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PRACTICES OF INQUIRY-BASED TEACHING IN ENGLISH LANGUAGE CLASSROOMS

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ABSTRACT

This study explores English teachers' practices of inquiry-based teaching in secondary level. I used phenomenological research design for this study and semi-structured interview was used for data collection which enabled me in capturing qualitative experiences and practices, activities or strategies used in inquiry-based teaching from purposefully selected participants. The participants were four secondary level English teachers of Rupandehi district. Moreover, this study is based on socio-constructivism theory of Vygotsky. The data were analyzed using descriptive analysis approach. The findings of this study revealed that secondary level teachers used three different types of inquiry activities; structured, guided and open. The study further explored that assessment in inquiry, balancing content and inquiry, classroom management and the use of quality questions are the major challenges for implementing inquiry activities. The study is expected to have a great significance in improving the 21st century language pedagogy in general and in the process of implementing inquiry-based teaching in English language classroom in particular.

Keywords: free inquiry - guided inquiry - inquiry based teaching - scaffolding - structured inquiry.

INTRODUCTION

Education is no longer to provide information to students, but rather to prepare learners to become active 21st Century critical thinkers (UNESCO, 1998). Alameddine and Ahwal (2016) state that language empowers learners and provides them with an intellectual framework to support their conceptual development and critical thinking.

Barlow (1985) claims that the use of intellectual inquiry is a process of acquiring knowledge with students in how to find and organize the concepts and principles into an order of importance. Inquiry-based teaching is a pedagogical approach as well as a learning strategy. Through the use of questioning, the core value of inquiry-based pedagogy puts stress on discovery learning and the development of learners' cognitive skills and meta-cognitive strategies (Lee, 2014).

I am quite interested to see how teachers carry out different inquiry activities in teaching English. Thus, this paper aims at focusing inquiry as a process of learning and further explores how teachers practice different inquiry activities in 21st century classroom and it also further explores the challenges of implementing inquiry activities in the classroom with some mitigating measures that teachers can adopt for effective teaching. The main purpose of this paper is to explore teachers' practices of inquiry-based activities and strategies in teaching English in secondary level. Furthermore, it also tries to explain some reasons behind using such strategies. The paper also aims at discussing the challenges or problems faced by teachers in implementing inquiry strategies. To achieve these objectives, I seek to answer the questions like what different inquiry activities or strategies teachers use in teaching English in 21st century English language classroom and why English teachers choose such inquiry strategies and what challenges they face during the implementation phase. Such inquiry-based teaching strategies share a theoretical underpinning in social constructivism, presuming that learners are active agents in building knowledge through constructing their own understanding and through meaning-making, which requires them to have an inquiry mindset (Chu et.al. 2017). Thus, to explore strategies of inquiry-based teaching, I chose socio-constructivism theory in this paper.

Inquiry based teaching and learning is very much related to the constructivism and socio-constructivism theory. This emphasizes the use of authentic activities in meaningful contexts as Derry (1999) states that understanding the meanings of real-life situations does not come from reality itself, but it comes from the interaction between subjects and objects. Thus, the students can construct their knowledge actively through this process. Similarly, Brooks and Brooks (1999) state that as long as there were people asking each other question, we have had constructivist classrooms. Constructivism, the

study of learning, is about how we all make sense of our world, and that really has not changed" (p.76). Throughout the process of questioning, examining and analyzing activities to construct knowledge would probably yield to correlated or external realities that actually learner gains while experiencing everyday life. When learners ask questions, negotiate and try to find answers themselves, they will get more meaningful learning and better understating of intended curriculum. Learners, as a result, will have a sense of ownership and commitment to the curriculum they learn.

INQUIRY BASED TEACHING AS AN APPROACH

Using an appropriate teaching method or approach is aimed at solving the problems that arise in the learning process. Inquiry-based teaching is a pedagogical approach that engages learners actively in a knowledge-building process through the generation of answerable questions (Harada & Yoshina, 2004). This approach is related to problem and project-based learning, in which learners adopt an inquiry mindset in addressing epistemic issues or in developing and completing projects with a relatively open-ended set of answers (Chu et al., 2017). It means inquiry-based teaching is a broad approach that includes project-based learning and problem-based learning under it.

Similarly, Arauz (2013) states that inquiry-based model requires students to think in a systematic way in order to reach reasonable solutions. It is a student-centered method that promotes collaboration among the students (Lee,2014). It implies students' involvement in facing and solving a problem and the search for realistic and strategic solutions. Such learning scenarios may be structured formally or informally. Research has found that more formalized, well-designed inquiry-based approaches are effective in promoting positive learning outcomes such as deep thinking, knowledge application and logical reasoning (Harel & Papert, 1991). Therefore, teaching language through inquiry is becoming more prevalent these days. Likewise, Ismail, and Alias (2006) emphasize that inquiry is a multifaceted activity that guides learners to inquire or generate meaningful questions that lead to the relevant answers. In inquiry learning, learners are shown how knowledge is generated and transmitted and how they can acquire the knowledge and skills necessary to become life-long learners (Windschitl, 2003).

The necessity of the 21st century requires education to continue creating the young generation who have life skills so that they can survive and compete in the global community. Life skills needed consist of the ability to think critically, the ability to communicate effectively and efficiently, the ability to develop technology and the ability to work in a flexible, productive, innovative and responsible (Suto, 2013). Inquiry learning is a series of learning activities that emphasize the process of thinking critically and analytically to seek and find their own answer to the problems in question(Sanjaya 2006, as cited in Andrini ,2016) .Inquiry learning is built on the assumption that humans have an innate urge to find their own knowledge (Andrini , 2016).The main objective of inquiry in 21st century learning is helping students to develop intellectually disciplined and thinking skills by providing questions and get answers on the basis of curiosity. The use of inquiry learning methods efficiently and effectively will reduce the monopoly of teachers in mastering the course of the learning process, and the boredom of the students in a lesson will be reduced. The selection of strategies and appropriate learning methods will enhance students' creativity in learning. Everlita et al. (2019) maintain that inquiry model of learning cycle consists of seven stages: elicit, engage, explore, explain, elaborate, evaluate, and extend, which allows teachers to present lessons that incorporate inquiry activities and promotes a student-centered classroom. It promotes the thinking process and teaches students how to process information in addition to skill and knowledge development.

METHODOLOGY

For the purpose of this study, I followed phenomenological research design to derive meaning from the reality. I selected four different schools (two community based and two institutional) from Butwal sub-metropolitan city of Rupandehi district. Four secondary level English teachers were selected as participants for the study. Participants for the study were selected purposively. The semi- structured interview was used and required the teachers to reflect on their practices and explain the decisions and actions they had taken during the lesson. It is particularly useful for ascertaining respondents' thoughts, perceptions, feelings, and retrospective accounts of events (Goodwin & Goodwin, 1996, as cited in Phillips, 2004). First, I informed them and took permission

and fixed the time for interview. Then I took their view conducting semi- structured interview to withdraw information. Then I started to elicit the information informally and I took interview until I got saturated information. After the collection of data, I transcribed the data, coded them into different categories and data were analyzed thematically under different headings.

RESULTS AND DISCUSSIONS

Analysis of the data revealed two different categories: English teachers' inquiry-based strategies and techniques in the classroom, and problems or challenges they faced in implementing inquiry-based techniques in the classroom in teaching English.

Types of Inquiry Based Strategies and Techniques

The selection of strategies and activities guided by the particular method seem to be quite important to enhance students' creativity in learning. Actually, teaching method emphasizes the learning process actively in efforts to acquire the capability of learning outcomes. Based on the interview, it was found that English teachers in secondary level used three different types of inquiry activities; structured, guided, and open inquiry activities.

When a question like what different strategies you use in inquiry-based teaching, Participant A claimed, question- answer, quick writing, fill in the gaps, demonstration and dramatization, guessing meaning of new words from the context etc. are used in the classroom. Similarly participant B stated, simulation and role play, group and pair work, information-gap activities, inquiry and discovery, mind mapping, oral tasks including presentations, etc are used. These participants emphasized that the focus of the activity may differ according to the inquiry stage we are at. This view of the participants is very similar to what Bybee (2006) called 5 E learning stages; engagement, exploration, explanation, elaboration and evaluation process. In engagement stage, teachers assign certain tasks to the students and students start working on it with the guidance of teachers and in exploration, explanation and elaboration stages, students identify the problem, collect data, analyze and discuss and come to the conclusion. And in evaluation stage, students review the task, summarize and reflect on what they are doing. Similarly,

participant C replied questioning, brainstorming, free writing, skimming and scanning activities, summarizing, identifying keywords etc. are used. Similarly participant D stated recognizing sentence structure, transformation activities, elicitation, correction activities, summarizing, problem solving activities like games, puzzles, preparing reports, assigning tasks or projects etc. are used. This participant responded various strategies which are used in different stages of teaching. Aruz (2013) states that students view themselves as learners in a cycle of learning and engage in an exploration process and teachers ask questions, propose explanations, collect information, and use observations and plan on how students carry out learning-based activities.

It seems that on the basis of the responses of the participants, inquiry activities used by the teachers in the classroom can be classified as Herron (1971) provides into three main types: structured, guided and open inquiry activities. The activities like elicitation, correction, identifying key words, comprehension questions etc are structured inquiry activities. Promoting structured inquiry in the language/literature classroom not only gears future generations with more a professional, analytical exchange, but it also lays the fundamental foundations of a solid future to come (Alameddine & Ahwal, 2016). Similarly, the activities like summarizing, role play, simulation, pair work, group work, skimming and scanning activities, information gap activities, mind mapping etc are guided activities. Herron (1971) claims that in guided inquiry, students investigate a teacher-presented question using student designed / selected procedures. There are several ways in explaining the material such as lecture, computer simulation, discussion of the finding from the first stage, multimedia presentation, focus group discussion, listen to recordings, and explain the material from the textbook (Rejeki, 2017). Similarly, Friesen and Scott (2013) propose some of those activities: scaffolding, formative assessment, powerful, critical, and essential questions, and through line questioning are used in inquiry-based teaching. The learners or the student inquirers are guided to inquire or generate relevant questions and to come up with the appropriate answers through critical thinking (Ismail, & Alias2006). Finally, Herron (1971) talks about open inquiry activities and that openness is determined by the nature of the problem, procedure and whether solutions are provided by teachers or found by students themselves. Open inquiry activities are like project works, problem-based learning, free writing in which students

investigate topic-related questions that are student formulated through student designed/selected procedures.

Open inquiry activities allow students to engage in real life activities. In this context, Ismail, and Alias (2006) state that learning is enhanced through the inquirers opportunity to engage in real life activities, situations and with real audience. Students who participate in an open inquiry project demonstrated ownership and responsibility for determining the purpose of the investigation and the question to be investigated as a scientist would (Reid & Yang, 2002). The student's functioning corresponds closely to the teacher's efforts to facilitate the student's scientific literacy, initiative, responsibility, and motivation. Open inquiry does not separate teaching from learning, but creates a learning community of teachers and students that is crucial to the success of the inquiry process (Zion & Slezak, 2005).

All the above-mentioned techniques and strategies are constructivist learning strategies as they capitalize on learning through inquiry and problem solving via critical and creative thinking. In a constructivist learning environment, students are engaged in active research and become managers of their own learning (Scott & Hannafin, 2000). Similarly, Jonassen (1998) maintains that the learner has to be given the opportunities to process information, to ask questions, to solve problems, and to make decisions. Knowledge is not to be imparted to the learner, but acquired by the learner through an open inquiry process. Likewise, King (1990) reports that students in a constructivist learning environment, were engaged in both cognitive and metacognitive1 skills, as well as social skills. That is to say they were actively engaged in their learning. Constructivist classroom should reflect active participation and deep learning through inquiry-based approach as opposed to surface learning (D' Silva 2010).

Challenges for Implementing Inquiry Activities

Inquiry experiences can provide valuable opportunities for students to improve their understanding and to develop different skills in a language classroom. However, the implementation of inquiry learning in classroom presents a number of challenges. Researchers have shown that students have difficulties conducting systematic and scientific investigations. Data gathering, analysis, interpretation, and communication are

all challenging tasks that are made more difficult by the need for content-area knowledge (Kraijcik et al., 1998).

When a question was asked to the participants regarding the challenges they faced in implementing the inquiry activities, participant A responded, one of the challenges is how we measure the quality of inquiry as implemented in the classroom and participant B responded using quality questions in the classroom and discussion to encourage more effective inquiry-based learning is a big problem These participants mainly raise the issue of quality questions in the inquiry activities and the type of discourse we use to the students during the students' investigation process in the classroom. It means proper scaffolding and assessing students in inquiry-based teaching is a great challenge. The appropriateness of questions and the pattern of presentations are closely related to the effectiveness of teaching and the development of students' inquiry abilities. (Lee, 2014) claims that referential questions function more productively than display questions in terms of communication. Lee (2014) further states that though display questions are necessary and suitable for teaching low cognitive level factual knowledge, such as vocabulary and the recall or recognition of textual information, referential questions are able to trigger students' interest and allow them to express themselves which in turn brings on heated discussions.

Similarly, regarding the challenges or problems they faced while implementing inquiry-based teaching, participant C replied that balancing between content and inquiry is a big challenge. Moreover, classroom management in a large class for effective inquiry is another big issue. Similarly participant D added, keeping students on task, in a big class, is a huge challenge. These participants raise the issue of classroom management and balancing content and inquiry as major challenges in inquiry-based teaching. Of course, Nepalese classrooms are mostly large, with mixed ability students and are poorly equipped with technology. It seems that for effective inquiry, well- equipped classroom is inevitable for developing 21 century inquiry skills. Beshears (2003) states that classroom management includes general discipline, keeping students on task, refining and reinforcing independent student behaviors, such as task management, and planning, managing, fostering and assessing group work. In this context, Lee (2014) states that inquiry-based teaching assuredly can be enhanced by the support of carefully selected

visuals or authentic material. Similarly, Ismail, and Alias (2006) state that in order to have a productive inquiry – based classroom, the learning environment in the class should be enriched with learning materials that will enhance and stimulate. It should also provide answers to the learners' inquiries. Therefore, it is best to equip the class with a lot of reading materials such as books, magazines, brochures, pamphlets, newspapers related to the topic under study. Virtual online learning such as through web-based activities that focus on inquiry method should be encouraged. They further suggested web quests, mini-quests, and project pages as effective inquiry-based activities (Ismail & Alias, 2006).

Problem of classroom management can be solved by holding the students on a given task with peer interaction that leads them to the construction of ideas. This becomes more comfortable if the classroom is rich in technology or other resources. Effective interaction using technology largely supports inquiry learning process as Vygotsky (1978) emphasizes the importance of interaction with others such as peers, teachers, and parents in order to build knowledge. He also emphasizes the need for tools such as language and computers to mediate knowledge construction. Similarly, Campbell (2004) argues that the adoption of a constructivist approach in a technology-rich environment, promotes the full potential of technologies in producing and disseminating resources.

CONCLUSION

The findings of this study clearly indicate that teachers of secondary level use three different types of inquiry activities: structured, guided and open inquiry activities. It was also revealed that using open inquiry activities focus more on students' generation of different ideas that helps in the construction of knowledge. Using this inquiry-based approach properly allows teachers to achieve the intended pedagogical goals that enable learners to deal with problems of the 21st century. Various inquiry classroom techniques used by English teachers could make the students more interested and enthusiastic and would avoid boredom in learning English. It is also revealed that classroom management is undoubtedly one of the most critical aspects associated with effective inquiry instruction and learning. Poor management can destroy any chance for meaningful learning including inquiry. Despite having some challenges for implementation, inquiry-based instruction can be used in the classroom successfully with the balancing content and

inquiry, assigning quality questions, using technology, and introducing formative or alternative assessment system in evaluation.

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