EFFECTIVENESS OF PROJECT-BASED INSTRUCTION (PBI) FOR TEACHING ENGLISH GRAMMAR AT MIDDLE SCHOOL LEVEL

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Candidate of **Master of Philosophy** at the National University of Modern Languages do hereby declare that the thesis **Effectiveness of Project-Based Instruction (PBI) for Teaching English Grammar at Middle School Level**, submitted by me in partial fulfillment of MPhil degree, is my original work, and has not been submitted or published earlier. I also solemnly declare that it shall not, in future, be submitted by me for obtaining any other degree from this or any other university or institution.

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ABSTRACT

Title: Effectiveness of Project-Based Instruction (PBI) for Teaching English Grammar at Middle School Level

This study aims to introduce and apply a new teaching model, project-based instruction (PBI), for middle-level education in Pakistan. The focus is to teach using a new teaching system for grammar in the English textbooks of selected seventh and eighth grades from a government school in Islamabad, Pakistan. The education system of Pakistan has not yet fully discovered PBI and project-based learning (PBL). The choice of this topic is to practically imply this new teaching method with the current course material using the designs of the experiment and survey under the hybrid method and the constructivism theory of Jean Piaget. The instruments - pre and post-tests and a questionnaire provide the calculation and measurement through the SPSS software to analyze the instructions through learning and the improved outcomes before and after the application. The testing and analysis inspected the reaction of the participating pupils after going through a new learning and teaching approach experience. The chosen sample in this research is random under the non-probability sampling method. The distribution of the picked students by PBL and PBI is under two groups i.e., control and experimental. These groups received two-step testing under PBI on previously gained knowledge and newly learned through inclusive learning and instructions. The instructions followed the pattern of ABL and ABI (Activity Based Learning and Instruction) in the classes through open-minded and hands-on educational means. The students remain the central focus while trying to make learning effective. Later, they filled out the survey questionnaire related to the teacher's (researcher) efficiency and pupils' overall targeted performances to improve. The results are the opposite of what was assumed because the students shared subtle differing views from each other on the performance, which did ensure on-point and transparent feedback. The division is on the grounds of different behaviors of the learners towards PBL and PBI being efficient in teaching English grammar in the current scenario.

Keywords: *PBI, PBL, ABL, ABI, Constructivism*

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LIST OF ABBREVIATIONS

PBI	Project-Based Instruction
PBL	Project-Based Learning
ABL	Activity-Based Learning
ABI	Activity-Based Instruction
SPSS	Statistical Package for the Social Sciences

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DEDICATION

To my beloved parents for their love, endless support, and motivation. Maa and Abu, I hope to fulfil your expectations and wishes the way you have envisioned.

CHAPTER 1

INTRODUCTION

An introduction is a corridor, which leads a reader into the world of a writer or researcher. This allows the reader to have a preview of what is coming up next in an elaboration.

In the pedagogy of Pakistan, project-based instruction (PBI) is a new way to teach, which has less adoption. It is a teaching method with a difference because from the starting point to teach till the end i.e., assessment, is opposite to the traditional teaching method. This teaching method has nothing similar to doing projects. The key differences lie in applying both of them and the way they proceed. A project-based instruction (PBI) begins with a relative inquiring question and designs around it, while a project asks a similar question at the end. The generalized term from which project-based learning (PBL) and project-based instructions (PBI) have evolved is “project work,” which is, “An activity which focuses on completing an extended task or tasks on a specific topic. Learners may work in groups to create something such as a class magazine. Learners sometimes do some work by themselves, sometimes outside the classroom. (TKT Glossary, 2019, p. 35).”

Project-based learning (PBL) and project-based instructions (PBI) are an amalgam of what Dewey expressed. S. Fleming (2000) explained them in “six” valid points for the implementation of meaningful literacy on students via projects that have “...authenticity, academic rigor, applied learning, exploration, adult connections, and assessment practices (p. 9 & 11).” Students can make numerous variations in the “structures” and “contexts” to manipulate, alter, and function a project. Projects are flexible and appreciate “different intelligences, learning preferences, or learning styles (p. 11).”

John Dewey says that it is not the duty of a teacher, while in school, to force specific “ideas” and create “habits” of a child. Instead, as a part of the social setup, the teacher decides upon the “influences" that affect the child and accurately guides the child in reacting to such impacts (Dewey & Small, 1897, p. 9; Perry, 2020).

The project-based instruction (PBI) is an inclusive and engaging teaching pattern. Comparatively, education at all levels in Pakistan mostly employs varying teaching approaches in uneven frequencies, majorly using lectures related to books,

assignments, and testing dependent on rote learning and recalling of taught course material. Students have minimum liberty to explore, raise questions, and self-learn at their own pace. The prevalent traditional methods proceed towards learning in a conventional way, which is “in isolation” without prioritizing “background knowledge,” comprise “memorization,” and “learner typically hinge on the text” (Sawyer, 2006; Itbar et al., 2021, p. 22). Some instructors employed "constructivism" despite the suggested recommendations in policies, and student-related pedagogy techniques are barely under use. The majority of teachers prepare inappropriately for the class. They do not have a systematic approach to teaching and assessing. It came to notice, that some teachers asked the students to visit their library and search for material or read a book. The forthcoming teachers did not have a proper plan for carrying out the task, checking work, or how the assessment would occur. In usual cases, it was just reading or lecturing. So, the real spirit of constructivism i.e., problem-solving situations, was not seen in classrooms. (Itbar, 2020, pp. 28-29).

For instance, in the productivity of randomly picked seventh-grade students of GGHS Bhedian Pattoki, District Kasur, Punjab, through their level of accomplishments in activity-based teaching and traditional method of teaching in Mathematics specifically geometry. “Traditional method of teaching Mathematics is still utilized as a part of a large portion of the educational establishments in Pakistan (Noreen et al., 2019, p. 147).” Such setup of the classroom, and instructing method, keep pupils occupied in the recurring learning process. The teacher forcefully leads students to keep going through the already taught course. A commonly associated view of this environment is “Corporal punishment, hatred of the teachers and frightening role of commanding teacher is noticeable.” Throughout this, “long conventional teaching periods, interests and consideration” of pupils undergo ignorance (Cangelosi, 2003; Noreen et al., 2019, p. 149). Further, the traditional approach has taken over the practical field of medical sciences in Pakistan as well. Although efforts are always there to employ, “integrated modular curricula.” The problem with the traditional method is:

Overburdened with information, the students tend to forget the already learned material as they progress from the basic sciences to clinical application, and integrative learning solely relies on individual student’s abilities. This fragmented learning and ungauged integration can subsequently have implications on patient care (Aziz et al., 2023, p. 1730).

Now, it seems that there is a necessity to convert the current prevailing traditional educational system from minor features to major ones. In the book Effective Teaching Around the World (2023), "... changes in any of the elements (teachers) necessarily means transformations in all the others (students' relationships, internal organization of the classroom and so on) (p. 293)." An analysis of randomly chosen teachers within the "Departments of Education (DoE) and Regional Institutes of Teacher Education (RITEs) of Khyber Pakhtunkhwa (KP)." Put a target to observe which one comes in the usage "constructivists or traditional" instruction approach. The Higher Education Commission (2012) recommends "constructivist pedagogies" in the curriculum of "Associate Degree in Education (ADE) and BS in Education in Pakistan" to create a possibility for the formation of "critical thinking and self-learning of students (Itbar et al., 2021, p.20)." The sole purpose of constructivists is the confirmation of, engaging participation of students during education alongside pushing them to follow guidelines and produce awareness. Students initiate conceptualizing from their existing concepts, construct their wisdom, and interact in a social setup, which is crucial to learning; both pupils and facilitators make use of real-world problems to learn (Pressley et al., 1992; Bruning, Royce & Dennison, 1995; Woolfolk, 2014; Itbar et al., 2021).

Similarly, the middle-level education system of Pakistan follows a number of the already tested traditional teaching patterns for decades. Project-based instruction (PBI) and project-based learning (PBL) are two approaches in pedagogy that frequently remain in use in first-world countries. Maulana et al. (2023, p. 288) explain, "... some Spanish schools are working holistically, following project-based learning methodologies so that students are encouraged to be more involved in their learning." While, in Pakistan (a third-world country), these methods have not surpassed overall education. In the pedagogy of Pakistan, project-based instruction (PBI) and project-based learning (PBL), both of these are new and least tested. Their features provide an open platform for teaching, testing, practicing with, and analyzing students while being under their influence and their conduct in learning grammar of a second language.

Project-based instruction (PBI) is still a hardly familiarized and experimented product or a spectrum of teaching in the education system of Pakistan. It not only helps in testing the course material but can also assist in measuring the level of knowledge that students already have and attain via a new teaching system. It seems to have a potential, in improving the current education system for students of all ages.

Furthermore, its versatility may aid students in pursuing their passion at both early and later stages of life which makes students more confident, self-reliant, and building an ability to think out of the box. The researcher intends to teach students of a government school, in the middle-level grades seventh and eighth, using project-based instruction (PBI) and project-based learning (PBL). The direction of the teaching method will allow further to find how much project-based instruction (PBI) influences progressively in teaching grammar to learners and how their conduct demonstrates the impact of project-based learning (PBL).

1.1 Background of the Study

The educational institutes at primary and secondary levels have a crucial role in shaping students' abilities of learning and practicality, making them entirely responsible for the education of students from the beginning. The purpose is to shape students' futures properly because it is their responsibility to explore and find plausible conditions for the learning environment. So, students gain the experimenting capability with their earlier knowledge by thinking critically and then using it practically in routine life. Educational institutes keep investigating creative ways to meet the varying learning requirements of students; events related to regular life problems turn interesting for students and form a reason for their achievements (Boaler, 2002).

“Learning by doing” was supported initially by Confucius and Aristotle. Then, Socrates made known the new dimensions of learning via “questioning, inquiry, and critical thinking”, which are a must in PBL classes and getting instructed about a project under project-based instruction (PBI). The plausibility of being inquisitive or curious encourages students to learn with personal variation and think more while manipulating many methods in one. Moreover, Maria Montessori, a physician and child development professional, brought a campaign in the 20th century to make people know that education does not take place through means of words but in reality “by experiences upon the environment.” (Boss, 2011; Kloosterman, 2023).

After a break from practicing inventiveness for some years, the again flourishing of creative education was by John Dewey, “an American philosopher, psychologist, and educational reformer”, who became famous for introducing project-based learning and project-based instructions. His theory was on improving society and education. In his opinion, children should have space and the opportunity to understand, question, and know concepts through actions. These make their learning process

meaningful but also directly linked to the world in which they live because “education is life itself.” Those factors became the reason for his popularity in influencing ideas related to the “open-ended” type of education (Main, 2022 & 2023, Boss, 2011).

Railsback (2002) has given concise and detailed information in her book on making project-based instruction (PBI) understood from the views of other scholars. According to Blank and Harwell (1997) and Dickinson et al. (1998), project-based instruction as a “model” or a technique is proper. It enables students to design, apply, and assess projects appropriate to be used according to the actual world and outside of the classroom. Additionally, the Challenge 2000 Multimedia Project (1999) expresses it as multidisciplinary and for a stretched period to teach students by keeping them as a central element. Contrast to teaching through limited-time individual lessons. Accordingly, in the current research work, the same process has been adopted to analyze middle-level school English grammar of textbooks of seventh and eighth graders using projects under realism of life in project-based instruction (PBI).

The roots of project-based instruction techniques are in the constructivist method or theory raised from the efforts of “the psychologists and educators” like Lev Vygotsky, Jerome Bruner, Jean Piaget, and John Dewey (Railsback, 2002). Additionally, Karlin and Viani (2001) explain the procedure to impart learning under the theory of constructivism as an outcome of mental building blocks. Children build “new ideas or concepts” for learning based on past and present understandings. Moreover, Katz (1994) and Challenge 2000 Multimedia Project (1999) tell that the projects for students are entertaining, inspiring, and inducing challenges because all of these are crucial in the project picking and the whole envisioning process. All of these are possible because students get motivation from inside, and they see a purpose ahead of them to achieve their target and find value in every passing minute rather than just feeling that it is a waste of time.

Project-based learning and project-based instruction are the two processes that occur next to each other but have no specified written instructions. These practical approaches teach content learning. As well as emphasize that they are beyond being involved in executing a project. The dual engaging acts of PBL and PBI are pedagogical in understanding and accomplishment through firsthand experiences. These allow students to get exposed to the issues of the world they are in. Also, it lets students experience their mental and physical potential in bringing proper, workable, and in-time

solutions to tackle a problem for a longer span. This unrestricted mode creates an urge to think, search further, and find hidden facts (Main, 2022). It allows students to take hold of the steering wheel of the matters in their hands rather than only conserving knowledge without application. Together, this begins and provokes them to bring uniqueness to their practical outputs from their independent learning through background, social structure, and culture.

Project-based learning (PBL) demands a teacher to initially understand a problem and then draft a proper technique for its solution (Blumenfeld et al., 1991). For the teachers, it is mandatory to demonstrate a clear-cut and definite format of project-based learning along with the aim and result. Less clarity during PBL classifies it as a useless activity. There are some pre-requisite criteria for project-based learning, as defined by Thomas (2000):

a. A curriculum is the central element of a project.

b. Questions create guidance for a project.

c. Students need to see deeply to carry on their work as a unit in a coordinated manner.

d. The learning occurs in the present time.

Next comes project-based instruction (PBI), which relies on inquiring, crucial thought processes, and resolving complicated issues. Hence, it differs from traditional or deductive teaching, which does not allow time and again to put learned materials into practical use. Since PBI has no specified rules and merits to follow, which makes it very moldable. That is why it is available in many sizes and formats e.g., Inquiry-based PBL, genius hour-based PBL, gamified PBL, and scenario-based PBL etc., (Staff, 2023). The good thing is that they are designable for a single pupil, groups, and the entire class, targeting to deal with a single subject to cover up the whole curriculum.

This study has examined students' level of comprehension through the application of English grammar by making use of instructions, operating through project-based instructions for particular topics of middle level English grammar for the seventh and eighth graders of IMSG, F-7/2 school. The operation of this research relies on the research questions: Does the mindset of students show the usefulness of project-based learning (PBL), and does the extent of project-based instruction (PBI) become a factor in learners' grammar improvement?

1.2 Statement of the Problem

The problem is the traditional method of teaching grammar, which is not sufficient to teach middle school children practically and effectively. This does not support students to understand a concept properly, hinders knowledge retention, and frequently employs non-flexible and obsolete means of teaching. Furthermore, these results in a lack of personal interest, least motivation (intrinsic i.e., from the inner source as wish or will; and extrinsic i.e., from outer sources), struggle at all times to keep rules in mind without experiencing them and barely upgraded supportive educational setup including unrevised curriculum with zero technology sources in Pakistan. Teaching grammar throughout middle-level school is essential for children from the points of academic growth, language competence, and enhanced communication abilities.

The education system in Pakistan depends on the instruction of traditional grammar techniques that frequently focus on memorization and isolated activities. These might create an inability in students to retain grammatical concepts over the long run. Moreover, for a few years, an escalation of interest in investigating and applying alternative pedagogical approaches has surfaced e.g., project-based instruction (PBI) and project-based learning (PBL), for improving the efficiency of teaching grammar in middle school. The experimenting nature of project-based instruction (PBI) in teaching the practical application of English grammar using English textbooks is a plausible practice in Pakistan. It also highlights and remedies problems and constraints confronted by students in trying to learn a second language grammar.

1.3 Rationale of Selection of Population, Sample and Method

The chosen population was from four government schools in Islamabad, focusing on middle school graders in seventh and eighth grades. The reason for the choice was the feasibility of fulfilling the earlier decided criteria for the study. The extracted sample size was in accordance, and the given preference was to the IMSG, F-7/2 school, where the commencement of the study took place on the PBI approach related to English grammar.

The research is experimental, which requires mixed method to be enough for the demands of the research questions and catering the resulting values in the numerical and non-numerical form.

1.4 Rationale of Research Method

The research is experimental, which demanded of mixed method to suffice the

demands of the research questions and catered both the resulting values in numerical and non-numerical form.

1.5 Objectives of the Study

To examine closely the frame of mind of the students towards the efficiency of the project-based instruction (PBI):

- Find out the strength of project-based instruction (PBI) in being practical in improving learners' grammar in a third-world government school. Through the tools of pre and post-tests to do calculations and analysis on the output quantitative data.
- In addition, to what degree do students' mindsets agree or disagree on the productiveness of project-based learning (PBL) over traditional teaching methods? The feedback is subjective or gives qualitative data, which will measure and analyze the gathered results from the questionnaire.

1.6 Research Questions

1. How effective is project-based instruction (PBI) in learners' grammar? What mean and percentage did the pre-test and post-tests return in justifying the efficacy of PBI?
2. What is the attitude of the learners toward the effectiveness of project-based learning (PBL)? Did the survey of the impressions of the participants support the expected outcome?

1.7 Significance of the Study

The study is meaningful because of its practicality, which is rarely experimented with the common teaching practices in Pakistan. Project-based instruction (PBI) provides space to experiment in many ways and lets the learning environment grow through objects that keep students active, involved, and engaged in the learning process. PBI makes it possible for students to do research, create, analyze, and present. This approach improves critical thinking and helps to extract the solutions to grammar-related issues by assembling pupils in a framework as a supportive team. All of this makes the exchange of information understandable, and meaningful along gives targeted results. It deals with total language development, which is spread through the four learning skills: reading, writing, listening, and speaking. This quality stops PBI

from being separated and limited.

The creation of related factors for students is relative to the present-world activities and projects, that make grammar more interesting, engaging, and motivating to learn. These form different backgrounds for students in learning the use of grammar. Thus, it makes learning functional in life and broadens students' views. The students get the chance to learn at their own speed and experience it in many ways. Also, grammar learned through PBI stays in memory for a greater length of time, than traditional teaching approaches.

The research will support future researchers in curriculum designing alongside an addition to the existing list of approaches. Its learning setting depends upon keeping students at the center and allows it to prepare lesson plans by including pupils. This method looks into everything from a different angle in a detailed manner, which will also work as a support for students later on.

1.8 Delimitation of the Study

The present research is considering a sample of 100 students from IMSG, F-7/2 school, Islamabad, Pakistan, using purposive sampling from middle level grades i.e. seventh and eighth. Each has an English Textbook under Pakistan's Federal curriculum to learn specified grammar items.

1.9 Limitations of the Study

The obstacles/hindrances for project-based learning (PBL) and project-based instructions (PBI) are that insufficient multimedia devices and other required corresponding devices are not enough in the selected school. Their availability could make the teaching and learning process extra supportive, and uninteresting parts of the curriculum could transform effectively into active use. Also, technological tools can expand understanding, memorization, and application. With that, project-based instruction (PBI) requires plenty of time to practice, polish, and perfect everything, which always falls short in connection to the curriculum designed for traditional teaching approaches.

1.10 Organization of Study

The organization of the study has a division among five chapters. The first chapter is about the introduction of the study, which encloses the background of the

study - how PBI pedagogy came into existence along with becoming a part of education; the statement of the problem spotlighting the problem under consideration; the objectives of the study pointing out what the focuses of the study; research questions mentioning elements around which the research revolves; the significance of the study which demonstrates the importance and the need of the approach; delimitation of the study mention the length of the study and limitations of the study have the factors which limit the research work.

Chapter two is about the review of literature established on the previous findings related to other professions alongside education. Furthermore, mentioning the key terms in the research work includes additional explanations.

The third chapter is on research methodology, which consists of methods, designs, tools, sample size, type, defining the population, ethical considerations, a theoretical framework having its foundation in constructivism theory, and relevance to this research study. With that, research-specific meanings and representation of descriptions authentic to the practical application of project-based instruction (PBI) in an inclusive class.

The fourth chapter demonstrates the practical approach, theory, and tools in the inclusive classes, data analysis of collected data, and discussion by managing accumulated random information.

Lastly, chapter five contains the conclusion via findings of the derivations, tables, and figures, and wrapping up the entire discussion.

CHAPTER 2
LITERATURE REVIEW

Literature Review provides an opportunity to review, learn from, and excavate further possibilities to work. These together keep on searching for other undiscovered scopes through the lens of past facts leading to the present. Similarly, the topic of the current research work is another prospect in the educational sector to explore how English grammar at the middle school level can effectively use project-base instruction (PBI). Together with explaining the key terms of the approach and theory, include elaborated meaning to the entire process and assessment of the project-based instruction (PBI).

2.1 Definition of PBL

Current research involves many pedagogical terms that are not prevalent among commonalty and even in the educational sector. They are as follows: Project-based learning (PBL) is a technique of teaching which is “student-centered”. It keeps students interested in the scope of lessons while working on a complicated project. These projects are generally related to the present world situations and are multidimensional. They promote versatile discussions and working within groups (GPT-CTL, 2022).

Comparatively, project-based instruction (PBI) is a method for instructing students to be involved energetically in projects that have personal significance or apply to the actual world outside of their learning zones. Students search for many factors like an answer related to a complicated query or to tackle a genuine concern based on a project, formation of groups of students, voicing, being crucial in thought, and staying innovative. Projects are for prolonged duration i.e., between seven days to approximately half a year. They are usually from two or more different areas of knowledge and guarantee the inclusivity of pupils. Students compete to observe problems to search for quick fixes. A teacher becomes a facilitating source who assists, analyzes, and only interrupts students during a process when they are in need. As a result, the produced outcome is then displayed in a form to attendees (“Project-Based Instruction,” 2024).

Project-based instruction (PBI) is flexible within the framework and an opposite approach to traditional teaching, which is teacher-centered and does not allow students to do much on their own. It does not just assign different groups of a class some

particular project but also aims at discovering via practicality and combining rules and syllabus. Learning through PBI relies on some vital points: the learning should be relevant and relatable for the students and their living environment. Students require the willingness to think deeper, with guidance on teamwork to work as a unit. The lesson plans should cover more than one topic if students have an extended period to learn and practice. With that, new-era learning gadgets can be helpful, more beneficial, and effective for students to access, comprehend, and demonstrate their knowledge.

Project-based instruction (PBI) in a practical setup undergoes experimental classes under which categorizing students into groups. This grouping helps to figure out other advancements in parts like social interaction, communication with supporting teammates, etc. These make students inclusive, and the instructing process in conducting classes applies to the qualitative characteristics during class activities. Being “student-centered” and with minimum interference from the teacher does not eliminate the factor of evaluation (Weller, 2023). The elaboration of such a learning setup is by the TKT Glossary of Cambridge (2019 p. 2) as: "learning by doing activities ...," and "Learners do an activity in groups; e.g. they solve a problem, draw or paint a picture or make or build something." This is frequently in use with school-going children

Then, after an assessment, a revising session can occur for further improvements. In the end, the organization of the outputs of the projects by the students gets on display to promote students and polish their accomplished talents.

The word activity sometimes creates confusion with the term “task”, which is in a classroom at the middle level, and activity at the end during practicing with course related materials. Also, it is more “meaning” associated, in comparison, substantially indulging students in performing an assigned work (Dagnell, 2017).

Activity-based learning (ABL) comes under project-based instruction (PBI) (Staff, 2023). It is another teaching manner of delivering the contents of a subject through activities. Its pattern gives a free hand to the teacher to plan and design a subject and related activities in synchrony and accordingly to the demands. Usually, within a class like this, it employs groups. This way, students take a keen interest, take in knowledge at their own pace, and learning becomes enjoyable. A teacher here acts as a: “facilitator” who has the job of instructing, supporting, assisting, reviewing, and positively commenting. With that, let students work according to their potential. Smile

Foundation (2023) explains four Es that make activity-based learning executable. Those four Es are:

1. Engage
2. Experiment
3. Explore
4. Express

In some educational places, activity-based learning (ABL) has a different form as Maulana et al. (2023) explain a similar, but slightly varying findings of Zhao & Ko (2020), "... flexibility in the vocational learning environment has been given emphasis with its flexible classroom settings such as activity-based training platforms, computer-supported workshops, and simulated software for practical training (p. 211)."

Activity-based Instruction (ABI) consists of physically indulging in an activity, which can be of many types, ranging from using available physical objects also doing an action personally for effective learning.

Similarly, another learning framework known as 5Es, which is also related to constructivism theory, is a more supporter of structural framework "scaffolding" and directly connects to "Bloom's Taxonomy." This framework development is by the Biological Sciences Curriculum Study (BSCS) and is specifically practical for science, but now its adoption in other domains too (Engleman, 2001). In this, students reproduce as "co-producers" (Barr & Tagg, 1995, p. 15). The structure covers five areas: "engagement, exploration, explanation, elaboration, and evaluation" (TLF, 2021). They are a little varied, compared to activity-based instruction (ABI).

The approach of this study is project-based instruction (PBI), which is in connection with constructivism. It is a learning theory in the twentieth century that became famous for the argument about learners who construct understanding energetically compared to merely accepting everything in an inactive way. Constructivists reason that learners take in the knowledge through personal involvement and rebuilding the possessed cognitive layout foundation with the latest details. In comparison, social constructivists define the function of interacting in a setup of society, which can rebuild and become the reason for social contact and is essential in learning. The other side contains foundational constructivists including, "John

Dewey, Lev Vygotsky, Jerome Bruner, and Jean Piaget.” Constructivist teaching techniques are based on constructivist theory and frequently have chances for learning through self-experiences, involved investigation, relations of students, and review. The layout of a course under these rules aids in keeping the focus on the links of notions and compositions of the curriculum and helps students maintain the connection between the old and new knowledge (GPT-CTL, 2022).

Student-centered teaching transforms teachers into “instructors,” utilizing multiple teaching approaches for converting learning active and involving students with the curriculum outline. These let students develop an understanding with classmates via “collaboration, discussion, group projects, and problem solving" (Felder & Brent, 1996; Freeman et al., & Handelsman et al., 2007; GPT-CTL, 2022). Maulana et al. (2023) show how far the student-centered method is in practice through the drawn result of Hein et al. (2012), “... in a cross-national study including Estonia, Hungary, Latvia, Lithuania, and Spain that intrinsically motivated teachers exhibited more student-centered and productive styles of teaching (p. 545).” These pointers from Western pedagogy have made a part of this research inside the chosen middle-level classes in the specific government school of Islamabad, Pakistan. The consensus is that the students enjoyed and learned more but yielded less expected outcomes because of a partly stagnant curriculum. The entire course design is way bent to teacher-dependent traditional education, which rejects the direct inclusion of pupils.

The word “inclusive” means to include equally. Mary-Ann Winkelmes and her partners at UNLV introduced an “inclusive teaching” process, which is a way to teach. It consciously plans course design and curriculum to maintain what appeals to students from various environments, capabilities, and occasions they go through. The top purpose of inclusive teaching is to devise an atmosphere for learning where every student is appreciated and assisted in their achievements. Maulana et al. (2023) give the example of the “Norwegian school system”, which is available for all children without any cost. They are in great favor of “one school for all” to provide “equal learning opportunities for all pupils” while having “a diverse composition and an inclusive function (p. 621).” Also, early and later schools’ systems “should experience an inclusive learning environment that not only fosters children’s social relatedness, but also strengthens their academic outcomes (Knutepunkt, 2015; Maulana et al., 2023, p. 621)” Furthermore, “When the teacher encourages an environment of inclusiveness and

respect, students are more willing to take risks and to work with one another in ways that foster collaborative learning (Philp and Duchesne, 2016; Erlam et al., 2021, p. 6)."

In general, there are two ways of learning, which are active and passive. Passive learning relates to the traditional teaching method, where students attend lectures, take notes, memorize taught material, and produce all in tests. TKT Glossary (2019, p. 31) explains it in terms of the passive aspect, "Allowing other people to be in control and accepting what happens without trying to change events. When learners want to be taught and to learn language without making their own decisions about their needs and the ways they learn, they are taking a passive role." On the contrary, active learning is the one-on-one arrangement with a teacher and students. The learning environment is flexible, student-centered, extrinsically and intrinsically motivated, and related to practical projects among groups. TKT Glossary (2019, p. 2) explains it in terms of the active domain, in which students voluntarily get involved eagerly. Students "think about their own learning and what their own needs are and try to do things themselves to learn more, ..." means they actively perform. Altogether, active learning involves activities or discussions in the class, opposite of only sitting and listening to someone experienced. It stresses the need to think deeply and usually proceed through group work (Freeman et al., 2014; GPT-CTL, 2022). The online Cambridge Dictionary explains the word "hands-on" through the verb "doing" rather than just being educated about it. It is through helping aids of "reading or watching." Also, a person who decides the course of the things to follow before becoming a final product (Hands-on, 2023). Maulana et al. (2023, p. 695) elaborate through the views of Genzuk (2003) that teachers could make various teaching techniques for an including system for students, which also can add "... direct instruction, hands-on activities and visual aids, to connect new content to prior knowledge" that help pupils to make sense of the latest scope and let them in getting the facts according to their speed. Further, they enable students "to process meaning to new and abstract concepts." and work willingly.

The benefits of project-based instruction are that it intensifies the involvement of the students and heightens encouragement for learning by giving them the liberty to choose topics of choice by relevance and importance (Katz & Chard, 1989). Furthermore, Brewster and Fager (2000) have mentioned that a decade of research indicates that involvement and incentive yield the output as an accomplishment. The book of Larmer et al. (2015, pp. 7-8) on project-based instruction mentions the common

usage of the PBI approach through the in-practice example of “50 courses of Applied Physics” in the undergraduate degree of Harvard University, which is purely dependent on projects (Perry, 2013). Next, a group of researchers, Friedlaender, Burns, Lewis-Charp, Cook-Harvey, & Darling-Hammond (2014), spotlighted the peaked achievement scores of the pupils of high schools in the year 2014 due to designing the inclusion and inductive course. The researchers mentioned the whole scenario as coaching through project-based, collective learning, suitable syllabus, and assessing by measuring performance.

Initially, the requirement is to get familiar with and pinpoint the targets and principles of the assigned project. Always viewing that every major to minor factor is not rehearsed in a project, thus making it occasionally opposite of expectations, which may bring turbulence, failures, reviewing information, and identifying that further learning must be done. Assessing how students perform is different than deductive classroom assessment and takes place independently because their work criteria differ from one another (Railsback, 2002 & Larmer et al., 2015, p. 9). Bonthron and Gordon (1999) say that assessing students must have a reason that get divided into two parts. First, to measure the growth and grading of students in learning, keep in view the produced outputs. Then, maintaining the attention on the procedure while checking strong and weak areas of students to select needed techniques and schedules.

Batool (2023, p. 4) has adopted qualitative research techniques and an exploratory study design for researching the implementation of a Single National Curriculum (SNC) in the education system of Pakistan. To assess the quality of education in public and private schools of Islamabad, which are located in the same neighbourhoods and have a comparable socioeconomic profile. The aim was to investigate how teaching methods, broadly categorized into teacher-centered and student-centered pedagogical approaches, affect the Single National Curriculum's goal of “fair, equal, and high-quality education” in public and private schools of the capital city. The study analyzed the SNC's content to determine its goals based on constructivism, project-based learning, and activity-based learning, with some of the challenges it encountered in the first stages of implementation to achieve the purpose of “uniform education for all.” Moreover, it discovered the main obstacle to accomplishing a uniform education system and equal, high-quality education across all sectors via the differences in teaching approaches by the medium of teacher semi-

structured interviews and class observations in public and private primary schools 10 in Islamabad. The findings also suggested some recommendations, highlighting the importance of improving the teaching staff's capacity and the physical infrastructure of schools, particularly in the case of public schools, to accomplish the goals set forth by the SNC. The results are a helping tool for policymakers in the education sector in prioritizing their efforts to concentrate more on pedagogical techniques, which are crucial for ensuring that everyone receives an equal, high-quality education in the future.

Ariani (2023) examines the effectiveness of project-based learning in improving students' abilities to comprehend English language. Many students struggle to achieve high levels of proficiency in understanding written texts. The addressing of this issue is through investigating the impact of project-based learning, which involves authentic tasks, on enhancing students' overall awareness aptitudes. The research was conducted with "eighth-grade students at a junior high school in Surabaya, East Java," using a "quasi-experimental design." The observed group received instruction in "Collaborative Strategic Reading (CSR)," while the group without intervention participated in Project-Based Learning (PBL). The main objective of this investigation was to estimate the usefulness of project-based learning in improving students' comprehension skills through rigorous statistical analysis. The outcomes demonstrate that project-based learning has a favorable influence on students' levels of understanding. These discoveries recommend that project-based learning is an advised method for teaching language skills as it lets students improve their comprehension capacities by involving in authentic project tasks.

This study sought to examine the efficacy of Project-Based Learning (PBL) in enhancing "the reading skills of ninth-grade students studying English in a school in Quito." The research utilized "a mixed-methods" course, combining "a descriptive nature with a comprehensive literature review" from reputable sources such as "ScienceDirect, Scopus, MDPI, Web of Science, and Springer." The employed analytical-synthetic method incorporated an observation guide to assess students' reading preferences and habits as well as questionnaires administered to 10 teachers and two institutional authorities to gather insights on their experiences with PBL. The primary objective was to increase interest and competence in reading and comprehension. After implementing PBL, the 20 participating pupils demonstrated

increased motivation and indicated progress in their reading abilities. They engaged in relevant and significant projects that aligned with their social and educational environment. The by-products emphasize the force of PBL as a teaching strategy for developing English language reading skills. The findings suggest that instructors have a crucial responsibility to facilitate and enable the development of reading skills, particularly for students in the early stages of their education. PBL provides an active and innovative approach to foster student engagement and enrich reading and comprehension abilities. Thus, this study provides evidence that the implementation of PBL can have a positive impact on students' English language reading skills. These results reinforce the recommendation for the widespread adoption of PBL in English language learning contexts to enhance students' reading ability (Imbaquingo & Cárdenas, 2023).

The study examined the consequence of project-based learning on the ability of students to speak a language. The research was a mixed-method study that applied both qualitative and quantitative approaches. The utilization of the qualitative segment described the implementation of project-based learning among the Accounting Study Program students. Contrarily, the led quantitative research used a pre-experimental design with a One-Group Pretest-Post-test model to assess the impact of project-based learning on students' speaking competence. The study sample incorporated 35 students from the 1st to 4th semester of the Accounting Study Program at Universitas Potensi Utama. The assembled qualitative data was via interviews, observations, and documentation. While compiling quantitative data was through pre- and post-tests. The paired sample t-test used the statistical study of the quantitative data using IBM SPSS 22 for Windows. The study results indicated a noticeable mark of project-based learning on students' speaking ability. It is a functional pedagogical approach for speaking skills, team-building, problem-solving, and inspiring students to be involved, communicative, resourceful, and ingenious. Integrating interactive activities, such as games and group discussions, can significantly improve the effectiveness of teaching speaking skills to students (Firdaus & Septiady, 2023).

Zhang and Ma (2023) talked about the academic revolution for abilities in the twenty-first century of several intellectuals who explored project-based learning. However, project-based learning can actually or not enhance the knowledge gained by the students has not approached an agreeable judgement. For performing a thorough

quantitative analysis, the study utilizes a meta-analysis method to remake 66 experimental or quasi-experimental research papers based on project-based learning over the past 20 years into 190 product values from the "sample size, mean, and standard deviation of experimental data" at the time of their investigations. The consequences revealed correspondence to the "traditional teaching model," project-based learning depended upon the attaining knowledge of substantially progressed college pupils, obtaining results, and contributing throughout the success of practical mindsets - reflecting skills, especially academic dignity.

According to the "moderating effects" outcomes, the significance of "project-based learning and teaching" was influenced by a combination of moderating variables, such as from the point of view of "a geographic perspective, the benefits of project-based learning in Asia, particularly in Southeast Asia, were significantly better than those in Western Europe and North America." In the syllabus, project-based learning encourages student, and their understanding gives output in "engineering and technology subjects." It is more applicable in "laboratory classes than in theory classes." In the light of education, project-based learning is preferably adequate for instructing "small groups" in which "a group size is of 4-5" pupils, produce favorable developments. Considering the duration of experimentation, "9-18 weeks" is relevant and has depicted visible benefits for applying it accurately at the high school level.

Zen, Reflianto, Syamsuar, and Ariani (2022) brought high-level education into focus. Higher education must equip graduates with a broader knowledge of cutting-edge technology, including business skills, to deal with multiple issues presented by project-based digital learning if it has to educate graduates of greater chances of being employed and competitive. The purpose was to examine how student involvement and project-based online learning (PBOL) affect academic performance. The usage of an integrated multi-method convergent parallel design is part of the investigation. The organization of assessed tools like interviews, observations, and documentation forms under qualitative data, while questionnaires and portfolios emphasize collecting quantitative data. In analyzing numeric data, the Two-Way ANOVA test aided, in comparison to, content analysis interpreted qualitative data. The findings indicated that students' perceptions of using the PBOL technique and their level of involvement improved their academic performance and prepared them to start their businesses using the knowledge and skills they learned during project-based learning. This technique

may help foster a positive learning environment by influencing students' engagement levels. The study offers an alternative strategy for entrepreneurship professors to improve their effectiveness and success in the classroom. In both East and West, researchers have been experimenting with project-based learning (PBL), constructivist theory, and activity-based learning in the offline and online teaching setups.

Within the "Waukee Community Schools" school district, which is expanding rapidly, "Timberline School" has achieved success. Nonetheless, with the increment of learners, there is an expansion in the replacement and needs. "IEPs, ELPs, ELLs" and numerous other accommodations for students at the side of educators regularly dealing with the challenges. Projected-Based Learning is a method that keeps academic severity while increasing student engagement. Delicate abilities, otherwise known as the in-demand abilities required in the 21st -century, assist with setting up the pupils for post-schooling life. Project-based Learning is commonly a student-driven philosophy on coursework with independent performance. It includes "STEM and humanities" classrooms that integrate scope. With the execution of Project-based Learning, "Timberline School" ought to hope to see the boosted commitment of a student. It becomes apparent by expanded participation rates, diminished in-class administration problems, and development in academic thoroughness (Prohl, 2022).

Many theoretical and empirical research works have asserted that project-based learning (PBL) has a promising outcome on the growth of students. This study analyzes how students grow and change over the sessions of project-based learning units using "qualitative research techniques." A "group of nine-grade students" taken under observation as subjects. They comprised three girls and one boy via three distinct moments in the academic year. Data collection methods employed during three units; included "artifact collection, focus group student interviews, and classroom observation." Data analysis techniques from "qualitative research" established skills for students that display their evolution over three units. The findings revealed that this particular student group displayed "cognitive" (e.g., comprehension (Zhao & Wang, 2022).

In another research work, the target was to discover how activity-based games affected graduate-level students' academic performance in the social sciences. It utilized an experimental research design with a pre and post-test control group. MCQ achievement tests by using the 70 items for the pre-test and post-test to collect data.

This initiative's first step was to note down the information about what motivates pupils to learn. Both groups completed pre-tests and then the calculation of the results. The project's second stage was researching how various activities affected academic performance. For this, MCQ tested for groups' performance and then data analysis using the T-test. The results of this study showed that most students' grades in the experimental group increased compared to the control group. The post-test scores for the experimental group participants were 18.77, whereas those for the control group students were 16.21, according to the mean value (Bibi, 2021). Most students believed activity-based games to be more interesting than lecture-based learning via the outcome of a post-lesson poll.

Miller (2021) says that sometimes project-based learning gets a different form, though “hybrid”, in a classroom setting. Unlike the current research study, the research design is hybrid, containing a survey and experiment. The article further sheds light on a side-by-side dual, “inclusive,” and combination class system; half of it has the in-person presence of students, and the remaining half comprises a digital class of students. Susan Zaemish, Tim Reiser, and Amy Lazarowicz are teachers who use different digitized tools like “chat blast” to get varying questions from students about what they want to explore. After uploading the questions online on the platform, expectations are that students give those questions a thought, create a healthy conversation, and actively take part in bringing solutions via their viewpoints and personal narratives. Susan Zaemish places digital and real class students in pairs, where physically present students deal with stuff in a regular class, and their online partners review everything related to an undone project through description, giving reasons, and suggesting to revise and improve. Since the partners are a team, that is why, they are bound to provide relevant points to validate their given reason. Also, hands-on activities are collective by incorporating at-home available things and observing them together. Some teachers have tried to make the online students share opinions to plan activities by giving them demos and raising questions. With that, some students have slow internet connections, have timid personalities, and speak many languages, because of which they become unable to present their work and prevent themselves from isolation in their class. A teacher has introduced an app, “Seesaw," which allows students to either record a video without an internet connection with an explanatory voice-over or pause the video to explain. These prevents students from being ineffective and remain a part of their class.

Tucker (2020) explains the highlighted objective of this action research study was to investigate the hesitation of intermediate language learners to use their second language for production. Furthermore, emerging procedures, for example, project-based learning, concentrate on looking into the adequacy of this procedure, explicitly regarding the understudies' preference, which is more inspirational to create the communicated language during home exercises. The objective was to assist educators in discovering novel social and constructivist methods to enhance student engagement and language acquisition for precisely speaking skills in a foreign language. There is no doubt that activity research is a suitable strategy for the ongoing review, as it emphatically adds to the revelation of discernments and can draw in experts in the investigation of value instructing strategies that add to understudy learning. This study inspected the ongoing writing, broke down the advantages of undertaking dependent learning on the world language, analyzed understudy points of view of the interaction, and analyzed the degree of commitment and understudies' intelligent talking abilities during the connected exercises. In light of important discoveries, the suggestions to support world language teachers in their endeavors to further improve the world language educational program by carrying out techniques that could lead to additional progressions in understudy commitment and obtaining language.

The digital – “Higher education institutions (HEIs)” now and again, disregard the significance of empowering imaginative reasoning in understudies. According to a review of current practices, there are just a few creative learning activities at a fully online early-stage “distance education (DE)” institution. The examination means to see if the imaginative cooperative group project is a plausible, powerful, and agreeable learning movement for developing imagination in understudies of a completely online alumni-level DE course. Seven groups of five to six scholar backups had five weeks each to conceptualize, plan, and convey an imaginative collective group project on improving deep-rooted key ideas' utilization attained from the course. All groups collectively submitted innovative tasks in the given period. Reflections on their experience pre-decided acknowledged results based on creative abilities. The representatives valued the experience and had an excellent understanding of the ideas. These help the project's plausibility, sufficiency, and worthiness for encouraging imagination in a completely online DE organization. The likelihood, energy, and ability might change in various settings. The suggestion was to conduct additional repetitions

in the same or other courses. The imagination relied on a collaborative group project, a credible, effective, and average system for cultivating creativity in web-based distance schooling. Creativity can be upgraded through suitable, available sources over the internet for cooperative learning exercises. The review adds to the central area of writing on utilizing imaginative collective group experiences to cultivate inventiveness in HEIs (Del Rosario Raymundo, 2020).

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Duke, Halvorsen, Strachan, Kim, and Konstantopoulos (2019 & 2020) studied to assess the influence of learning via doing projects on young minds. This bunch randomized controlled prior researched effect of project-based learning with proficient improvement supports on friendly examinations and education accomplishment and inspiration of second graders. The students were from low-financial rank school regions. Inside irregular halves of the school, a division of the 48 educators among several as the trial or examination bunch. The approached educators were a testing batch to show four project-based learning units, which intended to address effectively all friendly investigations and some expertise standards. Teachers in the comparison group got the instruction to teach social studies as usual, except for teaching a predetermined number of lessons. The exploratory group showed higher development in friendly examinations and enlightening cross-referencing, yet not composition or inspiration. The related and recorded much-elevated growth as a stimulant, and cross-referring was more significant in character with project-based learning session plans.

Bateman (2019) proposes that the inclusion of linguistics into project-based learning (PBL) can be an influential and ingenious manner to introduce students from youth to linguistics. The basis of the argument is on cooperation between "a linguist and a middle-school humanities teacher," which stretched over eighteen months. This partnership builds upon previous efforts made by linguists to merge linguistics into the K-12 curriculum. The article begins by reviewing relevant literature and then introduces PBL and linguistics, where PBL is a model. It follows up by providing detailed

descriptions of how the study of language and the integrated perspective of linguists managed two student projects. Furthermore, a presentation of the evidence of student learning and the impact of linguistics appeared. The article concludes by suggesting that this approach of incorporating linguistics into K-12 education can address the objectives of both linguists by changing attitudes towards and understanding of language and educators by enhancing academic performance and meeting content standards.

People who advocate project-based learning (PBL) claim that results from the model remember better execution for learned and non-scholarly results (Thomas, 2000; Bell, 2010; Saunders-Stewart et al., 2012). The "New Tech Network (NTN)" is a school improvement network that offers development and training to high school teachers who commit to using “project-based learning or problem-based learning” as the primary teaching method (New Tech Network, 2017). This review utilizes subjective information to examine understudy viewpoints of PBL across various domains at the secondary school level in NTN schools. Results propose that understudies track down esteem in the difficult work they participated in while finishing PBL undertakings. Additionally, learners can express the worth of their work and its material ness in a genuine world setting. We discussed that for PBL to work, the point of view needs an adjustment for ways to deal with PBL, according to an interdisciplinary (Virtue & Hinnant-Crawford, 2019).

In the past twenty years, there have been significant changes in “Science, Technology, Engineering, and Mathematics (STEM) education.” Revisions to education standards have called for increased severity to promote conceptual understanding and transferable 21st-century skills. To address these reforms, “student-centered inquiry-based teaching methods” such as “problem- and project-based instruction (PBI and PjBI)” have become more prominent in K-12 STEM classrooms. However, there is disagreement about the particular features of these teaching methods. Additionally, there is limited information on how prevalent these methods are in practice, their contextual variations, their effectiveness for all students, and the benefits and challenges associated with each method. Therefore, the project strived to review practical research (35 articles) on problem- and project-based instruction in K-12 education from 2000 to 2017. This review aimed to provide observed aspects for using these teaching methods in STEM education and to fill up a few gaps in knowledge and

understanding (Angelle, 2018).

Astawa, Artini, and Nitiasih (2017) present the developments of a concentrate on the impact of project-based learning on pupils' English Productive Skills and how the exercises affect education and growth experience in a public middle school in Bali-Indonesia. This inquiry applied an embedded blended strategy plan in which gathering quantitative information utilized speaking and composing tests and organizing subjective information used, interview guide, perception agenda, unassuming survey, and field note. An operation of paired sample t-test investigated if there is a massive distinction in students' English productive skills earlier than after using PBL. While the subjective information broke down. The effects of the examination showed a strong impact of PBL on learners' English productive skills. PBL appeared to produce further excitement, certainty, inventiveness, and individual, cooperative learning capabilities for students. Concerning the instructor, PBL progressively indicates inspiration and fulfillment. The study implied the execution of PBL in an EFL setting, particularly trying to work on learners' capacity to talk and write in English as an unknown dialect.

Petersen and Nassaji (2016) focus on the recent consideration given to the utilization of “projects and project-based learning” in second and foreign language classrooms, targeting the promotion of communication focused on meaning and blending various language aptitudes. However, there remains a shortage of ample exploration of outlooks regarding the successful execution of projects. This research investigates and compares the ideologies and attitudes of both the ESL teachers and learners towards project-based learning. Also; with the extent and approach to implement projects in L2 classrooms. The compiled data was from 118 participants (88 students and 30 teachers) through written questionnaires consisting of closed and open-ended sections, with individual interviews. While both teachers and students represented positive attitudes towards projects in language classrooms, they also emphasized multiple advantages of this approach over traditional methods of language instruction. Still, they held differing opinions regarding the implementation of projects and where the emphasis on project-based learning should lie. The discussion was on the implications of these findings about the effective utilization of projects in L2 teaching. The applicability of project-based learning methods has recently received much attention as a medium to promote meaning-focused communication and merging mixed language skills into second language or foreign language courses. However, the

significance of project implementation has not yet received the attention it deserves. This study defines and compares the ideologies and attitudes of English as a second language (ESL) teachers and learners regarding project-based learning while examining the extent and method of project implementation in the second language classroom.

However, their opinions differed on the importance of how to devise projects and which features of project-based learning. The presentation of the conclusions of these results for the practical use of projects in L2 classrooms was afterward. Nervousness and lack of inspiration may occur because of the misapplication of some language, showing procedures, and learning displayed materials to influence the capability to communicate with learners in EFL programs. The utilization of project-based language education to increase learning motivation and content relevance. Students understood how to describe their activities and results in English by working in pairs to do practical outdoor work on the chosen subjects. They communicated with content and friends through the Web 2.0 settings. They worked on communicative tasks in a "jigsaw format" inside the classroom and presented their projects to peers, who used an online feedback forum and rubric. They also participated in a discourse challenge with peers outside their group or from one more college to widen their certainty. Discoveries from this study show that learners had the option to produce the language and assessment abilities for show. Also, they demonstrated a descent in correspondence uneasiness (Farouck, 2016).

Sultana and Zaki (2015) analyzed the usefulness of project-based learning (PBL) vis-à-vis the existing English language pedagogy. The research operated a pre-test and post-test experimental design, with one dependent and one independent group. The execution of the study was for a span of 12 weeks, and 140 female students enrolled in eleventh grade at a public college in Karachi, Pakistan, were unsystematically allocated to the two groups to correspond the traditional pedagogy with the suggested PBL method. The participants in the experimental and control groups got guidance in the same prescribed curriculum, using the PBL and traditional pedagogy, respectively.

Furthermore, Project-based Learning (PBL) is a specific instructional method comparable to traditional education nowadays used for teaching compulsory English at public colleges. The experimental group, which got instruction through PBL, demonstrated better performance in diverse curriculum areas, as shown via the pre- and post-test scores, and depicted greater motivation towards the English course. The data

analyses and interpretation have concluded that PBL has the plausibility to substitute established pedagogy and enrich the teaching and learning practices and yields of mandatory English at public colleges in Pakistan. However, one major boundary of the study was that the placed PBL methodology was around the curriculum content, with the utmost goal of equipping students for state-held end-of-year examinations, which have the function of the qualification for admission to undergraduate study at universities. Besides, the execution of the study was at only one institution comprised of a female-only population; results require confirmation at other institutions with male or mixed populations. It enabled language teachers to experiment with different pedagogies, including PBL, to enhance the teaching and learning of compulsory English. As such, examination of other language pedagogies alongside PBL for more improvement of English education. The aim was to research a pedagogical approach that can improve the teaching and learning practices in English course materials at colleges. This approach can lead to a change in the predominant culture, benefitting both teachers and learners. The essential resources to facilitate this change are commonly available within the academic framework. The issue is significant for teachers and learners alike, as students graduating from third-stage education institutes in Pakistan need strong language and communication skills to thrive in further education and career pursuits. Unfortunately, insufficient language instruction has resulted in a shortage of necessary language skills, causing students to miss out on various possibilities. The noteworthy thing is that the experimental effort towards improving language education in public colleges in Pakistan aims to provide a viable alternative to the orthodox teaching methods. It lets teachers and students participate more energetically in learning the English language.

Thitivesa (2014) explains that the paper focuses on use as project work. It is an excuse to use the accuracy, usage, and sentence construction of writing rules or tools in content-based classes at Rajabhat University. The aim was to decide to what extent. Student-teacher learning progress is 70% of crucial writing features compared to the last quarter of using the project. By organizing work around an agreed topic, students' writing skills get linked with the expectation to improve through repetition of the text and language provided by the teacher. Selection of 38 fourth-year English majors took place. The data collection is via performance tests and grading of students. The analysis and calculation of the assessment scores and their achievement were via the average

score, standard deviation, and percentage. The students and teacher session paid off in practicing mechanics and usage, but not in sentence formation. Students got help to become familiar with the text during the execution of the project. However, the enhancement of sentences and clauses' construction under simple and complex sentences could be practicable according to the frequencies of how and when.

The learning process of a language involves gaining knowledge about its associated culture (Kramsch, 1993). The connection between language and culture is so strong that their separation is impossible in the teaching and learning process. Brooks (1960) distinguished between “Culture” with uppercase “C” - “art, music, literature, politics”, etc., - and “culture” with a lowercase “c” - both depict regular people's behavioral patterns and lifestyle. These from the start, tend to learners' cultural awareness comprehensively and are essential to their language-learning journey. Byram and Morgan (1994) argued that it is a must to incorporate cultural learning into language learning. This research explains employing steps to include a project-based approach in a beginner-level Indonesian language course for undergraduate students to nurture their cultural awareness. Each semester, the organization of a project on culture outside of the regular class hours to provide students with practical experiences of the target culture. After conducting a survey, a compilation of students' perceptions on the effectiveness of using a project-based approach in developing cultural awareness. The findings of this study demonstrate that the hands-on experiences offered through the project have increased students' understanding of Indonesian culture. It facilitated collaboration and positive interactions between students and teachers. The project supports and extends the knowledge gained in class. It offers a new stance and deepens understanding of the target culture while promoting teamwork and positively engaging students and teachers (Istanto & Indrianti, 2013).

At a broader span, in designing a unified national syllabus (SNC) for Pakistan and teaching with a difference in keeping students as a focal point and involved at the levels of graduate and business schools, further teaching in a more engaging and practical approach for future business holders at both online and offline learning classes designed around projects. Also, activity-based games produce enhanced learning scores, even for university-level students. The experimentation yielded improved results in contrast to the direct teaching method. In terms of struggling and flaunting better speaking skills with fluency in focus second language, understanding and

production by a user in an appropriate social setup is crucial. These, however, get polished when the relevant use of techniques happens timely.

In the different setups of education, for instance, “Higher Education Institutions (HEIs)”, completely ignore the importance and need of creativity at the early stage of education. The problem becomes apparent when the inventive material remains unavailable for “distance education (DE).” The divergence in creative educational issues can be better through appropriate online material and practicing with it more often to polish creativity and boost imagination in a distance education system through websites. These days, many remarkable changes have taken place in “Science, Technology, Engineering, and Mathematics (STEM)” education. These are inclusive of students and search into problem-based and project-based instructions, although these are considered a little skeptical on the grounds of possessing specific aspects. Also, they vary too much for the background of incidents, being effective for the entire body of students, measuring challenges, and being beneficial. The downside is that their radius of vast use is not officially known.

In the classes of English as a Second Language (ESL) or foreign languages, project-based instruction gets preference by the teachers and students. They say it is more workable than traditional teaching for language students. At the same time, divergent views come across from both the teacher and students on how much time project-based instruction has and using what process. Its comparison and explanation exist in human behaviors and belief systems in English as a Second Language (ESL) for teachers and learners about project-based learning. The content-based classes leading to writing projects result in above-average percentages whenever used and applied in writing mechanisms rather than constructing simple and complex sentences. Improvements are always possible if pre-setting an increment for the practicing sessions, keeping “when and how” in view. A language learning span also lets a learner benefit from the culture of the second language. Culture comprises “art, music, literature, politics, etc." and the regular lives of the people and their varying behaviors. It adds up the needed information about a language and escalates the passion of a pupil in the expedition to know a language. Throughout, it gives a positive experience of interaction with peers and teachers.

In a class, a combination system of incorporating both online students and physically present ones makes typical "hands-on" activities at school more interactive.

Students learn to work as a unit, despite human glitches like being not open, speaking more than one language, and feeling outcasted if not able to take part in usual class discussions because of the common digitized world issue of slow internet speed. Students also remember mostly the items they learned under project-based learning. The sustainability of the knowledge allows students to be aware and be of some use in the practical world. Also, some schools employ either of the PBLs i.e., project or problem in teaching curriculums, as the direct teaching method. The second-grade learners in a social studies class went under observation by teaching the complete subject via project-based learning. The results show that the learning process sped up by giving students many light moments and ensuring practical learning. Since comprehension is the key to having practicality-related learning. It appeared as a very supportive technique to aid in learning any language and let students make more sense of their coaching. The comprehension capability related to language and reading is crucial for eighth and ninth graders and helps their growth via attaining education with aims.

Project-based learning helps in gaining society-based communicative and living skills in interacting with the real world, thus becoming the reason for the ascend of the overall morale of the students. Project-based learning encircles both sciences i.e., empirical as “STEM” and social as “Humanities.” In Japan, project-based learning was directly experimented with a particular version of a website after doing related activities outdoors to obtain the views of participants. Project-based learning combined with linguistics can also progressively accompany and provide desired outputs if continued for a long time.

Nine years ago, project-based instruction (PBI) underwent testing in an all-girls public college in Karachi, Pakistan. The result proposed that assurance should be there of implementing and adopting project-based instruction in place of the traditional educational system. This latest method is very effective in involving students and an increase in learning abilities. An observation took place of project-based learning to estimate improvements in the spoken language of accounting students. The outcomes yielded positive effects and confirmed that the progressive nature returned the desired results. Even testing of project-based learning in an ESL class to see how far English progressive skills work with students. The grand outcome removed all skepticism and replaced it with proficient and refined learners. Their efficiency was both in

understanding and application. In some cases, project-based learning (PBL) is ineffective and seems to rely on traditional teaching while under experimentation. Similarly, in recent years, PBI has experimented on ninth-grade students through subjective data to judge their growth in thinking and through the application in the consecutive three instances of teaching units or chapters.

These researches have proven the authenticity of the under-discussion teaching approach of project-based instruction (PBI) and its sub-category activity-based learning and indirect project-based learning (PBL). This research also has links to the cognitive theory of Jean Piaget. Altogether, they have generated a research gap for the experimental implementation for middle-level students of one of the under-study government schools in Islamabad for teaching English textbook grammar.

CHAPTER 3

RESEARCH METHODOLOGY

The whole picture of a study lies in the chapter on research methodology, in the form of several pieces. Each one fits and connects with another as pieces in a jigsaw puzzle. According to Mills & Gay (2019, p. 340), it is, "… single subject, multiple baseline across subjects study was employed."

3.1 Research Methods

This research has employed mixed methods i.e., quantitative and qualitative, which is a combined way to examine societal development, and both the methods are "... for collecting and analyzing data, or it is clear from the description of the method and the results that both narrative and numerical data were collected and analyzed. (Mills & Gay, 2019, p.435)", while in unison as mixed methods, "...to build on the synergy and strength that exists between quantitative and qualitative research designs to understand a phenomenon more fully than is possible using either quantitative or qualitative approaches alone. (p.21)" Mixed methods highlight several dimensions. For instance, in a study, a researcher compiles and evaluates raw facts and figures in a blended form for discovering and outlining deductions utilizing the combination of the methods of qualitative and quantitative procedures in a single setup of exploration (Tashakkori and Creswell, 2007). Alongside, Jennifer Greene studies the general objectives of the operation of the mixed method as a strategy to analyze the community in an idealized manner and majorly contains additional methodologies. They are together with multiple types of procedures for assembling, interpreting, and describing conditions of humans with the single aim of gaining knowledge effectively (Johnson et al., 2007).

3.2 Research Design

Here, the purpose is to examine the effectiveness of project-based instruction (PBI) and project-based learning (PBL) in teaching English grammar through a systematic channel. The study includes a hybrid design i.e. the combination of two research designs, namely experimental and survey. The purpose of these designs (different than independent studies) is the same, to collect the required data using independent variables i.e., traditional (for the knowledge that students already have)

and PBI (concerned teaching approach for the new knowledge) approaches. The results rely upon dependent variables i.e., pre- and post-tests and questionnaires.

According to Mills & Gay (2019), "...the researcher manipulates at least one independent variable, controls other relevant variables, and observes the effect on one or more dependent variables. (p.273)" Comparatively, according to the Merriam-Webster online dictionary, an experimental design is a technique that keeps the under-experiment aspects inside a constant environment throughout receiving the new way for juxtaposing with the unchangeable or dependent variables. Similarly, Frost (2024) explains it in-depth as a well-defined procedure to compile and make information usable to see existing connections in a definite way due to two associated variables. These elements get organized with caution and can provide a possibility of trying the supposition and outcomes linked with inquiries of the research. It is an investigation under which an independent variable remains restrained, and a dependent variable gets output by estimating the differences.

Project-based learning (PBL) is an independent variable, and achievements gained by students inside the class are a dependent variable i.e., performance. Both groups i.e., control and experimental, have gone through a pre-test and post-test. The pre-test targeted to evaluate previously gained knowledge of the English grammar of both groups. Then, they received a post-test after teaching for a particular period employing project-based learning (PBL). They followed the same course outline. The control group had routine instructions during lectures, while the experimental or treatment group had teaching lessons through project-based instructions (PBI). For experimentation, the random students were through half of the sample from the seventh and eighth classes. The groups got instructions for a session of three months i.e. from mid of September till the middle of December 2023. Afterward, control and experimental groups of both grades had post-tests. Further, the assessment of testing the data, under the quantitative method using SPSS (mean/average and percentage) for finding the effectiveness of the teaching methodologies used with both groups.

Additionally, the survey is another process to gather rough known facts and numbers from the participants who provide answers to questions. Mills & Gay (2019, p. 10) have given a detailed explanation of the survey research as, determines and reports the way things are; it involves collecting numerical data to test hypotheses or answer questions about the current status of the subject of study. One common type of

survey research involves assessing the preferences, attitudes, practices, concerns, or interests of a group of people. ... data are mainly collected through questionnaires, interviews, and observations.

Experimental groups of seventh and eighth classes will be assessed through the instrument or tool of the questionnaire via the 5-pointer Likert Scale to seek their feedback regarding the premise of the project-based instruction (PBI), along with the performance of learners and the expertise of the teacher.

3.3 Research Tools

Research tools help in data collection and obtain the targeted results. The careful choice of these tools prevents waste of time, and sources assist in focusing the study. They relate to the apparatuses or agents for managing data e.g., a physical questionnaire or an online method to take interviews. They estimate varying elements or gathering of the facts required to respond to a research query (Canadian Institute for Knowledge Development [CIKD], 2019).

The arrangement of the dependent variable through pre-test and post-test tools is for evaluating the performance level with the success rate of students in education before and after the experiment. The pre-test consisted of MCQs on the English grammar terms/items and the English grammar concepts of grades seventh and eighth, majorly under Parts of Speech. There were a total of 10 close-ended MCQs. The post-test contained 25 mixed questions i.e., MCQs and subjective questions (open-ended) related to projects under the project-based instruction of the English grammar. The marking criteria of Multiple-Choice Questions for both tests had one mark for the correct answer and no marks for the incorrect choice. For open-ended type questions, every question had a total of three marks, and there is one mark for each sentence and a negative mark in case of mistakes related to incorrect grammar, words, spelling, and related information.

The questionnaire is a tool to collect qualitative data using survey design from the students who will receive the treatment of PBI. The collected data will measure the validity of the second research question (refer to Picture 3, Appendix A).

3.4 Use and Function of Pre and Post Test

A pre-test is a test that occurs at the initial stages of an experimental study to check earlier accumulated knowledge. Similarly, a post-test takes an examination

towards the end of an experimental research to check later gained knowledge. These are the instruments to gather data. Initially, the individual scores get calculated under these tests and run specific appropriate analysis. The outcomes of the tests go under either comparison or contrast, which yields a unified answer, and lets researchers have an impartial expected outcome.

3.5 Use of Dependent and Independent Variables

Before understanding the use of independent and dependent variables in this experimental research, a preview can explain what they are. The independent variable defines a reason. Its representative number stays disconnected from other variables inside the investigation and can change dependent variables. In contrast, the dependent variable is the influence because it undergoes testing and measuring. Its number relies upon modifications in the independent variable (Bhandari & McLeod, 2023).

In the present research, pre-test and post-test are the dependent variables. Their use is to get tested and give results of both the previous and the new knowledge. Project-based instruction (PBI) is an independent variable, which is a practical teaching approach and a logic to conduct the entire study.

3.6 Detailed Process of Data Collection

The research has utilized mixed method, providing both types of data, quantitative and qualitative. Quantitative data collection operated under one pre-test and one post-test. The pre-test took place at the beginning of conducting experimental classes, which calculated the previously gained knowledge of the students of seventh and eighth. The test contained 10 Multiple Choice Questions and each question carried one mark. The post-test took place after the experimental classes using the project-based instruction (PBI) teaching approach under the constructivism theory of Jean Piaget, for three months (September to December 2023). It contained a total of 25 questions. The first 13 questions constituted MCQs, while the remaining 12 questions were open-ended. The MCQs had 13 marks, and the 12 questions had 36 marks overall. Open-ended questions had different markings because of changing parameters under written grammar, for example, tenses, word choices, expression or sense, and independent and dependent sentences. Every single one carried 3 marks, equal to 1 mark for one sentence (refer to Appendix A for the sample of questions in Picture 2 and Table 1: Answer Key). After collecting data using these tools, the SPSS Paired sample

t-test or Dependent t-test calculated the mean and percentage. Mean is "the average, ...the total sum of values in a sample divided by the number of values..." in an adopted sample (Hurley & Tenny, 2023). The two "paired" measures were from the same person, which tells that the subjects remain unchanged through dependent or test variables i.e., pre-test and post-test inside experimental circumstances. Next, qualitative data collection took place via questionnaire under the survey using SPSS, Spearman's correlation coefficient assessed the strength and order of monotonic connection between two variables.

3.7 Population and Sample

The decision to consider the sample from the middle level of IMSG, F-7/2, is after searching through a population of four model schools for girls in Islamabad i.e., I-10/4, G-9/4, G-10/1, and F-8/1. The considered sample size contains approximately 100 students from the selected government school out of the total 110 i.e., seventh graders 53 in number and 57 eighth. The adopted sampling method is a non-probability sampling method (non-random), and its subcategory is purposive sampling under this typical case sampling. The Government School for the study is non-random choice, but the students are chosen randomly from the seventh and eighth classes.

3.8 Research Setting, Duration for Instructing Classes and Collection Method

The chosen government school i.e., Islamabad Model School for Girls (IMSG) F-7/2, has more feasibility than all the other schools in the population. It is from the point of the infrastructure of the building, cooperative faculty, and the physical environment of the middle classes that are suitable for conducting the study.

The data collection will be from the primary source of the middle-level students of the seventh and eighth grades of the school section of the chosen school. The instructed classes for control and experimental groups had three months (ninety days) duration i.e., from the middle of September to the middle of December 2023.

3.9 Triangulation of Data

Morin et al., (2021, p. 292) defined the meaning of triangulation in classic form, "looking at one research object from different perspectives." Furthermore, mixed-methods research uses this method to explain qualitative and quantitative methods,

which should follow methodical expression. This consciously built hybrid setup of "numeric-based methods with narrative-based methods" can reasonably supply solutions to some research questions (Valeriani & Clark, 2021).

According to Valencia (2022), the word triangulation has its origin in "navigation, where, from various angles, an object is situated; ..." It builds many "appendages, namely theoretical or methodological perspectives, several views or several readings," along with varied viewpoints to look deep into the identical research issue. In elaboration, the definition is a blend of numerous procedures in exploring the identical "object or event" to explain the examined aspect. Comparatively, Morse describes methodological triangulation "as the use of at least two methods, usually qualitative and quantitative, to guide the same research problem." In case, one method of research is not sufficient, triangulation is a complete approach to decipher the research issue.

3.10 Methodological Triangulation in PBI

The topic of the research is “Effectiveness of Project-Based Instruction (PBI) for Teaching English Grammar at Middle School Level”, which brought two questions: first, about project-based instruction (PBI) being operative in the grammar of beginners and second, the stance of novices on the credibility of project-based learning (PBL). The data collection is through primary sources employing mixed methods i.e., quantitative and qualitative methods. The employed designs of the experiment and survey on the control and experimental groups have chosen sampling from the two sections per class of the seventh and eighth grades. Each section of the seventh and eighth grades has 25 students. This arrangement puts the study under methodological triangulation. The data collection is through the project-based instruction (PBI) approach, which is the yardstick comprised of pre and post-tests, and survey (questionnaire) instruments.

The independent variable is treatment, or PBI aids in assessing the dependent variables or performance. Therefore, in this case, there is zero constant. The analysis is on the collected data via the selected tools (For data, Tables 2-4, and Picture 1-3 - refer to Appendix A). The relevant literature is available, which consists of multiple types of secondary data related to various subjects ranging from social sciences to major science subjects and technology through varying learning levels. The data from these sources may be authentic externally in some cases. Here, their adoption is impossible due to the

versatility and minimum similarity of data to the topic in current pedagogy and the socioeconomic structure of Pakistan.

3.11 Ethical Considerations

The students in both control and experiment groups participated in the study by will. Their participation was voluntary throughout the processes of being taught, doing activities, presenting the projects, and getting assessments from the beginning till the end. Before initiating the research work, students got a briefing about the study and its time limit, methods in use, and the advantages and minor risks while participating, assuring their rights that they could withdraw from being part of the study at any moment without fines. The anonymity of students is by replacing their names with abbreviations, and since the research work required some of their photographs in groups, for which they gave consent. The collected data of participants is confidential and only used for the specified purpose. The confirmation to eliminate any potential harm, either in the form of social or psychological, was through the pattern of inclusive teaching and lessons. Students were neither socially isolated nor tortured via mockery to demotivate or shame them on their varying abilities to perform during and after learning sessions.

3.12 Theoretical Framework

The theoretical framework is a form of mapping or a “blueprint” for a whole standard discourse, either in speech or writing, and has a purpose to examine. Its functioning is to lead to construct and support a study by someone. Together, it furnishes the system for determining the processes of an entire discourse of a person using the method "philosophically, epistemologically, methodologically, and analytically." Eisenhart (1991, p. 205) represented the theoretical framework in this form: “a structure that guides research by relying on a formal theory…constructed by using an established, coherent explanation of certain phenomena and relationships.” Accordingly, it comprises the designated theory (or theories) that aid by assembling a substantial ground for the thoughts. These refer to the comprehension and planning to research a topic, the ideas, and descriptions from a particular theory that applies to it. Lovitts (2005) empirically described the standard for laying or setting a theory to a specific type of discourse that needs to be pertinent, analyzed through logic, perfectly explanatory, and stay in line with an available question (Grant & Osanloo, 2016).

3.13 Constructivism Theory

One of the derivatives of the learning theory is the theory of constructivism. Its type, Cognitive Constructivism, is by the theorist Jean Piaget. It is one of three kinds, which is about what cognition does. It defines reliance on previously gained knowledge and what an individual learns through environmental factors. The present study is on the theoretical framework of Jean Piaget, who was the first person to bring the idea of constructivism through several theories, which was supported majorly by the works with children along a guarantee that they are not lesser in the thinking part or having any difference in an intellective way, compared to mature people (Brau, 2020). The book Effective Teaching Around the World (2023, p. 475) gives the instance of observations of Piaget (1962) as:

> ... play reflects children's stages of cognitive development, starting from functional play (allows children to master physical actions, with or without objects), constructive play (children use materials to make or build something), symbolic/fantasy play (children invent pretend scenarios where objects or toys are used as symbols representing something else), and finally games (activities with pre-established rules, normally involving competition among players).

Moreover, Piaget did not commit an intended effort to link the mental advancement work of research with literacy. In its place, his theory became aligned with learning theories. These deduced the following strategies, which focused on the occurrence of learning and not the elements or factors that impact learning:

- Accommodation – which shows a personal mental map of the outside world to adjust to new events.
- Assimilation – a gateway to interact with intelligence and happenings, which develops a person or persons, group-related characters of society, and psychology.

The practical approach of project-based instruction (PBI) in this research and activity-based learning (ABL) are associated with the mentioned processes. The approaches will use "Contextual Teaching and Learning (CTL)" in delivering lectures, relevant activities in class, giving a preview of assignments, and doing projects. The PBI pedagogical approach further defines the efforts of the teacher to engage the learners (Sumarna & Gunawan, 2022, p. 60). The explanation is that it is a vision to understand

to connect the instructed elements to the usual circumstances of pupils along with inspiring them to practice this linking strategy in their lifestyle (Mattar, 2018; Sumarna & Gunawan, 2022, p. 60).

Furthermore, the CTL philosophy defines the ability of learners to take in unfamiliar details if they grasp the underlying or linked essence during lectures. The teacher or the facilitator observes the same pattern in class and home tasks if they find a connection to the taught component of the lesson to loop with earlier obtained information and background (John, 2018; Sumarna & Gunawan, 2022, p. 60).

The article “What Is Constructivism?” (2020), explains the purpose of the constructivist theory that allows learners to take help from neurological input to form meaning through laid on one, and other; tethered bits and pieces of unrefined facts and figures and use them in varying ways to suit their requirements in a social setup of flourishing collectively. Moreover, they especially bring personal perception and subjectivity to the understanding.

Any piece of information is attainable perfectly when previously comprehended material gets connected with the current scenario inside the mind of a human (Mascolo, 2004; Brau, 2020). Therefore, a learner is supposed to align prior experiences, learned, and understood knowledge with the newly gained ones and further becomes capable of drawing personal meaning on a culturally built basis.

The current research has adopted the theory of constructivism with project-based instruction to create and teach in a student-centered environment. The property of such a learning atmosphere is to include every student and let them learn at their own pace, even in group work, while guiding them side by side. The theory has two main points that is, experience through experiment. Piaget explains that perfect learning occurs for pupils of any age when efforts are “physical and mental” along with “self-initiated activities. (Sumarna & Gunawan, 2022, p. 58)”

3.14 Jean Piaget's Working of Constructivism Theory along PBI and PBL in Class

The theory of constructivism of Jean Piaget (1973) involves the relation of cognition with the development of children in terms of comprehending and applying to situations, which leads to the learning process. The explanation is further through critical reasoning via the creation of Robert Ennis, “A Taxonomy of Critical Thinking

Dispositions and Abilities" (1987) (Kim, 2019, para. 53): critical thinking is valid abrasive thinking, which targets determining what to consider or accomplish. Comparatively, John Dewey sheds light on the ability to think clearly - in his book, "How We Think" (1910) when someone purposefully searches for the rationale of an opinion and finds it sufficient in itself has educational importance. Briefly, critical thinking magnifies the questions of demeanor or inquiry. These interrogatives aid during lectures, exercising different curriculum aspects inside classrooms, keeping persistence in organizing class discussions and practical lives. The accusation of remembrance and awareness is via, creating links between views (Kim, 2019, para. 46).

Project-based learning connects or translates cognitive ability to perform activities at the current time. It means transferring thought processes into motor organs to actively do meaningful related tasks relevant to the context of the material and content-related material in association with the everyday real world. Context means the background, which creates a relatability factor, while content is lesson-based and whatever available material for a teacher is present to support a curriculum. Students are the central element in project-based learning (PBL) and project-based instruction (PBI), and they get instructions for in-depth learning out of the actual life-based issues and then practical application in a project as an end product.

The following summarized learning process in seven points of project-based learning (PBL) is under the laid mapping by Nizwardi, Jalinus & Nabawi (2018).

3.14.1 Acquiring the Desired Learning Output

At this point, students and teachers get familiar with the course material. They contextually create links with reality and the world around us to bring applicable solutions to problems relevant to regular life. The aim is to get more from limited sources, which helps in the long run and not just temporarily. It also implies going ahead without forgetting the earlier gained knowledge.

3.14.2 Comprehending the Idea of Teaching Materials under Project-based Learning

In an inclusive class, a teacher elicits collaboration by involving, inspiring, and inciting students to learn and retain learned things. While they all positively compel them to progress towards accomplishment. During the ongoing learning method, instructions and guidelines go side by side with discussions on the learned areas. All of

these expand students' vision but also teach them to improvise accordingly in a situation. These prepare them to take responsibility for their actions and on a larger scale, be socially responsible.

3.14.3 Guidance on Aimed Skills

Teaching has many phases, one of them is giving students the know-how of practical and technological usage. Both of these get sorted under skill learning. Inside the structure of learning, grammar skills contain listening, speaking, reading, writing, and comprehension. On the other hand, technicality can include learning how to operate a computer, multimedia - visual and audio aids, and others. The use of technological elements is to create and present the contents of their curriculum effectively.

3.14.4 Preparing the Project

There are selective requirements before assigning a project. Firstly, students need to trust their findings and judgment based on the actual world in identifying and picking up a problem and drawing its solution. The struggle is solely by students, although an arrangement of discussion sessions with the teacher can take place. The issues that come across should synchronize with the vicinity of students for which they must assemble information using interviews, surveys, observations, and others. The solutions should also be out of the available sources. Secondly, students are put into groups. Working as a team helps a lot in all phases of a project. Lastly, students give a preview of their upcoming project, and the teacher reviews, further suggests, reflects, and approves it.

3.14.5 Project Sample and Discussion

At this level, explanations of activities related to the project need to be listed, for example, issues and their remedies, to be used materials, machines, and the outputs of activities. With that, each of them needs to be sure about the expenditure. These should go under consideration in terms of to what extent a school can arrange these for students. Also, for what duration all or selective students can benefit from all of them?

3.14.6 Practical Application of Activities of the Project

Students continue to carry on their work by being curious and raising questions. A teacher's job is to provide clues, provide answers, and supervise students so that their projects proceed without breaks and get to completion within due time. Then, students

present their project by executing the underlying activities, one after another. Those step-by-step process of exhibiting a project aids in the successful accomplishments of the targets of a project.

3.14.7 Presenting and Assessing the Assigned Projects

This step assures the conclusiveness of the given projects. Students demonstrate their projects, and the teachers look into the shortcomings - which may appear in the results. Moreover, the presenters and the judges get a sitting to discuss and improve the problematic areas of the presented work via suggestions. Then, it relies on the judges to let the presenters represent their projects after getting feedback and making amendments.

3.15 Inclusive Class and PBI

The project-based instruction (PBI) is about including students in a class and not isolating them while learning is in process. This format is in many steps, and an instructor provides assistance based on shifting of both study and non-study sort with lesson plans. An arrangement of a series of careful efforts assists and pushes students forward, even though they have different abilities and sets of skills to grasp new information and concepts. These elements discussed as vital in the work of Sormunen, Juuti, and Lavonen (2019, p. 694), "...the teacher's pedagogic support should be responsive to learners' varying readiness, interests, and skills; should attend to group composition when preparing the project; and should attend to process support during the project (Brigham et al., 2011; Jenkins et al., 2003; Tomlinson et al., 2003)." Moreover, teachers should not be overshadowing their students and provide them required "...space to work independently without too much disruption (Cohen, 1994) (p. 695)". These let pupils have reasoning, get findings, and step ahead in using the knowledge practically. These make metacognition in terms of familiarity and awareness in thinking of a person. Further, these let learners habitually harness their education in action the way they want in the available time, using re-examination from the lens of metacognition (TLF, 2021, "How People Learn," 2000, pp. 14-18).

Engaging students confirms a thriving, inclusive class, even though all of them have different likes and dislikes, which becomes demanding for an instructor to specify their scope of interest. These begin by adjusting the thoughts of students before the start of projects. It can be possible by bringing in someone authentic who can say a few

words of relevance, appropriate facts, and figures - at the side of digging into individual interests. Also, introduce students to the term straight-forward question, which determines the dimensions of a project and usually starts with what way something takes place. In addition, students get guidance to brainstorm questions, which they answer themselves, and can specify particular relevant nominals. Then, they find an area that needs resolution and market it (Valenzuela, 2022).

Less engagement of students has many reasons, for example, disturbance, tiredness or overburdening, and despair. Most of the time, teachers can not assess the lying problem of students for being less engaging. They have to ask directly about the cause, which is what Harvard teachers did from the students of other universities. The female students said that from one to an entire class get negligible concentration when a teacher delivers lessons without devotion and liveliness. Further, if a teacher does not explain an idea entirely, which is in the assigned work, it becomes hard for the pupils to remain ambitious. The male students said that online learning is quite unmanageable due to numerous diversions in the home environments, bland course materials, and not putting an effort to explain any piece of information by just doing the reading aloud of the slides. Altogether, lengthy hours of lectures decline alertness, measly connect lessons with reality, and less likely students to register with a teacher who teaches on a digital medium but can not use digitized tools and ineffectively retain an array of lessons (“Student engagement,” 2022).

On inquiring about how teachers can ascertain attention, the students say that if a teacher tethers lesson elements with factual functional exercises and drives them to application. The knowledge then becomes long-lasting even after a course. Teachers should incorporate fun and be easy-going so students can recharge, re-energize, and concentrate between long sessions. The teachers need to instruct the already taught course once more so that learners get the missed aspects and indulge in personal experiences to get answers to students and bring ease to them. The teachers require establishing student-teacher bonding practically and selectively with an in-person link to bridge hesitation. They must include outside sources in the typical lesson planning to widen the vision of learners. (“Student engagement,”, 2022).

The “reflective discussion” after a done task is a way to polish cooperating manners and “inclusion” guidance of the teacher for the pupils, appears in their rapid involvement, confirms the ongoing project, and promotes learning (Sormunen et al.,

2019, p. 695). These targets boost the comfort level of pupils so that they create “their group skills during the session” and get mentoring afterward (Puente et al., 2013; Sormunen et al., 2019, p. 697).

3.16 Relevance of the Theory to this Research Study

Jean Piaget's theory is authentic to the extent of active and collaborative learning of students with given incentives and application of instructions by the teacher (researcher). Both systems follow the mapping of project-based learning (PBL) and project-based instruction (PBI) in English grammar classes. One thing is similar about the rules of the grammar of any language i.e., needing building blocks or parts in the form of words - from different classes like forms of verbs, adverbs, nouns, adjectives, pronouns, prepositions, conjunctions, determiners, and punctuation marks. The formation of meanings takes place, which conveys the underlying information - in the presence of a logical order among their placement. It is known as sentence construction and structure. Without this practice, the words do not make any sense. English grammar follows the same norm. In a constructivist class, the practical application of the grammatical rules demands the finding or creating sources from the surroundings for a feasible environment for experimentation.

Since students belong to different cultures, multiple backgrounds, and social hierarchies- their personalities not only present them as individuals but also portray varying viewpoints. These range from the concepts of infinite things they come across regularly to the changeable situations and perceptions they live by. The same variants are part of the theory, which shows a variety of behaviors, abilities, and potentials to learn in classes, along with changeable levels of performance and competence. In the study, after using the techniques of learning and instructions for the seventh and eighth graders, the instruments for judging pre and post-tests and a questionnaire under experimental and survey designs have the theory's reflection in analysis and result.

CHAPTER 4

DATA ANALYSIS AND DISCUSSION

The utilization of both project-based instruction (PBI) and project-based learning (PBL) through application in teaching selective lessons from the textbooks of seventh and eighth graders along with activities and games in an inclusive class. Then, the review of students' capability and conduct via group-assigned projects. In addition to that, a mix of data production occurred in the form of raw figures and facts through project-based instruction (PBI) and project-based learning (PBL). Their analysis demonstrates the meanings and purposes behind it, and the discussion explains each detail. Therefore, the findings confirm the predictions of the deep questions and result in assurance.

4.1 PBI & PBL Selective Lessons in Class of Seventh and Eighth Graders English Grammar

The organization and planning of teaching selective units of English textbook grammar to seventh and eighth graders get organized under project-based instruction (PBI) and project-based learning (PBL). The chosen grammar sections cover the entire course's outline in the books. The Federal Textbook of English for seventh grade is "Model Textbook of English 7," and for eighth grade is "Model Textbook of English 8," published by the National Book Foundation (curriculum 2022). Both books have grammar sections of related chapters or units.

For the seventh grade, the taught grammar units from the textbook are (Unit#1) Articles; (Unit#2) Adjectives and Compound Adjectives; (Unit#5) Present Continuous, Future Tense, Transitive and Intransitive Verbs, Collocations; (Unit#7) Clauses and Phrases, Alliterations, Pronouns.

For the eighth grade, the taught grammar units from the textbook are: (Unit#1) Use of Articles; (Unit#4) Present Perfect Tense, Phrasal Verbs, Simple and Complex Sentences, Use of Commas; (Unit#5) Present and Future Indefinite Tense, Active and Passive Voices; (Unit#6) Adjectives, Comparative and Superlative Adjectives, Different Verb Tenses.

The books' units are not too much supportive in terms of grammar. A few grammar items e.g., articles, pronouns, etc, have pre-practice reading exercises.

Otherwise, most have direct exercises to practice after a side note or description of them.

4.1.1 English Textbook Grammar Exercises during PBL and PBI Classes

The class lectures and exercises comprised authentic grammar lessons outside the book using improvised educational tools like showing the grammar concepts with arrow diagrams, audio appropriate with the topic, and relevant life stories to culture. The researcher occasionally faced difficulty in time management to teach segments of lessons. Students used to get bored very quickly and easily. So, the organized assigned classes' time always managed to parallel enjoyment and learning. Thomas (2022) says in his article that this situation is a complex "balance" of the spans either "too short and too long." In the case of plenty of time, "the sense of urgency is lost", and having inadequate time brought "stress-reactive behaviors." The lessons related exercises in class were from the textbooks, and some also led to home assignments. The exercises were the same for both grades to note visible changes. The seventh and eighth graders practiced with the same exercises of the lessons with their respective units which were: oral examples at many places; newspaper articles, printouts to read and observe by the students; inclusive class discussions more than once, and making of sentences according to tenses; listening to an audio poem based on alliteration and sentence making, auxiliary and modal, regular and irregular verbs, the teacher read a written poem for the students to listen and check functions of pronouns.

4.1.2 Class Activities and Assignments

The devised activities and assignments for both classes were the same as well. The seventh-class students were more willing to do as directed and even volunteered in activities, while the eighth class needed a push to take a step ahead. The following hands-on, meaningful activities through activity-based instruction (ABI) and creative home assignments (refer to Appendix A: Assigned Assignments to seventh and eighth graders) placed the students at the center of focus and involved each shy and bold pupil equally.

Class activities for seventh and eighth graders were as follows:

a) A game played on paper called “Why, Because.” One student wrote a question using “Why”; the next replied with “Because”. It brought many funny instances along learning, as the paper circulated in the whole class.

b) Students made a “Fortune Teller” from paper on which they wrote verbs, nouns, adjectives, and adverbs in different folds. Then, they made many sentences using whatever verbs, nouns, adjectives, and adverbs appeared. For instance, in a sentence structure, the student used the adjective 'brilliant', which appeared while taking her turn in the game. She orally made a sentence: “Anas has a brilliant mind.” then she employed a comparative adjective in another sentence: "Bano is taller than me." The students made mostly simple sentences like this. Their choice of making uncomplicated sentences is visible through one of the sample assignments in a collage form towards the end pages of the report. Also, some adjectives in one form or another are available in the sample pictures of the pre and post-tests (refer to Pictures 1 & 2 in Appendix A).
c) Students made an effort to rearrange jumbled elements to make proper sentences.

The assigned class assignments to seventh and eighth graders were:

a) Make a Story using the given 3 pictures, and also suggest a Title.
b) Read the given *article and write down your viewpoints and suggestions.

*The chosen articles were from newspaper, magazine for children and printed parts from different online sources e.g., story books, comics and poems.

c) Self-practice all the learned grammar items on the given online website: https://www.usingenglish.com/quizzes/

Maximum students did not return the assignments in due time. Instead, they procrastinated that they did not have ample time to do the assigned work. Although, the given days for the assignments were twelve in number. The maximum interest of students was negligible in doing the creative part of the assignments. Even though many incorporated explanatory examples, along with indirect snippets, were present throughout the completion of the work. While most of the students copied and pasted quite well.

4.1.3 Informal Feedback on the Performances of Students

The feedback was informal during class activities and after assignments, which students received. The evaluation of activities was through the assessments after the exercises and games. The feedback on assignments was through a class discussion. The analysis of assessed outputs of the students was of their four skills i.e., listening,

speaking, reading, and writing, correlating to their independent comprehension, as the most crucial skill.

The overview of the overall performance of students during class activities was as follows:

1. Comprehension of the students or understanding was majorly average i.e., they understood the maximum elements in the class but not everything. A few of them were with two variations, that is, grasped a little during inclusive lectures and did not grasp at all because of complete unfamiliarity with the English language. However, for some flexibility, employing code-switching (i.e., from English to Urdu) and occasional usage of direct translations in the national language took place to accommodate learners. Collectively, the depiction of the understanding level of students also resurfaced in their assignments and then in the pre-test and post-tests.
2. Students were good at listening and responding. At times, when things were incoherent for them, they showed annoyance and inability to carry on with a task.
3. In terms of spoken language, a few were willing to converse in moderately fluent English, while the rest preferred to use either mixed codes or just the national language.
4. All the students were very good at reading. A few had an American accent, and the remaining had a Pakistani English accent. Only some students had hesitation in keeping eyes and speech coordination.
5. Writing was the main area where students encountered the most issues. All produced the memorized material but demonstrated the incapability of writing some simple sentences by themselves. Some tried to write some sentences, which showed that the entire learned grammar rules needed organization and frequent supervised practice sessions.

The students felt satisfied to get a review of their capabilities regarding checking their interpretations in showing learning. The majority wanted to improve their skills but refrained from doing so. They were having the fear of trying new and unconventional ways and being frightened of failure. They also had doubts about losing their good image in their class community.

4.2 Experimental Groups' PBI Projects and their Performances

The experimental group receives intervention under the project-based instruction (PBI). It involves a separate method for a period to evaluate after executing the approach and draw results. This study has the experimental or treatment groups, which consisted of 25 students, further divided among 5 groups with 5 participants each. The adopted sample has a total number of 100 students from which both seventh and eighth classes have 50 and 50 students (half sample per section i.e., 25 students for the seventh and eighth control groups, and the remaining half sample per section i.e., 25 students for the seventh and eighth experimental groups). Every group was assigned a project title to perform within a specific time frame. A briefing to the groups introduced them to the concept of working as a team, how to tackle group issues, brainstorm ideas related to the assigned projects, and the outcomes of projects incorporating grammar items with their appropriate usage. The following table shows designated projects and produced performances.

Table-1A

Table of Assigned Class Projects & Experimental Groups' Performance of 7th Graders

Experimental Groups under PBI [5 members per group]	Topics of Assigned Projects	Group's Entire Performance	Demonstrated Skills from English Grammar by the Group Members	Given Time & Utilized Time by the Group to Present Project
Group#1	"Fashion as a Modest Statement"	All the participants presented together and performed in an average way.	One student introduced the group and presented according to the presentation's decorum. The rest read their written lines and presented through them. The usage of areas of grammar via tenses, adjectives, and others existed through descriptive writing.	Given Time=7mins Utilized Time=5

Group#2	“Mimic a character in a funny way”	The participants presented in two pairs and acted out well in an explanatory way.	As per the norm, one student introduced the whole group. All the students presented according to the adopted anonymous characters to elicit elements of mystery and interest. One of the students used name-calling, which instantly got a correction. The usage of areas of grammar showed tenses, adjectives, demonstrative nouns, and other items.	Given Time=7mins Utilized Time=7mins
Group#3	“Reduce, Reuse, Recycle i.e., 3Rs”	The participants presented one after another on their turns. They made a successful effort to keep the rhythm of the presentation even by referring back to the previous presenter's words.	In this group, all the students introduced themselves individually. One or two students wrote material for the presentation themselves, and the rest copied/pasted from multiple sources, occasionally from their course books. One of the presenters included a diagram as well. The grammar areas showed tenses, adjectives, nouns, verbs, prepositions, and other items.	Given Time=7mins Utilized Time=5mins
Group#4	“Hope, Health & Happiness”	The participants presented the three factors in unison by dividing and tethering conceptually with the real world. All of them put forward their presentation on their turns.	The group introduced themselves. All the students generated their material, though their independent parts contained a maximum of four sentences to represent.	Given Time=7mins Utilized Time=6

Group#5	"Being an Entrepreneur: advertise/sell your Environment Friendly Product"	The participants chose one product to present, and the entire group demonstrated and explained. The group members performed their parts turn-wise.	The students collectively introduced themselves. They modeled a whole paragraph together and presented their respective areas. The grammar showed tenses, adjectives, nouns, verbs, prepositions with one or two alliterations.	Given Time=7mins Utilized Time=7

Table-1B

Table of Assigned Class Projects & Experimental Groups' Performance of 8th Graders

Experimental Groups under PBI [5 members per group]	**Topics of Assigned Projects**	**Group's Entire Performance**	**Demonstrated Skills from English Grammar by the Group Members**	**Given Time & Utilized Time by the Group to Present Project**
Group#1	"Fashion as a Modest Statement"	The participants gave examples of different outfits of both East and West and the fashion-forwarding element by showing pictures. The group members performed as a single unit.	The students introduced themselves together. They wrote approximately three paragraphs and presented them together. The grammar showed tenses, adjectives, nouns, verbs, prepositions with one or two collocations.	Given Time=7 Utilized Time=5

Group#2	“Mimic a character in a funny way”	The participants cooperated and expressively performed different characters and added relevant handy props.	The group independently introduced themselves. All the students generated their material. Their separate characters had exactly four sentences to represent.	Given Time=7 Utilized Time=7
Group#3	“Reduce, Reuse, Recycle i.e., 3Rs”	The participants divided the three elements among themselves and created associations related to the current world under Global Warming. All of them presented their presentations side by side.	In this group, all the students introduced themselves as a team. One or two students wrote material for the presentation themselves, and the remaining incorporated images. The grammar areas showed tenses, adjectives, nouns, verbs, prepositions, and other items.	Given Time=7 Utilized Time=6
Group#4	“Hope, Health & Happiness”	All the participants presented together and performed half-heartedly and in a haste.	According to the general rule, one student introduced the whole group. All the students presented different pictures as an aid to relate their words. The usage of areas of grammar showed tenses, adjectives, abstract and concrete nouns, and other items.	Given Time=7 Utilized Time=4

Group#5	“Being an Entrepreneur: advertise/sell your Environment Friendly Product”	Only one participant presented by talking about the chosen product, and the rest showed the product in the show-and-tell format.	One student introduced the remaining members and presented according to the presentation's requirement. The sle presenter's writing style depicted the usage of areas of grammar via tenses, adjectives, and others through descriptive writing.	Given Time=7 Utilized Time=6

At large, the inclination of projects was towards self-discovery and self-learning. The projects turned out intimidating for some due to stage fright and the first-time experience, while for some, the projects became an extra burden because of the nature of the application. Otherwise, most students took great interest and showed signs of involvement progressively during the whole process.

4.3 Pre-Test as Dependent Variable and Quantitative Data in Class Achievement

A pre-test is a tool or instrument employed in the current study as a dependent variable to calculate the accomplishments and response of the learners and get outcomes through treatment i.e., traditional approach on the control groups of seventh and eighth graders. The students had previously received the treatment under commonly employed traditional teaching and had the appropriate background knowledge. The groups had 50 participants whose distribution was equally in half among the control and experimental groups i.e., 25 participants per group out of 50 students in each class. The target was to measure the level of previous knowledge of both groups along with the success rate. The test took place at the beginning of conducting the research and included a total of 10 MCQs of 10 marks, which means that every correct MCQ answer had one mark - and an incorrect answer had a 0 mark (refer to Appendix A for the sample of questions in Picture 1 and Table1: Answer Key) that collected quantitative data from both the graders of seventh and eighth. The application is under experimental design.

4.4 Post-Test as Dependent Variable and Quantitative Data in Class Achievement after the Influence of Independent Variable i.e., PBI

Another test took place after teaching sessions throughout the three months using project-based instruction (PBI) as a medium to teach or give treatment to the experimental groups of seventh and eighth grades. The test occurred under the name post-test, a second tool as a dependent variable to check the performance of the pupils the second time. The aim was to calculate the learning level of current or new knowledge of both experimental groups and check the improvements in the ability to learn and apply. After intervening in these groups, only with the new methodology. This given treatment had stages influenced by the constructivism theory of Jean Piaget, its discussion is throughout the study. The administered test was towards the end of concluding classes under PBI and consisted of 25 questions. The first 13 questions contained MCQs, while 12 questions were open-ended. The MCQs were of 13 marks, and the 12 questions were of 36 marks altogether i.e., each question carried three marks respectively. The correct MCQ had one mark, and every incorrect answer had a zero mark. Subjective or open-ended questions had different marking schemes due to varying parameters under written grammar, for example, tenses, word choices, expression or sense, and independent and dependent sentences. Each of them carried a total of 3 marks, which is equal to 1 mark per sentence (refer to Appendix A for the sample of questions in Picture 2 and Table 1: Answer Key). The application of this tool is also under experimental design.

4.5 Survey Questionnaire of Qualitative Data after the Influence of Independent Variable (Treatment i.e., PBI)

As the last step, a third employed tool was to distribute and gather the qualitative data from a survey questionnaire of the experimental groups from seventh and eighth graders. The evaluation of the collective reaction of students to the expertise and conduct of the instructor and themselves occurred. These also gave an overall response on the four learning skills along with their application and of instructor and participants. The questionnaire had altogether 29 questions, and all of them contained a 5-point Likert scale (refer to Appendix A for the sample of Picture#3). This tool is under survey design.

4.6 Analysis of Experimental Design - Pre and Post-tests Data

This research has used SPSS (Statistical Package for the Social Sciences) software or IBM SPSS Statistics to calculate the effectiveness of the teaching

methodologies utilized with control and experimental groups under experiment designs. The control groups of the seventh and eighth grades show the data gathered from the pre-test. While the experimental groups of the seventh and eighth grades demonstrate the combined data from the post-test. The SPSS software will then analyze the results obtained from the tests and give a final output.

The chosen SPSS Paired sample t-test or Dependent t-test is a parametric test. It compares two means of the identical "individual, object, or related units" (LibGuides: SPSS Tutorials: Paired Samples T Test, n.d.)). In this study, these two "paired" measures were from the same person, which means subjects remain unchanged through dependent variables or test variables i.e., pre-test and post-test inside practical or experimental situations. This implies that the first group participants also exist in the second group. The data sample from the population is random. Together, they give steady output, which has a normal distribution.

There are certain conditions for the application of this test. The noted measurements were at two separate periods. For instance, teaching with project-based instructions (PBI) aided the two points of duration from the obtained numbers of pre and post-tests. The first half focused on acquiring previously gained knowledge under traditional teaching, and the second half part was learning through newly taught selective lessons employing project-based instruction (PBI) for both seventh and eighth graders.

This test has four tables that show univariate descriptive statistics (mean, sample size, standard deviation, and standard error) for each variable entered. The paired t-test can only use cases having non-missing values for both variables. Paired sample correlations present the bivariate Pearson correlation coefficient (with a two-tailed significance test) for each pair of variables entered, which is not the focus of the study.

From the results of the SPSS Paired Sample t-test, inference can be the Correlation coefficient of 0.268 demonstrates the strength and direction of the relationship between two variables i.e., pre-test and post-test in a paired sample. In the background of a paired sample t-test, the correlation coefficient typically reflects the extent of a relationship between the paired observations.

The correlation coefficient of 0.268 points under the power of association ranges from -1 to positive one. A value closer to the positive one indicates a well-built positive relationship, while a value closer to -1 indicates a well-built negative relationship. A

correlation coefficient of 0.268 is positive, suggesting a weak positive relationship between the paired observations. Then, the focus of association starts from the output that the correlation coefficient gave positive, which means that as one variable increases, the other variable tends to increase along. The paired sample t-test indicates a preference for the paired observations to go with each other in the same direction.

It is noticeable that correlation does not signify a process to occur something. Although there might be a correlation between the paired observations, it does not necessarily mean that changes in one variable cause changes in the other.

There is a significant average difference between pre-test and post-test scores i.e., -34.706. The negative mean indicates a considerable difference between the means of the two paired groups is present. The negative sign implies that the mean of one group is lower than the mean of the other group. Since both bounds of the confidence interval are negative, it suggests that the pre-test group has a significantly lower mean corresponding to the post-test group.

On average, pre-test scores were -19.480 points less than post-test scores of 95% CI (-20.594, -18.366). If the confidence interval does not include zero, it shows that the difference between the means is statistically meaningful at the 0.05 level. Since both bounds are negative and do not include zero, it tells that the difference between the means is statistically significant. The related tables and figures (A, A1-A3 & Figure 1) are in Chapter 4.

4.7 Analysis of Survey Design - Questionnaire Data

The research used 29 rank-based questions through a 5-point Likert Scale to survey the performance and competence of students and the teacher. The assessment of the experimental group students after undergoing project-based instruction (PBI), an independent variable, happened.

Under SPSS, Spearman's correlation coefficient estimates the stability and order of monotonic connection between two variables. The term monotonic in mathematics is directly quantity-based, which manages to either rise or always fall. A monotonic association is a situation in which the proportion of one variable escalates along with other variables escalation or where the proportion of one variable rises as the other variable declines (Discover PhDs, 2020; Monotonic, 2024). It ranges from -1 to one in the following way: one indicates an ideal negative monotonic relation, zero refers to no

monotonic affiliation, and one signifies an ideal positive monotonic collaboration.

In the condition of the current study, Spearman's correlation coefficient of --0.020 is immediate to zero, indicating an extremely feeble, almost insignificant, negative monotonic association between the two variables. The negative sign points out that as one variable increases, the other declines, but the potency of this association is overly inadequate.

It is to report that Spearman's correlation coefficient is slightly exposed to irregularity and does not accept a linear association between variables. Nonetheless, the coefficient being close to zero indicates that the examined variables i.e., learning skills (plus comprehension) and English language in the application manner, have insufficient to no monotonic connection.

4.8 Contrastive Critical Analysis of Project- Based Instruction (PBI)

The collected data in this research is primary. It has no support to compare but to elaborate on contrast in the critical analysis of secondary data from a few suitable literature review articles. There are several varying factors related to the secondary data sources. Some have different and enhanced pedagogical setups of the first world countries and have technical equipment. Some have degenerated educational environments of the third-world countries to the limit that the classes are open-air and without the necessary commodities. Then, changed classes of many levels i.e., from kindergarten to university, the socioeconomic differences and individual family backgrounds, the number of students differ, and the unique minds of the pupils, which are as unique as their fingerprints. Also, the taught subjects, their topics, and the contents are not the same, and the flexible approach of the PBI is not even parallel. The only similar factor in the educational pattern of many foreign countries and the work of Batool (2023) is the suggestion of one unified curriculum for all, which has to be a priority in the pedagogy of Pakistan.

The article by Ariani (2023) investigated the efficacy of project-based learning in the English language class for assessing the ability to comprehend different written materials. The used theory, the Zone of Proximal Development caused motivating peer dialogue and got approval. Then, getting the results from the consequences of PBL and the general preferences of the students. The design was a "quasi-experiment" with the observation tool of "Collaborative Strategic Reading (CSR)," and the group without

treatment went through PBL. The sample was the eighth graders in Surabaya, East Java" school. The target was to check the understanding level of students using strict statistical analysis. The gathered data from the pre-test and post-test scores drew a comparative analysis using the SPSS Independent sample t-test on the treatment group marks. The test comprised twenty multiple-choice questions with four choices per object on the five covered reading passages. The "Kuder Richardson" method and "Cronbach's Alpha" an inner measurement for "consistency reliability" to organize tests, is because of the simple and practical usage in the classroom and check applicability for the eighth graders. The reliability coefficient of 0.81 indicates a heightened internal consistency in the test output. The researcher considered specific items for the difficulty level in utilizing a formula suggested by "Heaton (1975) (Ariani, 2023; Zariah & Nikmaturohmah, 2011). The formula supplied a measure for the problem, revealing if the objects are hard or effortless. The approach was to attain an understanding of the comparative test of the things put to examination. A proof of the efficiency of PBL in the language class and answered the hypothesis.

Astawa, Artini, and Nitiasih (2017) used PBL under "English as a foreign language (EFL)." Its used theory, which is inversely proportional to the theory of constructivism. The sample contained 28 students in the seventh grade at a public middle school in Bali, Indonesia. The usage of project-based learning practices was to check the consequences on the education and development of the students after using English productive skills. Astawa et al., (2017) used an ingrained plan of blended strategy, which was responsible for quantitative data collection at the time, and after PBL and qualitative data from "interview, observation checklist, open-ended questionnaire, and field note (p. 1149)." The mixed-method had tools of pre and post-tests, which used SPSS paired sample t-test for quantitative data along with qualitative explanatory data, which studied a massive distinction in the earlier, during, and later teaching of English product skills of students using PBL. The paired sample t-test, on quantitative data obtained from the pre-test and post-test, gave the output of t= -20.610 on the first research question of the monologue speaking test, emphasizing noteworthy accomplishment (p. 1149). Then, the same tests on writing skills drew results; in the form of a mean difference of -22.786, showing the observable positive influence on writing skills of students (p. 1149). The second question answered the qualitative nature. The drawn results are from the recorded viewpoints, which assessed under the

theories of Thomas (2000) on the factors of PBL and Brown (2008) on the attributes of "active learning (p. 1150)." They also resulted in the attainment of PBL in confidence boost of the pupils in the practice of English while they work together as a group and become a support for their peers. The study implies that the examination outcomes showed a powerful impact on the English productive skills of the learners inside PBL. It pointed to an open-minded implementation of PBL in an EFL setting, specifically the capability of the learners to talk and write in English.

The current findings off this research are contrastive to the analysis of the experimental design of the current study, having 100 students as a sample from the seventh and eighth graders both under project-based instruction (PBI) using the theoretical framework of Jean Piaget, Constructivism, and Cognitive Constructivism. After running the SPSS Paired Sample t-test or Dependent t-test, the output deduced the correlation coefficient of 0.268 having the strength and direction of the relationship between two variables (the paired observations) i.e., pre-test and post-test in a paired sample having a positive, but suggesting a weak positive relationship between them. The second design, survey tests i.e., learning skills (plus comprehension) and English language in the application manner, have insufficient to no monotonic connection under used SPSS Spearman's correlation coefficient, which evaluated the stability and order of monotonic connection between two variables. It gave a correlation coefficient of -0.020, indicating an extremely feeble, almost insignificant, negative monotonic association between the two variables because of the closeness to zero. The negative sign points out that as one variable increases, the other declines, but the power of this association is too deficient, is little exposed to irregularity, and does not accept a linear association between variables. The research questions got the answers in a refused way on the strength of the approach of the English grammar while with a differing product of the behavior, which students displayed towards the validity of PBI. The comparative collective obtained results from the quantitative and qualitative data are divergent due to no similarity proportional to the theory of constructivism.

4.9 Discussion

Formative and summative are the two judging strategies to determine the learning levels of students before, during, and after a course completion. They comprise many tools, and teachers can merge them in many ways (Formative and Summative Assessments, 2021).

Formative pinpoints - misunderstandings, efforts, improving and determining ways to bridge spaces while gaining knowledge. Its instruments aid in transforming knowledge and support learners in taking responsibility for their learning after knowing that the purpose is improvement and not obtained scores (Trumbull and Lash, 2013). The criteria carry on in a curriculum from the start till the end. It targets accomplishing learning goals via sustaining methods, which look after particular requirements of students (Theal and Franklin, 2010, p. 151).

Summative calculates the ability of pupils to discover, be efficient, or attain achieving status at the end of teaching a chapter, etc. The done grading is nearly proper and usually has more weightage, although the demand is not always the same. They give excellent outputs when intersecting and joining with the formative learning method (Formative and Summative Assessments, 2021).

The study utilized the formative estimation method to judge conversations in class, given work for home, and a survey questionnaire. Additionally, the employed summative reviewing measure was to evaluate pre-test, post-test, and final projects. For related figures and outcomes, refer to Chapter 4 and Appendix A. The detailed answers to the research questions are in Chapter 5.

4.10 Findings

Findings always have discovered or unearthed areas and what true meanings lie beneath the amounts of quantitative and qualitative data.

4.11 SPSS Paired Sample t-Test for Dependent Variable (i.e., Pre and Post-Tests)

Table A

Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	VAR00002	5.90	100	1.732	0.173
	VAR00003	25.38	100	5.824	0.582

Table A1

Paired Samples Correlations

			Significance

		N	Correlation	One-Sided p	Two-Sided p
Pair 1	VAR00002 & VAR00003	100	0.268	0.003	0.007

Table A2

Paired Samples Test

		Paired Differences								
					95% Confidence Interval of the Difference				Significance	
		Mean	Std. Deviation	Std. Error Mean	Lower	Upper	t	df	One-Sided p	Two-Sided p
Pair 1	VAR00002 - VAR00003	-19.480	5.613	0.561	-20.594	-18.366	-34.706	99	0.000	0.000

First column: The tested pair of variables, and the required order of subtraction. (If there are mentioned more than one variable pair, this table will have numerous rows.)

- **Mean/Average:** The average difference between the two variables.
- **Standard Deviation:** The standard deviation of the difference scores.
- **Standard Error Mean:** The standard error (standard deviation divided by the square root of the sample size). Utilized in computing both the test statistic and the upper and lower bounds of the confidence interval.
- **t:** The test statistic (denoted *t*) for the paired T-Test.
- **df:** The degrees of freedom for this test.
- **Sig. (2-tailed)**: The *p*-value corresponding to the given test statistic *t* with degrees of freedom *df* (LibGuides: SPSS Tutorials: Paired Samples T-Test, n.d.).

Table A3

Paired Samples Effect Sizes

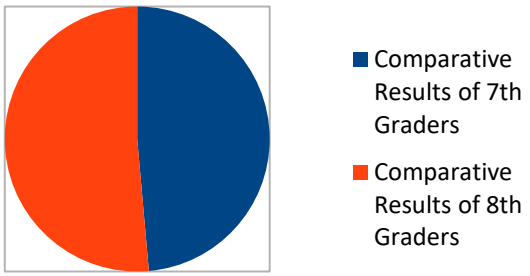
					95% Confidence Interval	
			Standardizer[a]	Point Estimate	Lower	Upper
Pair 1	VAR00002 - VAR00003	Cohen's d	5.613	-3.471	-3.990	-2.948
		Hedges' correction	5.656	-3.444	-3.960	-2.926

The denominator used in estimating the effect sizes. Cohen's d uses the sample standard deviation of the mean difference. Hedges' correction uses the sample standard deviation of the mean difference, plus a correction factor.

Table A4 / Fig. 1

Percentages as Comparative Results of Pre-test and Post-test of Seventh and Eighth

Comparative Results of 7th Graders	**Comparative Results of 8th Graders**
152000%S	160800%



4.12 SPSS Spearmen's Correlation for Independent Variable (i.e., Project-based Instruction (PBI) or Treatment)

Table B

Rankings under 5-point Likert Scale for Qualitative Data

Likert Scale 5-point Answers in Ascending Alphabetical Order	Assigned Ranks and Equal Numerical Values

a)	A =1 < Highest >
b)	B =2
c)	C =3
d)	D =4
e)	E =5 < Lowest >

Table B1

Correlations

		VAR00002
Spearman's rho VAR00003	Correlation Coefficient	-0.020
	Sig. (2-tailed)	0.890
	N	51

Graph Representation

Figure 2

Spearmen's Corelation of Survey Questions

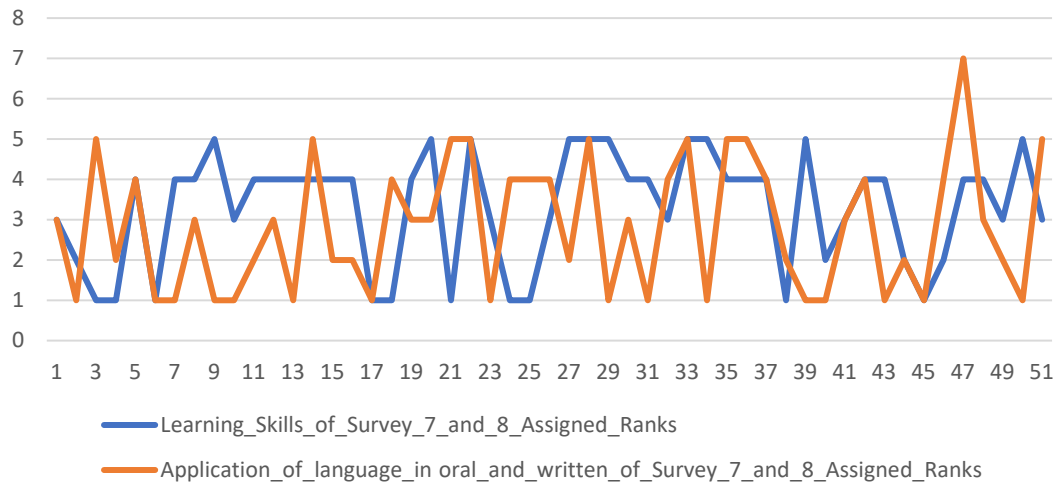


Table C

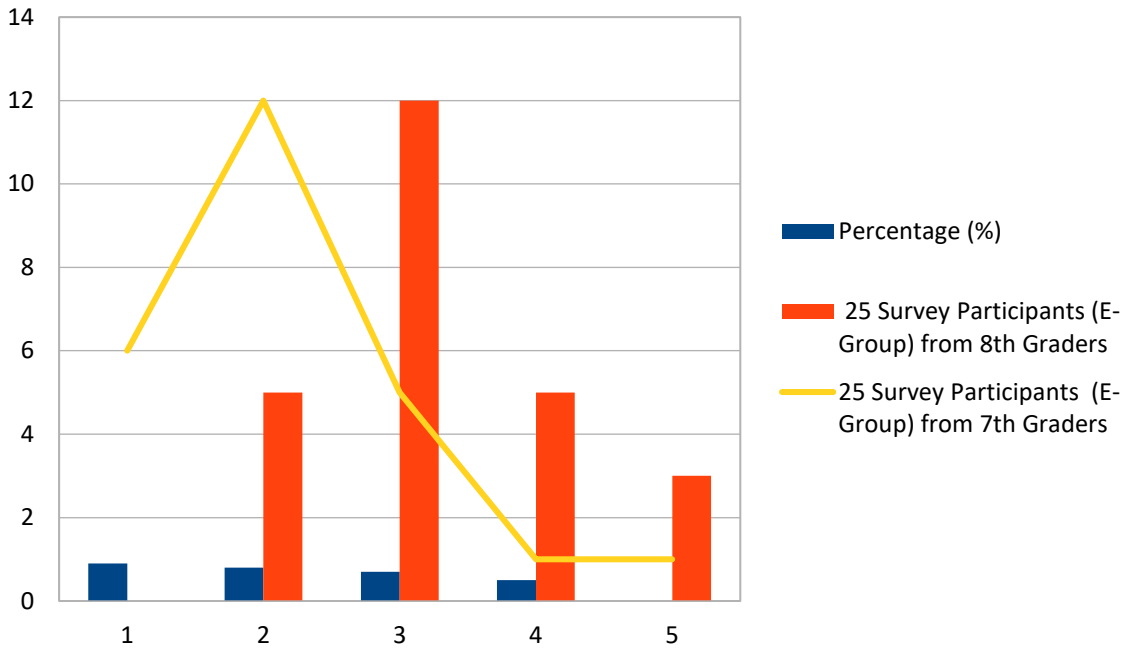
Project-based Instructions Participants Face-to-Face Feedback about their Improvement of Grammar

What percentage do your grammar has improved after PBI?

Percentage (%)	25 Survey Participants (E-Group) from 8th Graders	25 Survey Participants (E-Group) from 7th Graders
90	0	6
80	5	12
70	12	5
50	5	1
None	3	1

Graph Representation

Figure 3



An in-person question brought experimental groups to different answers contrasted to the analysis. As in their level of improvement in grammar. They gave very different results, as in the bar graph.

4.13 Results

Summarizing project-based instruction (PBI) and project-based learning (PBL) in teaching middle classes textbook grammar is not only a little daunting but also

fulfilling as it gives a route to teach with an obvious difference and the traditionally designed English grammar course, creatively. The constructivist theory of Jean Piaget supported the study and majorly coped with the hybrid designs and the three testing ways of the research in the context of the educational spectrum of a third-world country.

The tests run via the SPSS software did return the expected findings. The outcomes of the pre and post-tests of both seventh and eighth grades have produced different percentages. The percentage of the eighth graders showed that the teaching approach of project-based instruction (PBI) influenced their ability to learn grammar productively (Figure 1, Table A4, refer to Chapter 4). The dependent variable (the experimental group) or performance acquired and tested successfully - the learning skills and their application inside the class through the active medium of the independent variable (project-based instruction (PBI)) or treatment. While survey returned contrasted results as an outcome of the second question in one-on-one feedback, the seventh graders after treatment reported an 80% improvement compared to the eighth graders after getting taught through PBI showed a 70% improvement (refer to Table C & Figure 3). The employed variables are internally valid in this context and may be valid externally.

An article explained grammar and intertwined achievements using an acronym, which this study fulfilled. These are: "g" as "give" - enough time to understand instructed contents, "r" as "review" - level of grammar rules and usage of learners, "a" as " accommodate" - to catering the learning potentials and requirements of pupils, "m" as "motivate" - in a persistent way, another "m" as "make" - turn grammar into worth enjoying, "a" as "assessment" - amount of gained knowledge and what needs more attention, and another "r" as "relevant" - content of lessons need to be appropriation with the world around students and to build adequate understanding of the subject matter and their environment (Gomez, 2017).

CHAPTER 5

CONCLUSION

A conclusion not only gives a final verdict on the outcome but also gives a review from the point of progression/progressiveness over the years and in the years ahead.

The research has features from past, present, and future using the constructivism model or theory of Jean Piaget in synchrony to a non-conventional approach of teaching, project-based (PBI) with project-based learning (PBL). The theory of constructivism steadily fulfilled the factors of accommodation and assimilation via metacognition. They are the opposite of the didactic approaches that prevail in the pedagogy of Pakistan. Then, the teaching of the pre-defined, traditionally designed curriculum with a variation employing the characteristics of inclusivity of learners, with engagement, and operating via intrinsic and extrinsic motivation. Consecutively, hands-on in-class activities and projects under activity-based instruction (ABI) with activity-based learning (ABL). All the educational movements took place in a government school on a random purposive sample of middle graders in seventh and eighth.

Next, the adopted methods to collect data are through mixed method that consist of quantitative and quantitative data. Their accuracy is observable by viewing the gathered data, their analysis, and the outcomes they produced. The quantitative method used two tools, which were pre-test and post-test. Their target was to calculate the mean and percentage of the success rate of the seventh and eighth graders in learning English grammar through the project-based instruction approach under the constructivism model of Jean Piaget. The qualitative method used the instrument of a questionnaire designed through the 5-point Likert Scale. The quantitative and qualitative results after analysis show that the percentage of the eighth graders performed well in the post-test after project-based instruction. Comparatively, the difference between the means is statistically significant meaning reliable. The questionnaire showed a constant and alternating rise and fall in the figures of learning skills and application of language in oral and written English. Comparatively, the face-to-face feedback of the seventh and eighth experimental group participants confirmed that 80% of the seventh graders found improvement in their grammar after PBI. The software that aided in the analysis of data

is SPSS software, which used Paired Sample TTest and Spearmen's Correlation on the dependent variable i.e., pre and post-tests, and on the stance of the experimental group after being taught by the independent variable i.e., PBI.

The SPSS Paired Sample T-Test answers the research question of how effective project-based instruction (PBI) is in learners' grammar. For that, caution is the requirement while testing them on a normal distribution. In this case, the contrast between the paired values is by a paired variable and not via the actual variables.

The test purpose is to decide if there is any statistical reason that the experimental paired observances have the mean difference, which is quite different from zero. The manual calculation of the Paired Sample t-test is possible, but it takes place differently under SPSS Descriptive Statistics. Under the Analyze tab, Compare Means, then Paired Sample TTest by taking the data and producing results in table forms.

The study's focus was on finding the mean and percentage. Both means are negative and without zero, implying a crucial difference between them. The separate means of the pre-test and post-test, are 5.90 and 25.38 show the mean of the post-test is greater than the pre-test (refer to Table 2, Appendix A). The pre-test percentage of the seventh graders is 29700%, and the post-test is 122300%. The pre-test and post-test percentages of the eighth graders are 29300% and 131500%. The pre-test percentages show that the seventh graders performed better after their earlier gained knowledge, and the post-test percentages show that the eighth graders gave improved results after being taught through project-based instruction (refer to Appendix A, Tables 3 & 4).

The sole purpose of SPSS Spearmen's Correlation test was to evaluate experimental groups' of collected data from the questionnaire from both the selected grades' answers that coordinated agreeably with their opinions, together estimating their mindsets on coming across learning skills and making them applicable in the English language. These together replied to the second research question of what attitude the learners showed toward the effectiveness of project-based learning (PBL). Technically, Spearman's Correlation Coefficient formed a turbulent link with variables. The nearness of the coefficient to zero suggests that the analyzed variables of learning skills with understanding and applicability of the English language have impaired to no strong relation (Figure 2, Chapter 4). The yielded value has a negative sign, which means that on the rise of one variable; the other falls. The balance is unstable for data; refer to

Table B1 in Chapter 4. The line graph also gives a pictorial view of the explained output; refer to Figure 2 in Chapter 4.

The obtained results answered the research questions, although in a rejected manner on the strength of the approach of the English grammar while with a differing outcome of the behavior, which students show towards the validity of PBI. The comparative collective obtained results from the quantitative and qualitative data are divergent due to no similarity.

The futuristic point can be that the new educators bring reality into the learning moments and transform the decades-old patterns of the courses in the educational system of Pakistan. The young generation of that time will feel more purposeful, willingly acquire knowledge, truly put their minds to bringing newness, and get familiarity and the ability to improvise in any circumstance rather than compromising by giving in. Therefore, they will become eligible competitors from Pakistan for the first-world countries and inherently sustain a steady positive repute.

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APPENDIX

Picture-1

Pre-Test (Experimental Design) for 7th and 8th grades

Pre-test for (7th & 8th grades)

Time allowed
20minutes
Student Name:_____
Age: _____
Date: _____

(1) A Noun is 'a word that refers to a person, place, object, event, substance, idea, feeling, or quality.' Read the sentence and Circle the suitable option for the blank. “In baking pizza _____cheeses are the necessary dairy ingredients, in addition to salted or unsalted butter.”
   a) Cheeses and butter
   b) Cheddar, and Mozzarella
   c) salted or unsalted butter

(2) The purpose of an adjective is 'to describe the qualities of someone or something independently or in comparison to something else.' Read the sentence carefully. “Eskimos prefer to live in igloos made of ice bricks to keep themselves warm in the bitter cold of Antarctica.” Figure out the number of adjectives in the sentence. Circle the option.
   a) 4 adjectives
   b) 3 adjectives
   c) 2 adjective

(3) Read the sentences and Circle the suitable option showing Modals and Helping Verbs or Auxiliary Verbs.

"Oh, come on, do have one!" said the tubbly little girl, whose sweets they were. "A sweet would do you good-make you look a bit sweeter perhaps!" ... “The boys have their lessons with us, and we play tennis and cricket with them and we have our own teams of girls only, too.” ... “Everybody squealed with laughter. "She can count!" said Nora, "Well, Elizabeth, count your things, and take five away or can't you do taking-away?” ... “She flew downstairs to the gym, where she had been told to go after making her bed and tidying her cubicle, All the others were there. Elizabeth had felt sure that they would all make remarks about her stockings being on after all-but nobody took any notice of her at all.”
   a) Do, have, can, would
   b) Play, squealed, count, flew
   c) Making, tidying, felt, took

(4) Read the sentences and Circle the option explaining the total number of Articles in order. “Me and my aunt saw a historical documentary movie this year. We thought of watching another different one some other time. Every year, we check out trailers of the chosen movies, and then we watch together those that appeal to our common interest. We hope that the production houses bring out meaningful and purposeful entertainment sources. An intelligently and carefully organized script can change the thinking pattern of society.”
   a) The, a, an, a, one, the, an
   b) A, one, the, that, the, an, the
   c) An, that, the, a, an, the, that

(5) Read the poem. Circle the option demonstrating presented number of Pronouns.

‘Slithery, slidery, scaly old snake,

surely your body must be a mistake.
Your eyes, mouth and tongue wisely stay on your head.
It seems that your body is all tail instead.
You gobble your dinner, you swallow it whole —
a mouse or a frog or a turtle or mole.
Ugh!
Why don't you eat ice cream or chocolatey cake!
Oh slithery, slidery, scaly old snake."

a) 10
b) 9
c) 8

(6) Determine the tenses in the sentences below. Circle the option.

My one-and-a-half-year-old daughter

Leaves holding my finger

And runs away to catch a butterfly

Fluttering in the yard –

The butterfly keeps on flying around

And she keeps on following it.

a) Present Continuous/Progressive, Past Perfect
b) Past Simple/Indefinite, Present Simple/Indefinite
c) Future Perfect, Future Simple/Indefinite
d)

(7) Read the poem and spot the total number of Future tenses. Circle the correct option.

"The earth is round, and so is Humpty Dumpty. Have you ever seen an egg placed in an egg cup? It is oval rather than round. Will it be challenging for a child to draw an oval? Shall carpenters make an elliptical table too for a conference room? A shape like this can adjust many people together for a meeting."

a) 5
b) 2
c) 4

(8) Read the sentence and spot all the Adjectives. Circle the option.

"If you are a punctual pupil, then a punctured tire of your car on the way to school may not worry you. You will remain cool and calm and will find a possible alternative."

a) Punctual, cool, calm, possible, alternative
b) Pupil, tire, car, school, worry
c) Find, way, remain, punctual, cool

(9) Read the Quotes of Bruce Lee "Practice makes perfect. After a long time of practicing, our work will become natural, skillful, swift, and steady." "Always be yourself, express yourself, have faith in yourself, do not go and look for a successful personality and duplicate it."

Circle the option which has other Verbs (Regular and Irregular Verbs).

a) Makes, become
b) Will, be
c) Have, do

(10) Circle the option that has Abstract and Concrete Nouns you commonly find around school.

a) Pavement/Footpath, cats & kittens, germs, motivation/encouragement
b) Duster, fish, loud noises, peace
c) Asia, amusement, piano, manners

Picture-2

Post-Test (Experimental Design) for 7th and 8th grades

Post-test for (7th & 8th grades)

Time allowed
30minutes

Student Name: _____

Age: _____ **Class:** _____

Date: _____

(1) Read the sentences and point out regular (R.v) and irregular (Ir.v) verbs from the 2nd form of the verb i.e., past tense. Circle the correct option.

"A cat pounced on a mouse. The mouse ran up the clock. The cat jumped after it but did not catch it at all."
"The worst thing students would do to themselves is to not study in time. It is not intelligent to keep on increasing the workload. The best thing is to give two hours to work on each subject, which will keep the boredom away too."

a) Increasing, work=(R.v) ; catch, do=(Ir.v)
b) Pounced, jumped=(R.v); ran, worst=(Ir.v)
c) Keep, study=(R.v); give, best=(Ir.v)

(2) "Lady Diana was known as the Princess of Wales[1]. She was the apple of everyone's eyes[2]. Her humble nature and humility became the reason for her popularity[3] in the entire world."
Observe the underlined areas and find Clauses and Phrases in the sentences. Circle the option.

a) [1]=Clause, [2]=Phrase, [3]=Clause
b) [1]=Phrase, [2]=Clause, [3]=Clause
c) [1]=Phrase, [2]=Clause, [3]=Phrase

(3) An Alliteration is "the use, especially in poetry, of the same sound or sounds, especially consonants, at the beginning of several words that are close together." Read the sentences and Circle the suitable option showing alliteration.

"Among the Muslim world, there is a trend in the high class, as in landlords, to keep and breed hunting birds. Especially in Saudia and Pakistan, falcons fly famously."

a) To keep and breed
b) Falcons fly famously
c) Among the Muslim world,

(4) Choose which Phrasal Verbs(verb+prepositions) come into use in real life. Circle the option.

a) Beaten by, Come across
b) Pitch in, Looks after
c) Looking forward, Pop-up

(5) Read the sentences. Circle the option demonstrating different tenses.

"Miami is a coastal city in the USA. While in the Netherlands, Dutch people live surrounded by tulips. It is strange to know that Malta is a European country, whereas Malta is a seasonal fruit in Pakistan."
"Could you deliver the package timely or not?"

a) Simple Present Tense & Past Tense
b) Past Tense & Present Continuous Tense
c) Simple Present Tense & Future Simple Tense

(6) Recall the definition of Noun, and then read the sentence and Circle the suitable option for the blank. "In cake baking,_____with vanilla essence can be an alternative ingredient instead of whites or eggs."

a) Egg whites
b) Egg yolks

c) Whole eggs

(7) Read the sentences and Circle the suitable option showing all the verbs.

"The Mad Hatter is one of the members of the Mad Tea Party. Later he also appears as a witness during the trial. He occasionally is very rude and provokes Alice during the tea party. When he is called upon by the Queen, he is very nervous and frightened."

a) The, Mad Hatter, later, during
b) Appears, is, provokes, called
c) Occasionally, upon, nervous, party

(8) Read the sentences and Circle the option explaining the Adverbs of Time. "My sister and I saw an adventurous English movie last year. We planned to watch an Urdu movie later. Yearly, we see a movie or two worth watching. Tomorrow we have plans to watch Oppenheimer, which is a historical event movie."

a) Now, twice a month, still, often
b) Crazily, rapidly, yet, loudly
c) Yearly, later, tomorrow, last year

(9) Read the Tongue Twister "If a dog chews shoes, whose shoes does he choose?". Circle the option demonstrating the presented number of Nouns & Pronouns.

a) 4
b) 3
c) 2

(10) Read the poem and spot all the Adverbs of Place. Circle the correct option.

When you see up, you find the sky
When you see down, you look at the earth
Then you glance around and find humans everywhere
Do you feel an attraction towards humanity or only a repel?
Could you be kind and make the East, West, North, and South alive again?

a) Up, look at, earth, around, everywhere, glance, when, kind, attraction
b) East, West, North, and South, up, towards, down, everywhere, around
c) Four poles (N, S, E & W), see, towards, humanity, then, feel

(11) Read the pun and spot all the Auxiliary and Modal verbs. Circle the option.

"What do mobile phones and dogs have in common?
Answer: They both have *collar IDs*."

a) What, have
b) Have, do
c) Did, would

(12) Figure out the superlative adjectives from the list. Circle the correct option.

a) Bigger
b) Most interesting
c) Faster

(13) Read the sentences and find the alliteration part from the sentence, 'Steve's mother loudly said from the kitchen, "Stay strong, Steve! Stop stalling and study!"

a) Steve's mother loudly said from the kitchen.
b) "Stay strong, Steve! Stop stalling and study!"
c) Steve's mother loudly said.

(14) If you see someone who wants help, what would you do? Explain in three sentences.

_____
_____

(15) Describe yourself by using adjectives e.g., bold. Write three sentences.

(16) A Preposition is "**in grammar, a word that is used before a noun, a noun phrase, or a pronoun, connecting it to another word.**" Write three sentences using the given prepositions: over, in, by.

(17) An Adverb is "**a word that describes or gives more information about another word, esp. A verb, adjective, or other adverb, or about a phrase.**" Write three sentences using the given adverbs: usually, tomorrow, cautiously, less, there.

(18) Use the arrangement of the grammar items: Articles + Adjectives (Adj)+Noun (N) e.g. I like to eat a (Arti) fluffy (Adj) sponge cake (N) with my tea (N). Make three sentences.

(19) Read the sentence carefully containing adjectives. “Bedouins prefer to wear pure cotton clothing, to keep themselves cool in the scorching heat of the desert.” Make three sentences containing adjectives of your choice.

(20) Determine the tenses in the sentences below. Make three sentences based on the tenses in the following text.

I went up to the arctic where I met a polar bear.

You might think she’d be white, but she had purple yellow hair.

I hopped on to a glacier and I rode it out to sea.

Snow is great for sledding but it's much too cold for me.

I like to go exploring places that I've never been.

Take one step, and then another, that's how you begin.

I made it to the jungle where a toucan said “Hello!”

He made a hat from branches that he dropped to me below.
High above in vines were where the lemurs liked to swing.
They jumped around and laughed and that's when they began to sing:
We like to go exploring places that we've never been.
Take one swing, and then another, that's how we begin.

(21) Read the Quote of Abdul Sattar Edhi Sahab **"I do not have any formal education. What use is education when we do not become human beings? My school is the welfare of humanity."** Describe Abdul Sattar Edhi Sahab's quote in your own words.

(22) Make three sentences using the given Abstract and Concrete Nouns you commonly find as things of celebration: Dates, relatives, scents and aromas, love

(23) **Read the sentences and rewrite them using quotation marks (“ ”) and comma (,) in appropriate places.**

Own up! he whispered. If you dont we ll all be kept in. So Elizabeth owned up. I did it she said. Well Elizabeth perhaps you would like to know that I dont allow behaviour like that in my class said Miss Ranger. Dont do it again.

(24) **Use 'since' and 'for' in three sentences of your choice.**

(25) **Use the following Possessive Pronouns in three sentences of your choice: mine, yours, theirs.**

_____
_____
_____

Picture-3

Questionnaire (Survey Design) for 7th and 8th grades

Survey Questions for PBL and PBI (under Likert Scale)

by

Sameea Masood

1. How much your level of listening to the English language has improved?
    a) Exceptional
    b) Good
    c) Fair
    d) Poor
    e) Unsure

2. Do you find yourself more confident while communicating in English language after PBI?
    a) Strongly agree
    b) Agree
    c) Disagree
    d) Strongly disagree
    e) Neutral (May be)

3. Did you have hesitation in speaking English before PBI?
    a) Strongly agree
    b) Agree
    c) Disagree
    d) Strongly disagree
    e) Neutral (May be)

4. What limit does show the level of your communication in English than before?
    a) Very frequently
    b) Occasionally
    c) Rarely
    d) Never
    e) Uncertain

5. What do you think, as students, can you express & write well now?

a) Strongly agree

b) Agree

c) Disagree

d) Strongly disagree

e) Neutral (May be)

6. Can you now organize your ideas to write a story after PBI?

a) Strongly agree

b) Agree

c) Disagree

d) Strongly disagree

e) Neutral (May be)

7. How easily can you use the English language now in writing?

a)Very frequently

b)Occasionally

c)Rarely

d)Never

e)Uncertain

8. What difference have you noticed in the improvement of your level of understanding of English grammar?

a) Exceptional

b) Good

c) Fair

d) Poor

e) Unsure

9. Were English language rules hard to practice in your social setting?

a) Strongly agree

b) Agree

c) Disagree

d) Strongly disagree

e) Neutral (May be)

10. What do you think, as students, are you performing well in English grammar after being taught

under PBI by me?

a) Strongly agree

b) Agree

c) Disagree

d) Strongly disagree

e) Neutral (May be)

11. Was the PBI teaching method on your textbook grammar better than the regular teaching method at school?

a) Strongly agree

b) Agree

c) Disagree

d) Strongly disagree

e) Neutral (May be)

12. Did you enjoy the new way of teaching through PBI?

a) Strongly agree

b) Agree

c) Disagree

d) Strongly disagree

e) Neutral (May be)

13. Do you think teaching via PBI is a waste of time and energy?

a) Strongly agree

b) Agree

c) Disagree

d) Strongly disagree

e) Neutral (May be)

14. Do you think that regular lectures on English grammar are more effective than creative ways of PBI?

a) Strongly agree

b) Agree

c) Disagree

d) Strongly disagree

e) Neutral (May be)

15. Do you believe project-based learning helps you remember grammar rules and usage better than traditional teaching methods?

a) Strongly agree

b) Agree

c) Disagree

d) Strongly disagree

e) Neutral (May be)

16. Have you noticed any changes in your attitude toward grammar from the view of the effectiveness of project-based learning (PBI)?

a) Strongly agree

b) Agree

c) Disagree

d) Strongly disagree

e) Neutral (May be)

17. Does teamwork help in proceeding with a project successfully?

a) Strongly agree

b) Agreec) Disagree

d) Strongly disagree

e) Neutral (May be

18. Do you feel more engaged and motivated to learn grammar through project-based activities?

a) Strongly agree

b) Agree

c) Disagree

d) Strongly disagree

e) Neutral (May be)

19. Do you think project-based learning helps you apply grammar rules in real-life situations?

a) Strongly agree

b) Agree

c) Disagree

d) Strongly disagree

e) Neutral (May be)

20. What is your degree of attention in class during PBI?

a) Very High

b) High

c) Very Low

d) Lowe) Varying or Changing

21. Do you think that class assignments under PBI were beneficial for you?

a) Extremely helpful

b) Helpful

c) Somewhat helpful

d) Not very helpful

e) Not helpful at all

22. Have you found PBI and PBL completely difficult to learn from and apply?

a) Strongly agree

b) Agree

c) Disagree

d) Strongly disagree

e) Neutral (May be)

23. Do you think that your English language is producing better outputs after PBI?

a) Strongly agree

b) Agree

c) Disagree

d) Strongly disagree

e) Neutral (May be)

24. Can you self-identify and correct your mistakes of the English language after PBI?

a) Strongly agree

b) Agree

c) Disagree

d) Strongly disagree

e) Neutral (May be)

25. Was it easy for you to make decisions while learning through PBL?

a) Strongly agree

b) Agree

c) Disagreed) Strongly disagree

e) Neutral (May be)

26. When there was a problem during the assigned project, did you and other teammates solve it timely?

a) Strongly agree

b) Agree

c) Disagree

d) Strongly disagree

e) Neutral (May be)

27. Was PBI a creative or boring instructional medium for you?

a) Very creative

b) Creative

c) Very Boring

d) Boring

e) Both

28. Did you feel more confident to work under PBL and PBI?

a) Strongly agree

b) Agree

c) Disagree

d) Strongly disagree

e) Neutral (May be)

29. Would you prefer to continue learning English grammar onward under PBI or through typical regular lectures?

a) PBI

b) Regular Lectures

c) Both of them

d) None of them

e) Other

Table 1

Answer Key

Every correct MCQ answer carried a 1 mark, and every incorrect answer carried a 0 mark. Subjective or open-ended questions had different marking schemes due to varying parameters under written grammar i.e., tenses, word choices, expression or sense, independent and dependent sentences e.g., connected or separate sentences. Each of them carried a total of 3 marks =1 mark per sentence.

Answers No.	**Pre-Test (10 MCQs,**	**Post-Test (13 MCQs, close-**	**Questionnaire (29 MCQs, close-ended)**

	close-ended)	ended + 12 open-ended questions)	
#1	b)	b)	All the answers are dependent on personal choices and preferences.
#2	b)	b)	All the answers are dependent on personal choices and preferences.
#3	a)	b)	All the answers are dependent on personal choices and preferences.
#4	b)	b)	All the answers are dependent on personal choices and preferences.
#5	a)	a)	All the answers are dependent on personal choices and preferences.
#6	b)	b)	All the answers are dependent on personal choices and preferences.
#7	b)	b)	All the answers are dependent on personal choices and preferences.
#8	a)	c)	All the answers are dependent on personal choices and preferences.
#9	a)	a)	All the answers are dependent on personal choices and preferences.

#10	a)	b)	All the answers are dependent on personal choices and preferences.
#11	---	b)	All the answers are dependent on personal choices and preferences.
#12	---	b)	All the answers are dependent on personal choices and preferences.
#13	---	b)	All the answers are dependent on personal choices and preferences.
#14	---	Different markings are occurring due to varying parameters for open-ended questions.	All the answers are dependent on personal choices and preferences.
#15	---	Different markings are occurring due to varying parameters for open-ended questions.	All the answers are dependent on personal choices and preferences.
#16	---	Different markings are occurring due to varying parameters for open-ended questions.	All the answers are dependent on personal choices and preferences.
#17	---	Different markings are occurring due to varying parameters for open-ended questions.	All the answers are dependent on personal choices and preferences.
#18	---	Different markings are occurring due to	All the answers are dependent on personal choices and

		varying parameters for open-ended questions.	preferences.
#19	---	Different markings are occurring due to varying parameters for open-ended questions.	All the answers are dependent on personal choices and preferences.
#20	---	Different markings are occurring due to varying parameters for open-ended questions.	All the answers are dependent on personal choices and preferences.
#21	---	Different markings are occurring due to varying parameters for open-ended questions.	All the answers are dependent on personal choices and preferences.
#22	---	Different markings are occurring due to varying parameters for open-ended questions.	All the answers are dependent on personal choices and preferences.
#23	---	Different markings are occurring due to varying parameters for open-ended questions.	All the answers are dependent on personal choices and preferences.
#24	---	Different markings are occurring due to varying parameters for open-ended questions.	All the answers are dependent on personal choices and preferences.
#25	---	Different markings are occurring due to varying parameters for open-ended questions.	All the answers are dependent on personal choices and preferences.

#26	---	---	All the answers are dependent on personal choices and preferences.
#27	---	---	All the answers are dependent on personal choices and preferences.
#28	---	---	All the answers are dependent on personal choices and preferences.
#29	---	---	All the answers are dependent on personal choices and preferences.

Table-2

Collected, Quantitative Data of Pre-Test and Post-Test of 7th and 8th graders under SPSS Paired Sample T-test

Participants_Control(C)_and_Experimental(E)_Groups_of_PreTest_and_PostTest_from_7th_and_8th_Grades	Sum_of_PreTest_Score_of_Total_10Qs	Sum_of_PostTest_Score_of_Total_25Qs	Mean/Average_of_PreTest_Score	Mean/Average_of_PostTest_Score	Mean_Difference
MAQ (E-7)	6	32	5.90	25.38	-19.48
AIN (E-7)	5	30			
AYEB (E-7)	7	25			
ZAR (E-7)	7	26			
ADE (E-7)	8	30			
MEE (E-7)	6	16			
AAMF (E-7)	8	28			

MUA (E-7)	4	19
AZK (E-7)	5	22
ZAB (E-7)	5	25
EMF (E-7)	6	18
MIN (E-7)	7	21
MAS (E-7)	4	29
MAB (E-7)	6	27
RIMN (E-7)	6	31
MEM (E-7)	6	33
MUN (E-7)	6	33
RIK (E-7)	7	21
SHA (E-7)	4	26
SHI (E-7)	4	23
HAN (E-7)	6	14
MUQ (E-7)	6	10
SHAZ (E-7)	4	22
SAN (E-7)	7	20
NEH (E-7)	4	27
SAS (C-7)	5	11
HAD (C-7)	8	33
MAR (C-7)	6	31
HRR (C-7)	5	10
MHR (C-7)	5	26
AFI (C-7)	6	28
MUS (C-7)	5	15
WAJ (C-7)	5	30
SHE (C-7)	5	16
AYES (C-7)	3	20
ESH (C-7)	8	33
HOO (C-7)	6	17
SAN (C-7)	7	28

ROM (C-7)	7	32
ISH (C-7)	1	20
HADA (C-7)	8	26
ZUN (C-7)	10	31
MAM (C-7)	5	24
ZUB (C-7)	4	23
TAH (C-7)	6	27
ARO (C-7)	6	31
FAE (C-7)	10	27
ARE (C-7)	8	20
SAI (C-7)	7	31
KHU (C-7)	7	25
SHA (E-8)	10	26
ARE (E-8)	7	30
NAI (E-8)	1	21
SHH (E-8)	7	32
ALY (E-8)	6	25
MIS (E-8)	5	22
ILS (E-8)	10	33
EMB (E-8)	4	24
MAL (E-8)	4	14
UNZ (E-8)	10	31
FAS (E-8)	5	30
ADN (E-8)	6	28
HIF (E-8)	5	22
MUN (E-8)	5	30
HAF (E-8)	8	31
SAA(E-8)	5	32
FAW (E-8)	5	23
AIA (E-8)	4	33
MIS (E-8)	6	18

RAE (E-8)	6	29
MAE (E-8)	10	17
FATB(E-8)	4	20
AYEM (E-8)	4	33
NOR (E-8)	5	31
MINW (E-8)	10	27
HAFH (C-8)	5	22
MAJ (C-8)	7	30
MUNE (C-8)	6	25
ALV (C-8)	5	24
ANO (C-8)	5	22
HAL (C-8)	7	31
AMN (C-8)	6	33
URJ (C-8)	5	24
MARM (C-8)	5	32
KHA (C8)	5	25
FARH (C-8)	5	30
JEI (C-8)	5	21
ZON (C8)	5	19
KAN (C-8)	7	28
AMN (C-8)	5	32
AMM (C-8)	5	20
MAL (C-8)	6	17
MAOA (C-8)	6	32
AMA (C-8)	5	24
MUZ (C-8)	5	31
MAHN (C-8)	5	27
ABI (C-8)	5	21
SAB (C-8)	6	26
LAI (C-8)	7	26
HAFF (C-8)	8	31

Table 3

Pre and Post-Tests Comparative Results of the Control and Experimental Groups of the Seventh Grade Students

Participants of Pre and Post-Tests of 7th Graders	Age (Years)	Sum of Pre-Test Score of Total 10Qs and Post-test Score of Total 25Qs	Pre and Post-Tests Comparative Results as Mean/Average	Pre and Post-Tests Comparative Results as Percentage
SAS, HAD, MAR, HRR, MHR, AFI, MUS, WAJ, SHE, AYES, ESH, HOO, SAN, ROM, ISH, HADA, ZUN, MAM, ZUB, TAH, ARO, FAE, ARE, SAI, KHU (C-7); MAQ, AIN, AYEB, ZAR, ADE, MEE, AAMF, MUA, AZK, ZAB, EMF, MIN, MAS, MAB, RIMN, MEM, MUN, RIK, SHA, SHI,	11-14 years	Pre-Test=153(C)+144(E) =297 Post-Test=615(C)+608(E)=1223	Pre-Test Average =11.88 Post-Test Average =48.92 Total Average =60.8	Pre-Test Percentage =29700% Post-Test Percentage =122300% Total Percentage = 152000%

HAN, MUQ, SHAZ, SAN, NEH (E-7)				

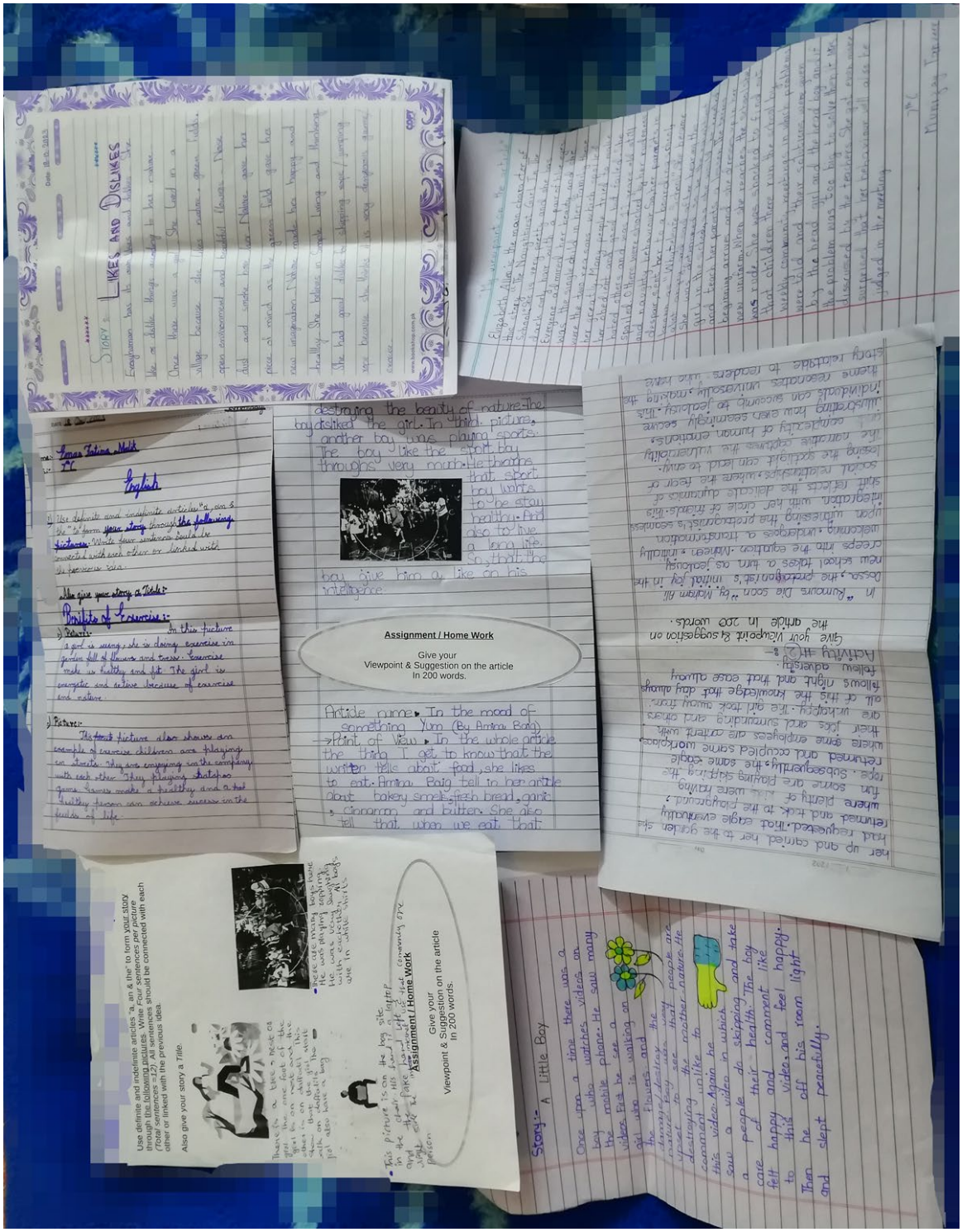
Table 4

Pre and Post-Tests Comparative Results of the Control and Experimental Groups of the Eighth Grade Students

Participants of Pre and Post-Tests of 8th Graders	Age (Years)	Sum of Pre-Test Score of Total 10Qs and Post-test Score of Total 25Qs	Pre and Post-Tests Comparative Results as Mean/Average	Pre and Post-Tests Comparative Results as Percentage
HAFH, MAJ, MUNE, ALV, ANO, HAL, AMN, URJ, MARM, KHA, FARH, JEI, ZON, KAN, AMN, AMM, MAL, MAOA, AMA,MUZ, MAHN, ABI, SAB, LAI, HAFF (C-8); SHA, ARE, NAI, SHH, ALY, MIS, ILS, EMB, MAL, UNZ, FAS, ADN,	12-14 years	Pre-Test=141(C)+152(E)=293 Post-Test=653(C)+662(E)=1315	Pre-Test Average =11.72 Post-Test Average =52.6 Total Average =64.32	Pre-Test Percentage =29300% Post-Test Percentage =131500% Total Percentage = %

HIF, MUN, HAF, SAA, FAW, AIA, MIS, RAE, MAE, FATB, AYEM, NOR, MINW (E-8)				

Assigned Assignments to 7th and 8th graders`



Use definite and indefinite articles "a, an & the" to form your story through the following pictures. Write *Four sentences per picture (Total sentences =12)*. All sentences should be connected with each other or linked with the previous idea.

Also give your story a *Title*.

Assignment / Home Work

Give your
Viewpoint & Suggestion on the article
In 200 words.

A Glimpse of Presented Projects

`Picture Samples of Solved Pre-Test, Post-Test & Questionnaire

Pop Quiz for (8th grade)

Time allowed 20minutes

Student Name: Muezzah Siddiqui
Age: 13 Yrs
Date: 18 December , 2023

(1) A Noun is 'a word that refers to a person, place, object, event, substance, idea, feeling, or quality.' Read the sentence and Circle the suitable option for the blank: "In baking pizza _____ cheeses are the necessary dairy ingredients; in addition to salted or unsalted butter."

a) Cheeses and butter
b) Cheddar, and Mozzarella
c) salted or unsalted butter

(2) The purpose of an adjective is 'to describe the qualities of someone or something independently or in comparison to something else.' Read the sentence carefully: "Eskimos prefer to live in igloos made of ice bricks to keep themselves warm in the bitter cold of Antarctica." Figure out the number of adjectives in the sentence. Circle the option.

a) 4 adjectives
b) 3 adjectives
c) 2 adjective

(3) Read the sentences and Circle the suitable option showing Modals and Helping Verbs or Auxiliary Verbs.

"Oh, come on, do have one!" said the rubbly little girl, whose sweets they were. "A sweet would do you good-make you look a bit sweeter perhaps!" ... "The boys have their lessons with us, and we play tennis and cricket with them and we have our own teams of girls only, too." ... "Everybody squealed with laughter. "She can count!" said Nora. "Well, Elizabeth, count your things, and take five away or can't you do taking-away?" ... "She flew downstairs to the gym, where she had been told to go after making her bed and tidying her cubicle. All the others were there. Elizabeth had felt sure that they would all make remarks about her stockings being on after all-but nobody took any notice of her at all."

a) Do, have, can, would
b) Play, squealed, count, flew
c) Making, tidying, felt, took

(4) Read the sentences and Circle the option explaining the total number of Articles in order: "Me and my aunt saw a historical documentary movie this year. We thought of watching another different one some other time. Every year, we check out trailers of the chosen movies, and then we watch together those that appeal to our common interest. We hope that the production houses bring out meaningful and purposeful entertainment sources. An intelligently and carefully organized script can change the thinking pattern of society."

a) The, a, an, a, one, the, an
b) A, one, the, that, the, an, the
c) An, that, the, a, an, the, that

(5) Read the poem. Circle the option demonstrating presented number of Pronouns.

'Slithery, slidery, scaly old snake,
surely your body must be a mistake.
Your eyes, mouth and tongue wisely stay on your head.
It seems that your body is all tail instead.
You gobble your dinner, you swallow it whole —

Pop Quiz 2

Time allowed 30minutes

Student Name: Ammaan Siddiqui
Age: 13 years
Class: 8th
Date: 21-Dec-2023

(1) Read the sentences and point out regular (R.v) and irregular (Ir.v) verbs from the 2nd form of the verb i.e., past tense. Circle the correct option.

"A cat pounced on a mouse. The mouse ran up the clock. The cat jumped after it but did not catch it at all."

"The worst thing students would do to themselves is to not study in time. It is not intelligent to keep on increasing the workload. The best thing is to give two hours to work on each subject, which will keep the boredom away too."

a) Increasing, work=(R.v); catch, do=(Ir.v)
b) Pounced, jumped=(R.v); ran, wore=(Ir.v)
c) Keep, study=(R.v); give, best=(Ir.v)

(2) "Lady Diana was known as the Princess of Wales[1]. She was the apple of everyone's eyes[2]. Her humble nature and humility became the reason for her popularity[3] in the entire world."
Observe the underlined areas and find Clauses and Phrases in the sentences. Circle the option.

a) [1]=Clause, [2]=Phrase, [3]=Clause
b) [1]=Phrase, [2]=Clause, [3]=Clause
c) [1]=Phrase, [2]=Clause, [3]=Phrase

(3) An Alliteration is "the use, especially in poetry, of the same sound or sounds, especially consonants, at the beginning of several words that are close together." Read the sentences and Circle the suitable option showing alliteration.

"Among the Muslim world, there is a trend in the high class, as in landlords, to keep and breed hunting birds. Especially in Saudia and Pakistan, falcons fly famously."

a) To keep and breed
b) Falcons fly famously
c) Among the Muslim world,

(4) Choose which Phrasal Verbs(verb+prepositions) come into use in real life. Circle the optin

a) Beaten by, Come across
b) Pitch in, Looks after
c) Looking forward, Pop-up

(5) Read the sentences. Circle the option demonstrating different tenses.

"Miami is a coastal city in the USA. While in the Netherlands, Dutch people live surrounded by tulips. It is strange to know that Malta is a European country, whereas Malta is a seasonal fruit in Pakistan."
"Could you deliver the package timely or not?"

a) Simple Present Tense & Past Tense
b) Past Tense & Present Continuous Tense
c) Simple Present Tense & Future Simple Tense

) If you see someone who wants help, what would you do? Explain in three sentences.

I would help the person because I can also get ~~some~~ in a situation like that person and I would also need help. So if I would help him I would get help in return.

) Describe yourself by using adjectives e.g., bold. Write three sentences.

I am kind and humbly. But not with everyone. I am also dangerous when I am angry. I am also beautiful. I am happy and sometimes sad.

) A Preposition is "in grammar, a word that is used before a noun, a noun phrase, or a pronoun, connecting it to another word." Write three sentences using the given prepositions: over, in, by.

She is my friend. She has three brothers. And she lives in that house by the ~~#~~school. When I play with her, she sometimes hide over there.

) An Adverb is "a word that describes or gives more information about another word, esp. A verb, adjective, or other adverb, or about a phrase." Write three sentences using the given adverbs: usually, tomorrow, cautiously, less, there.

Tomorrow, I will go to the movie theater. I usually go there with my friends. But ~~eat~~ cautiously, because my parents don't give me permission all the time. Say I go less at the moment.

)) Use the arrangement of the grammar items: Articles+Adjectives (Adj)+Noun (N) e.g. I like to eat a (Arti) fluffy (Adj) sponge cake (N) with my tea (N). Make three sentences.

I go to the beautiful park infront of my house. She is the new blond girl ~~in~~ in your class. He has a ~~bat~~ cute baby brother.

Laiba Ali
8th A

Survey Questions for PBL and PBI (under Likert Scale)
by
Sameea Masood

1. What do you think, as students, are you performing well in English grammar after being taught under PBI by me?
   a) Strongly agree
   b) Agree
   c) Disagree
   d) Strongly disagree
   e) Neutral (May be)

2. Was the PBI teaching method on your textbook grammar better than the regular teaching method at school?
   a) Strongly agree
   b) Agree
   c) Disagree
   d) Strongly disagree
   e) Neutral (May be)

3. Did you enjoy the new way of teaching through PBI?
   a) Strongly agree
   b) Agree
   c) Disagree
   d) Strongly disagree
   e) Neutral (May be)

4. Do you think teaching via PBI is a waste of time and energy?
   a) Strongly agree
   b) Agree
   c) Disagree
   d) Strongly disagree
   e) Neutral (May be)

5. Do you think that regular lectures on English grammar are more effective than creative ways of PBI?
   a) Strongly agree

Meerab Faisal 20-12-2023
7th C

Survey Questions for PBL and PBI (under Likert Scale)
by
Sameea Masood

1. What do you think, as students, are you performing well in English grammar after being taught under PBI by me?
   a) Strongly agree
   b) Agree
   c) Disagree
   d) Strongly disagree
   e) Neutral (May be)

2. Was the PBI teaching method on your textbook grammar better than the regular teaching method at school?
   a) Strongly agree
   b) Agree
   c) Disagree
   d) Strongly disagree
   e) Neutral (May be)

3. Did you enjoy the new way of teaching through PBI?
   a) Strongly agree
   b) Agree
   c) Disagree
   d) Strongly disagree
   e) Neutral (May be)

4. Do you think teaching via PBI is a waste of time and energy?
   a) Strongly agree
   b) Agree
   c) Disagree
   d) Strongly disagree
   e) Neutral (May be)

5. Do you think that regular lectures on English grammar are more effective than creative ways of PBI?
   a) Strongly agree

Photographs of the Participants of the Projects from grades 7th & 8th of IMSG, F-7/2, Islamabad