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Investigating the Use of Internet Applications for Teaching at Higher Educational Level in the Indonesian Context

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Abstract

Regarding the need for lecturers to upgrade their competence in making use of Information and Communication Technology (ICT) and internet in their teaching practices in 4.0 era as stated in The Teachers and Lecturers Act No.14/2005, this study aims to investigate the use of internet application for teaching students in the university level. More specifically, this study is intended to find out the kinds of internet applications used by lecturers in Universitas Brawijaya in their teaching practices. This study employs a mixed-method resulting in qualitative and quantitative data. Data are collected using questionnaires distributed to 137 young lecturers with an age range of 30-40 years representing 16 faculties at Universitas Brawijaya. Then, it is continued with interviews in the form of Focus Group Discussion (FGD) to capture further information related to the use of the applications. The results show that Google Classroom has been used by most of the participants. Then the other kinds of internet applications used include Kahoot.com, Edmodo, Virtual Learning, EdPuzzle, Email, Moodle, WPLMS, Youtube, Google Form, Blog, Turnitin, Quissis, Classmaker, and Schoology. In relation to the limitations of the present study, future researchers are recommended to investigate the implementation of each of the applications to find out its effectiveness in helping students learn the subject-matter being taught. Moreover, further research related to students' perceptions in the use of the above-mentioned applications is important to be done. Also, investigating the use of internet-based applications for students in different grades and levels of education is still an interesting area to be studied further.

Keywords: higher educational level, internet applications, Indonesian context, lecturers, professional competence

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Introduction

Globalization has been a worldwide trend whose flow is unstoppable, including to Indonesia. Accompanied by increasingly sophisticated technological development, the world is now entering the industrial revolution 4.0 era that emphasizes the patterns of the digital economy, artificial intelligence, big data, robotics, etc. or known as the phenomenon of disruptive innovation. Therefore, to face all these challenges, educational quality must be improved continuously in the provision of education. This requires an effort to improve the quality of education, especially in higher educational institutions, given that the students are young adults. People generally carry out their last study in higher education institutions before they enter the work world. The development of times and technology has become one of the causes of changes in student characters. Today students are the millennial generation which will always pose challenges and obstacles in learning and teaching processes. The characteristics of the millennial generation are that they tend to be less concerned about the social conditions around them, such as the political world or the Indonesian economy development. Most millennials only care about boasting a lifestyle of freedom and hedonism, having a vision that is unrealistic and too idealistic. The most important is that they can be stylish (showing off). They were born in the times when color TV, cellphones, and the internet have emerged, so this generation must be very proficient in technology.

This phenomenon is supported by a statement from Ina Liem (Wurinanda, 2016), a woman who serves as CEO of *Jurusanku.com*, that educators or lecturers must be able to adjust their students' characteristics. According to her, current students cannot be forced to obey all of their directives. Facing this challenge, teaching in higher education institutions is also demanded to change, including in producing quality lecturers for future generations. Lecturers must find the best teaching ways to make students like what is taught.

To create quality students, lecturers must master 4 competencies. Based on The Teachers and Lecturers Act No.14/2005 (Teacher and Lecturer Act No.14, 2005) in Article 10 Paragraph (1), Teacher competencies referred to in Article 8 cover pedagogical competence, personality competence, social competence, and professional competence obtained through professional education. Lecturers are one of the essential components in the higher education system. The roles, duties, and responsibilities of lecturers are very meaningful to produce quality resources. Lecturers are required to be able to show good performance. Good performance must be supported by competence and professionalism. However, lecturer professionalism is not always directly proportional to work professionalism (Permanasari, Setyaningrum, & Sundari, 2016) stated that the level of lecturer professionalism is generally not optimal.

Another challenge faced in meeting the need of quality lecturers is to recruit the best graduates of higher education institutions to become lecturers, given that in the industrial revolution the 4.0 era, the lecturer profession is increasingly competitive. There are at least five lecturer's qualifications and competencies needed, including (1) educational competence, referring to Internet of Thing-based competence as a basic skill in this era; (2) competence in research, referring to the competence in building networks to develop sciences, research directions, and achieving international grants; (3) competence for technological commercialization, referring to the competence in bringing groups and students to commercialization with technology for the results of innovation and research; (4) competence in globalization, referring to the competence of

understanding borderless world, adjusting with various culture, and hybrid competence, which is the global competence and excellence in solving national problems; and (5) competence in future strategies, in which the world changes easily and run fast, so lecturers have to possess the competence to predict exactly what will happen in the future along with its strategy by means of *joint-lecture, joint-research, joint-publication, joint-lab, staff mobility* and rotation, understanding SDG's and industrial directions, and so on.

Universitas Brawijaya, as an A-accredited campus with the World Class University tagline has just been placed in the 2nd rank in Indonesia based on the 4ICU version and the 6th rank based on the Webometrics version. Lecturers at Universitas Brawijaya have their challenges in learning and teaching activities, one of which is that the students are millennial generation. In this regards, lecturer performance becomes an issue that needs high attention, especially the performance of young lecturers to maintain the achievements of Universitas Brawijaya and, in the future, be able to develop lecturers' professionalism.

The difference between this study and the previous ones regarding the use of IoT in education is that this study focuses on the higher education level while previous studies more focus on secondary education or high school level. This is important since lecturers have higher demands on teaching because students are required to have higher educational qualifications than high school students. Besides, students also have the potential or opportunity to become teaching staff or work in other places according to their field of expertise. Therefore, lecturers need to upgrade their competencies so that they can maximize learning activities to equip students with competencies according to the field of study taken.

Literature Review

The ability to manage learning and teaching processes is the ability of lecturers to create an educative communication atmosphere between lecturers and students including cognitive, affective and psychomotor aspects, as an effort to learn something based on planning up to the evaluation of follow-up stages to achieve the teaching objectives. To create quality students, educators must master 4 competencies. Law No. 14 of 2005 concerning (Undang-Undang Nomor 14, 2005) Teachers and Lecturers, in Article 10 Paragraph (1) states that: "Teacher competencies referred to in Article 8 cover pedagogical competence, personality competence, social competence, and professional competence obtained through professional education." (14, 2005)

One of the four competencies focused on this research is professional competence. Professional competence is the ability possessed by lecturers on mastery of learning material widely and deeply. It is one matter that enables lecturers to guide students in meeting the national standards of competency and education. Here are the components of professional competence.

1. Mastering scientific materials, concepts, and thought patterns that support lessons being taught
2. Mastering competency standards and basic competencies of subjects or areas of development being taught.
3. Developing learning materials on an ongoing basis by taking reflective actions.

4. Utilizing Communication and Information Technology (ICT) for communication and self-development

As explained previously, today there is a demand for a paradigm shift in learning from the traditional model towards a new model, namely the 4.0 era. However, reality shows that the practice of learning tends to apply more traditional than new learning strategies. This seems to be closely related to low professionalism. With the phenomenon of the gap between formerly lecturers and today lecturers in terms of the type of students, in which today students are included in the millennial generation, appropriate learning media is highly needed.

According to Pribadi (Pribadi, 2004), learning media are something that can bring information and messages from the sender or source of information to the recipient or learner. Learning media is a tool that serves to convey learning messages. The more learning objectives achieved with the help of learning media indicate the better quality of the media. (Ena, 2011) proposed six criteria for assessing interactive learning media, namely a) *Ease of navigation*, a program must be designed as simple as possible so that students do not need to learn computer first for using it as interactive learning media; b) *The content of cognition*, interactive learning must contain cognition or knowledge matching with the expected objectives of learning; c) *Knowledge and information presentation*, knowledge or information must be delivered or presented correctly; d) *Media integration*, media must be designed in such a way that it can integrate aspects and skills students must learn; e) *Aesthetics*, interactive learning, to attract students' interest, must be presented artistically. Therefore, aesthetics is also a criterion that must receive important attention; and f) *Overall function*, the interactive learning program developed must provide the learning desired by students so that students feel to have learned something when they finish experiencing the learning program.

There are two types of IoT-based learning model according to Surjono (2008) that covers simple internet-based learning which contains a collection of learning materials contained in a web server with additional communication forums via e-mail or mailing lists and integrated learning through an e-learning portal containing various learning objects enriched with multimedia and equipped with academic information system, evaluations, communication, discussions, and various education tools. The implementation of internet-based learning can be included in these categories, which can be between the two or even the combination of several components of the two.

The implementation of e-learning (internet-based learning) is expected to make students very flexible in choosing the time and place of study since they do not have to come somewhere at a certain time. On another side, lecturers (instructors) can update the learning materials at any time and anywhere. In terms of contents, learning materials can also be made very flexible, starting from text-based lecture materials to those loaded with multimedia components. Distributed learning refers to learning where instructors, students, and learning materials are located in different locations so that students can learn anytime and anywhere.

Based on the definition and implementation of e-learning above, it can be obtained that e-learning has some characteristics. The first is utilizing computers as a learning media. The learning

process in and outside the classroom involves electronic technology. Computers as one of the results of technological advancement can replace the use of conventional media. The second is utilizing computer network technology. Computers are designed to facilitate the interaction between lecturers and students, hoped to provide good learning and teaching processes as in the classroom. The process of interaction in a computer whose network has been designed also still applies even though the learning process occurs in the classroom, given the teaching and learning activities in the classroom certainly requires two-way communication between lecturers and students. The third is using self-learning materials stored in computers so that they can be accessed by lecturers and students anytime and anywhere if they need it. The four is requiring mentors or lecturers. E-learning, however, still needs lecturers, not eliminating or replacing the role of lecturers in the teaching and learning process. The presence of e-learning is only as learning media, nothing less and nothing more. Lecturers' teaching materials increase in the teaching process using e-learning, which initially only focuses on educating and teaching about lecture materials and now expands to guide students in e-learning operations.

Research Questions

This study aims to examine the extent to which lecturers at Universitas Brawijaya as a world-class university can develop their professional competence to implement the Internet of Things through teaching and learning media used to support their teaching practices. Regarding this, the research question of the present study is formulated as follows: (1) How frequent are lecturers at Universitas Brawijaya make use of internet to support their teaching practices? And (2) whatkinds of internet applications have been used by lecturers in Universitas Brawijaya in their teaching practices?

Method

This research used a survey method with a cross-sectional design because its objective was to describe what kinds of internet applications which have been used by lecturers at Universitas Brawijaya. This objective was best achieved by using survey research whose purpose is to describe trends, opinions, attitudes, behavior, or characteristics of a population (Creswell, 2012). There are six basic stages of conducting survey research (Ary *et al.*, 2010). The six stages are planning, defining population, sampling, constructing instruments, conducting the survey, and processing the data as shown in Figure 1.

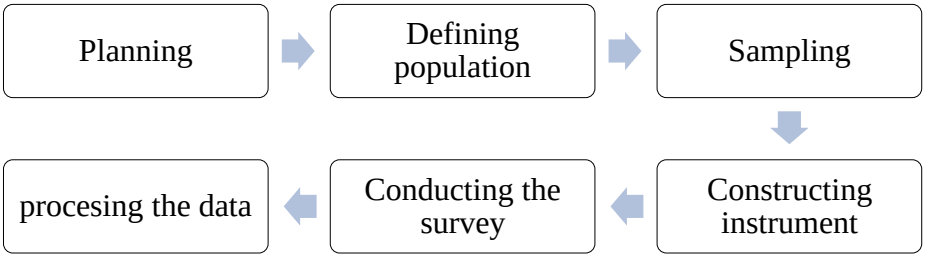

Figure 1. Six stages in conducting survey research based on Ary *et al.* (2010, p 379)

Researchers start with research questions which according to the researchers can be most precisely answered by the survey method (Ary *et al.*, 2010). Furthermore, in conducting surveys, researchers need to determine whether they want to collect data on attitudes, opinions, or beliefs of a

population at one point of time using a cross-sectional design or to study individuals over time using a longitudinal design (Ary *et al.*, 2010; Creswell, 2012). The cross-sectional survey design was suitable to be used in this research because this research aimed to describe what kinds of internet applications which have been used by young lecturers at Universitas Brawijaya.

The second stage is to define the population. One of the most important questions to be faced by survey researchers is: how large is the population covered by the survey? (Nunan, 1992). The term 'population' is used to refer to all groups of individuals to whom the research findings apply (Ary *et al.*, 2010). This is a group of individuals who have one characteristic distinguishing them from other groups (Creswell, 2012). The population in this research covered young lecturers from 16 faculties in Brawijaya University with an age range of 30 to 40 years old.

Then, the sampling stage is carried out to follow up on the population definition. Sampling is done when it is difficult or even impossible for researchers to collect data from the entire population (Nunan, 1992). Sample, a smaller portion of the population (Ary *et al.*, 2010), refers to individuals studied by researchers and obtained from the target population (individuals in a population where a researcher can obtain data) (Creswell, 2012). The sampling in this research was done by choosing 8 up to 9 lecturer representatives from each faculty.

Data Collection and Instruments

This study involves 137 lecturers at Universitas Brawijaya. The research instruments used are questionnaires and interviews. Questionnaires are forms used in survey design filled in by participants involved in research and returned to the researcher. Participants provide basic personal or demographic information and choose answers to questions given. However, an interview survey is a form in which the researcher records the answers given by participants in the research. In an interview, a researcher asks questions from the interview guide, listen to the participants' responses or observe their behavior, and record the responses to the survey (Creswell, 2012). In this research, both instruments (questionnaires and interview guides) were used to collect data about the use of internet-based learning media in the classroom.

The questionnaire in this research consisted of two parts. In the first part of the questionnaire, there were three items designed to obtain information about the respondent's name, the period of teaching experience, and the study program in which the respondent taught. Meanwhile, the second part questioned on what media have been used and how active the use was, followed with optional responses set for the respondents using a Likert scale. Thus, all individuals answered the questions by choosing the optional responses provided, and this allowed the researchers to examine responses convincingly, encode responses or assign numerical values, and analyze data statistically (Creswell, 2012). The advantage of this type of question items is that points can be assigned to various responses so that measures of central tendencies, variability, and the equivalent can be calculated (Ary *et al.*, 2010).

Furthermore, interviews were conducted with several respondents selected using purposive sampling to get information from each of the 16 faculties generated from the questionnaire represented. In this interview, the researchers developed a survey instrument, gathered a small group of people who could answer questions, and then recorded their comments

on the instrument (Creswell, 2012). Therefore, the interview guidelines were developed as survey instruments in this research where several respondents would be interviewed and their responses would be recorded and noted. The interview activity was made in the Forum Group Discussion.

Data Analysis

This step includes data coding, statistical analysis, result interpretation, and finding reporting (Ary *et al.*, 2010). Data processing in this research began with coding the answered questionnaires and the interview results, analyzing the reliability of the questionnaire results statistically using Cronbach's Alpha values, calculating scores to get overall and item-based calculation results. The item-based calculation aimed to describe what media have been used by respondents in carrying out their work as lecturers by analyzing items on a questionnaire scale in detail. Therefore, according to respondents' responses, the percentage of each medium was calculated and categorized. Then, all data obtained from the questionnaires and interviews were interpreted to conclusions as research findings. Finally, the findings were then reported descriptively.

Results

Frequency of Using Internet to Support Teaching Practices of Lecturers at Universitas Brawijaya

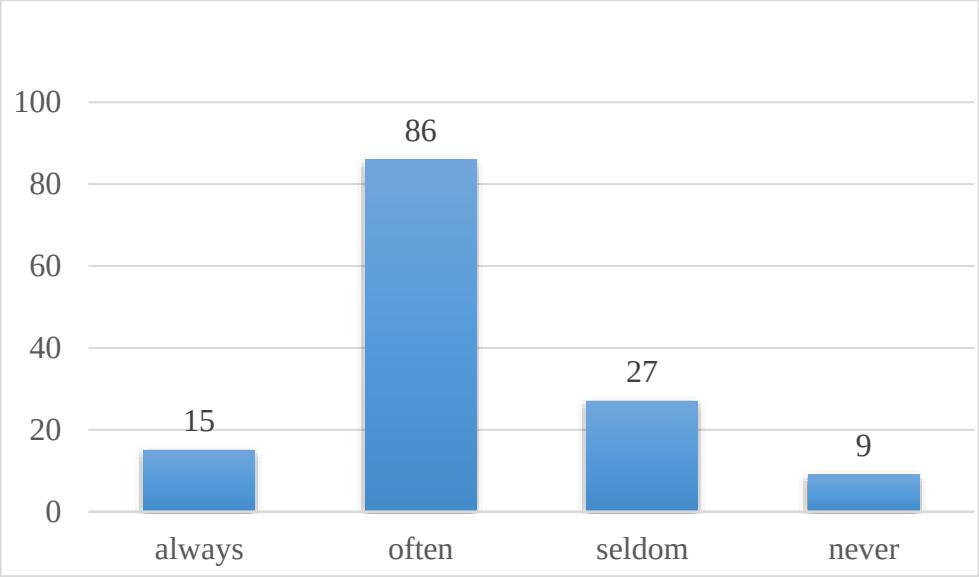

Figure 2. Frequency of using internet to support teaching practices of lecturers at Universitas Brawijaya

The distribution of the data related to the frequency of making use of the internet in the participants teaching practices. It can be seen 86 of the participants (62,7 %) have often made use of the internet to help their teaching practices. Then 27 of them (19,7%) state that they seldom use the internet in their daily teaching activities. Next, 15 of them (10,94 %) declare that they always use the internet during the teaching and learning activities. Lastly, there are 9 of the participant (6,6 %) who say that they never use the internet for their teaching practices.

When being interviewed further, those who say that they often use the internet for their teaching practice state that the internet helps them a lot in selecting materials, sharing the materials, sending assignments and having an online discussion with their students. Furthermore, those who say that they always use the internet to support their teaching and learning activities because they have online materials that need to b accessed by the students for the learning activities. Thus, the internet has become a compulsory supporting medium for the participants and the students to achieve the teaching and learning objectives. Also, most of the assignments are sent and collected via online. However, this does not mean that there is no face-to-face activities in the class. There are still activities in class in which students' attendance will be recorded weekly. Next, the participants who say that they never use the internet say that it is because they mostly use modules and handbooks in their teaching. Also, most of the activities in class are in the form of practicum.

Kinds of Internet Applications Used by Lecturers of Universitas Brawijaya in Their Teaching Practices

As what can be seen in Table 1, there are 20 kinds of internet applicationsthat have been used by lecturers at Universitas Brawijaya in their teaching practices. There are top five applicationsthat are used frequently to be noted, namely Google Classroom (50 lecturers), Kahoot.com (21 lecturers), Edmodo (12 lecturers), Virtua Learning (11 lecturers) and Email (10 lecturers). The rationale of using the applications vary from the suitability with the subject-matter being taught, kinds of assignments, simple usage, and familiarity of the applications. They further state

Result of Interview about the Use of Internet Applications

As a result of the interview, those who use Google Classroom and Edmodo state that these applications provide complete featuresthat help them a lot in sharing materials, sending assignments, giving announcements, giving feedback, checking assignments and having an online discussion. Then, the ones who use Kahoot.com say that this application is exciting for the students when it comes to multiple-choice games. For the lectures who teach English, the game is usually design for grammar and vocabulary exercises. Virtual Learning application has also made students more interested in giving more attention to the subject matter being discussed. Then Email application is used for sending materials, collecting students' assignments, and giving feedback.

The other applications as listed in Table 1 are also used for a number of functions and considerations. Moodle is used as the first LMS which is familiar for the participants. Next, WPLMS is used because it is user-friendly and contains a lot of features that can be used to support the teaching and learning activities. Then YouTube is mostly used for downloading sources, uploading assignments and having discussions. Then Google Form is used for assignments and questionnaires related to the evaluation of the classroom activities. Also, lecturers' blogs are used to deliver materials, announcements as well as assignments. Turnitin is also famous to be used for checking similarity level of students' work to avoid plagiarism. Next, Quissis is used for having progress report for each chapter of the materials being learned. Then Classmaker is used for examination. Next, Schoology is used because its interface is almost similar with social media, so it is attractive for the students.

Table 1. *Kinds of internet applications used by lecturers of Universitas Brawijaya in their teaching practices*

Kinds of Internet Applications	Number of Lecturers Using the Application
Google Classroom	50
Kahoot.com	21
Edmodo	12
Virtual Learning	11
Email	10
Google doc	9
Youtube	7
Moodle	2
Turnitin	2
Quissis	2
Padlet	2
Edpuzzle	1
WPLMS	1
Trello	1
Website	1
Classmaker	1
WAG	1
Slido	1
Schoology	1
Flexiquiz	1

Discussion

As what has been stated previously, most of the participants have often used internet to support their teaching and learning activities. This is in accordance with the result of a study conducted by Irmawati, Widiati & Cahyono (2017) that internet-based activities have been done by professional teachers to help them develop their pedagogical competence. This is also in line with what has been stated by Gómez, Huete, Hoyos, Perez, & Grigori (2013) that the implementation of internet-based activities in teaching and learning can give a number of benefits for lecturers and students. They can have more interactive communication because it is borderless. Also, the so-called distributed learning can be applied because students and lecturers can still have their teaching and learning activities regardless of where they are and in more flexible time.

Additionally, the participants' answers regarding the high frequency in using the internet in the teaching practice also have indicated that their students have positive responses. This is in line with a study done by Charles and Issifu (2015) in investigating the use of ICT for teaching and learning activities in Ghana which has shown that students have positive perceptions in the use of ICT to support their learning process. Irmawati, Widiati & Cahyono (2017) also further state that the use of the internet in the teaching and learning activities can make the students more interested in learning the target language or the subject matter being taught.

Then the result related to kinds of internet application which have been used by the participants has supported previous studies concerning the usage of particular application in the context of teaching English. The results of a study done by Cakrawati (2017) indicated that the majority of participants considered the use of Edmodo or Quipper in English teaching and learning is effective and efficient in terms of time. Although slow-speed internet is considered to be one of the difficulties in using Edmodo and Quipper, most of the participants agreed that the online learning platforms can help them in practicing language skills, acquiring new vocabularies, and improving their understanding on the contents of the lesson.

A number of considerations and functions in using kinds of internet applications in the present study are also in the same vein with what has been dan by Gorra and Bhati (2015). They state that the most observed positive functions of using internet-platform activities are instant messaging through chatting, lesson inquiry about assignments, sending and receiving e-mails, research through surfing the net including data gathering by downloading files and sharing cultural experiences with others through the internet. Moreover, a study conducted by Saptani (2017) involving three English teachers in Semarang reveal that using Quipper School allows teacher and students to have more interaction and motivation in teaching and learning activities. Also, Wallace (2014) and Manowong (2016) have stated that the online learning platforms allow teachers to create and share materials to support students' learning as well as to provide learning tasks to help them in practicing the language. The accessible platforms encourage students to learn in any location and at any time via computer, tablets, or smartphones. This has strengthened the fact that lecturers and students are able to get a lot of advantages when making use of internet applications to support their teaching and learning activities.

Conclusion

In the context of higher education level, it is found out that a lot of the lecturers of Universitas Brawijaya have made use of the internet to support daily teaching practices. Out of twenty kinds of internet applications that are used, there are top five applications that are mostly used by the lecturers namely Google Classroom, Kahoot.co, Edmodo, Virtual Learning and Email. A number of functions of using the applications which have encouraged them to use the applications are noted, such as for sharing materials, sending assignments, giving feedback, posting an announcement, having online discussions and more interaction, giving tests or quizzes, as well as having fun while learning through games.

However, the present study has limitations to be noted. First, this study focuses on mapping kinds of internet applications used at higher educational levels. There is a need to study more about which internet application is more effective to be used in a particular context. Thus, future researchers are greatly suggested to investigate the effectiveness of using particular applications in a particular context to contribute more to the body of knowledge related to TEFL in the Indonesian context. Next, since this study involves the lecturers from Universitas Brawijaya, future studies a bigger number of universities are still important to be done. Thus, a bigger scope will provide clearer mapping regarding the use of internet applications in the context of higher education level.

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References

Ary, D., Jacobs, L. C., Sorensen, C. K., & Walker, D. (2013). *Introduction to Research in Education*. Cengage Learning.

Cakrawati, L.M. (2017). Students'Perceptions on the Use of Online Learning Platforms in EFL Classroom. *English Language Teaching and Technology Journal (ELT-Tech Journal), 1*,(1), 22-30.

Charles, B.A., Issifu, Y. (2015). Innovation in Education: Students' Perceptions of Implementing ICT in learning in second-cycle institution in Ghana. *Procedia-Social and Behavioral Sciences. 197,* 1512-1519.

Creswell, J. W. (2012). *Educational Research: Planning, Conducting, and Evaluating Quantitative and Qualitative Research (4th ed)*. Boston, MA: Pearson Education, Inc.

Ena, O. T. (2011). Membuat Media Pembelajaran Interaktif dengan Piranti Lunak Presentasi. *Yogyakarta: Universitas Sanata Dharma Yogyakarta, 2*(1).

Ena, O. T. (2011). *Membuat Media Pembelajaran Interaktif Dengan Piranti Lunak.* Retrieved from www.ialf.edu.

Gorra, V.C., Bhati, S.S. (2015). Students' Perceptions on Use of Technology in the Classroom at Higher Education Institutions in Philippines. *Asian Journal of Education and E-learning, 4*, (3), 92-103.

Gómez, J., Huete, J. F., Hoyos, O., Perez, L., & Grigori, D. (2013). Interaction system based on Internet of things as support for education. *Procedia Computer Science, 21,* 132–139 DOI: 10.1016/j.procs.2013.09.019.

Irmawati, D.K., Widiati, U., & Cahyono, B.Y. (2017). How Do Indonesian Professional English Teachers Develop Their Pedagogical Competence in Teaching Implementation? *Arab World English Journal (AWEJ), 8*, (2), 293-307.

Kemeristekdikti. K. (2018). *Generasi Millennial Menjadi Dosen Masa Depan*. Retrieved from http://sumberdaya.ristekdikti.go.id/index.php/2018/01/30/era-revolusi-industri-4-0-saatnya-generasi-millennial-menjadi-dosen-masa-depan/.

Manowong, S. (2016). Undergraduate Students' Perceptions of Edmodo as a Supplementary Learning Tool in an EFL Classroom. *Silpakorn University Journal of Social Sciences, Humanities, and Arts*, *16*, (2), 137–161.

Nunan, D. (1992). *Research Methods in Language Learning*. London: Cambridge University Press.

Permanasari, R., Setyaningrum, R. M., & Sundari, S. (2016). Model Hubungan Kompetensi, Profesionalisme Dan Kinerja Dosen. *JBMP (Jurnal Bisnis, Manajemen Dan Perbankan)*, *1*(2), 157. https://doi.org/10.21070/jbmp.v1i2.270

Pribadi, B. (2004). Ketersediaan dan Pemanfaatan Media dan Teknologi Pembelajaran di Perguruan Tinggi. *Jurnal Pendidikan*, *5*(2), 146–148. Retrieved from http://belajartuntas.tripod.com/MEDIATEK.htm

Saptani, D. A. (2017). Teachers' Perception towards the Use of Quipper School in Teaching English. *Advances in Social Science, Education and Humanities Research*, *82,* 233– 235.

Surjono, D. H. (2008). *Pengantar Elearning dan Penyiapan Materi, Makalahdiklat dosen FT UNY*. Retrieved from http:herman//.elearningjogja.org.

14, Undang.-Undang. Republik. Indonesia. Nomor. (2005). *Undang-Undang-Nomor-14-Tahun-2005.pdf*.

Wurinanda, I. (2016). *Begini Cara Dosen Ngajar Generasi Millenial*. Retrieved from https://news.okezone.com/read/2016/06/17/65/1418076/begini-cara-dosen-ngajar-generasi-millenial.