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EDUCATIONAL APPS TO DEVELOP SPEAKING ABILITY AND GRAMMAR MASTERY AT SENIOR HIGH SCHOOL (SMANASIONAL BANDUNG)

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ABSTRACT

Technological and industrial developments provide opportunities for educational sectors in Indonesia to participate in advancing the education quality. The use of educational apps in enhancing education quality had reached the new level for learning process. Recently, virtual learning becomes the new concept of learning process, yet Widyatama University carried out the workshop and training to comprehend the students' ability, especially in speaking ability and grammar mastery using learning apps. The methods used were lecturing and sharing sessions, hence the instructors had information related to the appropriate e-learning concept in the relevant institutions. Moreover, the methods involved a question and answer session which brought the students escalating their understanding the concept of e-learning especially by using educational apps. Sharing session and question and answer session purposed to simulate Speaking Ability apps directly to students; so the application was successfully used directly by the students. Through the process, students were introduced to do a migration of their learning method from conventional to the apps-based. The overview of the result taken from the workshop showed that 74% of students were assisted in improving their English skill (ability), while the rest 26% were still doubtful about relevant ideas of educational apps, since the student regularly learnt by conventional method.

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INTRODUCTION

Education at its core is a social endeavor and teachers must be empowered to us which has affected the learning system (method). The era replaces industry 3.0

marked by cyber-physical and manufacturing collaboration. ^[2] Business communications in English are increasingly being highlighted in a global context, as English is spreading as the dominant language of instruction in the international business environment. To improve understanding in terms of language, the English language skill training was held related to the development of the 4.0 industrial revolution that will be faced by students, especially students at senior SMA Nasional, Bandung.

Industry 4.0 is marked by increasing digitalization of manufacturing driven by four factors: 1) increasing data volume, computing power and connectivity; 2) emerging of business analysis, skills and intelligence; 3) occurring of new forms of interaction between humans and machines; and 4) improving digital transfer instructions to the physical world, such as robotics and 3D printing. ^[4]

Responding this reality, English Department of Widyatama University Bandung as an institution whose main activity is to develop English language skills moved to provide provision in the form of an introduction to the industrial revolution era with regard to English as a means of communication and practice in the language field related to learning applications through Community Service activities. The data taken from BPS (2017) showed that the number of unemployed coming from Vocational High Schools (SMK) was in the top rank, it reached 9.27%. Furthermore, there were high school graduates (SMA) of 7.03%, Diploma III (D3) of 6.35%, and universities of 4.98%. It was identified that the cause of the high contribution of vocational education to the number of unemployed people in Indonesia was the low special skills and soft skills possessed. By those reasons, the community service activity is regularly held at some education institutions, especially at schools. Digital literacy is purposed at increasing the ability to read, analyze, and use information in the digital world (Big Data), technological literacy aims to provide an understanding of how machines work and technology applications, and human literacy is directed at increasing communication skills and mastery of design science. ^[1] The new literacy provided is expected to create competitive graduates by perfecting the old literacy movement which only focuses on improving reading, writing, and math skills.

The activity was carried out regularly by the English department to fulfill its obligations as an educational institution, but is also as a promotional media and media to interact with the community as a form of the English department concerning to the society and is not only oriented on internal activities.

Technological and industrial developments provide opportunities for foreign companies in Indonesia to further develop. The community services are regularly carried out in the form of training, counseling and learning experiences that are directly related to the community. By the occasion, especially in the world of education which deals with the teaching and learning process, both intra and extracurricular, should be facilitated properly. Widyatama University (UTama) as a higher education institution that has the aim of improving the

quality of education, participates in this service activity. This community service program is an effort to introduce new learning methods or concepts to students / students who have not yet applied and received conventional learning. The learning content of the 21st century must always adapt to changes, including in the industrial era 4.0.

Learning content is expected to be able to comprehend the 21st century skills; 1) learning and innovation skills include mastery of diverse knowledge and skills, learning and innovation, critical thinking and problem solving, communication and collaboration, and creativity and innovation, 2) digital literacy skills include information literacy, media literacy, and ICT literacy, 3) career and life skills include flexibility and adaptability, initiative, social and cultural interactions, productivity and accountability, and leadership and responsibility. ^[7] The digital era which demands mastery of technology and foreign languages in various fields of life is currently marginalizing the position of Indonesia. Supposedly, this position does not mean that Indonesian cannot compete with other languages in the world, but rather that the attitude of the Indonesian people as Indonesian users tends to show a negative attitude. ^[6] If the Indonesian people as owners and speakers of the Indonesian language continue to have a negative attitude towards their national language, Indonesian will develop chaotically and this language will never become a stable language. The phenomenon to further weaken the position and role of the Indonesian language seems to have increased the use of foreign languages, the increasingly superior international standard schools, and the increasing spread of international programs in universities. For this, despite how heavy the various efforts to maintain and preserve the existence of the use of the Indonesian language must be made. ^[8]

METHOD

The research used a qualitative method for collecting data. Basically, qualitative research methods are a method used for answering research problems related to data in the form of narration sourced from interviews, observations, document preparation. To be able to describe well about the approach and type research, the presence of researchers, research sites, data sources, techniques data collection, data analysis, and checking the validity of the findings in a research proposal and / or report requires a good understanding about each of these concepts. One characteristic of qualitative research is that researchers act as instruments as well as data collectors. Non-human instruments (such as questionnaires, guidelines interviews, observation guidelines and so on) can also be used; however, its function is limited to supporting the researcher's task as a key instrument. There are basically two types of observation methods in research; participatory and non-participatory. The main motivation for this distinction is in a term called the level of reactivity. Reactivity largely determines the quality of research data. It can be translated to be as reactivity as how reactive the behavior of the people who are being studied or are being observed. Recent community service activity was carried out in several stages, with details of the stages as follows:

The initial stage**1. Observation and questionnaire**

At this stage, the team would look at which high schools have the potential to take advantage of technology-based learning concepts. The location was targeted in Bandung, since the activity required lecturers and also students of the university to assist the workshop. List campuses/institutions that have the potential to process online learning, have a comprehensive English learning concept and have adequate internet facilities. Furthermore, questionnaires were distributed to students to find out their background in English.

2. Introductory material and preliminary tests

The method used is lectures and sharing sessions so that instructors have information related to the appropriate e-learning concept in the relevant campus. In addition, there will also be a question and answer session so that students are more open in understanding the concept of e-learning. At this stage, the Widyatama university team will go directly to campuses to see first-hand the development of 7th semester students on the campus. After these sessions, a pre-test will be held for students to see their initial ability in the field of English, as well as an early indicator.

Main Activity**1. Speaking Ability Simulation**

After the material giving session, sharing session and question and answer session, the next step is to simulate the Speaking Ability directly to the students so that the application can be directly practiced by them. This of course has been prepared by the instructor team, both in terms of material, facilities and others.

2. Multimedia interactive practice

During this session, the instructor team will further optimize the use of Speaking Ability by inserting multimedia links in the form of videos, songs, animations and more attractive images. The use of multimedia will also be tailored to the needs of students, so that it is easier and faster for them to digest the material because of the appropriate multimedia support.

The final stage (final test, assessment, evaluation)

At this stage, students will have the opportunity to take a post-test or final test before they get a certificate or other written evidence containing the score and evaluation notes from the instructors. This will be an indicator to see the progress of students' ability to digest English learning by utilizing Speaking Ability.

LITERATURE REVIEW***Learning Media***

The word *media* comes from Latin literally “medius” which leads to *middle*, *intermediary*, or *guidance*.^[3] Media leads to a certain matter to convey messages

from a communicator to communicant.^[12] The media is components of learning resources or physical vehicles that contain material instructional environment in students that can stimulate students to learn.^[11] Another opinion said that the media anything that could be used to funnel messages from sender to receiver so as to stimulate thoughts, feelings, attention, and the interest and attention of students such that the learning process occurs.^[10]

Function of Learning Media

Learning media in supporting the learning process has many functions. Functions of learning media are:^[9]

1. The function of attention, visual media is the core, namely attractive and directing students' attention to concentrate on the content lessons related to the visual meaning displayed or accompanying the text of the subject matter.
2. Affective function, visual media can be seen from the level of enjoyment learners when learning or reading a text Images or symbols can evoke emotions and attitudes students, for example information concerning social or racial issues.
3. Cognitive function, visual media can be seen from the research findings which reveals that visual or image symbol facilitate the achievement of goals to understand and remember information or messages contained in the image.

Learning Media Types

Based on development technology, learning media can be grouped into four groups, they are: ^[3]

1. media produced by printing technology
2. media produced by technology audio-visual
3. media based on technology
4. combined-media of print technology and computer

E-learning

The term e-Learning contains a very broad meaning; so many experts describe the definition of e-Learning from various angles view. One definition that is quite acceptable for many parties is for example from who states: e-Learning is a type teaching and learning that allows the delivery of teaching materials to students with using Internet media, Intranet or other computer network media. [5] In the glossary of e-learning terms states that broader definition, e-Learning is a system of education using electronic applications to support teaching and learning with media Internet, computer networks, and standalone computers.

Media resulting from print technology is media that produces or convey material, such as books and static visual material. Print media includes text, graphics, photographs or photographic representations and reproductions. Audio visual

media are media that produce material with using mechanical and electronic machines to serve. Based on some of the opinions above, it can be concluded that learning media is divided into two types of media, namely learning media in electronic form and deep learning media non-electronic form.

RESULTS AND DISCUSSION

The activity to improve English language skills in the speaking field for the participants of SMA Nasional was held for one whole day, in March; by the details of 2 activities of the test (pre-test and post-test). Efforts to improve students' abilities in receiving the right digital education system are inevitable; because future competition has recently been increasingly advanced in industry 4.0.

They learn English by what they watch and what they play which encourages them to understand and improve their English skills. However, they use the internet for other purposes, such as for social media and watching small portions of conventional English-language content. It can be concluded that the participants are generally familiar with the internet and proficient users, but they still lack experience in using the internet for learning, especially English. In this workshop and training, there were a number of evaluators who were asked to conduct heuristic evaluations 109 students. The evaluator team came from among teachers, lecturers and practitioners in the IT field. Evaluators are expected to know and be familiar with using android devices in general, use android devices in daily activities and also understand how to install Android-based learning media application through the Google Play Store. The application is uploaded to the Google Play Store to make it easier for evaluators to access the application and tested by the evaluator using an Android-based smartphone. Then the evaluator identifies the problems that exist in the application.

The result of the training and workshop through those activities are the ability and competencies of participants slightly increase. In finding out the influence of application learning media on student learning outcomes, it can be seen by finding the difference in the average post-test score between the control class and the experimental class. Based on these calculations, it can be concluded whether the use of learning media for learning applications has an effect on student learning outcomes in English subjects or not. It is hoped that this value can be used as a comparison if there is a similar study to test the effect of other learning media. The result showed that 74.3% of the students were familiar with the learning application for English subject, yet they had less experience about its operation and interface at their daily education activity, especially at school. It meant that 44 students from whole 109 students commonly adaptable to the apps. While the rest of the students, for about 25.7% had never been used the apps regularly, so they still believed to the conventional learning method in the classroom.

The workshop purposed to convey material to high school students especially at SMA Nasional-Bandung. The knowledge that had been conveyed to the students

related to the education system in industrial era 4.0 and digital method in studying English. It effected to their daily activities that involved internet as their regular devices media. The preliminary activity started with the questionnaire shared to their email in order to get more information. The activity continued to convey material through workshop and Q&A session in receiving details information about the material. Then the main stage of the research was applying the learning apps to the students for receiving exact information regarding to the effectiveness of learning media. The findings of this research through the workshop at SMA Nasional Bandung indicated that the role of smartphones in language learning was very important for students and encouraged them to be active and continued to learn independently. An important function that made smartphones reliable was their ability to transmit learning modules electronically and allowed students to communicate with instructors and their colleagues. Basically, the students wanted to access learning materials on their smartphones rather than acquire other technologies to receive learning materials.

Based on the observation through the workshop, the team found three competencies driven by the apps for learning English. The competencies are:

1. Analogic knowledge that was related to novelty of observing new thing. In this case, learning using apps became a new experience for students. With other knowledge that was similar and outside the content that was being discussed, students received common English material yet the experience of using non-conventional media which made the learning method interesting.
2. Cognitive strategy which was a cognitive strategy that provided the students in a way of processing new knowledge that they received before through the apps. They were automatically starting from encryption, storage, to revealing knowledge that had been stored in memory.
3. Experiential knowledge is categorized as an experiential knowledge that has a function to concretize and provide examples for new knowledge. Through the workshop, the level of intelligence or intellectual abilities of students couldn't dramatically improve by both the trainers and the students, both during the process learning and teaching in the classroom as well as outside. Yet, the level of intelligence took a major role in the level of student achievement, especially in the field of study which demands a lot of thinking and experience.

Based on the workshop, apps-based learning media required a high level of creativity and the teacher's ability to use the apps; then in its implementation, teachers should monitor and conduct training. Moreover, apps-based learning method was still limited to availability of internet connection (bandwidth) in school, while every student did not necessarily have their own Wi-Fi device connected to the internet. So that in accessing the apps for doing interactive learning material became obstructed.

CONCLUSION

The findings of the observation (workshop) at SMA Nasional Bandung stated that students who conducted apps-based learning in English subject had experienced three competencies; analogical knowledge, cognitive strategy and experiential knowledge. By those matters, the learning process needed the level of ability of students by looking at the value report (result) in the previous stage (pre-test). The result taken from the training implicated that about 74% of students were assisted in improving their English skill (ability) by using applications in their device, while the rest 26% were still doubtful about relevant ideas of educational apps especially in English subject, since the student regularly learnt by conventional method. It is proven that there is an influence on the type of media use and the initial level of ability students towards the value of their chemical performance, the teacher can apply this type of media used in learning that can increase the level of ability early students, student creativity, and make it easier for students to understand the material learning.

REFERENCES

- [1] Arroyo, L, Murillo, D., & Val, E. 2017. Trustful and Trustworthy: Manufacturing Trust in the Digital Era. Barcelona: ESADE Roman Llull University Institute for Social Innovation; EY Fundación Espana.
- [2] Azhar Arsyad. 1997. Media Pembelajaran. Jakarta: PT. Raja Grafindo Persada.
- [3] Cordes, F., & Stacey, N. 2017. Is UK Industry Ready for the Fourth Industrial Revolution? Boston, MA: The Boston Consulting Group.
- [4] Darin E.Hartley, Selling E-Learning, American Society for Training and Development. 2001
- [5] Drucker, P. 2014. Innovation and Entrepreneurship. New York: Routledge.
- [6] Friess, P., & Ibanez, F. 2014. Putting the Internet of Things Forward to the Next Level. In O. Vermesan & P. Friess (Eds.), Internet of Things Applications –From Research and Innovation to Market Deployment: 3–6. Gistrup, Denmark: Rivers Publishers.
- [7] Gee, James Paul and Elisabeth Hayes. 2011. Language and Learning in The Digital Age. Routledge.
- [8] Sanaky, Hujair. 2013. Media Pembelajaran Interaktif-Inovatif. Yogyakarta: Kaubaka Dipantara.
- [9] Simatupang, E. C. (2019). Syntactic and Semantic Analysis on Slogans of Aviation Companies in ASEAN Countries. English Journal Literacy Utama, 3(2), 123-131.