



RESEARCH PAPER

Effect of Activity-Based Teaching on Student Achievement at Elementary Level

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ABSTRACT

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In this research, the researcher explored the effects of activity-based teaching on students' achievement at the elementary level. The researcher further presented significant importance for teachers by knowing the effects activity-based teaching on students' achievement and highlighted the way forward in order to develop good interaction between the teacher and students on account of activity-based teaching. All elementary school students in public and private sectors of Tehsil Model Town at district Lahore were population of this study. The results of this research encourage teachers to adopt activity-based teaching in their classrooms to produce good result as well as to enhance creative aspect of experience. It also provides the solutions for eliminating the facility gap between public and private sector education system. The study concludes that students at elementary level in public and private sector education can easily achieve higher grades as well as higher order thinking through learning by activity teaching method.

Introduction

In Pakistan, learning is dependent on memorizing of facts (Bekirova et al., 2021). Unfortunately, science and other subjects, especially at the elementary level, are taught through lectures (Bakhru & Mehta, 2020). This condition leads to rote learning without thorough knowledge of scientific concepts, phenomena, and theories (Zhou & Luh, 2021). Researchers believe that if a teacher has few resources, they must use the traditional lecture technique (Rajabalee, Santally, & Rennie, 2020).

Boostrom (1991) states that more capable teachers who can embrace lecture style cannot be expected to follow activity-oriented education so quickly. It is due to teachers' confusion, lack of resources, material management issues, discomfort, lack of time, insufficient experience with experiential approaches to science instruction, and reliance on textbooks (Dzulkifli et al., 2021).

There are a variety of activity-based teaching strategies. This learning should be based on experiments or exercises (Mustapha et al., 2021). Long-term learning occurs when learners are allowed to think and solve problems independently (Kurniasih et

al., 2021). It is vital to note that activity-based teaching is learner-centered and promotes self-learning. As well as studying at one's own pace (Bazarian et al., 2021).

Students can actively tackle problems via activity-based instruction. A creative aspect is enhanced. It also helps learning. This learning style utilize all resources. It gives pupils a variety of experiences to help them gain information, skills, and values (Pulling Kuhn et al., 2021). It boosts kids' self-esteem and helps them understand concepts. It promotes good relationships and interest. An activity is said to be a child's language. It works in all topics and Social interaction allows us to meet new people (Berkowitz & Bier, 2004).

Literature Review

Teach through activities is useful in all disciplines. Lesson learning by doing helps to improve comprehension. Activity-based ethics usually form. It boosts a kid's self-esteem. It allows for solo and group work (Arioder et al., 2020). Using their creativity, expertise, and minds to solve challenges inspires children. The activity-based method is a learned-centered approach. Activities-based teaching enhances social skills by allowing students to work cooperatively and jointly. It fosters creativity in people (Metin, 2020). It promotes work-life balance and Utilizes kid-friendly educational tools (Camargo et al., 2020; Faikhamta, 2018; Chauca et al., 2021).

Children are active rather than passive learners. To begin, activity-based teaching simply means that the child participates in his own education and learns by doing. Tools including three- dimensional models, experiments, puzzles, flash cards, and role play approaches are utilized to engage the youngster. The level and subjects vary with grade, and the learning is based on the child's participation.

A teacher uses the activity method to emphasize his or her teaching style through activities in which students actively participate and learn. It is child-centered. It is an approach that involves the child cognitively and physically. This method emphasizes learning through doing. As it is well known, the more the senses are aroused, the more a person learns and retains (Martella et al., 2020).

Meaning of Activity

- The state of being active.
- Any specific behavior or action of a particular kind.
- A thing that a person or group is doing or has done.
- An educational task that involves direct experience and participation of students.
- A specific pursuit or deed in which a person participates.

Meaning of Activity Based Teaching

- An activity or activities used in an educational process to make students learn.
- Learning through and from activities.

- Activity based learning means that the teacher incorporates activities of some type in teaching to make students learn.
- Using an activity or activities as a base for learning.

History of Activity Based Teaching

- ABT started some time during world war II
- David Horsburgh is considered as the pioneer of ABT system.
- He opened a school called NEEL BAGH in Kolar.
- School has a diverse Curriculum which included music, carpentry, sewing, gardening, as well as school subjects.
- Teaching materials were systematically planned with different teaching activities.

Teachers' Pedagogies and Methods: Pedagogy, or teaching science, includes instructional methods, tools, and learning activities. Pedagogical techniques have recently changed dramatically, just as national policy and initiatives have been regularly reviewed to better educational services for children. Traditionally, lecturing was used at all levels of education, with teachers as information providers and students as passive recipients. The main teaching aids were textbooks created for specific age groups and subjects (Celestine, 2021). Reading and writing from the textbook or blackboard were significant learning activities. Alternatives to the lecture technique include cooperative learning. Understanding the learning processes of the developing brain and the demands of the growing kid can lead to effective educational techniques (Beisbier & Laverdure, 2020). Many educators have raised concerns about our educational system's quality (Landmann et al., 2021; Garrett., 2008; Flamand, 2021; Corbin, 2008).

Poor infrastructure and disrespect for the child's school time. Our instructional theories must also evolve. According to Girgin & Ramo (2020), current teaching techniques foster a status quo among the younger population. A shift from conformist to critical pedagogy is required to transform education into a social change agent.

Similarly, activity-based teaching (also known as activity-based teaching) is another strategy for teaching elementary pupils. David Horsburgh, an Englishman, used this strategy. This strategy made students active learners rather than passive ones. Each subject theme should have activities and experiments (Hafezi, 2021). The exercise should fit the students' age and the subject's concept. The activity shouldn't distract the child from learning. This practice promotes learning and self-reliance in students.

Encouraging children to use and appreciate mathematics is made possible by using activities in the classroom (Hasnine et al., 2021; Laverdure, & Beisbier, Landmann 2020). Students actively participate in learning as long as the topic and teaching methods are enjoyable. Thus, using teaching activities in the classroom is important for learning. Class activities can help make learning permanent, create favorable attitudes towards the class, and generate interest in the class. It has been proven that activity-based teaching increases academic achievement and improves math attitudes (Iqbal et al., 2021).

Research Design

The study design is descriptive survey research. The researcher utilized the survey method for this research because: Large amounts of data can be obtained quickly and cheaply from large numbers of people. It can be done by the researcher or anyone else with minimal impact on validity and reliability. The results of the questionnaires may typically be readily quantified by a researcher or by software. Less subjective than other sorts of study. Quantified data can be used to compare other research and assess change. Data may be utilized to build new ideas or test existing assumptions, say positivists. Surveys are reasonably priced. Surveys can describe a huge population's characteristics. No other research approach can provide such a vast sample to draw findings and make critical judgments.

Study Population

All elementary school students' in public and private sectors of Tehsil Model Town at district Lahore were population of this research.

Sampling

Students from elementary schools were chosen as a suitable sample. Initially, four public elementary schools (2 boys, 2 girls) were chosen. In the second step, four private schools were chosen. In the third stage, 25 pupils from each school were chosen. So, the researcher chose 100 students from public and private elementary schools.

Measurement

The study's main goal was to assess the impact of activity-based teaching on elementary students' achievement. A survey questionnaire was designed after evaluating relevant literature. The first section of the survey contained demographic data (School name, Gender and Locale) and in the second section of the survey, students were asked closed-ended questions about the impact of activity-based teaching on their accomplishment. Questions were 3-point Likert scales from No (1) Neutral (2) and Yes (3). This questionnaire was used to gather data for this study.

Instrument Validation

Instrument reliability and validity were tested. To test the instrument's dependability, 20 students (10 boys, 10 girls) were chosen at random. Cronbach's Alpha was used to assess the instrument's reliability.

Data Capture

The researcher visited chosen public and private schools in Tehsil Model Town Lahore. Then presented the department's authorization letter to every school to collect data. After getting approval from the school principal, the researcher collected student responses.

Data Analysis

The respondents were asked to rate each statement on a 3-point Likert scale. The responses were numbered as follows No=1, Neutral=2, Yes=3, for data analysis SPSS version 23.0 was used. T-test, frequencies, percentage, standard deviation and Mean scores were applied for analysis

Results and Discussion**Table 1**
Reliability of the Instrument

Cronbach's Alpha	N of Items
.852	27

Table no 1 shows the reliability statistics of instrument that was .852, which consider very is very good reliability for any instrument.

Table 2
School Names of the Study

Schools	Frequency	Percent
Public sector boys 1	25	12.5
Public sector boys 2	25	12.5
Public sector girls 1	25	12.5
Public sector girls 2	25	12.5
Private sector boys 1	25	12.5
Private sector boys 2	25	12.5
Private sector girls 1	25	12.5
Private sector girls 2	25	12.5

Table no 2 shows that every school frequency which were 25 and percentage of every school which were 12.5% of each in sample of this study.

Table 3
School Types

	Frequency	Percentage
Public School	100	50
Private School	100	50
Total	200	100

Table no 3 shows school types of this study. Table shows that 100 students were taken from public sector elementary schools and 100 students were taken from private sector elementary schools.

Table 4
Gender of Respondents

	Frequency	Percentage
Male	100	50
Female	100	50
Total	200	100

Table no 4 shows gender of respondents. 100 male and 100 female respondents participated in this study.

Table 5
I feel comfortable with teacher

Rating Scale	Frequency	Percent	Mean	S.D
No	48	24	2.270	.824
Neutral	50	25		
Yes	102	51		
Total	200	100		

Table no 5 shows that 24% students responded No, 25% were neutral and 51% students responded yes. Mean of this statement is 2.270 and standard deviation is .824. Hence majority of the students (51%) feel comfortable with teacher during different activities.

Table 6
Teacher behavior is friendly

Rating Scale	Frequency	Percent	Mean	S.D
No	32	16	2.410	.751
Neutral	54	27		
Yes	114	57		
Total	200	100		

Table no 6 shows that 16% students responded No, 27% were neutral and 57% students responded yes. Mean of this statement is 2.410 and standard deviation is .751. Hence majority of the students (57%) feel that teacher behavior is friendly during different activities.

Table 7
Teacher helps me to improve my work.

Rating Scale	Frequency	Percent	Mean	S.D
No	18	9	2.525	.656
Neutral	59	29		
Yes	123	61		
Total	200	100		

Table no 7 shows that 9% students responded No, 29% were neutral and 61% students responded yes. Mean of this statement is 2.525 and standard deviation is .656. Hence majority of the students (61%) feel that teacher help them to improve their work

Table 8
Teacher discovers when I need help and gives it to me

Rating Scale	Frequency	Percent	Mean	S.D
No	24	12	2.465	.700
Neutral	59	29		
Yes	117	58		
Total	200	100		

Table no 8 shows that 12% students responded No, 29% were neutral and 58% students responded yes. Mean of this statement is 2.456 and standard deviation is .700. Hence majority of the students (58%) responded that teacher discovers when students need help.

Table 9
Teacher starts each unit in an interesting way

Rating Scale	Frequency	Percent	Mean	S.D
No	32	16	2.395	.749
Neutral	57	28		
Yes	111	55		
Total	200	100		

Table no 9 shows that 16% students responded No, 28% were neutral and 55% students responded yes. Mean of this statement is 2.395 and standard deviation is .749. Hence majority of the students (55%) believe that teacher starts each unit in an interesting way.

Findings

- The results show that 24% of students say no, 25% say indifferent, and 51% say yes. So, in many activities, most students (51%) like the teacher.
- The results show that 16% of students chose no, 27% chose neutral, and 57% chose yes. Thus, most of pupils (57%) experience nice instructor behavior during various activities.
- The results show that only 9% of students chose no, 29% chose indifferent, and 61% chose yes. So most of pupils (61%) said teacher helped them to improve their work.
- The results show that 12% of students chose no, 29% chose neutral, and 58% chose yes. So majority of kids (58%) say teacher notices when they need aid during various tasks.
- In conclusion, 16% of students said no, 28% said neutral, and 55% said yes. Thus, most students (55%) say the teacher starts each course in an interesting way.

Considering the aforementioned, the following conversations were held to promote activity-based teaching among elementary students:

Because the government has more resources than the private sector, it should design adequate mechanisms to compete with private education systems.

The provincial government should set up district and tehsil level committees to monitor and manage the education system.

According to research comparing private and public kids, there is a large gap in terms of learning ability between the two groups.

The disparity in teaching methods between private and public schools is also highlighted.

Finally, compared to public education, innovative teaching approaches are used in private education to transform daily activities to enhance problem solving skill in pupils.

Conclusions

On the basis of findings and according to views of respondents the conclusion describes as follows.

Majority of the students' was agreed to all statements, which shows that activity based teaching effect on students' achievement. Students' learn more by activity based teaching rather than traditional teaching. Students' take higher grades through learning by activity method teaching. It is also shown in findings that activity based teaching increase confidence in students also make them able to handle daily life problems. It is also shown in findings that activity based teaching increase problem

solving skills in students and also generate problem solving skills as well as social skills also. To measure difference between male and female students' regarding effect of activity based teaching, an independent sample t-test was conducted. Findings revealed that there was no difference between male and female students. Both genders were taking same affect through activity based teaching.

Descriptive statistics shows that problem solving and social skills factor and my achievement factor have more mean score in measuring effect of activity based teaching on students' performance at elementary level rather than roll of teacher and activities in classroom, while use of technology factor take middle mean score which lying between other factors regarding their mean score in measuring effect of activity based teaching on students' performance at elementary level.

To check difference between public and private sector students' regarding effect of activity based teaching, an independent sample t-test was conducted. Findings revealed that there was significantly mean difference between public and private sector students, private sector students have more facilities in their schools so that's why they learn more by activity method and public sector students learn less through activity based teaching due to lack of facilities in their schools. And at the end to check difference between private and govt. school students' difference regarding effect of activity based teaching, an independent sample t-test was conducted. Findings revealed that there was significantly mean difference between private and govt. school students', private schools have more facilities for activity based teaching so that their students' perform well rather than govt. school students.

Recommendations

After concentrating upon finding and conclusion the researcher put forward the following recommendation to improve the effect of activity based teaching on students' achievement at elementary level.

1. Govt. should provide facilities like projector and multimedia etc to public sector schools as they provide in private sector schools.
2. Govt. should also provide facilities and different play tools to public sector schools for activity based teaching.
3. Govt. should develop some full of equipment's classrooms in every school of the state for activity based teaching, because this study revealed that how much activities affect positively on student's performances.
4. Govt. should develop their school's classrooms as private school's classrooms decorated, because due to availability of resources and equipment's private school students' perform better rather than govt. school students.
5. Teacher training programs should also be conducted so that teachers will be more professionals and will able to teach their students' by activity based methods rather than traditional teaching.
6. Students should also be encouraged by teachers to participate in different activities and teachers should make them able to participate actively in classroom activates.

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