

**RESEARCH PAPER****Effect of Lesson Planning on Academic Performance: Evidence from the Elementary Level Classroom****¹Sadia Khan*, ²Darakhshan Siraj and ³Zaeeda Ilyas**

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***Corresponding Author** khansadia527@gmail.com**ABSTRACT**

This study was conducted with the aim of investigating the effect of lesson planning on the performance of elementary school students. The research focused specifically on class 8th students in the subject of English. The chosen research design was experimental, employing pre-test post-test control group design. This design allowed for the measurement and observation of both the groups experimental and control before and after exposure to a treatment. The population of the study included all students enrolled at Government Girls Middle School Koteri Qandeel Bagh, Azad Jammu and Kashmir. A sample of forty students was selected for the study, with twenty students assigned to each of the two groups. The data collection process involved conducting pre and post-tests in the classroom, administered before and after the intervention. Data was analyzed using independent and paired sample t-test. The findings revealed a significant and positive effect of lesson planning on the academic performance of students. These results have important implications for educators, policymakers, and curriculum developers, emphasizing the critical role of effective lesson planning in enhancing students' academic achievements at the elementary level. By implementing well-structured and engaging lesson plans, educators can optimize teaching and learning experiences, leading to improved educational outcomes. The findings highlight the importance of incorporating comprehensive lesson planning strategies in curriculum design and instructional practices. Future research should further explore the long-term effects of lesson planning on academic performance, considering diverse subjects and student populations. By embracing evidence-based practices, educators can continue to enhance teaching methods and foster academic progress among elementary school students. This research study was conducted at Government Girls Middle School Tangyat district Bagh.

KEYWORDS Academic Performance, Effect, Elementary School Students, Experimental Design, Lesson Planning**Introduction**

Lesson planning is a fundamental process that lies at the heart of effective teaching and learning (Strong, 2021). It serves as a roadmap that guides educators in creating well-structured and engaging instructional experiences for students. The aim of lesson planning is to outline the objectives, content, activities, and assessments that align with educational goals and meet the diverse needs of learners (Clark & Yinger, 2007; Singh, 2007; Tomlinson & McTighe, 2006). Lesson planning serves as a crucial preliminary step before the commencement of the learning process. It aids teachers in organizing their instructional strategies, thereby avoiding potential pitfalls (Neisari & Heidari, 2014; Planet, 2015). An essential indicator of teacher competence lies in their

ability to proficiently prepare lesson plans. These plans hold significant importance in the learning process as they serve as guiding frameworks for teachers during each instructional session (Lineage & Bartlett, 2008; Sanjaya, 2016).

A comprehensive lesson plan typically includes several key components. Firstly, it delineates precise and quantifiable learning goals, clearly defining the anticipated achievements for students by lesson (Daniels, 2008). Secondly, it incorporates a detailed outline of the instructional content, resources, and materials to be used during the class. Thirdly, the plan includes various teaching strategies, activities, and assessments that align with the learning objectives and promote active student involvement (Woolfolk & Margetts, 2019; Hanane, 2016). Lastly, an effective lesson plan incorporates strategies for differentiation, catering to the diverse learning needs of students. The implementation of well-designed lesson plans has a profound impact on student learning outcomes. Research has shown that teachers who engage in systematic lesson planning experience improved student performance and achievement (Strong, 2021). Good lesson planning helps students retain information, develop critical thinking skills, and gain a deeper comprehension of the material (Tomlinson & McTighe, 2006). Furthermore, it creates a positive classroom environment that enhances student motivation and confidence, thus influencing their overall attitude towards learning (Liyanage & Bartlett, 2010; Woolfolk & Margetts, 2019). In conclusion, lesson planning plays a pivotal role in elevating the quality of education by helping teachers to deliver effective and engaging instruction (Daniels, 2008; Panasuk & Todd, 2005). It empowers educators to create purposeful learning that fulfill the needs of students, leading to improved academic performance and heightened student engagement (Strong, 2021). By prioritizing lesson planning, educators can nurture a culture of excellence in education, propelling students towards a journey of lifelong learning and success. For this reason, careful planning is essential to the learning process's effectiveness. A lesson plan's learning activities are typically broken down into three sections: the introduction, the core, and the conclusion (Fouryza et al., 2019; Kyriacou, 2018). The lesson plan's key ideas are these three items. According to Daniel (2011), lesson planning facilitates students' organised access to learning resources. It is a way to stop or lessen the occurrence of unneeded issues (Binkley, 2015; Jahjough, 2014).

Lesson planning, in the words of Rhalmi (2010), is providing teachers with specific instructions to follow throughout the day. With it, a teacher can effectively organize and save time. A teacher does not have to explain things in great detail because the lessons are well-organized. According to Jones and Zidenberg-Cherr (2015), while seasoned educators could have plans in their heads, novice instructors need to have a thorough written plan that outlines the material to be taught and its purpose. Despite the crucial role of lesson preparation in teaching, there is a dearth of research specifically focused on how it affects students' academic performance within the elementary school setting. Existing research provides insights into the significance of lesson planning and its relation to student outcomes in secondary and higher education. However, the unique learning needs, developmental characteristics, and educational contexts of primary school students warrant further investigation.

This study conducted to fill the gap by investigating the connection between lesson design and the academic achievements of elementary school pupils. By examining various aspects of lesson planning, such as instructional strategies, content organization, and differentiation techniques, the research seeks to advance our understanding of the factors that influence academic success in the elementary school environment. Through this study, we aspire to gain valuable insights into how effective lesson planning can enhance student learning outcomes in elementary schools.

Research Hypothesis

H₀₁. There is no significant difference between the academic performance of experimental and control group in pre test of elementary school students.

H₀₂. There is no significant difference between the academic performance of experimental and control group in post test of elementary school students.

H₀₃. There is no significant mean difference between performance of pre test and post test of experimental group of elementary school students.

Material and Methods

The study is quantitative in nature. A pre test-post test control group design was used. The observation is carried out twice in both the Pre-test and Post-test groups: once before and once after the treatment is administered. The diagram of the control group Pretest-Posttest design illustrates the sequence of measurements and treatment exposure in this study.

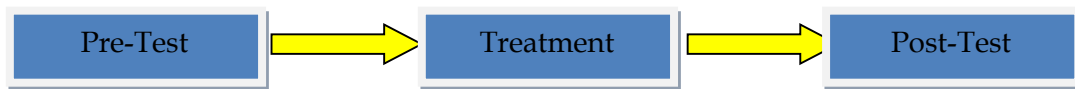


Figure 1: Sequence of Measurements and Treatment

The purpose of this experimental study is to find out the effectiveness of Lesson planning on student's academic achievement at elementary level. By administering a specific treatment, the effectiveness is evaluated. The significant differences that exist between the students who are taught using the lesson plans and those who are taught without it will serve as a measure of the effectiveness. At Government Girls School Koteri Qandeel Bagh, AJ&K, there were 40 students studying in class 8th. The afore mentioned school was selected for the study due to its spacious classrooms, various facilities, cooperative staff, administration, and notably, the researcher herself being a teacher at the school, making it an ideal research setting. The study comprised 20 students in the experimental group and 20 in the control group, determined by sorting participants into below average, average and above average based on self made tests. The researcher herself taught the same subjects to both groups.

Instrumentation

In this research, Arikunto (1997) defines an instrument as a necessary tool for data collection in research. Pre and Post tests were employed as data collection tools. The self develop pre and post test were used. Each test comprises of 50 MCQs based on the Bloom taxonomy of education objectives using the table of specification. The tests were developed from the text book of grade 8th.

Validity

Validation process was undertaken by a subject specialist, an M.Phil level English teacher with 10 years of teaching experience and two elementary-level English teachers having 10 years experience. To enhance the validity, the researcher made essential modifications to the pre-test and post-tests based on the experts' feedback and perceptions.

The pre and post-tests were modified in the following ways:

- a. The statement items' wording was improved.
- b. Troublesome interruptions were converted to simple words.
- c. The inquiries were built at three levels e.g., information, appreciation, and application

When determining whether a measuring test or research instrument is internally consistent, reliability is essential. Item analysis was conducted to find out the difficulty and discrimination power. SPSS-23 was used to calculate the reliability. Cronbach's Alpha was used to check the reliability of the Instrument. The value of Cronbach's Alpha was .789 which was significant.

Table 1
Reliability Statistics

Cronbach's Alpha	Number of Items
.789	25

Validity Threat

As indicated by Gay, Mills, and Airasian (2012), pre-test treatment interaction was acknowledged as a potential threat in this study. However, it is essential to note that the effect of pre-test treatment interaction diminishes over time, particularly for studies conducted over duration of two months or more. In the current research, the intervention spanned almost four months, which effectively minimized the threat of pre-test treatment interaction to the study's external validity.

Intervention

The intervention for the study titled "Effect of Lesson Planning on Academic Performance of Elementary School Students" involved the implementation of lesson planning techniques for one group of students (Experimental group) and the absence of lesson planning for another group (Control group). The study adopted a pre-test and post-test design to measure the academic performance of both groups before and after the intervention.

For the Experimental group, the researcher equipped herself with comprehensive lesson plans, encompassing well-structured instructional content, activities, and assessments, tailored to the specific needs of the students. The Researcher followed these lesson plans diligently throughout the study period.

On the other hand, for the Control group, the researcher conducted her regular teaching activities without utilizing any formal lesson planning. The students' academic performance was assessed based on their performance in standardized pre-tests and post-tests, conducted before and after the intervention. Below is the figure 1 show the lesson planning process

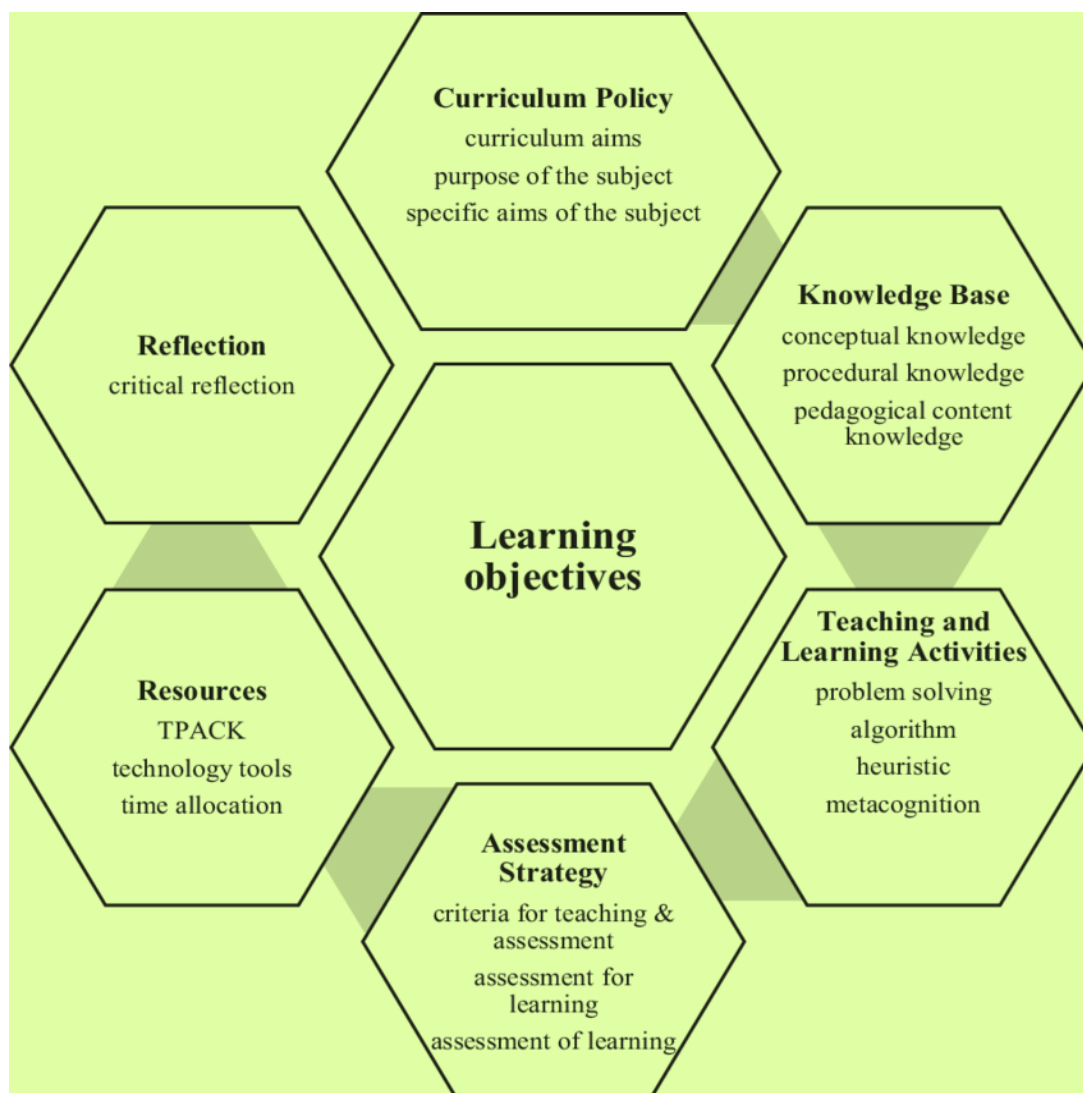


Figure: 2 Lesson planning model followed during the whole intervention period

Data Analysis

Current study was conducted to examine the effect of lesson planning on the academic performance of elementary school students by applying pre-test and post-test. Subsequently, an independent and paired sample t-test was employed to determine the difference between the experimental and control groups and within the experimental group.

Table 2
Results for the Difference in mean Scores of Academic Performance in pre-test

Groups	N	M	SD	<i>t-value</i>	<i>df</i>	<i>p-value</i>
Experimental Group	20	16.25	1.77	1.785	38	.075
Control Group	20	15.30	2.78			

The findings presented in Table 2 indicate that, on average there is no significant difference between the mean scores of the Experimental and Control groups. The experimental group's mean and standard deviation ($M=16.25$, $SD=1.77$) are very close to the control group's mean and standard deviation ($M=15.30$, $SD=2.78$). The $t(38) = 2.785$, $p > .05$. Therefore, the null hypothesis could not be rejected by the researcher.

The investigator concluded that there was not a significant distinction between the two groups' academic achievement.

Table 3
Results for the Difference in mean Scores of Academic Performance in post-test.

Groups	N	M	SD	t-value	df	p-value
Experimental Group	20	40.75	1.86	19.450	38	.000
Control Group	20	25.60	2.98			

The findings shown in Table 3 demonstrated that the experimental group's (M=40.75, SD=1.86) mean post-test score—the group that received instruction using lesson planning—was higher than the control group's mean score (M=25.60, SD=2.98). The results also showed that there was a statistically significant mean difference in post-test scores between the Experimental and Control groups ($t(38)=19.450, p<.05$). Therefore, the null hypothesis (H2) is rejected. Furthermore, the researcher came to the conclusion that students who received instruction using lesson planning generally outperformed students who received instruction from teachers using traditional teaching methods.

Table 4
Results for Mean Difference in Pre-test and Post-test Scores of experimental group

Academic Performance	N	M	SD	t-value	df	p-value
Pre Test	40	15.28	8.05	12.398	39	.000
Post Test	40	33.18	2.52			

The results presented above indicated that the mean pre-test scores for the group, which received instruction with the aid of lesson planning (M=15.28, SD=8.05), was less than the post-test mean score for the same group (M=33.18, SD=2.52). Furthermore, the analysis revealed that the difference in pre and post test was significant, $t(39) = 12.398, p < .05$. As a result, the null hypothesis (H3) is rejected. The researcher concluded that lesson planning significantly improved the performance of students.

Discussion

The pre-test mean scores of the experimental and control groups did not significantly differ from one another, according to the study. The control group's (M=15.30, SD=2.78) and experimental group's (M=16.25, SD=1.77) mean scores were nearly identical. The study discovered that the experimental group, which used lesson preparation, had a post-test mean score that was considerably higher than the control group's. The mean score for the experimental group was M=40.75, SD=1.86, whereas the mean score for the control group was M=25.60, SD=2.98. A significant difference was present between two groups and students taught with lesson planning performed better, on average, than those taught with conventional teaching practices. The findings of the current study align with previous research that has highlighted the positive impact of lesson planning on student academic achievement. Numerous studies (Panasuk and Todd, 2005; Liyanage and Bartlett, 2010; Stender, 2014) conducted worldwide have shown that effective lesson planning enhances learning outcomes and improves student performance. These studies have emphasized the importance of structured and organized instructional approaches, such as lesson planning, in promoting student engagement, understanding, and retention of academic content.

Prior research has also reported similar patterns of results regarding the comparison between experimental and control groups. Studies (Haynes, 2007; Woodward, 2004) have consistently demonstrated that students who receive instruction through well-designed lesson plans tend to outperform those who are taught using

conventional teaching practices. This indicates that the use of lesson planning strategies positively influences student learning and achievement. Moreover, the current study's findings regarding the significant improvement in academic performance within the experimental group from pre-test to post-test are in line with previous research. Previous studies (Singh, 2007; Hanane, 2016; Hillman and Ocampo Eibenschutz, 2018) have reported the effectiveness of lesson planning in enhancing student progress and academic growth over time. The current study's findings regarding the significant improvement in academic performance within the experimental group from pre-test to post-test are in line with previous research. Previous studies have reported the effectiveness of lesson planning in enhancing student progress and academic growth over time.

Conclusion

The study found no significant difference in pre-test academic performance between experimental and control groups. However, lesson planning in the experimental group resulted in significantly higher post-test performance and a significant improvement from pre-test to post-test, suggesting that lesson planning strategies effectively enhance student academic achievement.

Recommendations

Based on the above conclusions the following recommendations are made by the researcher:

1. It is recommended to the teachers that they should incorporate lesson planning techniques into their teaching practices. Schools can provide teachers with professional development workshops and training sessions focused on effective lesson planning techniques. Additionally, lesson planning tools and templates can be made available to teachers to facilitate their implementation in daily teaching practices.
2. It is also recommended to teachers that they should seek professional development opportunities to enhance knowledge and skills in effective lesson planning. Educational institutions and school districts can organize regular professional development opportunities for teachers, specifically tailored to enhance their lesson planning skills. These opportunities can include seminars, online courses, and mentoring by experienced educators.
3. It is recommended to the school administrators that they should prioritize professional development opportunities for teachers on effective lesson planning.
4. It is recommended to the school administrators that they should establish mechanisms for monitoring and evaluating the implementation of lesson planning.

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