

The Use of Edubox as a Medium in Reading Comprehension Assessment Teachers' and Students' Perspectives

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ABSTRACT

Technology plays an important role in societies, including language learning. In this 21st century, the advancement of information and communication technology (ICT) also demands teachers to adjust to the situation. Besides, teachers need to be prepared to use a proper media as a learning tool and design an effective learning process. Thus, Edubox, as a technology application, could give a solution for teachers in creating reading assessments. This present study, therefore, aimed to investigate how Edubox was implemented and teachers' and students' perspectives in using Edubox for reading comprehension assessments as well as the obstacles that they face while integrating them. To obtain participants' perspectives toward the implementation of Edubox, a qualitative approach was employed. The data were collected through questionnaires and were distributed to four teachers and twenty students chosen from the secondary level of education at Bandung City. The results of this study indicated that the use of Edubox was affected by the teacher's and students' basic knowledge of technology. This study also highlighted positive and negative responses toward the use of Edubox for reading comprehension assessments. Mostly, the participants feel comfortable using the application since this application could be used without an internet connection. Additionally, some issues on the use of Edubox in this study were weak data transfer and confusion in using Edubox.

Keywords: Edubox, English as a foreign language (EFL), information and communication technology (ICT), reading assessments, students' perspectives, teachers' perspectives

1. INTRODUCTION

Traditional teaching approaches to language teaching and learning which previously use a textbook, nowadays have been challenged by new and innovative approaches based on the latest advances in the digital era. The use of Information and Communication Technology (ICT) such as computers and the internet brings some advantages for teachers in teaching activity. As for language assessment purposes, a lot of teachers who used technology acquired more complete material than in a textbook and found numerous benefits to enhance assessment activities. Likewise, in the 21st century, many experts show that technology could assist in assessment practices (Marina, 2015). The incorporation between technology application

and teachers' ability in using technology to support their activity is expected to bring great changes in language teaching and learning.

In Indonesia, English language learning, especially in reading ability, seems to be a big problem for the English Foreign Language (EFL) students. Most of them found that English reading is difficult and they have a lack of motivation in reading activity (Phantharakphong & Pothitha, 2014). Thus, much attention has been directed toward comprehension in reading. Considering the importance of reading, the Indonesia government puts English as an obligation for students of junior high school and senior high school. For reaching some goals of learning, assessments become an important step in an

educational setting. The primary purpose of assessment is for the students to provide evidence of learning by demonstrating the understanding of content and achievement of learning outcomes (Demir, 2018). This gives an insight into their strengths and areas of development. Whereas for the teacher, it provides a moment to review their assessment strategies in terms of effectiveness and facilitate progression by giving constructive feedback.

Thus, the use of technology in reading assessments continuously brings many benefits for both teachers and students in terms of doing the tasks. The implementation of technology provides teachers, and students continuous study, real-time information and support instruction (Klingner, 2004). This technology application could assist students to be more independent. Every student could choose either computers or smartphones to do the test by themselves.

Edubox, as a technology application, facilitated teachers in conducting English reading assessments. Originally this application was made by a team from the local government of Bandung, West Java, Indonesia. Like any other application, Edubox also could be used both in computers and smartphones. This application is used by most English teachers for language assessment purposes in public secondary schools in Bandung as the government's regulation for five years ago. However, there have been many studies that investigate the use of ICT for language assessments but unfortunately; there is still a lack of study specifically discussing Edubox.

Using technology applications for language assessments could also engage students' in doing the tasks. As pointed out by Buntoro, Ariyadi, & Astuti, (2018), that even though teaching methods using technology applications nowadays have been worked well developed, if the teacher is not used in the teaching process it is hard to expect a good result from the teaching-learning activity. Besides, Karavas-Doukas (as cited in Tootkaboni, 2019) stated that teachers' beliefs could make the mismatch between the actual teaching methods and their practice in the classroom.

Patel, Thakkar, and Shah (2017) investigate the secondary level teachers' attitudes towards Edmodo. The data were collected through observations, document analysis, interviews, and questionnaires. The result indicated teachers' positive attitudes toward using the application in the classroom. However, teachers tend to have difficulties to integrate Edmodo in the English learning process. It was due to limited computers in school and inadequate knowledge of Edmodo. Meanwhile, the printed books are still widely used by Indonesian teachers than using technology application

that has been developed. This is evidenced by the lack of confidence and motivation that utilizes electronic media as a supporting facility for teaching and learning activities in the classroom.

Furthermore, findings by Mulyono (2016) show that the department of school should facilitate both teachers' and students' needs in the use of technology applications to support them to fully use the platform. A similar study was done by Buntoro et al. (2018). This is a qualitative study. The findings informed that teachers' and students' motivations towards the use of technology application, self-conscious, the benefits in using this application, can motivate both teachers and students to use more technology applications in learning activities.

As many studies related to the use of ICT in language learning have been explored, it is found that there is still a lack of study specifically discussing Edubox. Those studies investigate the media which have been familiar for teachers and students such as *Edmodo*, *Quipper*, *Socrative*, and *Whatsapp*. Thus, this present study investigated the use of a new ICT technology application, Edubox, as a medium for English reading assessments, which has been used by English teachers in Bandung for around 5 years.

2. METHODS

2.1. Design

In this study, a qualitative methodology is based on (Creswell, 2013). The research design, according to Eyisi (2016), is a total plan connecting to the conceptual research problems to the pertinent empirical research. With the purpose of the present research, a case study design was utilized. This research also focuses on teachers' and students' perspectives on the use of Edubox as a medium on reading comprehension assessment in secondary school, which later described the reality of how the teachers and students are utilizing this application from their point of view. It refers to all planning arranged by the researcher to link the research problems with situational research conditions to get the research objective.

2.2. Subject

Participants were located through purposive sampling. The main parameters were set out to ensure the representation of both four teachers and twenty students of a public secondary school in Bandung, West Java, Indonesia whom experienced with the reading assessment by using Edubox, Potential participants were identified through the researcher's professional network that

connected to teachers and students. Potential participants were informed they consented to participate in the study, filling the questionnaires and interviews were scheduled. Their personal information was removed to ensure confidentiality.

2.3. Instruments

To collect the data, three instruments were used in this study. First, observations were utilized to see how Edubox was implemented for language assessments. Second, interviews with a semi-structured design were mainly used to get data from participants for their perspectives on using Edubox in language reading comprehension assessments. WhatsApp is used to collect the data by audio recording which later converted into transcripts. The researcher made the flexible nature of semi-structured interviews by paraphrasing questions and added prompts to allow participants to provide the most genuine responses while retaining freedom when expressing their opinions. Semi-structured interviews were chosen for this study because the contingencies of interaction between interviewer and interviewees are influential to allow the recursive process of data generation (Bryan, 2016). The interviews lasted between 15 and 50 minutes were audio recorded. Interviews allowed the participants to elaborate and explain in-depth perspectives regarding the use of Edubox as a tool for assessment to improve their reading skills.

Third, open-ended questionnaires were used to check participants' attitudes toward Edubox as a medium for reading comprehension assessments. For open-ended questions, there are fifteen questions were used to ascertain the perspectives of teachers and students in their learning activities. The items are divided into 3 categories, namely teachers' and students' perception, teachers, and students perceive their usage on Edubox tools, and Edubox implementation.

After the interviews were transcribed, the data analysis process through several stages, following the principles of Creswell's theory. It began with organizing and preparing data, then reading them to get general senses and coding data. The next steps were generating a description of the whole data, representing descriptions and themes, and interpreting data. The last step was presenting data.

The data collected were then validated by triangulation. Triangulation was conducted to make sure that the data collected were matched with each other.

3. FINDINGS AND DISCUSSION

3.1. Implementation of Edubox in Reading Assessments

Edubox is a free and secure educational learning application used to provide a simple way for teachers to maintain the learning and teaching process by an online classroom community. This application is a part of the Smart City Program made by the local government of Bandung, West Java, Indonesia. Edubox can be opened in both computers and smartphones. This application can be easily found in the *Play Store* and *App Store*. It does not use an internet connection and can be operated using the Edubox server connection in the school area.

This site provides a simple way for teachers and students in a virtual class to connect and collaborate during the learning activity. Teachers have noted that Edubox even engaged students in the learning process and led to a stronger classroom community.

Students can submit the assignment and quizzes on the site, receiving teachers' notes, and alerts as well as be voting on polls.

Furthermore, this application can help teachers who cannot attend the class by providing online learning materials. In Edubox teachers can assign tasks to their collection time as well as upload course materials. To create a test using Edubox, several steps that should be done by the teachers before beginning the assessments.

Teachers need to input students' names and their numbers identity. Student's identity is used to limit access to the tests conducted by the teachers. As for students, they can access the site after typing their names and numbers identity. That is how Edubox works; one student could not access their friends' questions.

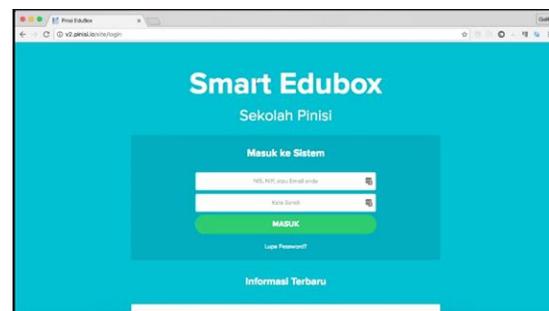


Figure 1 The first page of edubox.

After making sure all the students have access to the application, the next step is teachers' type questions in the feature provided on the site of the application. The types

of questions that could be composed using Edubox are multiple-choice and closed-ended questions. For the open-ended questions, teachers are not suggested to use Edubox. There would be various answers that are not going to be checked directly. Teachers also could insert pictures or tables for making the test more interesting and clearer.

The teachers should check the validity and reliability of the tests. If the result of the test is not valid or reliable, teachers could modify the questions to measure the students' proficiency. As Ozer, Fitzgerald, Sulbaran, & Garvey (2014) stated that in constructing the test, the teacher should pay attention to the characteristics of a good test especially in content and construct validity and reliability.

In constructing the test, the teacher should construct based on the materials and indicators in the curriculum. So, it will belong to the validity, either content or construct validity. Another note added by the teachers is, the teacher must teach the students by using handbooks that have the same curriculum with the curriculum that is used to construct the test.

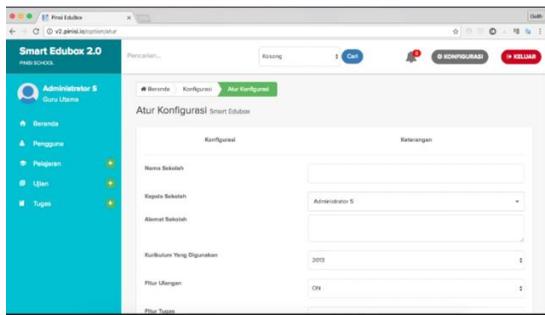


Figure 2 Create an Edubox account and accessing the features.

If the test has been valid and reliable, teachers could separate the questions become some versions. Inside one classroom, students could get the same questions, but those are in a different order. After that, teachers type the key answers to questions that will be used later on checking students' answers directly using Edubox. Students' scores would be showed on the menu available in this application after finishing the test.

The last step is setting time constraints in conducting the test by using Edubox. It is important to set up time constraints in a language assessment, the time constraints would develop students' self-regulation and enhance student's engagement in the learning activity.

By using Edubox for English reading assessments, the teachers do not need any papers and internet connection.

The teachers would not spend much money every year to purchase any papers. This is what Marzban (2011) say that using ICT based assessment would spend less money. Edubox also uses server connection, it makes students and teachers do not need to buy internet quota to use this application.

Edubox also enables teachers to give direct feedbacks that can be filled up in the menu table available in this application. It could be motivated the students to give their best effort while doing the assessments. Similar to what Andrews (2004) says, that technology application will ease teachers to give direct feedback that could increase the quality of students.

Even though the use of Edubox gives many advantages, this application still has some weaknesses when it is used for language assessments. Since Edubox is depending on server connection, unlike any other application, Edubox can be only used inside the school area. Losing server connection and loading site is the most common happened, which it takes times for only reloading the application.

Further, the usefulness of implementing Edubox as a technology tool in aiding reading assessment in the classroom will be explored. Overall, students indicated that they agree on the usefulness of implementing Edubox for reading assessment.

3.2. Teachers' and Students' Attitude Toward Edubox

In analyzing and discussing the open-ended responses, the researcher focused on the relevance of the responses to the research's main questions. These responses supported the participants' statements in the questionnaire, which strongly supported the researchers' hypothesis that Edubox positively enhances language assessments and consequently improves students' learning.

In response to the first open-ended question "As a student, how effective is using Edubox in the classroom for the teaching and learning reading process?". participants overwhelmingly agree that Edubox is an effective tool in aiding the learning process. As students, they argue that Edubox helps them to be engaged in the lesson. One student wrote, "I think that it's a very useful method to engage all students to participate even they are shy or quiet." In line with it, another respondent stated, "I think this method attracts the students and makes them interested." A third participant wrote, "the students will be enjoying their quizzes and test." One participant argued, "It motivates all learners and engages them." Another aspect that the participants offered in response to

the above question is about checking their reading context understanding, which can be quickly and easily obtained by using Edubox. For example, one respondent stated, “It measures the students’ understanding in a fun and different way.” Another respondent wrote, “I will use it to assess the students’ understanding in reading text.” A third student wrote, “Yes, because it’s a very interesting way to assess the students and check their understanding.”

Besides, the participants’ responses to the statements are about the difficulties and problems related to technical aspects. For example, one participant wrote, “the network or system might not work or it might be slow”. Another respondent stated, “Sometimes we run out of the battery on our laptop or phone,” a third participant wrote, “the teacher may face technological problems, such as server connection.”



Figure 3 Classroom condition for English reading assessment.

It is obvious that the new millennial generation does like to use technology in their daily life, and using it in the classroom has a positive effect on students learning as stated by many researchers Intarapanich (2013), and Mokhtari and Abbasabadi (2013). Therefore, during the interview, the researcher asked the students “Do you plan to use Edubox in your classroom when you become a teacher? If the answer is yes, would you please explain the reason?” indicated that they will use Edubox in the future when they become teachers. They offered several reasons; one of which is the excitement and fun that technology brings to the classroom; as one participant puts it this way “It is fun of all ages for secondary school or college students will have fun.” Another participant stated, “It makes the reading session very easier and in a fun way.” A second aspect that the researcher identified in the participants’ responses to the above question is saving the learning time. “Yes, I plan to use Edubox (because) it saves the learning and assessments time,” mentioned one respondent. Another respondent stated, “Another thing, it saves time because it can be done in a very quick way.”

Many of the respondents maintain that Edubox is good to break the traditional classrooms’ routines, as mentioned by one of the respondents in writing “Edubox is a great way to change the routine and change the ordinary atmosphere of the class.” Moreover, the participants indicated that using Edubox gives equal opportunities to all students to participate. “Students will have an equal chance to participate in the class,” stated one respondent. Another participant wrote, “Yes, I will use it because all the students will be participating.” A third respondent stated, “It gives all students the chance to finish their task by themselves.”

The positive impact of using technology to improve learning as presented in the results of this study in line with what several researchers have argued. The participants also pointed out that the use of Edubox in the classroom creates fun and excitement which, eventually, aid the learning process. Another important factor identified by the respondents which are expected to improve students’ reading comprehension is that using Edubox saves the learning time. It gave all the students equal opportunities to participate in the quizzes or tests in one class session.

Regarding the problems, challenges, and difficulties that teachers may be faced in using Edubox to have an assessment in classrooms, most of the teacher participants explained that technology resources and support are the main issues.

Teachers’ reluctance in adopting technology in their teaching activities is a global phenomenon. At the top of the factors that influence teachers to use technology is the technical support offered. Teachers do not integrate technology into their activities unless they have been provided with just-in-time technical support. The proper integration of technology into instructional activities; stating that when technology tools “are not incorporated for the intended use, because of the inability to use, it defeats the very purpose for which they have been made available.

4. CONCLUSION

The findings of the present research indicate that Edubox has strengths and weaknesses when implemented in reading assessments. Using this application does not need any paper to do an assessment. This application also does not need an internet connection as well since the source of connection is the server. The application has validity and reliability features which help teachers in preparing test or quiz with ease. The table of correction features in Edubox also enables teachers to correct students’ answers at any time. Hence, the technical error

and server maintenance are two weaknesses mentioned several times by the respondents. On the other hand, the respondents show a positive attitude towards the use of Edubox of English reading assessments. Moreover, using Edubox helps in providing feedback and makes the class interesting in school.

Besides, from the findings of the research, several matters have not been covered by the present research. First, the research was conducted during the first spread of Covid-19 which makes the researcher having a limited time in observations directly in the school. To get more reliable data, the researcher must be involved in teacher and student acted as a teacher-researcher during the learning processes inside the classroom. Second, another domain of this research such as the effectiveness of using ICT compares to the use of paper tests also worth researching to know the effect of Edubox for language assessment.

Therefore, regarding the findings of the study, several considerations are suggested. First, it is good for the teacher to have a discussion with other teachers to arrange a schedule for a quiz or test, to increase the servers' problem which occurs during the assessments inside the classroom. Second, having a seminar on introducing Edubox in the early semester is suggested. It can avoid confusion in using Edubox also improving teachers' and students' motivation on using ICT for English reading assessment.

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