Innovative English Language Acquisition Through Problem-based Learning

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Abstract

Problem-based Learning (PBL) for English language learners is highly successful in addressing the rapid technological changes and evolving workplace required for the new millennium. This emerging paradigm and the instructional strategies accompanying it encourage authentic language learning and information literacy. This paper focuses on skills that simultaneously strengthen language acquisition and content knowledge. PBL incorporates innovative teaching and learning methodologies that are relevant and meaningful, including strategies to teach language and content, actively engage learners, and provide comprehensible input and linguistic competency. For example, recent emphasis on science, technology, engineering and mathematics (STEM) education coupled with English language learning can be successfully incorporated into the PBL model. To accomplish optimum learning, it is crucial for educators to utilize best practices and be knowledgeable in both content and language acquisition strategies. Creative methodology, including cooperative learning and incorporation of hands-on activities, is at the top of the list of successful strategies for lowering the affective filter and engaging students in active learning. PBL is an excellent strategy because it includes a curriculum and process that guides exploration in numerous directions with positive outcomes. These methods of instruction have the advantage of involving all learners in collaborative activities that provide immediate feedback and reinforce linguistic and content discovery. They help to motivate students to high ideals, achieve success at each benchmark, and move upward to increase levels of rigor. This paper discusses engaging English language learning activities that include content from STEM areas and are tailored to a variety of ages, abilities, and learning styles. Assessment strategies and tools are suggested. Optimal success is realized by combining innovative PBL projects and interactive English language learning methods addressing the unique needs of students.

Introduction

Problem-Based Learning (PBL) for students of English is a successful approach to learning that is highly beneficial in addressing the rapid technological changes, challenging global economic markets, and evolving workplace requirements. This emerging paradigm and the instructional strategies that accompany it encourage authentic language learning experiences and information literacy for English language learners. PBL is a multilevel approach to learning that incorporates relevance and complexity while strengthening critical and analytical thinking, and provides an opportunity for self-assessment and continuous improvement. PBL guides exploration, and students who learn using this model develop a sense of self-esteem and ownership for their work. Through the use of this model, opportunities abound for linguistic development coupled with acquisition of content area knowledge.

The key to the success of English language acquisition through PBL is to utilize selected constructive problems purposefully designed to address the desired learning outcomes. These problems are often influenced by social and contextual factors. Most students already possess conceptual knowledge in their native language. Cummins [1] states: “Conceptual knowledge developed in one language helps to make

input in the other language comprehensible." Careful lesson planning is necessary in terms of language learning and content knowledge. When using the PBL model, content is introduced in the context of real world problems. The learners' acquisition of knowledge is achieved through a combination of learning strategies that are self-directed, independent, and collaborative, while also emphasizing communication skills and providing ongoing reinforcement.

Although the sources of problems and the contexts for their classroom use may vary, PBL has common features: problems should engage students' interest and motivate learning, require students to develop a line of reasoning that is backed by evidence, be complex enough to motivate participation of a group of students rather than just a single individual, be open-ended enough at the outset to allow participation by all students, incorporate the learning objectives of the course, and allow for many legitimate paths to a single resolution [2].

Roles of the Participants in PBL

PBL requires teachers and students to consider the learning process from a new perspective. The traditional roles of the teacher and student change, and the focus of the methodology becomes student centered rather than teacher centered. The PBL learning style is active rather than passive and student responsibility for learning is clearly increased. The emphasis is on the meaning that students generate and construct. Teachers become resources and serve as facilitators and evaluators of student accomplishments. They encourage student-generated questions and monitor English language and content knowledge through discovery. Developing an understanding of the sorts of questions that would be authentic, urgent, and personally meaningful, given the contexts and cultures of students' lives, promotes the use of the tools students possess to construct basic cognitive frameworks.

Strengths of PBL

PBL is unique in that it addresses challenges and tackles problems using strategies that are encountered in real life experiences and careers. At the same time that students acquire language and subject matter knowledge, they become proficient in problem solving. Self-directed learning and team participation prepare students to become effective practitioners when they enter the workforce. Team members who are experienced in group interaction, multiple solution paths, and thinking beyond recall are at an advantage because they possess valuable skills that will enhance their ability to succeed. Through self-directed study, research, and teamwork, English language learning is revitalized and creativity is developed. PBL students step into the role of the stakeholder and strive for a solution to a predetermined problem and set of circumstances as they increase language skills. In PBL, the course of students' inquiry is not predetermined; rather it develops directly from students' beliefs and questions. The investigation of one question motivates additional explorations that were initially invisible.

Challenges Related to PBL

In order to achieve successful results with a PBL model, it is crucial for the teacher to employ well-organized and thoughtful methodologies that lend themselves to the ability level and nature of the learner. These methodologies must directly relate to the language skills and subject matter being considered, and be carefully designed to achieve the desired outcomes. The role of the student needs to be addressed as well as the composition of groups that will be participating in student group activities. Groups need to be heterogeneous, balanced, and composed of members with high and low abilities, diverse ethnic backgrounds, genders, and language abilities. High ability students, creative students, and excellent achievers have much to contribute to group outcomes and dynamics; however, they may tend to dominate and leave little for the less capable students to do. Reticent students may find this arrangement challenging because it allows them to become further withdrawn to avoid speaking up and participating because they do not feel capable of competing with stronger personalities and abilities within the group. It

is crucial to actively involve all students in teamwork while developing activities that are appropriate for the content and linguistic level of the learners.

One of the aspects that characterizes PBL is that students generate ideas that the teacher hadn't thought about, thus taking the class into a different direction than the teacher anticipated. This change in direction may be unsettling at first, but it will make educators stop to reflect on what happened to understand the value in taking a risk. While the pace may be slower and some educators express concern that less material may be covered, the benefits of the PBL model outweigh the challenges. Students will have a sense of ownership for their work and contributions while taking advantage of the opportunities that abound for linguistic development.

Relationship between PBL and English Language Learning

Often, lecture is difficult for English language learners to follow coherently. They become lost in the dialogue that may be too fast paced for them, and thus have little opportunity for reinforcement of language skills. Krashen [3] advocates the use of a natural approach to strengthen new language acquisition. PBL supports his research and surpasses traditional language acquisition methodologies. Students are required to make connections as group communication is strengthened. By applying language skills to the workplace, students develop survival skills for the working environment, increase their workforce marketability, and prepare themselves for lifelong learning.

The PBL model ensures that language skills are strengthened by experience with a broader scope of disciplines at the same time. Collaboration and hands-on learning will lower the affective filters that Krashen cautions will deter students from successful language learning. By combining language with new professional content knowledge using PBL, language skills are reinforced through group dynamics, workplace reality, and content area knowledge. Language learning and logical thinking are linked to future endeavors and their fields of work.

Integration of PBL into Content Areas

According to Allen, et al. [4] the combination of lectures and assigned textbook readings seems to reinforce students' perception of many content areas as a static collection of incontrovertible facts with little relevance to their daily lives. In direct contrast, PBL creates a learning environment that is alive with discussion, debate, and controversy, and in which intellectual curiosity is the driving force for student learning. In PBL instruction, complex problems rooted in real world situations are used to motivate students to discover important concepts and their interconnections. Working in groups, students learn to analyze problems, identify and find needed information by posing and answering questions, share their research findings, and formulate and evaluate possible solutions.

The basic premise of PBL is that learning begins with a problem [5] presented in the same context as it would be encountered in real life. When presented with the problem, students begin by organizing their ideas and previous knowledge to define the problem's broad nature. Inevitably they reach a point at which they realize they are missing essential information or do not understand aspects of the problem. In contrast to typical lecture classroom instruction, the PBL method encourages students to define what they do not know, rather than to cover up their lack of knowledge.

The use of problems to introduce concepts provides us with a natural mechanism to highlight the interconnections among disciplines. Knowledge transcends artificial boundaries; the PBL approach strives to make obvious the underlying integration of concepts.

Evaluation of PBL Learning Activities

The constructivist nature of the PBL approach often invokes concerns about whether students are learning essential course content. Specific experiences with PBL [6], and meta-analyses of outcomes [7] from PBL curricula in the medical school context have shown that content learning in PBL matches that in

a traditional curriculum. Additional outcomes in PBL include greater retention of knowledge and greater satisfaction with the educational experience.

Bauer, et al. [8] completed a broad study on PBL outcomes, and found that students indicated that the collaborative nature of PBL increased their level of comfort and inclusion in the class. In addition, students believed that their learning was enhanced because PBL increased their ability to consider, evaluate, and respect different points of view. The PBL setting helped students apply theory to real world issues, made course content more interesting, and helped them to learn course content more thoroughly. Students also believed that their communication and interpersonal skills had improved as a result of participation in PBL courses.

In order to accurately assess PBL activities, a combination of traditional and alternative assessments is required. Authentic assessments that focus on outcomes, process, and product design and provide a framework for learning outcomes are necessary. Rubrics developed to convey a clear understanding of assessment procedures and reflect objectives and learner outcomes will facilitate the assessment process. Portfolios, journals, and final group projects are among the instructional products that may be included. Reflections and interpretations regarding students' accomplishments are crucial for the success of the process.

Conclusion

PBL is an outstanding model that meets the needs of our global society by enabling English language learners to make positive contributions through a collaborative, multilevel approach to learning that focuses on problem-solving and communication through self-directed learning strategies and teamwork. By focusing on an integration of skills, students become self-motivated and develop the ability to think independently, yet work collaboratively. Instructors enthusiastically seek to develop intrinsic interest in complex and authentic problems, as well as language learning. PBL encourages self-direction in language learning and content area skills by developing independent problem-solving strategies. Coupled with an intrinsic motivation toward language acquisition and a natural approach to language learning, PBL encourages successful life-long learning, language acquisition, and content area knowledge believed to create learning experiences compatible with our expanding global society.

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