Active Learning through Project Based Learning Approach in English Language Lessons for Early Age Groups

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Abstract

The purpose of this research is to determine how Project Based Learning (PBL) approach influenced students’ cognitive and emotional engagement in Class I English lessons. Project-based learning is a dynamic classroom approach in which students actively explore real-world problems and challenges and acquire a deeper knowledge. This research attempted to see how the use of self-assessment, students writing daily reflection logs, parental involvement, interviewing a security personnel and engaging students in exploring a real-world problem like safety at public places, influenced their engagement and interest in English language classroom. Furthermore, cross-curricular/interdisciplinary and Information Communication Technology (ICT) integration kept the students intrinsically motivated. Questionnaires were designed for School Heads and Class I English teachers. The study was conducted in fifty schools with 180 sections and a strength of 3893 students. The results showed that as the driving question was relevant to the prevailing security situation in our country, the level of student engagement was immense throughout the project Unit. However, due to less interest taken by the parent body, some students could not get real life experiences. The findings showed that planning, teaching, management and assessment of PBL is relatively challenging for teachers.

**Keywords**: project based learning, active learning, motivation, effective teaching, effective learning, ICT/ET integration, collaborative learning, assessment as learning

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Introduction

An atomistic approach to language teaching attempts to analyse language into parts, such as grammatical structures or functional exponents; whereas, a holistic approach sees language as a whole and focuses on everything the learner needs to know to communicate effectively (British Council, 2017). Learning is effective and holistic when students are motivated and eager participants in their learning; teaching for effective learning on the other hand is about establishing a positive climate for learning, ensuring that students have access to a range of experiences that promote active learning and make them think. Learning is effective when it is meaningful and allows students to build on previous skills, knowledge and understanding. Teaching for effective learning on the other hand requires well-judged and appropriate selection of teaching and learning approaches like project based learning to enrich teaching and to support active learning. Project-based learning is a dynamic classroom approach in which students actively explore real-world problems and challenges and acquire a deeper knowledge (Edutopia, 2016). It has been proven that when implemented well, Project-Based Learning (PBL) can increase retention of content and improve students' attitudes towards learning, among other benefits.

Literature Review

Studies comparing learning outcomes for students taught via project-based learning versus traditional instruction show that when implemented well, PBL increases long-term retention of content, helps students perform as well as or better than traditional learners in high-stakes tests, improves problem-solving and collaboration skills, and improves students' attitudes towards learning (Vega, 2015).

Project Based Learning

Research studies in the past decade have shown that the use of project based learning approach is an effective means for widening educational opportunities, helping students acquire a deeper knowledge through active exploration of real-world challenges and problems (Buck Institute for Education, 2016). This requires teachers to acquire new skills and an understanding of the effective use of this approach. Once a Class 1 teacher fully understands the motivating effect of this approach, they can embed
it within their teaching, and manipulate its use to accommodate individual student’s learning style. This motivates the students and helps in lifelong, holistic learning.

**Active Learning**

Active learning is a process whereby students engage in activities, such as reading, writing, discussion, or problem solving that promote analysis, synthesis, and evaluation of class content (University of Michigan, 2016). Students and their learning needs are at the center of active learning. There are many teaching strategies that can be employed to actively engage students in the learning process, including group discussions, problem solving, case studies, role plays, journal writing, and structured learning groups. The benefits to using such activities are many, including improved critical thinking skills, increased retention and transfer of new information, increased motivation, and improved interpersonal skills (University of Minnesota, 2015).

**Motivation**

Motivation (motus, movere = to move) means to get someone moving, by setting up conditions that start or stop a behaviour, enabling students to perform to the best of their abilities in academic settings (Ardord 2006). Similarly, Evans (1999, p.7) cites Steers *et al.* who defines motivation as a condition, or the creation of a condition, that encompasses all those factors that determine the inclination towards engagement in an activity (p.7).

Talking about the affective domain of motivation, the online source states that educational psychology has identified two types of motivation - intrinsic and extrinsic. Intrinsic motivation arises from a desire to learn a topic due to its inherent interests, for self-fulfillment, enjoyment and to achieve a mastery of the subject. On the other hand, extrinsic motivation is motivation to perform and succeed for the sake of accomplishing a specific result or outcome such as good grades or recognition of achievement. Brown, Armstrong and Thompson (1998, p.8) stress, “Enthusiastic and enquiring students often achieve very much more (pedagogically) than those who lack these basic intrinsic qualities.” According to Kohn (1994) extrinsic motivating factors do not change a person’s commitment to learning but may lead to a situation where learning takes place only when a reward can be gained.
Effective Teaching

Kyriacou (1997, p.21) states, “The essence of effective teaching lies in the ability of teachers to set up a learning experience which brings about the desired educational outcome.” Similarly, Wiggins and Mc Tighe (2006, p. 342) state, “Teachers are encouraged to ask themselves, What do we want students to understand and be able to use several years from now, after they have forgotten the details?” Carl Rogers and others have developed the theory of facilitative learning (online – Theories of learning) and talk about the following characteristics of facilitative teachers who are:

- less protective of their constructs and beliefs than other teachers,
- more able to listen to learners, especially to their feelings,
- inclined to pay as much attention to their relationship with learners as to the content of the course.

Effective Learning

In a class of twenty-five to thirty, students not only differ in their family backgrounds, prior experiences, type/s of intelligences, individual needs, but also have their own preferred learning styles. The (online - definition of learning) refers to learning as a concerted activity that increases the capacity and willingness of individuals to acquire and productively apply new knowledge and skills, to grow and mature and to adapt successfully to changes and challenges. It is this type of learning which is sustainable and lifelong and encompasses the physical, cognitive, emotional and social development of children in the earliest years of their lives.

The constructivists believe that learners actively organize and try to make sense of it. Piaget (online – Cognitive learning theory) believes that learners possess pre – existing schemas and are active processors of information. Instead of being passive respondents to environmental conditions, they are actively involved and interpreting and learning from the events around them, hence resulting in interpretation, assimilation and accommodation of new knowledge. This results in the formation of new schemas/understanding. Vygotsky (online – Cognitive learning theory) on the other hand talks about ‘zone of proximal development’ that each individual is embedded with and the importance of ‘scaffolding’ which refers to learning situations in which adults and other more competent individuals provide some form of guidance or structure that enables students to engage in learning activities within their zone of proximal development. Carl Rogers and others have developed the theory of
facilitative learning (online – Theories of learning) and talk about the following characteristics of learners. They state that learners:
- are encouraged to take responsibility for their own learning,
- provide much of the input for the learning which occurs through their insights and experiences,
- are encouraged to consider that the most valuable evaluation is self-evaluation and that learning needs to focus on factors that contribute to solving significant problems or achieving significant results.

**Information Communication Technologies (ICT)/Education Technology (ET)**

Grabe and Grabe (200, p. 13) suggest, “Technology can play various instructional roles.” On the other hand, McCrory in Ashburn and Floden (2006, p.158) stress, “Using technology effectively for meaningful learning has proven to be hard; although ample technology is available to teachers and students, it is often used ineffectively or not used at all (Becker and Anderson, Cuban, Kirkpatrick and Peck).” Talking about the research on the statistical links between the use of ICT/ET and learning outcomes Sutherland, Robertson and Peter (2009) state, “The impact is greatest where ICT/ET is an integral part of day to day learning (p. 4).” They emphasise, “The teacher is the key to improving learning with ICT and needs to gain an intimate knowledge of the ICT to bridge the gaps between idiosyncratic and intended learning (p. 29).” However, if a teacher does not take these considerations into account, the use of ICT becomes a hindrance to learning.

Chickering, Arthur and Stephen (1996) emphasise that the seven principles for good practice that were created in 1987 have become advanced with new communication and information technologies like computers, video and telecommunication technologies have become major resources for teaching and learning. They emphasise the importance of collaborative and problem solving tasks requiring analysis, synthesis, and evaluation, with applications to real-life situations. They can encourage self-reflection and self-evaluation.

**Collaborative Learning**

Budin (undated) quotes Deusch who states, “Cooperative learning implies positive interdependence between students to achieve high goals (p. 5).” He states that with interdependence, group members have
responsibility for the whole group, not just for themselves. Omrod (1999) cites Raths who uses a term, ‘thinking surrounds’ for problem solving in groups. Omrod (1999) believes that cognitive development results from the interactions that children have with their physical and social environments and the findings of BECTA (2009) state that appropriate use of ICT in context is supportive of learners’ needs and in turn will initiate greater collaboration between learners. Emphasising the importance of group work and how it contributes to children’s learning, Ritchie (1995, p.35) states, “Sitting in groups is no guarantee of collaborative work, nor of the development of group work skills. It is necessary for a teacher to make a deliberate attempt to develop those skills in children.” Ritchie (1995, p.36) further explains, “Children can be taught group skills such as active listening, negotiating, questioning, clarifying, seeking help, telling, respecting each other and cooperating through the use of these structured steps; hence helping them to learn from experience.”

**Assessment as Learning**

Assessment as Learning is the use of on-going self-assessment by students in order to monitor their own learning, which is “characterized by students reflecting on their own learning and making adjustments so that they achieve deeper understanding” (Rowe, 2015). Self and peer assessments allow students to reflect on their own learning and identify areas of strength and need. Assessment as learning is the use of a task or an activity to allow students the opportunity to use assessment to further their own learning. Self and peer assessments allow students to reflect on their own learning and identify areas of strength and need. These tasks offer students the chance to set their own personal goals and advocate for their own learning (Nevin, n.d.).

**Objectives and Research Questions of the Study**

The research study investigated the role of project-based learning approach in active learning and student engagement. This paper focused on the main research question:

"What is the role of project-based learning approach in ensuring student engagement and active learning and exploration of real-world problems in Class I English lessons?"

The following sub questions will also be explored:
• Did the driving question, ‘How to keep safe at public places?’ help capture students’ interest?
• Was the project duration (2-3 weeks) enough?
• Were the students engaged throughout the unit?
• Did cross-curricular integration (Social Studies, Science, Music, and Arts) lead to meaningful learning?
• Did the use of Educational Technologies (ICT) help enhance teaching and students’ learning?
• Did the use of ‘Self-Assessment Sheets’ help students take charge of their learning?
• Did the planning and execution of the ‘Project Culmination Day’ help consolidate students’ learning?

Background

In light of the feedback on the previous curriculum from Class I English teachers, School Heads and School Group English Coordinators (See Appendix 1 for organization structure), a number of pedagogical changes were made in Class I English curriculum for Beaconhouse Schools in 2015. The changes included designing activities for one reader/Unit per term using project based learning (PBL) approach; integrating science, social studies, Music, ICT and Arts; introducing ‘assessment as learning’ and the use of ‘rubrics’. One of these PBL Units was based on the theme ‘Safety’ with the title, ‘Keep safe! Be Brave! Be alert!’ The aim was to help students acquire life skills by developing awareness about keeping safe at public places and by building their confidence through increasing insight on safety awareness, by being able to identify community helpers who can be trusted. The project ended with ‘Project Culmination Day’ on which the students presented various activities they completed during this project unit to their parents. The project required parental involvement in order to maximize authentic learning of students.

The overarching goals were that the students will:
• use all the four language strands (Listening, Speaking Reading and Writing) in meaningful context for engaging learning;
• engage in real-world problems to acquire and apply new knowledge in a problem-solving context;
• use emerging technologies, confidently and effectively for research, communication and creative work;
• communicate and collaborate with peers, thereby developing their interpersonal skills, as well as develop a deeper understanding of the issues on safe living;
• think critically and show respect for and trust community helpers.

Methodology

The School Group English Curriculum Coordinators (SG CCs) of the Northern, Southern and Central regions were involved by taking them on board for the purpose of this. The designed questionnaires for the teachers and School Heads to evaluate the project unit were shared with them. The SG CCs were required to send these questionnaires to the schools in care of their School Group Offices (SGOs), collect data and send it to the researcher. This was then compiled, collated, analysed and evaluated by the researcher.

Sampling

This research was conducted in Class I from fifty Beaconhouse schools with 180 sections from across Pakistan. The total strength of students was 3893. Fifty-four head teachers and school teachers provided response on the questionnaire about project unit.

Findings and Discussion

In this section the researcher intends to explore the issues raised within her research in context of the literature review, research question and sub questions.

Student Engagement in Real-World Problems

The aim of this project was to help students acquire life skills by developing awareness about keeping safe at public places. It also aimed to build their confidence through increasing insight on safety awareness and by being able to identify community helpers who can be trusted. To equip students for 21st century skills, not only will our students need to be literate and numerate, they also will need to be creative, critical thinkers, who can apply the knowledge they learn in our schools to challenges that they will come across in the real world (Board of Education of School District No. 73, 2012).
The analysis of collated data showed that student engagement in real life problem was a constant factor throughout the unit. It was found that project-based approach provided students with an opportunity to gain knowledge and acquire skills by working for an extended period of time on a theme. The skills mastered by the students during this project were problem solving, critical thinking, collaboration, communication, creativity, innovation, socialization/civic life, real life experiences, decision making and citizenship.

![Figure 1. Response about Student Engagement in Real-world Problems](image)

**Project duration**

The suggested project duration was 2 – 3 weeks, however, as per diagram 2, most of the teachers stated that the duration needed to be increased. Research suggests that while designing a project, plan a list of activities and duration for each activity; however, the duration may vary from what is planned, depending upon the needs of the learners, availability of resources, etc. (Preston, 2013).

![Figure 2. Response about Project Duration](image)
Students’ Engagement throughout the Unit

According to the data collected, students’ engagement, enthusiasm and motivation throughout the project was a predominant factor in ensuring meaningful learning and attaining students’ learning outcomes. Students participated enthusiastically in the interview with the Security Officer and asked questions which helped in effective learning about the topic. Thijs and Verkuyten (2009) suggest that the more engaged students are, the more successful they would be in their learning. “Engagement is associated with positive students’ learning outcomes” (Delawsky, 2013). Furthermore, working in groups, pairs and as a whole class towards the common goal, promoted their social skills. Working together to solve problems to complete a project deepens students’ learning and builds collaborative skills (George Lucas Educational Foundation, 2016).

Cross-Curricular Integration

The project unit aimed to serve as a vehicle for developing language skills through integrative (Social Studies, Science, Music, and Arts) and immersive approach using ICT as a tool. Projects draw subjects together so that students experience learning as an integrated whole, rather than a series of separate silos across the hours of the day (Paul Hamlyn Foundation, 2012).
Integrated studies involve the combination of two or more subjects in a lesson, project, classroom, or curriculum. Teachers can draw interdisciplinary connections by making relationships between different subjects explicit, and/or by working with other teachers in teams across subjects. When compared to traditional instructional methods, effective practices and programs in integrated studies can improve multiple indicators like critical thinking, problem solving skills, collaboration, academic achievement, etc. (Vega, 2015).

**Use of Educational Technologies (ICT) to help enhance teaching and students’ learning**

The use of educational technologies not only enhanced teaching, but also students’ learning. The suggested videos and web links were very helpful in teaching abstract concepts like safety. The discussions held in groups and as a whole class activity helped generate questions and hence, developed clarity (See Diagram 5). Younie (2001) refers this to ‘cognitively flexible literacy’ where learners develop higher order thinking skills, the ability to assimilate information through construction of original concepts towards exploratory learning (Younie, 2001). The discussion on the contents of the reader, followed by video viewing and sharing their experience of going to the super market with their parents, helped students explore various concepts and develop skills in all language strands. Driven on the relevant literature of English Language Teaching (ELT) and Computer Assisted Language Learning (CALL), it is argued
that integration of language skills in a holistic way and the technology as the enabler can facilitate the learners’ obtaining the knowledge of the language and the knowledge about how to use the language appropriately in communicative situations. (Arslan, 2008). Teachers who use instructional video, report that their students retain more information, understand concepts more rapidly and are more enthusiastic about what they are learning. With video as one component in a thoughtful lesson plan, students often make new connections between curriculum topics, and discover links between these topics and the world outside the classroom (National Teacher Training Institute, 2016).

![Figure 5. Response about Use of ICT in Teaching During Project](image)

Most of the schools reported the ‘Flyer Making’ activity as extremely helpful and productive. Both the mediums i.eart and MS publisher for making flyers were used. Students’ abstract ideas became more concrete with the help of videos and ICT integration, and helped them relate issues with real life experiences. Furthermore, students really enjoyed activities such as recording interview of the Security Officer, making flyers etc. (See Diagram 6). Passey et al (2004) state that the use of ICT offers learners the opportunity of self-directed and exploratory learning and enhanced their motivation (Sinclair, 2003). Similarly, Shelly, Cashman, Gunter and Gunter (2006, p.340-341) claim that research is revealing that students retain knowledge longer when they are actively involved in using digital media to obtain curriculum standards and related benchmarks (Shelly, 2006). The use of collaborative work enhanced students’ motivation and learning.
Use of ‘Self-Assessment Sheets’ to Help Students Take Charge of their Learning

The usage of self-assessment sheets and ‘Daily Reflection Logs’ was introduced in this unit. These were used to assess students’ learning of various skills. A great majority of teachers found this a very useful tool in enabling students to reflect and take charge of their own learning, and set a goal for themselves. However, a great majority of students found difficulty in completing these tasks.

When involved in self-assessment, students look at their own work in a reflective way, identify aspects that they are good at, and elements that could be improved, and then set personal learning targets for themselves. Self-assessment involves metacognition—the process of being aware of and reflecting on one’s own learning (National Council for Curriculum and Assessment, 2007). However, the skills of self-assessment need to be learned over time. This involves a long-term, continuing process that is planned at class and school level (National Council for Curriculum and Assessment, 2007).
Self-assessment sheets filled by the students helped teachers in analysing students’ learning, especially in identifying their weak areas and planning upcoming activities accordingly to address their weak areas. However, it was also observed that most teachers could not plan a follow up as they felt that many students of this age cannot assess themselves very well and most teachers were not trained about how to interpret these. They felt that the records filled were not clear.
Planning and Execution of the ‘Project Culmination Day’ Help Enhance Students’ Learning

The guidelines for teachers required them to make arrangements with the IT teacher for video recording the project process at different stages of the activities. The Music teacher was involved in teaching the relevant song, and other subject teachers helped preparing students for the Project Culmination Day; which turned out to be a successful event. Showcasing their work proudly and performing in front of their parents, motivated students. Their learning was enhanced while they explained different activities and safety measures confidently to their parents. The whole process gave them a sense of achievement. However, the Project Culmination Day was carried out as an in-house activity in some branches and not at all in others due to the security concerns following the incident of terrorist attack on Army Public School, Peshawar.

![Figure 9. Effect of Project Culmination Day for Students' Learning](image)

**Conclusion**

This study was set out to look at the role of project-based learning approach in promoting active learning in Class I English language students. To conclude, the evaluation showed not only a marked improvement in effective teaching and meaningful learning, but self-assessment and use of rubrics helped students gauge their learning. There is also some evidence that students and teachers had difficulties benefiting from self-assessment sheets.

The direct and indirect evidences from students, teachers and School Heads showed that PBL is a more effective instructional method than
traditional method. However, the collected data (See Diagram 13), limitations and findings also showed that planning, teaching, management and assessment of PBL is relatively challenging for teachers.

**Recommendations**

In light of the findings, the following recommendations were made by various schools:

- More teaching weeks needs to be allocated for project.
- Reflective logs need to be done for each activity and not on daily basis.
- Daily reflection logs need to be answered in yes/no, instead of students writing responses.
- In Scheme of Work, this unit needs to be integrated with Science topics money, jobs, taste and responsibilities. The science topic “Warning Signs” can be integrated with this unit as students can be asked to look for warning signs on their way to the super market and the next day some time can be spent on discussing these.
- This Unit needs to be moved to the second term as the first reader/Unit so students are able to complete their reflective logs and self-assessment sheets on their own.
- Videos need to be according to our culture as we do not allow our children to go to any shop keeper, guard, safer place or any other public area all alone. A few videos of the local stores in our country can be shown to students as students are more likely to respond to them.
- Students can also be asked to look for precautions mentioned at different public places (elevators, petrol stations, parking lots, etc.); take their pictures and talk about them on the next day. This will provide them with an opportunity to look for precautionary signs when they go out at public places.
- The visit to the supermarket needs to be planned with the school instead, because some parents did not take their child and those students were deprived of the experience and learning. This will help teachers provide equal opportunities to their student and help students complete their work accordingly.
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