

Inquiry-Based Learning Implementation In English Teaching For Sixth Grade Students At SDN 016 Samarinda Seberang

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Abstract

Inquiry-Based Learning (IBL) was defined as a learning model to develop students' understanding of language content and scientific practices. In K13 curriculum, it was also considered as one of the learning models recommended by the government to be applied in the teaching and learning process. This study focused on the IBL implementation in English teaching for sixth-grade students at SDN 016 Samarinda Seberang. The purposes of this study were: (1) to know how IBL is implemented in English teaching; (2) to know the problems faced by the teacher during the implementation of IBL method in English teaching. This research used descriptive qualitative research. The subject was an English teacher from SDN 016 Samarinda Seberang. The data were collected from observation sheet notes and interviews. The data classified according to the identified problems and were analyzed by using the descriptive analysis method. The findings showed that the teacher used six IBL procedures such as (1) stimulation (2) problem statement (3) data collection (4) data processing (5) verification (6) generalization. Also, the subject appropriately applied videos and pictures to deliver the material. During its implementation, technological problems (i.e: unstable connection, delay, display error) and pedagogical problems (i.e: time consuming in preparing a lesson plan, need to provide a lot of stimulation media, and unable to conduct collaborative work) occurred in online classroom. It was suggested for the teacher to keep practicing on IBL in the teaching process, be more patient in creating creative activities, participate in teaching workshop, and discuss the lesson plan with other English teachers. Meanwhile, for the next researcher, it is suggested to explore IBL in other skills or other levels of students since the current study only focused on the implementation of IBL for sixth grade students.

Key Words: Inquiry-Based Learning, Implementation, Problems, Elementary School Students, English Teaching

1. Introduction

It is known that Inquiry-Based Learning (IBL) is a pedagogical approach that encourages students to explore academic lessons by posing, investigating, and answering questions (Wati, 2017, p.2). Agreed with this, Small (2018) and Barron and Darling-

Hammond (2008) found that IBL is an effective classroom pedagogy which engages students' learning focus in understanding the connections between the lessons given in the classroom. The implementation of IBL been directed in numerous educational settings such as humanities: Preston, Harvie, and Wallace (2015), computer technology: Wang, et al (2010), sciences: Aktamiş, Hiçde, and Özden (2016), Effendi-Hasibuan, Ngatiyo, and Sulistiyo (2019), mathematics: Luera, Killu, and O'Hagan (2003), Schoenfeld and Kilpatrick (2013), Swan, et al (2013), English as a foreign language: Aftari (2009), Ermawati, Yunus, and Pammu (2015), Wale and Bishaw (2020), and Wati (2017).

The implementation of IBL process in Indonesia is under Ministerial Regulation of Education and Culture number 22 the year 2016 (as cited in Dikdas, 2020), they are: (1) Stimulation; (2) Problem Statement; (3) Data Collection; (4) Data Processing; (5) Verification, and; (6) Generalization/Conclusion. Hence, the teacher needs to know how IBL should be implemented in the teaching process. If the teachers failed to engage this method in their teaching, it would cause a teacher-centered condition rather than a student-centered condition in the classroom activity (Fadlilah, 2015).

However, since the COVID-19 pandemic occurred in Indonesia, education has undergone changes that are adapted to current conditions. Teaching and learning activities which are usually held offline in the classroom are now being carried out online to prevent direct contact (Khlaif et al., 2020; Schwartzman et al., 2020; Starkey et al., 2021; Yates et al., 2020). Some of the applications used include Zoom (Mannong, 2020; Laili and Nashir, 2020), WhatsApp Group (Mannong, 2020), Google Meet (Mannong, 2020), and Google Classroom (Albashtawi and Bataineh, 2020; Mannong, 2020). Then, in delivering the material, the role of the media became the main reference to help distribute the material to be studied (Chiu, 2020; Hwang et al., 2020). Multiple set of applications included the use of PowerPoint (Chiu, 2020; Herting et al., 2020), videos (Hwang et al., 2020; Vlasenko, 2020) and pictures (Li, 2020). As the use of IBL in the classroom was a recommendation from the government, the combination of the use of media in IBL during pandemic era was the main focus of this study. Therefore, the main objectives were to find out:

- (1) How is the implementation of Inquiry-Based Learning (IBL) in English teaching?
- (2) What are the problems faced by the teacher during the implementation of inquiry-based learning method in English teaching?

IBL is described to let the students think critically and effectively to answer the questions they overcome. Besides, the students get to fully control their learning process while the teacher monitors their learning process. Thus, this study is expected to be able to give insights for future teachers in implementing this model in language teaching.

2. Literature Review

Ermawati, et al. (2015) stated that IBL is a model which stimulates the students to explore the problems and questions provided by the teacher. It can be referred as giving the students opportunity to actively participate in classroom activities. Other researchers define IBL as a learning model which will not only support the students' academic activities but also enhancing their self-reflection and deeper understanding (Small, 2008; Wati, 2017).

Its standardization in Indonesia is under Ministerial Regulation of Education and Culture number 22 the year 2016. According to Dikdas (2020) and Mushtoza (2016), inquiry-based learning which also known as discovery learning is done through observation, classification, measurement, prediction, determination, and inference. The above process is called the cognitive process while discovery is defined as the mental process of assimilating concepts and principles in the mind.

Inquiry-based learning is very adaptable and working well for various kinds of learning activity that involves deeper thinking. In any case, the teacher is needed to arrange the lesson planning that will be suitable for students' learning (Aftari, 2009; Naryanti, 2017; Mutammimah et al, 2019). It is also particularly suitable for collaborative learning projects (Ajit et al, 2016; Mutammimah et al, 2019). The teacher can create activities in which the entire class works on a single question as a group or in teams working on the same or different questions (Mutammimah et al, 2019). Of course, it also works well when each student develops an individual project as long as the teacher keeps monitoring the students' activities (Ermawati et al, 2015).

However, some problems might occur during the implementation of IBL. The results of the study done by Holbrook and Kolodner (2000) showed that there were some pedagogical problems occurred during IBL implementation. The problems were the teachers found it difficult to help students learn science concepts at the same time they were being introduced to the processes involved in designing, doing science, communicating, and collaborating. Then, the students were not used to the kinds of collaboration, communication, and learner-centered skills in which they were expected to use. Moreover, Chan, Hok, On (2010) added that motivation, possession of investigation techniques, background knowledge, management of extended activities, and practical constraints of learning context can be significant problems to implement inquiry-based learning.

Not only pedagogical problems, technological problems also occurred in some studies. Coman et al. (2020) and Hakim (2020) claimed that technological issues are the most crucial, followed by teachers' lack of technical abilities and their teaching style improperly adapted to the online environment. Also, students' lack of focus was due to noisy sounds which distracted the students during learning process (Coman et al., 2020; Khatoony and Nezhadmehr, 2020). Due to these issues, lack of time management was commonly occurred during online English teaching situation because most times were

spent on solving the technical problems first before continuing the teaching process.

3. Method

The method that used in this research was descriptive qualitative research. Ary, Jacobs, and Sorensen (2010, p.640) explained descriptive research as research that asks questions about the nature incidence, or distribution of variable; it includes describing except manipulating variable. In descriptive research, the data may be obtained qualitatively, but it is often analyzed quantitatively, using frequencies, percentages, tables, or other statistical analyses to determine relationships (Nassaji, 2015). Along with this, Locido, Spaulding, and Voegtle (2010, p.143) stated that qualitative research is research that depends on the collection of qualitative data based on the reality of the subjects and settings studied which then will be uncovered in the research.

Therefore, the descriptive method was considered as appropriate because this research aimed to describe the procedures implemented in inquiry-based learning. Also, it was to describe the technical and pedagogical problems which occurred during the implementation of inquiry-based learning in English teaching.

a. Research Subject

In this research, the criteria of the research subject should be an English teacher who has more than two years experiences in English teaching and also implement inquiry-based learning during the teaching process. Thus, an English teacher from SDN 016 Samarinda Seberang was qualified for this research because she has more than five years experiences in English teaching. She teaches all grades in SDN 016 Samarinda Seberang. But, the videos from her YouTube channel show her teaching activity in the sixth grades online classroom via Zoom. The topic from each video were different one another. The topic of the first video was about describing people. The second online classroom video was about shopping. Then, the topic of the last video was about asking price. These videos were considered as appropriate for the current research because the teacher in the video applied an inquiry-based model as suggested from Ministerial Regulation of Education and Culture number 22 the year 2016.

b. Research Instruments

The instruments used in this study are observation sheet notes and interview. The researcher used note-taking to prevent the possibility of losing the relevant data during the implementation of the action. This research applied non-participant observation, where the researcher was not involved as the participant due to the source of the data were taken from online English teaching video done by the research subject. The indicators of inquiry-based learning implementation activities by the teacher was based on a study done by Mushtozza (2016) which also relevant with IBL standardization from

Ministerial Regulation of Education and Culture number 22 the year 2016

As for the interview, the researcher used one-on-one interviews and interviewed the teacher about the way IBL is implemented in English teaching and the problems that were faced during the implementation. There were 25 questions in the interview guide which were delivered to the teacher and designed to support additional data in observation sheet notes and to describe problems that occurred during IBL implementation. The researcher's interview guide was constructed according to the theory by Dikdas (2020), Holbrook & Kolodner (2000), and Chan, Hok, On (2010).

c. Data Collection Techniques

In the current study, the researcher used three videos to obtain the data. While taking some notes, the researcher observed the three English teaching videos multiple times until the necessary information were acquired. The researcher was looking for how the implementation of IBL occurred in English teaching. After the information of IBL implementations were obtained through the videos, the researcher continued to transcribe the data from the video for further analysis.

Next, by using handphone, the researcher recorded and did an interview to research subject in order to obtain information about the problems occurred during the teaching process with IBL implementation or clarified the difference from each video. In this interview section, the research subject was interviewed for about ± 10 minutes depending on the question and situation. The researcher spoke in the Indonesian language during this interview. As an ethic code of participants, the researcher did not mention the real name of the participant, but pseudonyms. In addition, data from the interview were transcribed for further analysis.

After that, the researcher analyzed all of the data by using data reduction to focus only on IBL implementation matters and its problem during the teaching process. Later, all of the data were explained descriptively and concluded based on the data collection and information to give clear description/answers from research questions which purposed to know how the IBL was implemented and to know what problems occurred during the implementation.

d. Data Analysis Techniques

The data were analyzed using data reduction, data display, and conclusion drawing. The most common approach of data reduction is to read and reread all the data and sort them by highlighting the units related to IBL such as utterances which referred to stimulation, problem statement, data collection, data processing, verification, and conclusion to make it easy to be learned. In this stage, after getting the data the researcher collected the data. All of the data were sorted out to indicate the process or stages of inquiry-based learning during English teaching. The results of an interview which supported these procedures, technical, and pedagogical issues were also selected to be

described in this study. So, any other information which was not related to the purpose of this study would not be taken.

The results of the analysis were displayed by using tables to describe each stage or procedure based on the research instruments and to support the explanations. At last, the conclusions were acquired by rechecking the data reduction and data display. Here, the researcher started to decide the meaning of the data collected and make interpretations to describe or answer the research problems until the data collection was done. All entries with the same code and then merges these categories and finding the connection among these categories. Thus, the final conclusion will be fulfilled by valid and reliable verification that has been collected.

4. Result

The result of IBL implementation in English teaching showed that the teacher applied all procedures of inquiry-based learning in her teaching (see Table 1). All the procedures used were suitable as the regulation stated by Ministerial Regulation of Education and Culture number 22 year 2016 about the implementation of IBL in Indonesia which were consisted of: (1) Stimulation; (2) Problem Statement; (3) Data Collection; (4) Data Processing; (5) Verification, and; (6) Generalization/Conclusion. While for the activities done by the teacher were similar to each other. The only differences were laying in the topic given from each video.

In the stimulation procedure, the teacher consistently provided stimulation in the form of videos and pictures. This did not only take place at the beginning of the meeting but the provision of media as a learning tool was often given by the teacher to students in the middle of the teaching and learning process. Then, all the stimulations used were adjusted to the learning topic and chosen based on students' background knowledge and environment such as the pictures about famous artist, video about families, and pictures consisted of goods in a supermarket so that it was easily understood by elementary school students.

All these stimulating activities were meant to increase her students' interest. This was due to her students were still at elementary school level so giving stimulation by advantaging the use of media is very important in her teaching. Not only that, the media used showed a familiar image to students because it was still related to their background knowledge and actual environment. Thus, the students were able to understand easily about the material given.

Then, in the problem statement procedure, the teacher gave questions to students related to the stimulation that has been given. It aimed to invite students to analyze by using their abilities and background knowledge information in order to explain the video or image shown during English learning. Hence, by giving problem statements to students, students could actively analyze the media and conduct questions and answers in class.

For data collecting during IBL implementation, by using the same stimulation or additional stimulations, the teacher invited students to explore more deeply about the material through existing media. So, depending on the topic given, sometimes the teacher only invited students to either repeat existing words, translate vocabulary from Indonesian language to English or vice versa, or identify further about the grammar structure used during the data collection procedure in IBL.

During data processing, the students were given time to do additional assignments both spoken and written. When the teacher asked them to give their answers toward the tasks, instead of discussing the answers between students to students, the teacher asked her students to identify the questions individually and take turns in giving their answers. This was done to maintain the condition of an online classroom since noisy sounds could be easily heard during online meetings.

After that, the teacher verified the students' answers by correcting if there was an error in their answers. It was also used to confirm whether students' answers were proven correct or not. Then, the teacher could give the correct spelling or pronouncing if her students were misspelling the words or mispronouncing the answers. So at this stage, students got proof from the teacher that whether what they were doing was suitable with the learning objectives or not.

In conclusion procedure, the teacher invited students to recall the grammar structure used, important vocabulary, and expressions used when asking questions about prices and describing someone. In brief, she invited students to both repeats the main points that have been learned and to confirm their understanding toward the concept of learning on that day.

Thus, it can be summarized that this conclusion drawing was used to confirm her students' understanding toward the material given during the English teaching process. Besides, to ask more questions during conclusion procedure, the teacher would be able to confirm students' knowledge and recall the important points of the material together with her students. Furthermore, concluding by giving repetition of main material is very suitable for elementary school students in order to drill their memory about the lesson learned.

The second research question asked about the problems faced by the teacher during the implementation of inquiry-based learning method in English teaching. In order to support the data, the researcher collected the data through interview. The interview was done by asking the teacher from the video on May, 6th 2021. The researcher had prepared the interview questions related to the three videos and the implementation of inquiry-based learning for English teaching.

The researcher conducted an interview with the teacher about the implementation of Inquiry-based learning to obtain her opinions in the English class especially during online teaching and the problems that occurred. From the interview, the results showed that there were some problems faced by the teacher in implementing inquiry-based

learning. The teacher had some problems with technological and pedagogical problems.

Since the teaching was done online, there were some internet issues that occurred during teachings such as unstable connection, delay, display error, and sound error. The teacher also added technological issues regarding to display error when she shared different screen with her students such as the videos and pictures used for the stimulation process only shown on her screen, but not on her students' screen.

Moreover, during online classroom, any noise which came from students' microphone can be heard easily. This caused the noise in the background of online meeting. Due to these issues, the teacher sometimes repeated the video stimulation and kept asking the students to confirm whether they share the same screen or not.

As for the technological issue according to the teacher's ability in operating technology in teaching, she explained that she was not a professional in using PowerPoint application. Although she admitted that she was already familiar with the application, she said that she still needed to watch more tutorial videos on YouTube to create an interesting PowerPoint. While for Zoom application, at first, she had difficulty in operating the application because she was not used to teach by using this application. In that case, she practiced using it with her friends before she used it with her students.

Meanwhile, for pedagogical issue, the result from the interview showed that during stimulation procedure, the teacher could not use one or two stimulations because there were some students who could not understand after given a few stimulations. So, the teacher needed to prepare additional stimulation pictures or longer English illustration video.

Then, the teacher admitted that during data processing, teacher could not facilitate the students to discuss with their friends due to online meeting situation which could cause so many noisy sounds in the meeting as explained before. So, instead of discussing together, the teacher invited them to do their assignments individually. Later on, the students would be asked to take turn in giving their answers. Although the teacher agreed that to take turn in answering the questions could take a lot of time to be done, that would be the best way to prevent noise in online classroom.

Besides, other than these problems during each IBL implementation procedure, the teacher explained that creating a lesson plan was also a little bit difficult and time-consuming for the teacher because she needed to find interesting materials for the students. This was due to her students who were still in elementary school level which were needed a simple yet interesting material that could make them feel enthusiast in learning English lesson. Although in preparation of a lesson plan is a little bit time-consuming for her, she agreed that lesson plan was very important to be prepared before the teaching process started.

In summary, pedagogical problems faced by the teacher during the implementation had existed in each procedure of IBL. Moreover, the teacher was also faced with students' lack of enthusiasm during online classroom which caused the teacher

to facilitate more in providing stimulations' backup and interesting questions. Therefore, she needed to take her time in preparing lots of stimulations and provide interesting media before she started to teach her students.

5. Conclusions

This research sought to find out how IBL was implemented during English teaching and to know what are the problems faced by the teacher during IBL implementation. The teacher appropriately applied six procedures of IBL in relevant with government's standardization. However, the teacher had some problems with technological and pedagogical problems during her online classroom teaching. Technological problems created lack of time management situation during online classroom because technical issues should be fixed first before continuing the lesson. Teacher needed to make sure the students' internet connectivity were stable to follow up the lesson. Also, operating Zoom application and preparing an interesting PowerPoint became a whole new level for the teacher during pandemic era. Teacher was challenged to adjust with the situation and sharpen their abilities. Meanwhile, pedagogical problems consisted of teacher's obstacles in implementing IBL procedure in handling students' lack of enthusiasm during online classroom. So, the teacher needed to anticipate herself in preparing an interesting lesson plan. For that reason, the teacher spent a lot of time in preparing various attractive stimulations before English teaching begins. Moreover, the teacher could not conduct collaborative activity during her teaching because she found it hard to facilitate her students to discuss with their friends in online meeting which could cause so noisy sounds during online classroom. Thus, instead of collaborative activity, she invited her students to work on the tasks individually.

6. Suggestions

From the research, it can be concluded that IBL adjustable, it usually done in offline classroom, and now it seemed to be working well for online classrooms. Although the teacher needs some adjustment to the media for delivering the lesson, teacher can keep practicing on the existing media to prepare more fascinating stimulations for students. Teacher should try to create an online classroom activity that can help to build the students' creative thinking (i.e: creating mini online game through pictures) because elementary school students are children who still love learning while playing. Also, it is suggested that the teacher should participate in seminar or teaching workshop which will enhance her teaching ability related to IBL implementation. Besides, the teacher could also discuss the lesson plan design with other English teachers to construct or help in creating a better lesson plan for elementary students.

Finally, the result of the study can be used as an additional reference for further research with the different samples and occasions. As this research only focuses on the implementation of inquiry-based learning and its problems during the implementation sixth-grade students in elementary school, other researchers can explore the use of

inquiry-based learning in other skills or other levels of students.

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