

Effect of Activity Based Teaching on Public Sector College Students' Academic Achievement in the Subject of English



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Abstract: The study was aimed to find out the effect of activity-based teaching on students' academic achievement in the subject of English at grade XII. It carried a quasi-experimental Pre-test Post-test design. A public sector girls' college of district Lahore was selected as a cluster. Two intact groups were selected randomly. The experimental group was taught with the help of self-designed activities, and the control group was taught the same subject through the lecture method. Data was collected through an achievement test of English. Data were collected on a pre-test and post-test basis. Data were analyzed by using descriptive statistics and an independent sample t-test. The effect size was calculated through Cohen's *d* value of significance. It revealed that instructional activities had a significant effect on students' academic achievement in the subject of English at grade XII. English teachers are recommended to teach the subject of English with the help of activities to improve students' academic achievement.

Key Words: Academic Achievement, Activity-Based, English Language, Experimental Research

Introduction

An essential feature in correspondence in education is the two-way communication between teacher and student. Meaningful learning occurs when learners are actively involved and have the opportunity to take control of their own learning. This means that education should emphasize the active engagement of students in the learning process and the use of teaching strategies. Current learning theories emphasize the importance of learning by doing (Kahl, 2006). Teaching is a skilful activity, which is based on an interaction between the teacher and the learner. It applies knowledge and scientific principles for setting an environment to facilitate students' learning. Curzon (2004) describes that teaching involves the provision of those conditions that directly promote effective learning.

Teaching itself is a contested term but involves activities that evoke changes in the learner. Activity-based teaching consists of specific actions that take place within a lesson that physically endorse the act of setting or providing activities for learners to cognitively engage with new content or develop physical skills, such as experimentation, critical thinking, reading and writing (Bernstein, 2000). Activity-based teaching helps students to learn by

doing. This means that curriculum and teaching approaches should emphasize understanding rather than memorization. Activity-based teaching provides opportunities for in-depth study and allows students for a firm foundation of knowledge and conceptual development. Activity-based teaching enhances students' abilities to recognize and use meaningful patterns of information (Brookhart & Durkin, 2003). The learner-centred, dynamic and activity-based teaching has led to an alternative set of learning practices, which are different from traditional learning patterns or passive learning.

Activities adopted must be suitable to the age, mental ability, social norms and available resources in the environment. Activities must not be a burden to learning, and these activities must increase the eagerness and happiness in the students. Joyful learning will be important for the students. Keeping this in mind, activity-based teaching is very useful (Inekwe, 2002). If the activities are well selected, planned and organized in education, such activities will influence the student learning capacity and academic achievement.

Our common practices in colleges are to rush through the mandatory requirement of completing the

syllabus on time, frontal teaching with little emphasis on students' learning and their active participation in the process of learning ([Green, Legault & Pelletier, 2006](#)). Learning through rote memorization and reproduction with little understanding and without much assimilation of ideas and concepts is generally prevalent in the public sector colleges in Pakistan. In the given situation, teaching approaches are an alternative to improve the quality of teaching and learning. In the international context activity-based teaching method is praised, appreciated highly, especially for the modern times of teaching and learning ([David, 2007](#); Lea, Stephenson & Troy, 2008).

Language and other arts subjects have their own importance in life. Their achievement has also signed for the success of life. Their teaching needs to be assisted with activities suitable for their effective achievement ([David, 2007](#)). In the national curriculum (2006), teaching English as a language subject has been recommended to be assisted with activities for the development of different language competencies. Students are willingly and actively involved in any activity; it is a teaching style that is flexible and friendly ([Arends, 2012](#)). A democratic style and democratic ethics are prerequisites for an activity-based curriculum to become fruitful. If we discuss the purpose of such teaching styles, we come to know that these are healthy activities for an educator that can keep them engaged directly. It further helps them to draw the connection of the lecture with the activity and participate actively in the class. Some traditional forms of education often rely upon the educator as a knowledgeable expert who simply provides information to students ([Kumari, 2012](#)).

According to the Centre for Education and Innovation (2015), the key feature of the Activity Based Learning (ABL) method is that it uses child-friendly educational aids to foster self-learning and allows a child to study according to his or her aptitude and skill. ABL serves as one model of child-centred, child-friendly education.

Another definition by [Hansraj \(2017\)](#) has a more explicit definition of activity-based teaching and learning as it is learning, as the name suggests, a process where learners are actively engaged in the learning process, rather than passively absorbing lectures. It is based on the core premise that learning should be based on doing some hands-on experiments

and activities rather than just listening to lessons. Activity-based learning involves reading, writing, discussion, practical activities and engagement in solving problems, analysis, synthesis, and evaluation.

[Haq, Ahmed, and Bangash \(2016\)](#) have conducted a study in the context of Bangladesh in which they studied the impact of activity-based teaching on students' speaking skills in a classroom of elementary level. Prior to the study, they shared their observation regarding the lecture method that was in practice in the school. They stated children lacked concentration at the time when a teacher delivered the lecture. They took students' views later on as a part of their study project; they stated that the students were told that the information in the lecture was not informative. The second reason students shared was that the material presented by the teachers was not of any interest to them ([Eskola, Tossavainen, Bessems, & Marjorita Sormunen, 2018](#)).

[Fallon \(2013\)](#) have studied the behavior of 82 final year students for their final year thesis and project. They asked students first how they learnt in a group in their project activity-based learning environment, and the other was how much they were engaged in their projects. They exposed the student to activities like workshops, mind mapping, lectures, presentations etc., which proved very helpful, and they concluded in their research that students with activity-based learning methods became more aware of their research topics and purpose. Students found out new ways to discuss their findings and were able to make research effective from scratch.

Another shift in the traditional approaches to teaching language has been caused by more focus on the basic language skills, the listening and speaking skills in the target language, which are considered prior to reading and writing. One such example is the application of the natural method, the audio-lingual method and the communicative approaches to teaching language ([Kumari, 2012](#)). [Nunan \(2004\)](#) suggested three types of activities for teaching the four skills such as pre-listening activities, during listening activities and post-listening activities. All these activities have their own importance, and they should be conducted in a classroom on a weekly basis.

Learner-centred or activity-based teaching helps students in gathering, transforming and interpreting data or information. This ultimately improves students' academic achievement, which ensures their success in that subject. The present study was designed

to find out the effect of activity-based teaching on grade XII students' academic achievement in the subject of English.

Objective of the Study

1. Find out the effect of activity-based teaching on the grade XII students' academic achievement in the subject of English.

Hypotheses of the Study

- H₀1:** There is no statistically significant mean score difference between experimental and control groups' academic achievement in the subject of English at grade XII.

Methodology

An experimental study was conducted to investigate the effect of activity-based teaching on the public sector college students' academic achievement in English as a second language subject. Quasi-experimental nonequivalent Pre-test post-test group design was selected for the study. Both experimental and control groups were tested on the basis of pre-test and post-test. Pre-test and post-test scores of students' academic achievement on English as a second language were compared to find out the effect of activity-based teaching on grade XII students.

Sample of the Study

A multi-stage sampling technique was used to select samples for the study. At the first stage, a public sector degree college for women from district Lahore was selected as a cluster of the study. At the second stage, two intact groups of grade XII students were selected randomly. Both groups had an equal number of students, i.e. 35. To ensure equality of sample, both groups of the same discipline (pre-medical and pre-engineering) were selected. It was because colleges enrol students on the same criteria/merit for a discipline. One group was selected as experimental and the second as control by tossing a coin, and treatment was assigned randomly.

Instrumentation

Achievement Test of English (ATE) was developed as the instrument of the study for data collection. ATE consisted of 20 MCQs and 10 supply type short answer questions. A table of the specifications was developed

to ensure the validity of the test. All the six cognitive domains of Bloom's Taxonomy of educational objectives were covered in the test. The national curriculum for the subject of English was reviewed at grade XII. Content for ATE was selected from English textbook II for grade XII. The same content was intervened in the experimental and control groups. The validity of the test was ensured by the experts. Content and face validity was ensured through five experts. Three from educational research and evaluation and two from the college side teaching English as a second language. Their suggestions and recommendations were duly incorporated to make the test valid for the study.

Item analysis was run to ensure test validity. Item difficulty and item discrimination was assessed in the subject of English. Item analysis results of the English achievement test revealed item difficulty index ranged maximum .90 and minimum .62, whereas the item discrimination index ranged maximum .85 and minimum .7. All the items fall in between these indexed values. It shows that all the items have difficult moderate values and good discrimination power. Therefore, it is stated that the English achievement test is good in discrimination and moderate in difficulty. It contains easy well as difficult items, but the majority of the items fall in-between average. On the other hand, it is good to discriminate between low and high achievers. A pilot study was conducted on 20 students of grade XII other than selected as a sample of the study to find out the reliability of the tests. Cronbach Alpha value .75 was obtained for ATE. These reliability measures reflect that test was good for the accuracy of the measurement.

Intervention

The experimental group was taught English with the help of activities, and the control group was taught through lecture method and textbook reading method. This intervention period was of 16 weeks. Lessons were planned as per format. Intervention content for English subject was selected from English textbook II for grade XII, published by Punjab Curriculum and Textbook Board Lahore (PCTB). Both control and experimental groups were taught by the researcher herself. The activities selected for study include scrabble, completion exercises, summary writing, question answering and matching exercises, Making a list, Peer feedback, story-telling, role-play and presentations for the subject of English.

The intervention of the study was carried out according to the lesson plans. At the first step, the objectives of the lesson were written, and content was selected for presentation. In the second step, activities were arranged for the class. The third step was follow up. Students were assessed to know the success of activity-based teaching in the class. Students were also given homework activities to keep them engaged with the text. Activities were planned in the lessons, and the activities were content-oriented. Four or five activities were planned to cover one topic from the textbooks of English according to the nature of the text.

Lessons were validated by the experts. Three experts were consulted in this regard. One expert was from the field of research, and the other two were from the college side. They had more than 10 years of

teaching experience. Their valuable suggestions were incorporated, and lessons were improved.

Analysis of the Data

Data of the present study were collected through ATE on the basis of pre-test and post-test. Both experimental and control groups were pre-tested, and then post-test was conducted after the intervention of 16 weeks. Collected data was analyzed through an independent sample t-test. An Independent sample t-test was applied to compare the two independent groups' scores on the basis of pre-test and post-test scores. Cohen's d value was also calculated to find out the effect size to conceptualize the effect of activity-based teaching.

Descriptive Analysis of Comparative Mean Score

Table 1. Comparative Mean Analysis for Pre- Tests of Experimental and Control Group in English

Variable	Pre-Test	N	Mean	SD
English	Exp-Group	35	19.20	3.19
	Control Group	35	20.87.	3.33

Table 1 contains pre-test descriptive results of English experimental and control groups. The purpose was to know baseline performance before the start of the intervention. Firstly, the performance of the experimental group (M=19.20) and control group (M=20.87) was similar in the English subject. Therefore, it is concluded that groups in the subject of English seem to be equivalent at baseline performance

prior to the start of the intervention.

Hypothesis 1

H₀1: There is no statistically significant mean score difference between experimental and control groups' academic achievement in the subject of English at grade XII.

Table 2. Test Results for Independent Sample t-test for English Subject

Subject	Groups	Mean	SD	t-value	df	Sig. (2-tailed)	D
	Experimental PostTest	41.51	3.29	17.62	68	.000	.4
	Control PostTest	27.27	3.46				

Comparison of table 2 is between experimental and control groups on the basis of post-test scores in the subject of English. It shows that experimental group showed improved scores (mean = 41.51, SD = 3.29) than control group (mean = 27.27, SD = 3.46) mean difference remained 14.24, t value remained 17.62 and the p.<0.001. This improved performance of the experimental group is also supported with Cohens'

practical significance d value .4, which shows a moderate effect size of activity-based teaching in the subject of English at grade XII. So, statistical values gained through independent sample t-test failed to support the null hypothesis H₀1: There is no statistically significant mean score difference between experimental and control groups' academic achievement in the subject of English at grade XII and

accepted an alternate hypothesis H_A : There is statistical significant mean score difference between

experimental and control groups' academic achievement in the subject of English at grade XII.

Table 3. Independent Sample T-test Comparing Gain Score of Experimental and Control Group in the Subject of English

Variable	Mean Gain score	SD	t-value	Df	Sig. (2-tailed)
Experimental Group	22.31	4.43	14.45	68	.000
Control Group	6.40	4.77			

Table 3 shows statistics for independent sample tests comparing mean gain scores between experimental and control groups. Table 4.5 shows that experimental group showed improved academic achievement of English subject in post-test (Mean = 41.51, SD = 3.29) than pre-test (mean = 19.20, SD = 3.19). Statistical results show that activity-based teaching has a statistically significant effect on students' academic achievement in the subject of English $t(35) = 14.45$ and $p < .001$. Thus, it can be concluded that activity-based teaching is likely to enhance the academic achievement of college students in the subject of English.

Discussion

The objective of the study was to find out the effect of activity-based teaching on grade XII students' academic achievement in the subject of English. Data analysis revealed that there was a significant effect of activity-based teaching on grade XII students' academic achievement in the subject of English (table 1 and 2). The experimental group performed better in the post-test than the pre-test. This improved performance was due to teaching English subjects with the help of activities. This improvement was due to the intervention of activities for teaching English content. Similarly, summary writing, question answering, matching exercises, completion exercises, and scrabble improved students' scores in their post-test in the subject of English. The Control group could not show statistically significantly improved performance in post-test in the subject of English because it was taught with the help of the traditional method as lecture method and textbook reading. This method, as data revealed, did not have any effect on students' academic achievement in the subject of English at grade XII. So, the hypothesis, there is no statistically significant mean score difference between experimental and control groups' academic achievement in the subject of English at grade XII, was

rejected and an alternate hypothesis there is a statistically significant mean score difference between experimental and control groups' academic achievement in the subject of English at grade XII, was accepted for this objective of the study.

The above finding is consistent with [Akhlaq, Chisti and Iqbal \(2016\)](#). The study suggests that activity-based teaching is effective for the clearance of concepts and ideas of any subject. Previous studies also reported similar results. The key feature of the activity Based teaching and Learning (ABL) method is that it uses child-friendly educational aids to foster self-learning and allows a child to study according to his or her aptitude and skill. ABL serves as one model of child-centred and child-friendly education. [Awasthy \(2014\)](#) supported the idea of activity-based teaching at the college level. Many other studies also recommend the use of ABL in language teaching related subjects more often than not as language learning approaches such as communicative approach, audio-lingual and the direct approach all seem to recommend the activity-based teaching methods. Language, in its definition, is a vocal system, but it involves almost all senses to be equally functional; for example, tongue produces sounds, ear listen, and hands write. Therefore, to improve this major area of one's life, it is very important to introduce the methodologies of activity-based learning by engaging students in it. Activity-based learning helps students to absorb the meaning of languages and use it effectively and efficiently to convey their expressions.

Many research studies from different contexts found that the best teaching style has some element of activity-based learning. The results are obviously positive in terms of students' achievement and actual learning as depicted by teachers ([Patel, 2017](#)).

With regard to the implementation of the activity-based teaching method [Patel \(2017\)](#), in his study, states that activities are effective for teaching at all grade levels. In the Pakistani context, training teachers to make them prepared for such a change in

their perceptions and beliefs is the need of the hour. Specifically put, activity-based teaching, as defined and discussed in the above sections, are used in broader terms applicable to every grade and across subjects.

The activity-based teaching method is not only effective for students' achievements but also for the creation of a healthy environment in the classroom. The authors explained that whatever form of activities based approach takes, it can be beneficial at the classroom level for a healthy environment when implemented in true spirit. In this regard, it is important to have a healthy and creative learning environment for the implementation of activity-based teaching. This may be achieved when all elements of the whole teaching process are aligned if the objectives express the kinds of understanding that we want from students. Along with this, the teaching context should undertake the learning activities likely to achieve those understandings; the assessment tasks tell students what activities are required for them; and tell us how well the objectives have been met ([Inekwe, 2002](#)).

By studying the literature, the researcher found that activity-based teaching results were congruent. Almost all the research studies conducted across discipline and across grade levels showed results in favor of the activity-based teaching method ([Nunan, 2004](#)). It has great implications for the curricular and co-curricular activities used in the Pakistani education system. Literature suggests that in activity-based teaching, the curriculum is divided into sub-portions. Teachers normally design the activities themselves, or sometimes the coordinators issue them a planner in which the activities are properly planned according to

the units. Teachers put their maximum efforts in order to achieve the desired results, and in return, parents have appreciated this initiative ([Nunan, 2004](#)). Many research studies from different contexts found that the best teaching style has some element of activity-based learning. The results are obviously positive in terms of students' achievement and actual learning as depicted by teachers ([Patel, 2017](#)).

Recommendations

1. English teachers of grade XII are recommended to teach English subjects with the help of activities completion exercises, summary writing, question answering, and matching exercises.
2. Students of grade XII are recommended to use activities completion exercises, summary writing, question answering, and matching exercises for learning English subjects and improving their academic achievement.
3. Principals of higher secondary schools and colleges are recommended to guide their English teachers to teach English subjects with the help of activities completion exercises, summary writing, question answering, and matching exercises at grade XII.
4. Future researchers are recommended to conduct the study by selecting a sample from male colleges too for gender comparison.
5. Researchers are also recommended to conduct the study by taking private and public sector college samples.

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