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Increasing Teacher Competence In Using Digital Learning Educational Technology

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ABSTRACT

Online learning is considered to be a solution for teaching and learning activities to continue in the midst of current progress. Although it has been agreed, this method has attracted controversy. Teacher readiness is required to be able to teach with the ability to use effective and efficient learning technology, while the fact in the field is that there are still many teachers who are not proficient in using learning technology. The Community Partnership Program will be implemented in the form of providing online training focused on introducing Learning Technology that can be used by school teachers. This online training is expected to help teachers in terms of designing E-learning learning, using Websites and Mobile Applications that support the delivery of teaching materials, helping students become independent students with independent exploration skills, using appropriate applications to evaluate student learning outcomes in the form of assignments, quizzes, and online exams.

Keywords: E-Learning; Learning Technology; Mobile Aplikasi; Websites.

INTRODUCTION

Teaching is moving online, on an untested and unprecedented scale. Student assessments are also moving online, with a lot of trial and error and uncertainty for everyone. Not only will this disorder be a short-term problem, but it can also have long-term consequences for affected groups and tend to increase inequality (Tam & ElAzar, 2020). Going to school is the best public policy tool available to improve skills. While school time can be fun and can improve social skills and social awareness, from an economic point of view, the main point of being in school is that it enhances a child's abilities. Being in a traditional classroom gives students the opportunity to experience freedom and interact with the world. Putting students in a room with a computer means that students can never bond with professors and other students. When

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learning online, it becomes difficult for students to clear their doubts. It is difficult for the student to clarify something that he does not understand. This is because students cannot consult experts regarding it for further clarification. Students do not have the same ability to understand concepts. In a traditional classroom setting, students are in direct contact with professors, libraries, laboratories, and peer students. In traditional classrooms, students can ask questions and get different interpretations of problems. In addition, he can gain experience using various methods to arrive at solutions. These methods provide adequate resources for students to clear doubts. This is not possible in online learning programs. School students cannot benefit as much from online classes as experienced adult learners can. At their age, they need more attention because they have no work experience. They need teachers to be present in person to help them understand and practice basic concepts. Traditional classroom teaching is more effective than online classes because teachers can choose the most interesting method of teaching a particular topic. Teachers achieve this through personal interaction with students. Classroom teaching can be made fun by organizing a variety of in-class activities, projects, and group work where students can work together. These activities give students the opportunity to actively take part in the learning process. Students can share ideas among themselves, thus making the learning process more interesting. Distance learning exacerbates vulnerable students' barriers to accessing education, so diversification of delivery media beyond the Internet must be considered. Options can include radio programs or postal services for regions with low connectivity. The sudden shift from face-to-face methods in the classroom to distance learning at home also shows the need for teacher capacity building. Several studies show that the ICT competence of teachers is evenly distributed in various regions (Widodo & Riandi, 2013).

In addition, there are persistent differences in the quality of education across regions of socioeconomic conditions (Azzizah, 2015; Muttaqin 2018). Uneven access to the Internet, disparities in teacher qualifications and quality of education, and lack of ICT skills are becoming vulnerabilities in distance learning initiatives. Technology, particularly the Internet, smartphones, and laptops are now widely used to support distance learning. One of Indonesia's largest mobile telecommunications providers recorded a 16% increase in broadband traffic during the Covid-19 crisis, mainly due to a sharp surge in the use of online learning platforms (Olavia, 2020). The use of information and communication technology (ICT) has been included in the training curriculum. However, there are doubts about their effectiveness and therefore are largely disconnected from distance learning. For distance learning adoption to be successful, teachers need not only basic technological skills (such as how to use an Internet-connected PC), but also knowledge in the use of recording devices and software, as well as methods for delivering lessons without face-to-face interaction. These skills will be needed when using existing online learning platforms. More importantly, the gap between training scenarios and on-the-ground implementation needs to be narrowed (Koh et al, 2018). From the explanation above, intend to implement a Partnership Program for the Community by providing online training introducing Learning Technology that can be used by school teachers.

This online training is expected to help teachers in terms of designing E-learning learning, using websites and applications that support the delivery of teaching materials, helping students become independent students with independent exploration skills, using appropriate applications to evaluate student learning outcomes in the form of assignments, quizzes, and online exams.

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RESEARCH ELABORATIONS

The implementation method with the Webinar Series concept will be used in the Partnership Program for the Community which specifically provides online training focused on introducing Learning Technology that can be used by school teachers during school from home. The Webinar Series in question is a workshop conducted online, it can be likened to an online face-to-face meeting delivered through Internet media that can be attended by many people in different locations. Through this webinar, instructors and teachers can interact directly, through images (video) or text (chat). This webinar is carried out with a Webinar software or service, namely using Zoom Video Meeting. So every teacher who wants to join (join) the Webinar must register first (FREE). The purpose of this online training is expected to help teachers in terms of: 1. Designing E-learning learning 2. Using websites and applications that support the delivery of teaching materials 3. Assist teachers in facilitating students to become independent students with independent exploration skills 4. Use appropriate applications to evaluate student learning outcomes in the form of assignments, quizzes, and online exams.

RESULTS AND DISCUSSIONS

The Community Partnership Program by providing online training introducing Learning Technology that can be used by teachers takes place from September 14 to September 19, 2020 with a total of 32 Learning Hours (JP). This activity was carried out online using the Zoom video meeting platform for synchronous learning and the Telegram platform for asynchronous learning. There were ten speakers who participated in this activity who came from lecturers majoring in English language education. This activity was officially opened with a total of 290 participating teachers.

The first material is about "The Nature of Interactive & Innovative E-Learning Learning". The second material is about "The Use of Blended Learning in Learning". The third material is about "E-Learning Learning Model". The fourth material is about "The Use of Various Applications to Evaluate Student Learning Outcomes". The fifth material is about "Weebly Website Design for Interactive Learning". The sixth material was delivered on "Evaluation of Student Learning Outcomes through Technology". The seventh material was delivered on "Honing Students' Independent Exploration Skills through the use of Technology". The eighth material is about "Variety of Mobile Applications for Learning". The ninth material is about

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"Use and Design of Mobile Applications for Learning". The tenth material is about "Designing an Innovative Online Learning Classroom".

During the online training activity introducing Learning Technology that can be used by school teachers, there are four tasks given to the trainee teachers, namely: 1. Create an account on Kompasiana and publish an article there. 2. Create a simple quiz with the Telegram platform. 3. Create a simple website with the Weebly app. 4. Create 1 online class with various online class platforms that have been introduced by the speaker.

The online training committee introduced Learning Technology that can be used by school teachers which was held from 14 to 19 September 2020 reflecting on this activity every day by asking teachers to be able to provide feedback after participating in training activities related to the benefits and challenges during this training.

The following are some of the reflections delivered by the participants during the activity from the first meeting to the last.

- Online-based e-learning can be used for areas with a good internet network, but for areas that are not covered by internet networks, another alternative is to use offline applications.
- Provide more training related to the integration of e-learning into the learning process.
- Need to pay attention to the technological abilities of each student. Because they have different abilities. At least in the initial learning process there are methods used to find out the types of student learning methods.
- No matter how well a teacher uses E-Learning if the student's understanding and ability are below the expected standard, it will not be effective and traditional methods will be required to catch up with the student. The role of parents is indispensable to control student activities.
- Basically the world of education is getting more advanced, the source of material is not only teachers in schools, but students can learn from various sources, especially internet media.
- E-learning is still difficult to reach by students outside the network coverage (offline). E-learning mostly uses quotas and smooth networks so that students must prepare infrastructure such as android phones and quotas as well as housing in the middle of the city that tends to be more supportive of e-learning. And not all students are able to keep up due to economic limitations, plus there are still many students living in suburbs and remote areas. E-learning is actually very good if applied to students to increase student motivation while improving teacher performance in order to update learning methods.
- Teachers should be facilitated by the government by providing e-learning that is able to accommodate the needs of teachers and students and is easy to use.
- There must be solutions to increase students' active involvement in E-Learning. Mental strengthening of students in facing obstacles in E-Learning is also needed. As well as weak control and limitations of character education that teachers can do and provide to students.

The online training Partnership Program for the Community introduces Learning Technology that can be used by School teachers closed by rewarding the 3 best participants

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during the training activity, conveying impressions and messages by the best participants, Professional development is important because education is a constantly evolving and constantly changing field. This means that teachers must be lifelong learners to teach each new group of students. Professional development not only allows teachers to learn new teaching styles, techniques, and tips, but also interact with educators from other fields to improve their own teaching. Although some short workshops are effective in introducing new topics, the most effective workshops are taught all the time and involve hands-on activities and interactions. It also allows for more questions and discussions during the presentation. Continuous professional development is essential for teachers who want to be great at their jobs and offer the best to their students every day. Any professional development opportunity should be something that benefits both students and teachers through new strategies, techniques, or tips that can be used in the classroom or community.

Professional development can be very beneficial if what is learned is then utilized to advance a student's education. Typically, professional development opportunities that last several days and require interaction among and among participants are the most useful. Teachers, like students, tend to learn better if hands-on activities are used. The Partnership Program for the Community by providing online training introducing Learning Technology that can be used by school teachers is expected to help teachers in terms of designing E-learning learning, using websites and applications that support the delivery of teaching materials, helping students become independent students with independent exploration skills, using appropriate applications to evaluate student learning outcomes in the form of assignments, quizzes, and online exams.

CONCLUSIONS

For the continued professional development of teachers, continuous instruction for a significant duration of time is indispensable. Continuous professional development gives teachers time to learn and implement new strategies. According to the report, studies have concluded that teachers may need as many as 50 hours of teaching, practice, and coaching before new teaching strategies are mastered and implemented in the classroom. Support for teachers during the implementation phase also needs to be considered. According to "Student Achievement Through Staff Development," teachers take an average of 20 separate practice examples to master new skills, and this number can increase if those skills are particularly complex. Provide support addressing challenges associated with changing classroom practices. Furthermore, active learning opportunities for teachers must be wide open. These activities can include reading, role playing, open discussions, live modeling, and class visits. While many forms of active learning help teachers elaborate research-based concepts, theories, and

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practices in teaching, modeling new practices has been shown to help teachers understand and apply concepts and remain open to adopting them.

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REFERENCES

- Azzizah, Y. (2015). Socio-Economic Factors on Indonesia Education Disparity. *International Education Studies*. 8(12). 218-230.
- Koh, J.H.L., Chai, C.S., Natarajan, U. (2018). Developing Indonesia teachers' technological pedagogical content knowledge for 21st century learning (TPACK-21CL) through a multi-prong approach. *Auckland: Journal of International Education and Business*, 3(1), 11-33.
- Muttaqin, T. (2018). Determinants of Unequal Access to and Quality of Education in Indonesia. *The Indonesian Journal of Development Planning*. 2(1). 1-20.
- Olavia, L. (2020). Berkat Work From Home, Traffic Broadband Internet Telkomsel Naik 16%. *Beritasatu*. Retrieved from: [https:// www.beritasatu.com/ekonomi/617847- berkat-work-from-home-trafficbroadband-telkomsel-naik-16](https://www.beritasatu.com/ekonomi/617847-berkat-work-from-home-trafficbroadband-telkomsel-naik-16)
- UNESCO (2020). Covid-19 Educational Disruption and Response. UNESCO. Retrieved from: <https://en.unesco.org/covid19/education response>
- Tam, G., El-Azar, D. (2020). 3 Ways Coronavirus pandemic could reshape education. *World Economic Forum*. Retrieved from: <https://www.weforum.org/agenda/ 2020/03/3-ways-coronavirus-isreshaping-education-and-what-changesmight-be-here-to-stay>
- WHO. (2020). Rolling Updates on Covid-19 Disease Updated 14 April 2020. WHO. Retrieved from: <https://www.who.int/emergencies/diseas es/novel-coronavirus-2019/events-asthey-happen>
- Widodo, A., & Riandi. (2013). Dual-mode teacher professional development: challenges and re-visioning future TPD in Indonesia. *Teacher Development*, 17(3), 380-392.