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Empowering Rural Teachers Teaching Reading and Writing Literacies Using a Blended *Smart-Rectormu* Model

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Abstract. **Community service activities in the form of programs to strengthen literacy learning for reading and writing for teachers in remote areas of *Bawean* Island is one form of dissemination of the results of previous research in the form of blended learning applying *Smart-rectormu* application. The next application is implemented in the form of community service activities. The purpose of this dedication activity is to strengthen the reading and writing literacy learning based on blended learning using *this* application, which has been carried out for more than two months through socialization, FGD, workshops, simulations, and assistance in the implementation of blended learning. This activity has been able to become a model of two main schools that are subject to community service activities. The results of this activity are also independently implemented blended learning. The main weakness of the implementation of blended learning lies in senior teachers who are not yet proficient in operating computers so that a guiding team is formed that can implement blended learning in groups.**

Keywords: reading and writing literacy, blended learning, Smart-rectormu

INTRODUCTION

This community service program activities are part of the community services grants program awarded from the Directorate of Research and Community Service (DRPM) Directorate of Higher Education in the year 2020. This program is part of the implementation of *Tri Dharma* University as well as one of the previous research dissemination of the authors. This program is applied under the following arguments. First, the implementation of literacy teaching and learning activities in the rural areas is still far from the standard of literacy teaching and learning from International Literacy Association (ILA) and International Reading Association (IRA). Specifically, the practice of literacy English reading and writing is not applied integrated ways [1]. Second, the rural English as Foreign Language (EFL) teachers have a low opportunity in applying relevant technology-based professional development and teaching, such as using blended and e-learning approaches. Third, this study also aims at empowering EFL teachers' ability in teaching literacy in rural area using a mobile literacy-based application (*smart-rectormu*) developed by the authors. Fourth, it is designed to introduce all EFL teachers in a rural area to e-learning in teaching reading and writing literacy. This newly developed application is actually the revised version of the previous application called as *Pamanpintermu*' which absence from the automated assessment feedback. In this new model, the author added automated feedback using mobile use model as this is more ubiquitous and more beneficial for the teachers. An error reading and writing detector is also developed to assess and to guide learners' literacy learning.

The first reason is related to the condition of learning literacy reading that is not in accordance with IRA or ILA, especially in remote areas of *Bawean* Island because the standard of literacy achievement in remote areas is still limited to two aspects, namely literal understanding and how to read. However, according to IRA and ILA, the objectives of literacy teaching and learning is emphasized on four different dimensions, namely leaners' higher order thinking skills, English vocabulary development, grammatical growth, *reading fluency* and *phonetics awareness*. Then in learning literacy writing that is taught applying integrated skills still does not meet the standards of good writing and acceptable writing because some essential elements writing such as plagiarism, idea development paraphrasing ability, and appropriate summarizing ability are still far from the standard of good and correct scientific writing. For this reason, the authors disseminate this program.

Smart-rectormu application: Reading and Writing

This prototype is an application developed from the results of a research grant that is present as a reaction to the weaknesses of integrated reading and writing learning in English subjects. This application consists of 10 (ten) chapters of reading and writing material that are equipped with automatic assessments that can provide an overview of the achievement of students' reading and writing abilities in learning literacy in reading and writing [1]-[3]. In each section, learning objectives are overviewed. In the first part contains vocabulary surveys aimed at directing students later to be able to

master vocabulary in accordance with the topic being taught. This part adopts the concept of survey quizzes. In the second section contains reading comprehension material along with audio and fluency reading timers to measure reading speed and the ability to understand the contents of the reading. In this section, it can also be used to teach reading as well as listening because there is an audio function if users want to change to listening. After the activity of reading and reading fluency is finished it will be continued automatically to answer understanding questions within the time limit that has been set according to the standard of International Reading Association (IRA) and International Literacy Association (ILA) [4]. At the end of this session, an automatic assessment will be given which will provide information on the learning achievement of participants in understanding the content of the reading in the form of an understanding score and achievement time score of reading fluency.

Furthermore, in the third part contains the problem of understanding critical thinking or *higher Order Thinking Skill (HOTS)*, which emphasizes the participants' implied understanding in comprehending the literacy of reading and writing. In this section, participants are not allowed to see the text again, so they are obliged to recall the contents of the reading and interpret the implicit meanings that are in the subjective formats of short answers in this section. As in other parts, this section is also equipped with an automatic assessment that serves to reflect the extent to which participants' abilities in understanding the critical understanding questions.

In the fourth section contains simple writing literacy in nature still sort random sentences into sentences that have the right meaning and arrangement. In this section, there are also time constraints to do so that has been adapted to existing standards. So that participants are followed to be able to arrange sentences properly and correctly.

In the fifth section, there is an independent dictionary which lists difficult phrases and words from the text in the application and is equipped with audio in them. So that if participants have difficulty pronunciation of words or phrases contained in the application, they can use the dictionary that is named Di-Text. Whereas at the end, after the learning activities are finished, the application will automatically display the overall score in one table that illustrates the literacy skills of reading and writing in detail.

Blended learning

Blended learning is a form of learning activity that combines learning models based on e-learning and traditional applications. The blended implementation for reading and writing literacy learning was carried out during a total of four meetings using the application *Smart-rectormu*. In the Blended learning based discussion, the discussion of blended material focused on the first to fourth topics out of a total of ten materials that have been prepared in the application. Theoretically, the foundation of Blended learning is based on the harmonization between e-learning and traditional based learning to optimize learning outcomes so that it is better than online or traditional forms of learning [5], [6].

Until now, the results of the implementation of learning based on blended learning still showed inconsistent results where the experts implementing this model still showed different results. Some suggested the results of the implementation of blended-learning were able to optimize learning [4], but on the other hand, the implementation of blended for teacher professional development conducted by experts also did not show positive results [7]. So from the dilemma, the authors try to implement the implementation of blended learning by using a self-developed application through a special application called *Smart-rectormu* for learning literacy in reading and writing.

METHOD

The method of implementing activities is carried out through three stages, namely the needs analysis phase, the introduction phase and the FGD blended learning in literacy learning, reading and workshop stages, and assisting in the implementation of *Smart-rectormu* blended learning in literacy learning in reading and writing teachers in remote areas of *Bawean* Island.

Need Analysis Stage of Blended Learning

At this stage, a mini survey was conducted on 22 teachers from several schools in *Bawean* Island. In the initial survey found several facts including the teachers in the area, namely 22 teachers said that they had never known the blended learning model at all but related to the term e-learning a number of 3 teachers had heard the term, but they had not known more deeply forms and models because they have never used the learning model. Related to literacy in reading and writing, teachers think that reading literacy is only limited to understanding, then what is written from the reading given, while writing literacy which is widely introduced in learning in schools is only limited to descriptive writing which is usually only limited to making a story from experience gained by students from outside the school environment. Next, in relations to *the International Literacy Association (ILA)* and *International Reading Association (IRA)*, no teacher has ever heard or read references related to the two world literacy standards associations [8].

Initiation and FGD stage

At this stage, an introduction is made to teachers about blended-learning learning and the application

of *Smart-rectormu* so that they are familiar with both types of applications discussed. In his explanation, the community service team explained the definition, blended learning models, the development of teaching materials for e-learning and traditional, then the application was also introduced along with the procedure for operating the application, the procedure for adapting and changing the contents in the application. There were 15 teachers from *Bawean* Island who attended the socialization, introduction and FGD based on blended learning. Submission of the material provided by the chairman of the community service and members and involves IT staff in charge of providing guidance to the contents.

In this session also introduced the importance of reading and writing literacies for the participants so that they understand the importance of types of understanding ranging from literal, interpretive and critical understanding that fall into the realm of higher order thinking skills (HOTS) along with elements and goals of literacy reading according to IRAs. Participants are also equipped with the ability to teach writing literacy such as paraphrasing, tips to avoid plagiarism, good and correct citation procedures and scientific writing ethics from an early age so that participants and students can later apply this well and avoid scientific violations.

Workshop and supervision stage

The workshop and accompaniment phase was be held from February to June 2020. A number of 22 teachers from Bawean Island Gresik. At this stage, the workshop on the use of e-learning *Smart-rectormu* for literacy teaching of reading and writing. In this case, the author, team member, and IT officials present as facilitators. The authors deliver their presentation on course content such as literacy of reading and writing. Meanwhile, the IT and member help all teachers to operate the application. Alternately teachers are taught the contents of the application, how to operate and to how to change the content of the material in the application. Assistance is carried out for all participants during the training process, and after the training process runs until all participants can run the application properly and smoothly.

RESULTS AND DISCUSSION

In accordance with what has been explained before, the first objective of this community service activity has been to disseminate research results in the form of e-learning smart-rectormu application applied using a blended learning model to improve the quality of learning of teachers in remote areas, especially reading and writing literacy materials in English subjects. This form of dissemination was introduced through *e-learning Smart-rectormu* to all EFL teachers, install the application of school computers, and teachers' laptop. Then do the socialization and FGD implementation of Blended learning using applications of *Smart-rectormu*. In addition, he also assisted in learning and developing material through the application. The dissemination was given to 22 teachers at *Bawean* Island and several schools as a form of training of trainers so that later they would be able to disseminate to teachers at other schools on *Bawean* Island. The program will be used as a model program and a superior program in the two schools at this time because the two main schools have adequate computer and laptop facilities.

The results of the second objective are to provide experience to the teachers in the area so that they at least experience a blended learning process before they apply it to students on a limited basis going forward. The form of experience gained by the teachers is that they have simulated the preparation of teaching materials for learning models based on blended learning. They have done simulations, adapted the contents of the material that was already available in the application so that in the future, they can apply this learning model to their students on *Bawean* Island independently. Blended learning implementation simulations that are given over several weeks can change their paradigm towards e-learning models that are easy, flexible, and it also can be done anytime and anywhere so that it is more effective when compared with traditional learning models.

The results of the third objective are mentoring, and implementation of blended learning which is realized in the form of a mentoring program of learning implementation carried out for two months in two schools, namely *MTS Muhammadiyah 5 Daun* and *SMK Muhammadiyah 4 Daun Sangkapura*. In the mentoring process, which is carried out through workshops and mentoring, the group can routinely assist teachers in implementing the blended learning model quite well even though there are still some obstacles including those for senior teachers who are not very skillful in using computers experiencing difficulties in terms of changing and filling material according to the needs and levels of difficulty of students. So they cannot be creative in developing reading and writing literacy learning materials for the teachers.

CONCLUSION

From the results of the implementation of community service in the form of programs to strengthen literacy learning in reading and writing through applications e-learning *Smart-rectormu*, there are two main conclusions. First, the implementation of literacy teaching applying a blended learning *Smart-rectormu* has been able to inspire teachers in remote areas to be able to create and implement IT-based learning even though it is

only in a simple model. Second, the main obstacle for implementing blended learning in *Bawean* Island lies in the limited means of computers in schools so that senior teachers who are familiar with traditional learning programs have difficulty in operating computers so they will also experience difficulties in implementing simple blended learning. So in the future, efforts are needed so that schools at least provide computer facilities for senior teachers so that they have basic skills in the operation of blended learning in future programs.

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