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Effect of Activity Based Method on Student Academic Performance at Primary Level

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ABSTRACT

The present study was conducted to explore the effect of the activity-based method on students' academic performance at the primary level. The main objective of the study was to find out effect of activity-based method on student academic performance at primary level. The population of the study consisted of 15 students enrolled in Grade 4 at Boys High School Dana, District Sadhnoti, A.J.&K. The sample size was the same as the population, as all 15 students participated in the study. The research design was experimental and quantitative, and data were collected using a census sampling technique. A pre-test and post-test were conducted to measure the students' performance before and after applying the activity-based teaching method. The results showed that the post-test scores were higher than the pre-test scores, which means that the activity-based teaching method had a significant positive effect on students' academic performance in the English subject. The findings suggest that activity-based learning increases students' engagement, understanding, and retention of concepts, leading to improved academic achievement. It is recommended that teachers might be use activity-based methods such as group work, role play, and hands-on tasks to make English lessons more interesting and effective.

Keywords: *Activity-based learning, effective teaching, students, academic performance, teaching method.*

INTRODUCTION

Teaching and learning are two connected parts of education. Education plays a key role in giving learners the right kind of knowledge, helping them develop important skills and abilities needed for good jobs and a positive contribution to society. However, teachers are the main factor in achieving the benefits of activity-based teaching. They are central to the process of guiding students and setting high standards for them. To do this effectively, teachers must be well-qualified and have a strong understanding of their subject. They should share their knowledge in a clear, balanced, and creative way so that students can build understanding and develop critical thinking skills. As Ericksen (2004) stated, effective learning in

the classroom depends on the teacher's ability to keep students interested and motivated throughout the course.

Effective learning in the classroom plays an important role in keeping students motivated and interested in their studies. Teachers need to adjust their teaching methods according to students' changing needs so that learning becomes enjoyable and meaningful. One useful approach is Activity-Based Learning. According to Harfield et al. (2007), activity-based learning is a method in which students are actively involved in the learning process instead of just listening to lectures. In this approach, students take part in discussions, activities, and group work, which makes learning more engaging. Unlike traditional methods, activity-based learning focuses on student participation and cooperation in the classroom. These two features help create a positive and interactive learning environment. Grossman et al. (2003) also explain that activity-based learning helps students build mental understanding, which improves their ability to solve problems, apply knowledge, and transfer skills to new situations.

Activity-Based Learning helps in developing students' creative and critical thinking skills. However, this approach can only be effective when students are motivated to reach their full potential. The best way to teach complex ideas is through interactive activities that encourage student participation the main focus of activity-based learning. Engaging students in such activities strengthens their ability to think critically and creatively. According to Brame (2016), classroom activities play an important role in making learning more effective and meaningful. Activity based learning is based on the idea of constructivist learning, which means that students build new knowledge through their previous understanding and personal experiences. As explained by Anwer (2019), this method considers learning as a process influenced by both the learner's mental state and their social interactions. In an activity-based learning classroom, students are encouraged to share their experiences, which helps create a positive and cooperative learning environment. Compared to traditional teaching methods, this constructive approach makes learning deeper and more effective.

The activity-based teaching method helps change students' roles from being passive listeners to active participants in the learning process. It also supports the development of cognitive (thinking), affective (emotional), and psychomotor (practical) skills at the same time, enabling students to perform at higher levels. This method encourages a deeper understanding of concepts, as students see learning as a process of exploring and connecting ideas. According to Hartsburg, effective learning happens when the classroom environment supports active participation. Similarly, Petra explains that for teaching to be truly successful, students must be involved in meaningful activities that allow them to test theories and relate what they learn to real-life situations. Suharto adds that subjects like chemistry often involve abstract ideas, so teachers should make these concepts more concrete through hands-on experiments or practical work. Green (2024) also supports this idea, emphasizing that scientific activities help students better understand and apply what they learn.

One of the earliest uses of personality assessment was to predict students' academic performance. Webb (2004) introduced the idea of a "will factor," which he called w. Later, Spearman (1961) suggested that this factor worked alongside general intelligence, known as g, in influencing academic ability. Studies by Webb and other researchers, such as Flemming (1932), found a link between personality traits and academic achievement. However, early studies in this area faced many challenges, including inconsistent results and weak research methods. Harris (1940), in one of the first reviews, agreed that personality might affect academic performance but admitted that the available research did not provide strong evidence due to methodological flaws. Later, Stein (1963) highlighted that the wide range of theories and tools used made it difficult to compare studies. Similarly, Greenland and Margrain (2009) observed that while researchers had used creative methods, the overall results lacked consistency. Farsides and Woodfield (2003) also described the findings in this field as irregular and unreliable.

Two major developments in research methods helped change earlier views about the link between personality and academic performance. The first was the use of meta-analysis, which allows researchers to combine and analyze data from many past studies. The second was the acceptance of broad personality models, which made it easier to compare findings across different studies. One of the most influential of these models is the Five-Factor Model of personality. This model includes five key traits: Agreeableness (friendliness and cooperation), Conscientiousness (responsibility and motivation to achieve), Emotional Stability (calmness versus anxiety), Extraversion (energy and sociability), and Openness (creativity and curiosity). The strength of the FFM lies in its ability to organize and explain most aspects of personality using these five dimensions, bringing clarity to what was once a confusing mix of different personality measures (Vogeler et al., 2009). Barrick and Mount (1991) applied the Five-Factor Model in their meta-analysis, making it one of the first large-scale studies to examine how personality traits relate to job performance. Following their work, several other meta-analyses were conducted, including a major one by Barrick et al. (2001). These studies consistently showed that certain personality traits especially Conscientiousness are strongly linked to various aspects of workplace performance.

Statement of problem

Traditional teaching methods at the primary level often focus on rote learning, where students memorize information without fully understanding it. This approach limits students' interest, creativity, and ability to apply knowledge in real-life situations. In contrast, activity-based teaching encourages students to learn through practical experiences, participation, and interaction. However, in many primary schools, this method is not commonly used, and little research has been conducted to measure its actual effect on students' academic performance. Therefore, this study aims to fill this gap by examining the effect of activity-based teaching methods on students' academic performance at the primary level, to determine whether this approach can improve learning outcomes compared to traditional methods.

Objective of study

Following was the objective of the study:

- To find out effect of activity-based method on student academic performance at primary level.

Research Hypothesis

- H_o1: There is no effect of activity-based methods on student academic performance at primary level.

REVIEW OF RELATED LITERATURE

Activity-based teaching is based on the ideas of constructivism, which suggest that every learner builds his or her own knowledge through experience. Learning takes place when a person's mind interacts with new information and connects it with what they already (Abdelhamid, 2003) In this approach, students actively take part in classroom activities rather than only listening to the teacher. John Dewey's philosophy of *learning by doing* provides strong support for this method. Dewey believed that education should help learners discover and understand themselves through practical experiences. Activity-based teaching is considered one of the most effective methods in modern education because it emphasizes learning through action and experience. In this method, students use their senses to explore, observe, and understand the world around them. By engaging in activities, they learn through their own behavior and experiences, which helps them develop deeper understanding and independent thinking. As Rillero explained, "the best way to learn swimming is to get into the water." Similarly, (Bonwell & Eison,

1991a)stated that activity-based learning allows students to *do* things and reflect on what they are doing, making learning more meaningful and long-lasting.

In activity-based teaching, learners engage in meaningful tasks instead of only listening to lectures. They take part in discovering, processing, and applying new information through different classroom activities. This method encourages students to participate in discussions, reading, writing, and reflection on various academic topics and problems. The focus of activity-based teaching is to involve students in action. In this approach, teachers act as facilitators who guide and support students throughout the learning process. Different classroom activities are designed to help students become active participants rather than passive listeners (Bonwell & Eison, 1991b)

Research shows that traditional teaching methods and activity-based methods lead to very different outcomes. The activity-based method helps students gain new knowledge through hands-on experiences, experiments, and interactive classroom work. It increases students' participation, confidence, and motivation to learn. Students interact, share ideas, and discuss with each other, which improves their understanding. As Malik et al. noted, activity-based method is an effective approach to enhance students' general learning and science skills. Their findings also showed a positive relationship between the use of activity-based method and the improvement of students' academic performance.

Activity-based teaching is a learner-centered method in which students take an active role in their own learning. It promotes self-learning and helps develop higher-order thinking skills among students. The main aim of this approach is to improve students' participation in learning through practical experiences and meaningful activities. The present study reviews the background of activity-based teaching, examples of its application in classrooms, and the challenges faced in its implementation. The works of scholars such as John Dewey and David Kolb have greatly contributed to the development of this method, especially in early education. Activity-based teaching has been implemented through various techniques such as dramatization, games and quizzes, brainstorming, experimentation, concept mapping, group discussion, role play, and simulation. However, in developing countries like Pakistan, limited resources, lack of technology, and insufficient teacher training often create barriers to effective implementation.

According to (Singh et al., 2016) this method makes teaching easier and learning more concrete and meaningful. Many researchers have highlighted that activity-based learning techniques have a lasting and positive impact on students' understanding. Students who prefer active learning strategies are more engaged and perform better with activity-based methods than with traditional lecture-based approaches. Activity-based teaching creates a productive learning environment where students learn by doing, playing, and collaborating with others (Shaheen & Kayani, 2017a). From the above discussion, the significance of activity-based learning becomes clear. However, some important questions remain: What are the key theories that support activity-based teaching? Why do many schools still struggle to adopt this approach? And what barriers prevent its effective implementation in our classrooms?

John Dewey's Learning by Doing

John Dewey, a prominent educational philosopher, introduced the concept of learning by doing, which is also known as experiential learning (Griffin & Tversky, 1992). His theory emphasizes that real learning occurs when students are actively involved in meaningful experiences rather than passively receiving information. Dewey's ideas were strongly influenced by the pragmatic philosophy of William James (Ashraf et al., 2020).This pragmatic approach later evolved into what is now recognized as constructivism, a theory suggesting that learners construct their own understanding based on experience and reflection. Constructivist thought has played a major role in defining and expanding the idea of experiential education. Scholars have often debated the scope of experiential learning, and over time, the term has

come to include various related forms such as outdoor education, adventure education, environmental education, and challenge education (Mehmood & Kanwal, 2021). Despite their different contexts, all of these approaches share the same principle: students learn best through direct experience and active participation. This perspective supports a child-centered approach, where the learner takes an active role in constructing knowledge rather than simply memorizing information provided by the teacher.

Kolb's Experiential Learning Model

An ancient Chinese proverb says, "I hear, and I forget. I see, and I remember. I do, and I understand." This idea closely reflects the learning model developed by David Kolb. Building on Dewey's and Piaget's theories, Kolb proposed a four-stage model of experiential learning that describes how learners acquire and transform knowledge through experience (Roberts & Duong, 2014). The four stages are as follows:

1. **Concrete Experience**: Learning begins with a direct experience or by reinterpreting a past experience.
2. **Reflective Observation**: The learner reflects on the experience and identifies gaps or inconsistencies between what was expected and what occurred.
3. **Abstract Conceptualization**: Reflection leads to the formation of new ideas or the modification of existing concepts based on understanding.
4. **Active Experimentation**: Learners apply the new concepts to real-life situations to test their understanding and create new experiences. According to (McLeod et al., 2017)effective learning takes place when a learner moves through all four of these stages. Each stage builds upon the previous one, and none of them alone can produce deep or lasting learning. The cycle is continuous as each new experience leads to reflection, conceptualization, and further experimentation, learning becomes a dynamic and evolving process.

Application of Kolb's Theory in Activity-Based Teaching Method

Kolb's Experiential Learning Theory (ELT) provides a strong foundation for implementing activity-based teaching methods in classrooms. According to (Titterton et al., 2010) this approach engages students in structured activities where they are expected to apply their knowledge instead of passively listening to lectures. Activity-based teaching methods often integrate laboratory work, quizzes, reflective discussions, group projects, and self-assessment tasks. One of the most practical applications of Kolb's theory can be seen in Process-Oriented Guided Inquiry Learning (POGIL). POGIL is a structured teaching approach grounded in research and inquiry processes. It involves students working through three key stages:

1. Exploration: Learners analyze existing information or data and form assumptions based on what they already know.
2. Concept Invention: Students use exploration outcomes to construct new concepts and deepen their understanding.
3. Application: Learners apply their newly gained knowledge to unfamiliar situations or problems and verify their understanding.

Studies indicate that POGIL is particularly effective in science education because it encourages inquiry-based and skill-oriented learning (Dunlap et al., 2008).(Jullien & Kolb, 1984) emphasized that learning is a process of creating knowledge through the transformation of experience. He argued that each learner must progress through all four stages of the experiential learning cycle to achieve deep understanding. Kolb's model identifies four key learning variables: doing, watching, thinking, and feeling. Each of these corresponds to a stage of the Experiential Learning Cycle (ELC). Every learner has a preferred learning style, but to learn effectively, all four modes must interact dynamically (McLeod, 2017). Kolb's ELC thus

allows teachers to design diverse activities that address individual differences and promote active participation in learning.

Despite its usefulness, Kolb's theory has also faced criticism. While many educators and administrators recognize experiential learning as an effective and result-oriented approach, several scholars have questioned its theoretical and empirical foundations (Azam & Gubert, 2005). For example(Holman et al., 1997) criticized Kolb's model from a social perspective, arguing that it overemphasizes individual experience and neglects the broader social and contextual factors that influence learning. They suggested integrating emotional and social dimensions to balance its cognitive focus.

Another concern is the gap between the theoretical appeal of experiential learning and actual classroom practice. Although teachers frequently endorse student-centered learning theories, they often continue to use teacher-centered methods (Breunig, 2017).This inconsistency highlights a persistent divide between educational theory and instructional practice. Additionally, some researchers note that learning may not always follow a linear sequence, as proposed in Kolb's model. In reality, stages may overlap, repeat, or occur simultaneously depending on the learning context (Beard & Wilson, 2006).Despite these critiques, many scholars acknowledge the significant contributions of Kolb's theory to education. It provides a valuable framework for understanding how students acquire and apply knowledge through experience. Even though it cannot always be applied in a strict sequential order, Kolb's ELC remains a useful analytical tool for examining differences in learning styles and designing effective, hands-on classroom activities (Kulturel-Konak et al., 2011).(Svinicki & Dixon, 1987) also emphasized the practical relevance of Kolb's model in classroom settings. They suggested that teachers can align learning tasks with different stages of the cycle to enhance comprehension and engagement. Similarly, (Seman & Ahmad, 2019) identified a range of learning strategies compatible with Kolb's stages, noting their potential to strengthen active learning experiences.

Kolb's approach differs from other active learning methods such as laboratory-based instruction and POGIL, though all share a commitment to learner engagement. The primary distinction lies in Kolb's assertion that experience itself is the foundation of all learning, whereas other models may focus more narrowly on inquiry or experimentation.

Related studies

Many researchers have examined how activity-based teaching influences students' learning outcomes. Modern educational activities increasingly focus on making learners active participants in the classroom. This shift requires educators to understand how student engagement affects academic success and how to design experiences that encourage meaningful participation. For effective learning to occur, instructional approaches must be purposeful, goal-oriented, and clear in design.(Shaheen et al., 2019) highlighted that experiential learning encourages students to take responsibility for their learning, connect lessons to real-life contexts, and become more motivated and self-directed. Learners who engage in such experiences develop deeper understanding and become more capable of applying knowledge in practical situations.

Academic Performance

In education and higher education, academic performance is measured by how well students accomplish their learning objectives and demonstrate their knowledge, abilities, and abilities. Grades, test scores, class participation, and overall achievement are typically used to gauge it. Researchers consider academic performance as a key indicator of educational quality and student success (Ali et al., 2013). According to Kyoshaba (2009), academic performance shows the extent to which a student has attained specific learning objectives within a given period. It is influenced by both personal and environmental factors,

both internal and external. Good academic performance reflects effective teaching and learning processes, while poor performance may signal issues in motivation, resources, or teaching methods.

In Pakistan, the importance of activity-based and experiential learning has recently gained attention. Educational institutions and teacher education departments have begun to develop and adopt materials and strategies that promote hands-on and experience-based learning (Shaheen & Kayani, 2017b).As a result, the application of activity-based teaching methods is becoming more evident in classrooms, helping students develop both cognitive and practical skills in an engaging and meaningful way. (Hasan et al., 2017) measured students' academic performance using their Grade Point Average (GPA), as it reflects performance in a specific semester. Other researchers, such as (Hussain et al., 2017) used test scores or previous academic results to evaluate performance in particular subjects or academic years.

Various researchers have discussed multiple factors that influence students' academic achievement. These factors are generally divided into two categories: internal and external classroom factors, both of which play an important role in shaping students' performance. Internal classroom factors include students' English proficiency, class schedule, class size, quality of textbooks, test results, learning facilities, homework, classroom environment, course difficulty, teachers' role, use of technology, and examination systems. External classroom factors include extracurricular activities, family issues, financial problems, work responsibilities, and social challenges. Studies show that academic performance is influenced by several elements such as availability of learning resources, gender, and age differences (Hansen, 2000).(Idris et al., 2020) found that students' English language skills have the most significant positive impact on academic performance. Strong communication and English proficiency not only enhance student learning but also improve teaching effectiveness. Moreover, guidance and support from parents and teachers indirectly contribute to students' academic success (Hussain, 2006).

According to (Ayeni, 2011) teaching is a continuous process that involves bringing about desirable changes in learners through use of appropriate methods. (Adunola, 2011) indicated that in order to bring desirable changes in students, teaching methods used by educators should be best for the subject matter. Furthermore, (Modi et al., 2011) sustained that teaching methods work effectively mainly if they suit learners' needs since every learner interprets and responds to questions in a unique way (House-Peters et al., 2010). As such, alignment of teaching methods with students' needs and preferred learning influence students' academic attainments ((Zeeb, 2004).

- **Teacher-Centered Methods:** Under this method, students simply obtain information from the teacher without building their engagement level with the subject being taught (Wood, 1998). The approach is least practical, more theoretical and memorizing (Teo & Wong, 2000).It does not apply activity-based learning to encourage students to learn real life problems based on applied knowledge. Since the teacher controls the transmission and sharing of knowledge, the lecturer may attempt to maximize the delivery of information while minimizing time and effort. As a result, both interest and understanding of students may get lost. To address (Zakaria et al., 2010) specified that teaching should not merely focus on dispensing rules, definitions and procedures for students to memorize, but should also actively engage students as primary participants
  .
- **Student-Centered Method:** With the advent of the concept of discovery learning, many scholars today widely adopt more supple student-centered methods to enhance active learning (Greitzer, 2002). Most teachers today apply the student centered approach to promote interest, analytical research, critical thinking and enjoyment among students (Hesson & Shad, 2007).The teaching method is regarded more effective since it does not centralize the flow of knowledge from the lecturer to the student (Lindquist, 1995).The approach also motivates goal-orientated

behaviour among students, hence the method is very effective in improving student achievement (Slavin, 1996).

- **Teacher-Student Interactive Method**: This teaching method applies the strategies used by both teacher-centered and student-centered approaches. The subject information produced by the learners is remembered better than the same information presented to the learners by the lecturer (Ganyaupfu, 2013).The method encourages the students to search for relevant knowledge rather than the lecturer monopolizing the transmission of information to the learners. As such, research evidence on teaching approaches maintains that this teaching method is effective in improving students' academic performance (Damodharan & Rengarajan, 1999).

Related Studies

According to Farooq, (2011). The researchers selected a sample of 600 students from both public and private secondary schools in Lahore. Data were collected using a structured questionnaire that measured socio-economic background, parents' education, teachers' qualifications, and school facilities. The study revealed that students' academic performance is significantly influenced by parental education, family income, and learning environment at home and school. Students from well-educated families and supportive environments performed better academically. Teacher quality and school infrastructure were also found to have a positive effect on students' results. The researchers concluded that both home and school factors play an essential role in shaping students' academic outcomes. Improving teachers' skills, providing better school facilities, and encouraging parental involvement can enhance students' performance.

RESEARCH METHODOLOGY

This chapter explains the research methodology used in this study. It includes different sections such as the nature of the study, research design, population, sample, instrument, validity, pilot testing, reliability, data collection, and data analysis. The details of each part are given below:

Nature of the Study

The nature of this study was experimental. The researcher used a pre-test and post-test equivalent group design to measure the effect of the activity-based teaching method on students' academic performance.

Research Design

The following research design was used in the present study:

Research design

Group	Pre-test	Treatment	Post-test
Experimental	O1	X	O2

Population

The population of the study consisted of students from Grade 4 of Boys High School, Dana, District Sadhnoti.

Population of the study (student)

Sector	Students
Government school	15

Source: Boy's high school Dana.

Sample Size and Sampling Technique

The sample size for this study was 15 students, selected through an aptitude test. Two different tests were conducted for the selection process, and the subject teacher evaluated the students' performance. Based on their results, students were categorized as follows:
Excellent performance: 75% and above
Good performance: 60%–74%
Low performance: Below 59%
From each category, 5 students were selected and distributed equally for the pre-test and post-test groups. The convenience sampling technique was used to collect data for this study.

Research Instrument

Both pre-test and post-test were used as research instruments. Each test consisted of 30 questions from the selected subject to assess students' academic performance before and after the application of the activity-based teaching method.

Procedure for data collection

The following experimental procedure was assumed in this research:

Subject and place

The researcher had chosen the Boys high school Dana District Sadhnoti AJK for this experimental study. The subject English of grade 4^{th} for chosen for this experimental research.

Treatment

For performing the experiment following steps were adopted.

Daily Activity

The research teaching in selected class

Week one

Day 1

The researcher visited the school after permission of Headmistress and visited the class IV who were participates of experimental work. After an introduction a test (per-test) consisting 30 objectives were given to fifteen students to test out their previous knowledge. Duration of the test was 30 minutes. Later then completion the test, the test collected and checked.

Day 2

Entering the class

Dear student lets open your English book on first unit second paragraph topic sharing “iftare in Pakistan”.

Ali reads the paragraph: after reading the Paragraph now we start the activity.

Writing activity: write on shout paragraph on the of topic “spirit of Ramadan” all student give feed-back effectively and get good response.

Day 3

Entering the class:

Teachers enter in class. Students were asked to open their books and teacher announced topic and page no (1). Students were attentive and followed instruction accordingly. Teacher started reading loudly and students were listening.

Sharing lunch boxes Activity: dear student took open their lunch box and shared with other students.

The student learning this topic more effectively

Day 4

Enter the class and

Dear student let's open your English books first topic "spirit of Ramadan" on third paragraph. All students will listen carefully and Teacher will start reading third paragraph. The students listen carefully and understand the paragraph after reading and understand the topic.

Group discussion activity: let's divide students into four group and discourse about what the student understands the first to four paragraphs on this topic the spirit of Ramadan. (allow 5-7 minutes for group discussion)

Now let's hear from each group. One representative from each group will share their key point.

Day 5

Entering the class

Teacher entered the class. Students were asked to open their books and teacher announced topic and page no (2). Students were attentive and followed instruction accordingly. Teacher started reading loudly four paragraph and students were listening. After reading the teacher start activity

Reading activity:

Self-reading activity

Week 2

Day 1

Creative writing activating: Student writes an assay on "spirit of Ramada"

Dring the creative writing test.

Week 2

Day 2

Teacher entered the class. Students were asked to open their books and teacher announced topic and page no (2) lest paragraph on this chapter. Students were attentive and followed instruction accordingly. Teacher started reading loudly four paragraph and students were listening. After reading the teacher start activity

Group discussion activity: let's divide students into four group and discourse about what the student understands the topic "spirit of Ramada" (allow 5-7 minutes for group discussion)

Now let's hear from each group. Two representatives from each group will share their key point.

Group discussion picture

Week 2

Day 3

Teacher entered the class. Students were asked to open their books and teacher announced topic and page no (3) exercise on this chapter. Students were attentive and followed instruction accordingly. Teacher started to solve the first question. After solved first question teacher start activity.

Question solving activity: the teach distribute the question to all student to solve for question

Week 2

Day 4

Enter the class and

Dear student let's open your English books unite "Shandur polo festival" on first paragraph. All students will listen carefully and Teacher will start reading third paragraph. The student listens carefully and understands the paragraph after reading and understands the topic. Now start the activity.

Self-reading activity: students will read a paragraph and share what you took idea about the "Shandur polo festival".

Now let's hear from each student share ideas.

Outcome: students will gain foundational understanding of what the festival is and why it is celebrated.

Week 2

Day 5

Enter the class and

Dear student let's open your English books the second unite "Shandur polo festival" on second paragraph. All students' self-read on this paragraph and share what did you understand it this paragraph each student read carefully reading

Ideas sharing activity: each student effectively participates and share ideas what did they understand in this paragraph and other student listen and get information.

Week 2

Day 6

After the classes a test (post-test) consisting 30 objectives were given to fifteen students to test. Duration of the test was 30 minutes. later then completion the test, the test collected and checked.

During the Post-test

Data collection

Data was collected in shape of pre-test and post-test from both where primary school are used in two groups.

DATA ANALYSIS

For the present study, statistical package for social science (SPSS) was used to analyze the data. The T test was used for analyzing the data.

Analysis and interpretation of data

In a reach study analysis and interpretation of data plays an important function for the reason that at this step result is drawn from obtained data. Present unit is interrelated to the analysis and interpretation of data. Main aim of this research was to investigation and implement new methodology to improve English skills of grate-iv. For that reason, a test was designed by teacher, pre-test and post-test were implemented to evaluate and obtained data. For these reasons fifteen students were taken from government boy's high school Dana district pouch.

Mean difference of pre-test and post-test of activity-based method

		Mean	N	Std. Deviation
Pair 1	Pre-test	16.20	15	5.088
	Post-test	21.07	15	4.891

Table show that mean value of activity-based method at primary level. According to this table, mean value of pre-test was 16.20 while post-test mean value was 21.07. Post-test mean value 21.07 was better than pre-test mean value.

Paired sample t-test of activity-based teaching methods.

		Mean	Mean difference	T	Df	Sig
Pair 1	Pre-test	16.20	-4.867	-10.91	14	.000
	Post-test	21.07				

Table 4.2 shows the result of paired sample t-test and shows that the degree of freedom (df) was 14 and the p-value was .000. The pre-test value obtained data was (Mean16.20) while the post-test data was (Mean21.07), the t-value = -10.91 and level of significance is 0.05. The p-value shows that it is less than level of significance (.000<0.05). Therefore, null hypothesis H_{oi} was failed to accepted because there was significant difference between the mean score. In this technique per-test and post-test were not equal and there was a significant effect of activity-based method on student's academic performance.

DISCUSSION

This research was conducted to find out the effect of activity-based method on Student academic performance at primary level. The objective of the research was: To find out effect of activity-based method on student academic performance at primary level. After applying this, it was concluded that the activity-based teaching method significantly improved students' academic performance at the primary level. Engaging students in hands-on and participatory learning activities enhanced their understanding, interest, and knowledge retention. Several studies support the findings of this research. For example, Titterton, Lewis, and Clancy (2010) found that activity-based learning encourages students to actively

construct knowledge through participation and reflection, leading to better academic results. In a similar vein, Ali and Anwar (2018) reported that students taught using activity-based methods performed better and were more motivated than students taught using conventional lectures. In addition, Singh and Yadav (2020) came to the conclusion that students' conceptual understanding and long-term knowledge retention are enhanced when they participate in hands-on activities. Activity-based teaching positively influences students' learning outcomes, increases engagement, and fosters critical thinking skills at the primary level, according to these studies, which are consistent with the current findings.

CONCLUSION

It was concluded that activity-based teaching method had a positive and significant effect on students' academic performance at the primary level. The results indicate that students performed better after being taught through activity-based strategies compared to their performance before the intervention. This improvement shows that engaging students in hands-on and participatory learning experiences enhances their understanding, interest, and retention of knowledge. The reason for this improvement is that the activity-based method allows students to learn through practical experiences rather than passive listening. When students actively participate in learning activities, they become more involved, motivated, and confident in applying concepts. This method caters to different learning styles and helps in developing problem-solving and critical thinking skills, which ultimately lead to better academic outcomes.

RECOMMENDATIONS

On The Basis of This Study Following Recommendation Were Made

1. It is recommended that teachers at the primary level may be regularly use activity-based methods such as group work, role play, experiments, and hands-on tasks to make learning more engaging and effective.
2. Schools may be organizing professional development sessions and training workshops to equip teachers with the skills and techniques needed to design and implement activity-based lessons effectively.
3. Curriculum developers might be integrating activity-based learning strategies into lesson plans and textbooks to promote active participation and practical understanding among students.
4. Schools might be providing sufficient materials, teaching aids, and classroom space to support the use of interactive and activity-based learning methods.
5. Assessment methods may be move beyond rote memorization and include performance-based tasks, projects, and collaborative activities that reflect students' understanding and skills gained through active learning.
6. Teachers might be encouraging teamwork and peer learning, as working in groups allows students to share ideas, build communication skills, and strengthen their conceptual understanding.
7. Parents might be encouraged to support activity-based learning at home by providing opportunities for exploration, questioning, and problem-solving in daily life situations.

FUTURE RECOMMENDATIONS

1. Future research should include a larger number of participants from different schools and regions to increase the generalizability of the findings related to the effect of activity-based methods on students' academic performance.
2. Further studies can investigate the effectiveness of activity-based teaching in various subjects such as mathematics, science, and social studies to determine in which areas it produces the greatest improvement.

3. Researchers should examine the long-term effects of activity-based learning to see whether the improvement in students' performance and motivation is sustained over time.
4. Future studies may compare activity-based learning with other innovative approaches such as project-based learning, inquiry-based learning, or digital learning to identify the most effective strategies for primary education.
5. Research can explore how teachers' skills, training, and attitudes toward activity-based teaching influence its success in improving student outcomes.

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