their knowledge, experiences, opinions, and feelings. On the other hand, Connie and Harold (1977) have quoted Abercrombie that through discussion certain areas of one's particular viewpoint are compared and contrasted with others.

The discussion class is intended to be a free give and take between teacher and students and among students on the current topic of concern in the course. It is characterized by probing questions from the teacher designed to elicit student interpretations, opinions, and questions. Petty and. Jenson (1980) have added that children learn to deal with facts through discussion method. Discussion is the thought of taking a problem and investigating all options with an ultimate objective to reach a mutual understanding of the problem. Teaching by discussion can be an effective mean of helping students apply abstract ideas and think critically about what they are learning. It is important to be clear about the objectives of holding the discussion and how it fits into the overall course. If possible, rearrange the seating to allow students to face one another and not make the teacher the focus of the group. If students need to prepare beforehand, provide them with appropriate materials and thought questions to guide their preparation and this was stressed by Edger and Stanley (1958) by saying that elaboration is essence of discussion.

Discussion is one of the most widely used and valuable method in the teaching of social studies. It represents a type of teamwork, based on the principle that the knowledge, ideas, and feelings of several members have great merit than those of a single individual. Lowman (1987) highlighted this view point that two types of teacher-student interchange are sometimes called discussion. In one, the teacher gives students an opportunity to clarify content or ask for opinions on related topic. In the other, the teacher asks questions requiring specific knowledge of course content. In a discussion class the students are actively involved in processing information and ideas. Since student-initiated questions are more common in discussion classes, their needs and interests are dealt with more readily and spontaneously than in other methods as pointed out by Gage and Berliner, (1988) that discussion is a forum in which students can practice expressing themselves clearly and accurately, hearing the variety of forms that expression of the same idea can take, and criticizing and evaluating successive approximations to an adequate statement.

Hyman (1980) highlighted that discussion is used to arrive at the solution of problems and is characteristics of democratic societies. It occurs in a group form and usually involves six to ten persons. These persons perform one of two roles: leader-moderator who is typically the teacher, and participant: typically the students. Participants use the time to communicate with each other. Another student follows the group leader addresses his/ her remark to the whole group and each group member has the right to speak. A group member communicates with other members in the group by speech, and by facial expressions, gestures and body movement. Other members receive his / her message by listening and by seeing the non-verbal signs. These processes of listening, speaking, and observing are the bases of discussion method (Vedanayagam, 1994). There are different types of discussion as mentioned by Jerolimek (1986):

**Round table discussion:** It involves small number of persons nearly three to eight. It needs a moderator to introduce the members of the discussion group, present the problem to be discussed and keep the discussion moving. The leader's role is one of guiding the group rather than one of dominating it. The responsibilities of a moderator included the introduction of the topic, keep the discussion moving, avoid having the group become sidetracked, avoid quibbling over irrelevancies, summarize and draw conclusions. While the responsibilities of members of the discussion group are to be well informed on the topic, speak informally while avoiding arguing and quibbling, stay with the topic under discussion, have sources of information available, back up statements with facts, and help the group summarize its conclusions. In this type the responsibilities of the audience (students) are to listen attentively, withhold questions until presentation is completed, ask for clarification of ideas, ask for evidence on questionable statements, confine remarks to the topic under discussion, and extend customary audience courtesies to members of the round table.

**Panel discussion:** A panel discussion is similar to a round table discussion in many ways, but different to exist. The responsibilities of the moderator are the same as in round table discussion. The procedure is more formal than that of the round table. It begins with a short statement by each discussion member. Panel is more audience oriented than round tables and each panelist is considered to be more or less an expert (Vedanayagam, 1994). It is summarized that there are certain objectives of the discussion as pointed out by Emmer, Evertson, Clements, and Worsham (1997). The major purpose of using discussion is to encourage students to evaluate events, topics, or results; to clarify the bases for their judgments; and to become aware of other points of view. Gage and Berliner (1988) also described the following objectives of discussion:

- Thinking critically
- Democratic skills
- Complex cognitive objectives
- Speaking ability
- Ability to participate
- Attitude change

It is responsibility of the teacher to encourage students to participate in discussion. There cannot be a single answer to the questions of what to do with child who dominates the discussion. But through careful and patient teaching, a teacher can bring the class to a point where they interact courteously with one another, without always agreeing with each other, and do so without raising their hands to speak. According to Emmer et.al (1997), "Giving students to paraphrase, clarify, and elaborate upon their own or other students' remark is a useful way to keep a discussion moving along and on target." Skills and attitudes may be stated as standards or guides that characterize harmonious, productive discussion. Therefore, one participating in a discussion should:

- a. Listen with attention when others are speaking. Remain objective, open-minded, respect and accept the contributions of others, but think independently.

Not dominate the discussion. Assume responsibility for contributing ideas and for moving the group toward its goal.

- b. Prepare adequately for the discussion and be able to support ideas with factual evidence. Speak loudly and clearly enough for all to hear. Not be offended when the group does not accept one's ideas or suggestions.
- c. Ask for clarification of ideas that are not understood. Have confidence in the ability of the group to come to a satisfactory decision and support the decision of the group once it has been made.

### **Teacher responsibilities or role in discussion**

The teacher must keep a balance between controlling the group and letting its members speak. The goal of a discussion is to get students to talk purposefully about the course material. Teacher's role becomes that of facilitator. He/she moderates the discussion rather than convey information. For a purposeful discussion, teacher should not do all the talking; or talk to one student at a time. It should be remembered that the discussion is not just a matter of teacher's communication with students; it is a chance for them to share ideas. Individual style will influence the amount of control a teacher will use, but in general the teacher's role in a discussion is not to dominate, but rather to get the discussion started, set goals, summarize, mediate, clarify, and allow all to be heard. The Pennsylvania State University (1996) has recommended some responsibilities of a teacher in discussion such as:

#### **Make sure that everyone has a chance to contribute**

It is emphasized that once a question is posed; teacher should wait long enough for someone to answer it. Teacher might occasionally try having students write down an answer first, which gives more reserved students a chance to think about their thoughts before speaking.

#### **Organize, summarize, and synthesize**

These help to structure the conclusions the class has reached and to keep them on track. A teacher should restate the correct portions of comments made by a student. He/she can show attention by building on a student's points, by withholding judgment until several student responses, or by listing the multiple responses on the board and asking the students to group them. At the end of the class, summarize the points they have made and connect them to the original questions posed at the beginning of the class. It allows students to come to their own conclusions, and to help structure and analyze them.

#### **Tolerate opposition**

If students are disagreeing in interpretation or conclusion, but are backing their arguments up, that's the nature of discussion. Sometimes, finding out what students are thinking and how they will respond to a given question is more important than momentary control. Discussion is a reflective, educative, and structured group conversation with students. It emphasizes social intercourse between familiar people; encouraging students to think critically and creatively at higher cognitive levels; requires that the discussion is organized and conducted by a leader. In discussion the teacher plays his role as a model, as an enquirer, as a listener, and as a questioner. On the other hand Stenhouse as cited by Entwistle et al (1990) presented role of a teacher in discussion as:

- ✓ Asking questions, presenting problems, and clarifying or asking group members to clarify what has been said
- ✓ Summarizing the main trends in discussion and keeping the discussion relevant and progressive
- ✓ Helping the group to use and build on each others ideas, and to decide on its priorities in discussion
- ✓ Through careful questioning helping the group towards a habit of reflection and self-criticism

It is also the responsibility of the teacher to encourage the passive member of the group to participate. Through careful teaching a teacher can bring the group to a point where they discuss with one another in a friendly environment without always agreeing or disagreeing with each other. But it requires a good teaching practice and a due course of time. Jarolimek (1986) has described the guidelines for effective discussion as given below:

- Participants should come prepared for the discussion session and should listen attentively when others are speaking
- Participants need to remain objective, open-minded, avoid getting emotional and should contribute their ideas.
- They should respect and accept the contributions of others but keep independent thinking. They should not be offended in case the group rejects their ideas.

- Participants should speak loudly and clearly and should ask for clarification of ideas that are not understood
- One member or group should not be allowed to dominate the discussion.
- The group should have confidence in their ability come to a satisfactory decision

Debates about whether discussion or lecture is the preferred method for teaching are a common feature in academic circles and are divided along disciplinary lines. Teachers in the applied physical sciences generally learn more heavily toward the lecture format while those in the humanities and some areas of the social sciences rely more on discussion. Here is a brief summary of the views and findings of different researchers about usefulness and limitations of both the methodologies: Lowman (1987) says that discussion is especially stimulating for students who speak, but thinking is also stimulated in those who merely listen to their classmates and consider what they might have said themselves. Thus discussion increases attention and motivation that ultimately enhance memory. Increased arousal and motivation are the essential ingredients for learning and are often more important for retention than intelligence.

Entwistle et al (1990) cited that Bligh concluded that discussion methods are more effective than didactic methods for stimulating thought, for personal social adjustment, and for changing attitudes, and are no worse than the lecture for effectively transmitting information. Mckeachie and kulik were of the opinion as cited by Gage and Berliner (1988) comparison with the lecture on measures of retention, higher level thinking, attitudes and motivation tended to favour the discussion method. However, some of the researchers were of the opinion that the question of lecture versus discussion, however, is actually less an issue of discipline or of class size than one of purpose. When the primary objective is to supply information, the lecture format is generally more effective. Conversely; discussion teaching is better suited when goals are oriented more toward changing behavior and acquiring new skills or approaches to problems (Moore (1999). He further elaborated that one aspect of the lecture method which causes some concern is that its effectiveness is dependent on the skills of the individual lecturer. The ability to organize and explain a topic does not come naturally except to a fortunate few individuals. Virtually everyone who has education will have encountered poor lecturers, and will have seen the damage that they can do to their students.

Similarly, Capon (2004) says that lecture method allow more material to be covered, in particular the multiple and varied exemplars that have been associated with superior acquisition and transfer. It is the most economical method of transmitting knowledge, but it does not necessarily hold the student's attention or permit active participation. However, lectures can be effective, if supported by texts and other references but it is significantly less common in primary and secondary schools. He opined that discussion sessions are more effective in stimulating the students' interests and assessing their understanding of the material. On the other hand, lectures also communicate the intrinsic interest of the subject matter. The speaker can convey personal enthusiasm in a way that no book or other media can. Enthusiasm stimulates interest and interested people tend to learn more. However, it may be kept in mind that only well prepared and well presented students welcome lectures. It cannot be used in teaching higher cognitive and effective processes such as attitude. As a means of teaching, it is suitable only for mature students and only in specific subjects. It can be used where the teacher does not require establishing each and every point in his lecture during instruction. But it is generally not suitable for younger students, as in teaching them the teacher must know that each point is understood before proceeding to the next.

Hussain (1994) quotes Bloom as the value of lecture method depends on the specific objective of the teacher. If the teacher wishes to communicate information, the lecture method is reasonably efficient, but if the teacher desires to develop the power of critical thinking, problem solving ability and attitudinal change, the discussion method is superior. Nacino, Oke, and Brown (1982) say that there are many studies which compare one general teaching method to another, but the results are so difficult to interpret that the evidence to date gives little or no encouragement to hope that there is a single, reliable, multipurpose approach which can be regarded as the best. Instead of searching for a single right way, we should therefore focus on the possibility of combining a variety of teaching methods to improve learning. Almost all classes require both the acquisition of skills and information as well as the opportunity to apply them, teachers, therefore, use a combination of both formats within the same course or even within the same class period in fact, many teachers use combined methods without realizing that they are doing so. Any adequate comparison between the lecture and the discussion methodologies necessarily requires a comparison of their underlying philosophies and effectiveness as put forwarded by Good and Brophy (1997) that assessment of students' factual knowledge is important, but if it is over emphasized in discussion, students may believe that the teacher is interested only in finding out who knows the answers. Thus, discussion becomes a fragmented ritual rather than a meaningful, enjoyable process.

If teaching effectiveness is viewed in terms of the teacher's ability to bring about desired student learning or educational outcomes, then two dimensions of teaching should be considered; i.e. teacher's ability to teach in a way in which learning is viewed by students as meaningful and significant, and teacher's ability to adjust teaching strategies according to the changes in the teaching and learning situation. Teachers need several different kinds of knowledge i.e. knowledge about the subject matter, knowledge about curriculum goals; knowledge about the challenges students are likely to encounter in learning these ideas; knowledge about how ideas can be represented effectively; and knowledge about how students' understanding can be assessed. The above discussion concludes that an important element is the ability and potential of the teacher, which should never be overlooked. This is the teacher who affects students learning as indicated by Haas (2002) who says that these characteristics may include teachers' knowledge, experience with teaching, rapport between teacher and student, and classroom management practices. Any of these teacher characteristics can enhance or detract students' learning.

Presently, there is no known single approach that can succeed with all kinds of students or all instructional goals. Teaching has to be approached in a variety of ways that facilitate learning or development. Teachers in the teaching of social studies at secondary level used different methods. These include lecture method, textbook method, discussion method, and study tour etc. The traditional methods are lecture method and book recitation method. The discussion method is now used by some teachers in teaching of social studies. However, some of the teachers use a combination of both lecture and discussion method. But a widely used method in social studies teaching is the discussion method. Teachers preferred this method in social studies at secondary level as it promotes positive attitude and develops interpersonal skills.

### **Research Design**

Nature of the study was experimental. This study used a pretest/posttest control group design that included the matching of participants prior to random assignment to control group or experimental group. A major strength of this design was to insure that the students' varying levels of pretreatment knowledge was evenly distributed between the two treatment groups, thus eliminating the possibility of placing more participants into one group who already possessed a higher (or lower) level of knowledge of the intended content. This was accomplished by first pre-testing all the participants, then pairing the two highest scoring participants, and randomly assigning one to the control group and the other to the experimental group. The next two highest scoring participants were then randomly assigned to one of the treatment groups, and so on.

R	C	O <sub>1</sub>		O <sub>2</sub>
R	E	O <sub>1</sub>	T	O <sub>2</sub>

Source: (Best & Kahn, 1993)

### **Objectives of the Study**

Main objective of the study was to assess the impact of discussion and lecture method in terms of students' performance in subject of social studies.

### **Research Hypothesis**

**Hypothesis:** Mean score of the students taught by discussion method is significantly higher than mean score of students taught by lecture method.

**Alternate Hypothesis:** Mean score of the students taught by lecture method is significantly higher than mean score of students taught by discussion method.

**Null Hypothesis:** There is no difference between the mean score of the students taught by discussion method and lecture method.

### **Procedure of the Study**

A great care was taken to manipulation and control of variables and to the observation and measurement of results. The study had three basic characteristics:

- 1) An independent variable was manipulated.
- 2) All other variables except the dependent variable were held constant.
- 3) The effect of the manipulation of the independent variable was observed.

The study was conducted in various stages. Following is the details of these stages:

#### **I.Preparation of Test Instrument**

It is worthy to mention that social studies are taught under the title of Pakistan studies at secondary level in Pakistan. Four academic achievement tests in social studies were prepared. These were objective type tests consisting of 15 multiple-choice items.

These tests were prepared with the help of supervisor and experts. These were prepared in the content area of social studies for secondary school students. It comprised of following four topics:

1. People and culture of Pakistan
2. Pakistan and world affairs
3. Pakistan's religious, cultural and economic relations with Muslim countries
4. Pakistan's role in regional and international organizations

Identical pretests and posttests were used in the study. The method was derived from Maney, Monthley, and Graham (2003) who used identical pretests and posttests while conducting a study on "Pre-service teachers' attitudes toward teaching health education". Similarly, Swaka (2002) while conducting study on strengthening emotional support services: training teachers of students with behavior disorders through use of PBIS administered identical tests to teachers at the beginning and at end of each day training. Pretests were constructed for following purposes:

- a) To determine the current level of students' knowledge in the selected content area of social studies.
- b) To prepare experimental and control groups on the basis of performance.

Whereas, the purpose of preparing post tests was to measure change in the performance of the two groups.

### ***Ii. Pilot test of Instrument***

During the instrument development phase, a pilot test was held with 45 students other than the sample. The aim of the test was to evaluate the content and format of instruments. Respondents involved in the pilot test provided feedback on the ease or difficulty of completing the items and their understanding of the instructions. From the pilot test the researcher got an idea about some of the items, which appeared to be difficult. The items reviewed with the help of supervisor and experts, on the pilot test to find out how well the respondents understood the questions being asked, problems experienced providing the answer, and suggestions for improvement. Results of the pilot test identified items that were unclear to respondents. It resulted in change/removal of a number of difficult/ambiguous items from the tests. The ambiguities of the test items, too easy or too difficult test items were eliminated from final versions of the tests.

#### **iii. Research Variables**

A description of research variables is presented as follows:

**1. Independent Variables:** Following were independent variables.

- a. Test given and feedback provided by teacher.
- b. Test given and feedback provided through self-assessment.

**2. Dependent Variables:** The dependent variable was the achievement of pupils at the end of period of experiment.

**3. Control Variables:** Following variables were held constant for the duration of the experiment

1. Length of class period (45 minutes)
2. Length of lesson
3. Classroom
4. Content and sequence of content
5. Lighting and ventilation

**4. Uncontrolled Variables:** These were variables that were not manipulated by the researcher. In this research, uncontrolled variables were:

- i. Age of students
- ii. Social status of the students
- iii. IQ of students
- iv. Study habits of students
- v. Previous achievements of students

#### **iv. Instructions to Experimental and Control Groups**

After the preparation of the test, the next task was to conduct the activities with both groups. The task was made possible with full cooperation of the class teacher with the researcher. The control group was taught by the class teacher using lecture method. The experimental group was taught through discussion method along with lecture. Discussion groups were important part of discussion. Six discussion groups were formulated. However, the guidelines were provided to each groups. Class teacher was advised to use clear language and encourage students to think critically. Similarly the students were given the following guidelines:

- a) Be patient and tolerant with other classmates.
- b) Not to hurry to respond each other question.

In the discussion the following pattern was adopted by the researcher:



**Before the Activity**

1. Introduce purpose of the class activity to students.
2. Describe the key feature of the lesson.
3. Show the type of learning material to students.

**During Discussion Activity**

1. Encourage students to be fully involved in the activity by asking questions occasionally and to test their comprehension of what is going on.
2. Elaborate the activity, when appropriate in order to help students understand concepts inherent in the lesson.
3. Encourage students to ask questions if they do not understand the topic of discussion.

**After Class Activity**

1. Help students to relate relevant ideas and to arrive to the final conclusions.
2. Discuss results.
3. Evaluate opinion and facts.
4. Encourage students to be prepared for the next activity.

**V.Duration of Teaching**

The students in the experimental group were taught two chapters in one month. Similarly the class teacher taught the control group for one month. The duration of each period was forty-five minutes. Both the groups were taught for a month. The duration of study was justified keeping in view a variety of studies previously conducted in various universities and research institutions. A number of studies conducted on the same pattern as by Bibi (2002), Ali (2000), Stacks and Boozer (1988), Christian (1997), Miller (1997), Aghazarian (1996), Kelly (1996), Thompson (1995), Blanchard (1993), Downs (1989), Gillis (1986), Ashley (1986), Nunley (1983) and similarly Galileo Dissertation Abstracts (2005) have presented abstracts from various studies using more or less same time duration.

**Sample of the study**

10<sup>th</sup> class was selected for the study. 62 students of grade 10 participated in the study. Equal numbers of students were placed in the control and experimental group.

**Data Analysis**

Identical pretests and posttests were used to test the achievement of students of experimental and control groups. Pretest was administered to sixty two students of grade 10<sup>th</sup>. Duration of the test was 15 minutes. All the students completed the test in the allotted time. The test collected was then scored and compiled. After treatment the posttests were administered to experimental and control groups under similar environmental conditions as were available for pretests. Both the groups completed the tests in the allotted time. Thus the score sheets of pretests and posttests were obtained for each group. These are presented in table 1 and 2 below.

**Findings of the Study****I.Results of Pre-tests**

Statistical analysis of the pretests revealed that there was no significant difference in the mean score of both experimental and control groups.

**ii.Results of Pre-tests**

Results of the post-tests indicated that there was a significant difference in the mean score of both groups.

**iii.Testing of research hypothesis**

t-test was performed to test the hypothesis of the study. Results concluded that the mean score of students taught by the discussion method was higher than the mean score of the students taught by the lecture method as indicated in table below:

**Table 3 Combined mean score of students**

Group	Combined mean	t- value
Experimental group	9.2	1.7(df 60) at p<0.01
Control group	8.1	

**Conclusions of the Study**

The study concluded that:

- There was no difference in the mean of both the experimental and control groups for pretests.
- There was significance difference in the average scores of both experimental group and control group in posttest 1.

- There was no significance difference in the average scores of both groups for experimental group and control group in posttest 2
- There was significance difference in the average scores of both groups in posttest 3.
- There was significance difference in the mean scores of both groups in posttest 4.

### **Discussion**

It is almost difficult to compare different methodologies. Similarly, comparison of lecture and discussion method is also a difficult task. The researchers divided on the notion which is more effective in what discipline and students. Every teaching method has its own characteristics, strengths, and limitations. The concern is not about deciding which instructional methodology is best, or with substituting one for another. The concern is about the merits of diversity, which seeks to enrich education rather than constrain it, through a search for an optimum way of doing diverse teaching. Some of the researchers were of the view that discussion is important to learning in all disciplines because it helps students' process information rather than simply receive it. Discussion differs from lecture in two ways:

- a. The students can be more active, and
- b. There can be more personal contact.

In discussion method group members have reciprocal influence over each other. The learning of one student is affected by the behavior of other students in the group. While lecture method is much less dependent on reciprocal influence among students to facilitate learning a question posed during lecture may stimulate students to think for a few second but a provocative question in a group discussion can stimulate thinking for several minutes (Penn state Teacher II, 2003). This study was undertaken to examine the impact of lecture and discussion method in the subject of social studies at secondary level. The design of the study was experimental in nature. Identical pretests and posttests were used in the study. Both experimental and control groups were taught for one month under the same conditions using different teaching methods.

The duration of study was justified keeping in view a variety of studies previously conducted in various universities such as Bibi (2002) ,Ali (2000), Stacks and Boozer (1988), Christian (1997), Miller (1997), Aghazarian (1996), Kelly (1996), Thompson (1995) , Blanchard (1993), Downs (1989), Gillis (1986), Ashley (1986), Nunley (1983) and similarly Galileo Dissertation Abstracts (2005) have presented abstracts from various studies using more or less same time duration. After treatment a test was administered to both groups. After obtaining data, hypothesis was tested. The results of the study revealed that the group taught with discussion method performed better than the control group which indicated the usefulness of discussion method in teaching of social studies at secondary level. However, there is a need to conduct more studies to further compare the lecture method and the discussion method. Further studies may also be conducted to examine gender differences and geographical differences among students of different age groups.

### **Recommendations**

1. In view of the effectiveness of discussion method in the teaching of social studies it may be tried out in other subjects and levels.
2. Further study may be conducted to examine gender differences and locality differences in the use of different teaching methods.

### **References**

- Allama Iqbal Open University (2002). Teaching strategies course code No.739. Author. Islamabad:
- Allama Iqbal Open University (1990). Tadrees-e-muthala-e- pakistan (course code517). Author.Islamabad:
- Ardalan, K. (2005). The lecture-versus-case controversy: its philosophical foundation. Southwestern Economic Review: Marist Collage. Retrieved April 2009 from <http://www.southwesternecorev/lecturecontroversy>.
- Best,J.W & Kahn, J.V. (1993). Research in education.(7<sup>th</sup> ed). Needham heights,MA: Allyn & Bacon
- Callahan, S. G., (1971). Successful teaching in secondary schools. Illinois: Scott, Foresman.
- Capon, N. & Kuhn D., (2004). What's so good about problem-based learning. *Cognition and instruction*, 22(1), 61–79.Lawrence Erlbaum.
- Center for Excellence in Learning and Teaching (1992). Lecture and discussion methods. The Pennsylvania State University. Retrieved November 25, 2009 from <http://www.psu.edu/celt.html>
- Dhand, H. (1990). Techniques of Teaching: New Delhi: Ashish publishing.
- Rahman, F.(2002). Effects of lesson planning on students performance in the subject of Mathematics at Secondary Level. Unpublished M.Ed thesis at Allama Iqbal Open University. Islamabad:
- Gage,N.L & Berlinar,C.D. (1988). Educational psychology. (4<sup>th</sup> ed). Boston: Houghton Mifflin.

- Gardiner, F.L., (2003). The Lecture System; The Lecture method-how effective. Retrieved January 2009 from <http://www.hi.si/~joner/eaps>
- Haas, M. S. (2002). The Influence of teaching methods on student achievement on Virginia's end of course standards of learning test for Algebra I. Dissertation submitted to the Faculty of the Virginia Polytechnic Institute and State University. Virginia:
- Husen,T & Postlethwaite,T.N.(1985). The international encyclopedia of education research & studies (vol 3&5). Oxford: Pergmon press.
- Hussain, S.S. (1994). Taleem-o-nisab aur tareeq-e-tadrees. Karachi: Rahbar Publisher.
- Hyman,R.T. (1980). Improving discussion leadership. NY: Teacher college Columbia university.
- IU Teaching Handbook. (2002). Teaching methods. Retrieved on 18<sup>th</sup> November 2009 from <http://www.indiana.edu/~teaching/handbook 2.html>
- IUB. (2001). Improving lecturing skills: Some insights from speech communication. Published by University office for learning resources. Retrieved on February 15, 2009 from [www.indiana.edu/~teaching/lectur.html](http://www.indiana.edu/~teaching/lectur.html)
- Khan, A.R., (1994). Tadrees-e- muthala-e –pakistan. Karachi: Azad Publishers.
- Kumar S., (2003). How we teach; an innovative method to enhance interaction during lecture sessions. American Physiological Society; 1043-4046/03 pp.27:20-25. Retrieved on February 15, 2009 from [www.advan.physiology.org](http://www.advan.physiology.org)
- Lawton, D. & Dafour, B. (1973). The New social studies: A Handbook for teachers in primary, secondary, and further education. London: Heinemann Educational Book.
- Lieux, E. M. (1997). A Comparative study of learning in lecture vs.problem-based format. A Newsletter of the center for teaching effectiveness; University of Delaware: Retrieved on February 10, 2009 from <http://www.udel.edu>
- Lindsay, V., Piper, K., & Wiseman, S. (2004). The Use of discussion in the secondary social studies classroom.. Wake Forest University.
- Lowman, J. (1987). Mastering the techniques of teaching. Lahore: Ferozsons.
- Moore, S. (1999). Cases Vs lectures: A Comparison of learning, outcomes in undergraduate principles of finance. Journal of Financial Education. Retrieved April 2009 from <http://www.journal/financialeducatio>
- N.W.F.P. Text Book Board Peshawar. (2003). Textbook of muthala-e-pakistan. Peshawar: Author.
- Northwest Central Regional Educational Laboratory. (2006). Effective teaching strategies. Retrieved on February 14, 2009 from [www.ncrel.org/sdrs/pathwayg.htm](http://www.ncrel.org/sdrs/pathwayg.htm)
- University of Pittsburgh. (2006). Developing and teaching a course: The lecture method. Faculty development service. Retrieved on February 14, 2009 from [www.pitt.edu/~ciddeweb/faculty](http://www.pitt.edu/~ciddeweb/faculty)
- Vedanayagam,E.G. (1994). Teaching technology for college teachers. New Delhi: Sterling publishers.
- Walker, G. H., (2003). Lecturing with style. The University of Tennessee. Chattanooga.

**Table1** : Mean score on pre-tests

Pre-test	<u>Experimental Group</u> (N=30)			<u>Control Group (N=30)</u>			<u>t-value</u>
	Mean	SD	Variance	Mean	SD	Variance	
1	6.2	2.1	4.3	6.2	2.2	4.9	<b>0.5</b>
2	6.4	1.6	2.4	6.5	1.6	2.7	<b>0.4</b>
3	6.4	1.6	2.7	6.9	1.8	3.1	<b>0.1</b>
4	6.0	1.3	1.7	6.6	1.8	3.1	<b>0.1</b>

**Table2** : Mean score on post-tests

Post-test	<u>Experimental Group</u> (N=30)			<u>Control Group</u> (N=30)			<u>t-value</u>
	Mean	SD	Variance	Mean	SD	Variance	
1	9.0	2.1	23.4	8.0	1.7	21.3	<b>2.0</b>
2	8.9	1.6	17.5	8.2	1.9	23.2	<b>1.7</b>
3	9.3	1.8	18.7	8.3	1.6	19.3	<b>2.1</b>
4	9.5	1.9	20.2	7.8	1.7	21.8	<b>3.7</b>