INTRODUCTION TO SCIENTIFIC PUBLICATIONS FOR PGSD STUDENTS OF PGRI RONGGOLAWE UNIVERSITY THROUGH TECHNOLOGY LITERATURE IN INDONESIAN COURSES

Arik Umi Pujiastuti*[1]
arik.umi86@gmail.com[1]
Primary Teacher Education,
Faculty of Educational Science Teacher Training,
University PGRI Ronggolwe[1]

*Corresponding Author

Abstract: This study aims to describe the recognition ability of scientific publications through habituation of technological literacy, including the ability to access scientific articles, select scientific articles, and compile scientific articles owned by 76 PGSD students of class 2018. The type of research is Classroom Action Research. The data collection used is questionnaires for data ability to access and select scientific articles, while the documentation technique for data ability to compose scientific articles so that data analysis used quantitative descriptive technique. The results showed abilities to access scientific articles before Indonesian course 20.1% of students understood how to access scientific journals while 79.9% did not and the percentage was the same as abilities to access scientific articles, 16.3% understood the menu in scientific journals while 83.7% did not understand the menu in the journal, 29.6% understood how to save journal links while 70.4% did not increase occurred 100% after habituation of technological literacy in Indonesian course. The research results on the ability to choose scientific articles before Indonesian course are, that 100% of PGSD students cannot distinguish between research articles and non-research articles, did not use scientific articles as references in doing coursework, and used references from various sites were not scientific journals and after habituation of technological literacy in Indonesian course a 100% increase occurred. Furthermore, abilities to compose scientific articles where 20 students scored 72, 19 got a score of 70, 14 students scored 7, 12 students scored 73, 3 students scored 75, 3 more with a score of 78, 2 students scored 76 and 2 more got a score of 77, and 1 student got a score of 69.

Keywords: Introduction to scientific publications, PGSD Students, Technology Literacy

PRELIMINARY

Students are one of the academic communities that act as agents of renewal and change. As an agent of change, students must disseminate knowledge, scientific

thoughts, or the research results carried out (Pujiastuti & Dwidarti, 2020). Apart from being agents of change, students as an implementer of Tridharma are also required to be able to play a role in disseminating knowledge (Harahap, 2019). Therefore, the competence that students must have are being able to disseminate scientific information based on results of thoughts or research results through publication activities (Ismail & Elihami, 2019). Astuti & Isharijadi (2019) explained that based on the circular letter of the Ministry of Research, Technology and Higher Education Number B/323/B.BI/SE/2019, a mandatory requirement that must be carried out by undergraduate, master, and doctoral program students is to publish their final project either in the campus repository or in scientific journals. Based on the description, it requires students to know deeply and understand publications. This publication is not just to disseminate thoughts and research carried out, but there is a means or forum to publish the results of thoughts and research carried out, that is in scientific journals.

Scientific publications are activities carried out by someone in disseminating the results of thoughts and research results carried out in scientific journals through composing scientific articles (Listiana *et al* ., 2021). In the current era, a disruption phenomenon occurs, one of which is technological literacy that must be mastered by all groups, including students (Astini, 2019). The phenomenon of this change made the transition from print system to online which also occurred in scientific journals (Darmalaksana & Suryana, 2018). Changes that have made print journals now switch to *the Open Journal System (OJS). OJS* is Web-based journal management developed by PKP and the existence of OJS makes it easier to publish journals starting from article acceptance, article review to article publication. *OJS* is also a publication system developed by the *Public Knowledge Project (PKP)* which aims to improve and expand the results of research conducted (Simaremare et al., 2013). In *OJS journals* some menus must be understood, when someone wants to publish, they must read procedures or rules set by the journal. Changes that occur certainly must be followed by students by having ability in technological literacy and getting to know scientific publications.

Based on research results conducted, scientific publications at universities in Indonesia are still low and this can be seen in indicators of awareness to conduct scientific publications by students has a very low percentage (Siahaan, 2018). Based on observations and interviews conducted, it was found that the report on research results

of PGSD students in the form of a thesis was only limited to *hard* documents displayed in the university library. Preliminary analysis was also carried out on research subjects about an understanding of scientific publications, where based on results of the initial analysis it was known that PGSD students' understanding of scientific publications was still low. The data is shown in the percentage of 17.8 % of students who understand scientific publications while 82.2% do not understand. Based on the problem analysis results faced is the low understanding of PGSD students about scientific publications in this case there is an effort to introduce scientific publications to students.

The disruption occurred made the introduction of scientific publications conducted to students online-based. The purpose of introducing scientific publications is to make students know how to access scientific articles, can sort scientific articles in journals, can compile scientific articles, and understand the procedure for uploading scientific articles in journals. It is hoped that technological literacy can provide students with an understanding of scientific publications. Based on this description, the purpose of this research is to describe the ability of students in conducting scientific publications.

SCIENTIFIC PUBLICATIONS

Tridharma is a mandatory activity that must be carried out by students as part of the academic community. One of the Tridharma activities is conducting research. Research conducted by students does not only stop at documents collected at university but based on regulations it must be disseminated or in other words published (Aristya & Taryono, 2021). Scientific publications by definition are activities to disseminate ideas and research results in scientific journals, both national and international in the form of scientific articles (Listiana *et al* ., 2021). According to Darmalaksana & Suryana (2018) scientific publication is the publication of research papers in scientific journals of research results, both printed and online. Scientific publications are one of Tridharma indicators activities that must be carried out by the academic community of lecturers and students. Therefore, a publication is fundamental for students. The results of thoughts and research carried out by students must have benefits for communities so that publications become a means of disseminating the results of thoughts and research

conducted to the wider community (Salam *et al* ., 2017). This makes publication activities to be known and understood by students.

TECHNOLOGY LITERATURE

Literacy according to the understanding is writing and reading competence possessed by individuals in utilizing information and being used for a benefit of others (Anindyarini *et al* ., 2019). Literacy according to Wahidin (2018) is not only defined as the ability to read and write but more than that literacy some abilities that a person has in reading, writing, thinking, and utilizing information and technology that can be used to solve problems in social life. Based on this, literacy can be interpreted as not only the ability to read and write but more than those, it is an ability to listen and utilize information technology to solve problems in their lives, so literacy has an important role in human life in current era (Fayza & Nugraha, 2021).). Literacy itself along with its development has an expansion where not only basic literacy (ability to read and write) but there are developments including, media literacy, financial literacy, technological literacy, and library literacy, all of which are abilities that must be possessed by someone who lives in current era. (Masitoh, 2018).

One of the literacies that must be mastered by humans in current era is technological literacy where technological literacy is a person's ability to use and utilize technology on the internet form to access, spread, and publish information to others (Helaluddin, 2019). Regarding technological literacy, ETS defined that technological literacy is not only limited to the ability that a person has in using technology, but more than that, humans can also use technology to solve problems in their lives.
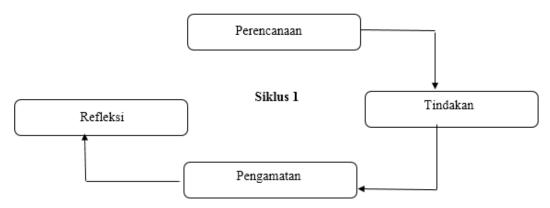
METHOD

This research type was Classroom Action Research (CAR) where CAR is a research study conducted in a class to find out the consequences of actions applied to a research subject in that class (Trianto, 2012).

The research subjects were PGSD students from the 2018 batch of 76 The research location is PGRI Ronggolawe University, Tuban. The data in this study include types of data, data collection instruments, and data analysis

Based on the research type, its procedure is presented in Figure 1. Below.

Figure 1. Classroom Action Research Procedure

Source: Trianto 2012

Based on Figure 1, in phase 1 the activities carried out are, 1) planning (preparing RPS and research instruments), 2) implementing actions to apply technological literacy in learning Indonesian course, 3) observing when applying technological literacy and reflecting based on action results taken.
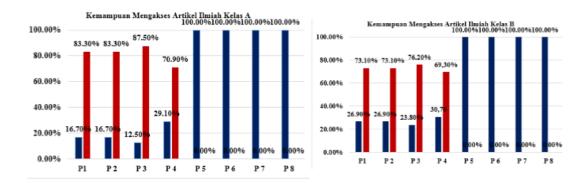
Data of this research include, 1) data on the ability to access scientific articles, 2) selecting articles from research results, 3) data on compiling scientific articles in the form of articles prepared by PGSD students. Based on these data, the type of data used was descriptive quantitative.

Based on the types of data, data collection techniques used are, questionnaires and documentation techniques. Questionnaire and documentation techniques were used to collect data about the ability to access and select scientific articles, while documentation techniques were used to collect data about the ability to compose scientific articles.

RESULTS

The following presents data based on research conducted by researchers. The research data are presented in Figures 1 to 3.

Figure 1. Percentage Diagram of Class A, B, and C Ability in Accessing Scientific Articles
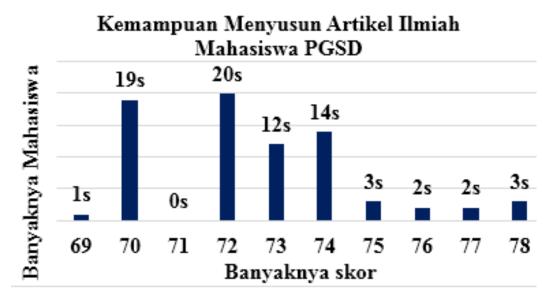
Figure 2. Percentage Diagram of Class A, B, C Ability in Selecting

Scientific Articles

Figure 3. Ability to Compile Scientific Articles Class A, B, and C.

DISCUSSION

Ability to Access Scientific Articles

The development of information technology is currently happening in all circles of society, including students. Based on the results of Juraman's research (2014) almost all students in Indonesia use smartphones and use them to access educational information as a support for the lectures carried out. Access activities are carried out from e-journal sites, e-books, digital libraries, and encyclopedias to academic portals which are available in various links. The importance of ability to access information will affect students' ability to find reading references that are relevant to lecture assignments. Ernawati (2011) in her research explained that the quality of student assignments in compiling papers, research proposals, and research reports is influenced by the ability to access information. Therefore, the ability to access information online must be owned by students and in this study, a description of the ability to access scientific articles is presented based on pictures 1 to 3

Figure 1 described the ability of class A in accessing scientific articles. Questions 1 to 4 (P1-P4) are questions given to students before taking Indonesian

course, in P1, the ability to access research articles in scientific journals is 16.7% of students who understand how to access, however, 83.30% do not understand how to access. In P2, the ability to access non-research articles in scientific journals was obtained as much as the data showed in P1, which is before 16.7% and 83.30% do not understand how to access. In P3, who understand menus on the display of scientific journals, which is 12.50% understand and 87.50% do not. Students' understanding of how to save links to scientific articles in scientific journals from research results is shown by 29.10% being able to do it, while those who can't are at 70.90%. The data in P5 to P8 was a practical ability to access scientific articles in scientific journals. Assessment indicators 1 to 4, the ability to show access procedures to scientific journals, understand menus in scientific journals, access procedures to scientific articles, and how to save links to scientific journals and scientific articles reached 100%.

Data on the ability to access scientific articles in class B before taking Indonesian course are not much different from class A and is shown in Figure 2. In general, ability to access is still low. The low ability is shown in P1, students who did not understand how to access as many as 73.1 % and those who understand 26.9%. From P2 to P4 students' abilities are also low as shown that in P2 26.9% of students understand how to access non-research articles and research articles and those who do not understand are 73.1% of students. P3 showed that only 23.8% of students understand the menu on the journal display and 76.2% of students do not understand. In P4 the understanding of how to save links to scientific articles in scientific journals was very low because 30.76% understand while those who do not understand 69.74%.

Figure 3 presented data on ability to access scientific articles for class C and the same as for classes A and B, which have low abilities. This can be seen in P1 that only 16.7 % of students can access articles and 83.3% can't and it is the same as P2. Based on P3 only 11.11 % of students understand the display menu in journals and 88.89% do not understand. In class C, the percentage of ability to save scientific article links is higher than in classes A and B because 33,33 % can do it while 66.67% can't.

Technological literacy has contributed to the ability to access articles, understand menus in scientific journals, and ability to save links. The existence is proven that from P5 to P8 all students have the ability through practice which is carried

out after taking Indonesian course. The ability of students, A, B, and C has increased in access scientific articles in scientific journals

Ability to Choose Scientific Articles

The ability to select articles into a single unit with the ability to access. Based on its definition, access is a person's ability to search, find and collect information (Fitryarini, 2016). Selecting articles is included in the ability to choose educational information, but based on research Fitryarini (2016) described that as many as 95% of students use the internet for social networking. This is certainly worrying so the ability to choose articles must be carried out by students as academic citizens. Based on this research, the data on students choosing scientific articles before taking Indonesian courses is low. Data on ability to choose scientific articles are presented in Figures 4 to 6.

In this research, the ability to choose scientific articles is an ability to choose before and after taking an Indonesian course.

Figure 4 showed the ability of class A in choosing scientific articles. Before taking Indonesian course, 100% of students can not distinguish scientific articles from research and non-research results, but an increase occurred after taking the course and technological literacy increased by 100%. Further data on the use of references in coursework where 100% of students do not use scientific articles as references in doing assignments and it is different after carrying out technological literacy and taking Indonesian course 100% of students use scientific articles as references. Before technology literacy and taking courses, 100% of students used various pages on internet sites to do their assignments, however, after taking Indonesian courses, 100% of students used scientific articles and chose the substance of the articles according to the assignments they were doing. Data on the results of the ability to choose scientific articles presented in class A were the same as those of classes B and C. Based on Figures 5 and 6, the data from class B and class C showed the results.

Based on tables 7 to 12 and figures 4 to 6 showed that technological literacy in Indonesian courses influenced the ability to choose scientific articles for students in classes A, B, and C. It can be seen that there was an increase in the ability to choose scientific articles before and after taking Indonesian courses.

Ability to Compile Scientific Articles

Compiling scientific work is an activity to write scientific papers that are carried out by someone with a specific purpose. Based on the research results of Darmuki et al ., (2021) one of the mandatory requirements for students in the final semester is writing scientific papers. Therefore, the ability to compile this scientific work is very important. The ability to compose scientific articles is an ability of students after the implementation of Indonesian course as shown in Figure 7. At this stage, students individually compile scientific articles. The analysis was carried out on scientific article documents compiled by students. Indicators for assessing this ability are conformity with selected article templates and use of referrals at least 70% from journals both nationally and internationally.

In Figure 7, the scores of students in grades A, B, and C are 76 students. The range of scores obtained is 69 to 78. A score of 69 is only obtained by 1 student. A score of 70 was 19 students and none of the students got a score of 70. At a score of 72, 20 students received a score, while a score of 73 was obtained by 12 students. With a score of 74, 14 students got it, and with a score of 75 as many as 3 students who get. Scores of 76 and 77 were obtained by 4 students where each score was obtained by 2 students. The highest score of 78 was obtained by 3 students. Based on these data, 56 students who got a score range of 71-78 with category B with good criteria and 20 students who got a score of 69 to 70 got BC predicate or a quite good category

CONCLUSION

The introduction of scientific publications through technological literacy contributes and has a positive impact on the ability of PGSD students to recognize scientific publications. This can be seen in the research results achieved. The conclusion of this study describes that there is an increase in ability to access, choose, and compile scientific articles in PGSD students batch 2018 after the implementation of the Indonesian course.

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