HASIL PENILAIAN SEJAWAT SEBIDANG ATAU PEER REVIEW
KARYA ILMIAH: PROSIDING KONFERENSI INTERNASIONAL BEREPUTASI

Judul Makalah : Integrated Learning Design Based on Google Classroom to Improve Student Digital Literacy

Penulis Makalah : Fahrurozi, Uswatun Hasanah, Ratna Sari Dewi

Status Pengusul : Penulis Ketiga

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<table>
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<tr>
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<th>Prosiding Konferensi Internasional</th>
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<tr>
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<td>5.2</td>
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<tr>
<td>c. Kecukupan dan kemutahiran data/informasi dan metodologi (30%)</td>
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Jakarta, 26 Mei 2020

Reviewer 1.

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LEMBAR
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Reviewer 2,

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Abstract—Based on field observations, it seems that students basically have problems in developing digital literacy. This competence is useful to deal with explore information due to the rise of the internet. Students need to be trained in their digital literacy competencies to analyze digital information content effectively and responsibly. Therefore there needs to be an innovation to develop learning that adapts to the times. This study aims to determine the needs for the development of learning that is interesting, effective, independent and efficient. Learning development that will be carried out is integrated learning design based on google classroom. The subjects of this study were students who took integrated learning courses in 6th semester primary teacher education program. Data collection techniques used were questionnaires and interviews. The results of the study show that integrated learning design based on Google classroom is needed to improve student digital literacy.

Keywords—google classroom, digital literacy, integrated learning

I. INTRODUCTION

The development of the 4.0 revolution brought human civilization into the digital age. In this case, technology becomes a tool that can make it easier for humans to do tasks and work. This condition also occurs among students. Ease of access to find information via the internet has positive and negative impacts among students. They can actively search for sources of information relevant to their college assignments. However, the amount of information obtained makes them less selective in choosing the sources used. Based on the (WSIS) Declaration which states that everyone can create, access, use and share or share information and knowledge, with the consequence that everyone must be able to face and master information properly.

However, most students still use information that cannot be accounted for, such as not including a clear source of information for assignment references. Therefore the ability to process information is very important for students. In this case, digital literacy is needed. The Ministry of Education and Culture has a National Literacy Movement program number 23 of 2015 concerning the Cultivation of Character. One form of literacy that is integrated into learning content is digital literacy. This literacy is the ability to process information that comes from digital sources. People who have digital literacy can not only read digital information, but can analyze the truth of information from digital sources. Digital literacy is the awareness, attitude and ability of individuals to appropriately use digital tools and facilities to identify, access, manage, integrate, evaluate, analyse and synthesize digital resources, construct new knowledge, create media expressions, and communicate with others, in the context of specific life situations, in order to enable constructive social action; and to reflect upon this process [1]. Digital literacy competencies consist of four core competencies that need to be possessed, namely internet searching, hypertextual navigation, content evaluation, and knowledge assembly [2].

In the aspect of (a) internet searching where students must have the ability to search for information on the internet using search engines, as well as carrying out various activities on it. Next (b) hypertextual Navigation where students need to be skilled and have knowledge about hypertext and hyperlinks along with how they work, knowledge about the differences between reading textbooks by browsing through the internet, and knowledge about how websites work including knowledge of bandwidth, http, html, and URL, and the ability to understand the characteristics of website pages. Then the next aspect (c) content evaluation where students need to have the ability to distinguish between the appearance of information content that is the user's perception in understanding the appearance of a website page visited, analysing the background information on the internet namely awareness to explore further about the source and maker of information, evaluating a website address by understanding the various domains for each particular institution or country, analysing website pages, as well as knowledge about the FAQ in a newsgroup/discussion group. The last aspect (d) knowledge assembly This competency is as an ability to compile knowledge, build a collection of information obtained from various sources, and the ability to collect and evaluate facts and opinions properly. This is done for certain purposes both education and implementation of tasks. Core competencies include several components, namely: 1) Ability to search information via the internet, 2) Ability to create a personal newsfeed or the latest news notifications that will be obtained by joining and subscribing to news in a newsgroup, mailing list or other discussion groups that discuss or discuss a particular topic in accordance with the needs or particular problem topics, 3) The ability to analyse the information obtained, 4) The ability to use all types of media to prove the truth of the information, and 5) The ability to arrange the source of information obtained on the internet with real life that is not connected in internet communication networks [2].

Preliminary studies conducted by researchers depart from research that discusses the importance of digital literacy for a student. This literacy becomes important where someone is able to process information that comes from digital sources. A digital literate can not only process information but can also create, elaborate, communicate, and work according to ethical rules, and understand when and how technology must be used.

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to be effective in achieving goals [3], [4], [5], [6] Essentially students who have digital literacy, not only can they use technology to find information, but they can also create, elaborate, communicate, and work according to ethical rules, and understand when and how technology must be used to be effective in achieving goals [7], [8], [9]. This can improve students' critical thinking skills on the positive and negative impacts that may occur due to the use of technology in daily life. In the development of digital literacy, there are eight essential components that need to be considered, among others (1) culture in which a digital literate comes from a variety of tribes, religions, and races causing an understanding of various contexts that vary, (2) cognitive where a digital literate must have the ability to assess digital content, (3) constructive where a literate also has the ability to create meaningful content, (4) communicative where he can expand the performance of communication networks in the digital world, (5) self-confidence that is responsible, (6) creative where he can do new things in a new/creative way, (7) critical where digital literacy must be critical in processing information received through digital sources and (8) socially responsible where he can be held responsible for what is done, created, and expressed in the digital world [10], [11], [10], [11], [12], [13], [14], [15], [16].

To improve digital literacy, learning is needed that can be integrated with digital sources applications. Google Classroom can be used as an innovation in learning today.-based learning Google classroom has contributed a lot to learn in the 21st century. Google classroom is an application that allows the creation of classrooms in cyberspace [17], [18]. In addition, Google classroom can be a means of distributing tasks, submitting assignments and even assessing the collected tasks. Based on the statement above, this application can be used as a space/place to collect and inform a task so that it becomes more efficient and not fragmented. This software has been introduced as part of Google Apps for Education (GAFE) since 12 August 2014 [19], [6]. Through this application, it is easier for lecturers and students to carry out the learning process in more depth. Lecturers and students can visit the site https://classroom.google.com or can download the application through Play Store on Android or through the App Store on iOS with the keyword Google classroom (Classroom, 2014). The use is free of charge so that its utilization can be done as needed. Through the application, it is google classroom assumed that learning objectives will be more easily realized and meaningful. Therefore, the use of Google classroom actually makes it easier for lecturers to manage learning and convey information accurately and accurately to students. This is because teachers can take advantage of various features found in Google Classrooms such as assignments, grading, communication, time-cost, archive courses, mobile applications, and privacy to measure how well students have achieved learning. With this application, students also feel motivated and active in constructing their knowledge. In addition, this application is very useful and environmentally friendly. By using Google classroom, teachers can minimize the use of paper (paperless).

In this case, researchers chose to develop a Google classroom-based learning design in integrated learning subjects. Integrated learning is a compulsory subject given to students in year 3. This is done before they practice teaching skills in elementary schools. This subject studies the basic concepts of integrated learning (rational, understanding, goals, characteristics, advantages and disadvantages, integrated learning models), development of integrated learning planning in elementary schools (syllabus and lesson plans), implementation of integrated learning in elementary schools (Peer Teaching), as well as an assessment of the process and learning outcomes of elementary students in integrated learning according to the applicable curriculum.

II. METHOD

This research is preliminary research that is included in the pre-development stage in the Borg and Gall R&D research procedures [20]. This study aims to collect data for the analysis of initial needs (need assessment) in the pre-development stage. The study was conducted at Campus E PGSD FIP UNJ, located on St. Setia Budi 1 No. 1, South Jakarta. The time of the study was conducted from July to August 2019. The research subjects in this research development were students of the PGSD FIP study program UNJ who took integrated learning courses.

![Borg & Gall Steps Scheme](image)

**Fig. 1. Borg & Gall Steps Scheme**

Data collection techniques used were interviews and questionnaires. Interviews were conducted when the research has been carried out to obtain data as a basis for conducting research and development. The questionnaire was conducted to obtain data on the needs of the availability of this development product so as to increase the digital literacy of students and illustrate the needs of students for teaching material needs in the Google classroom program. The focus of this research was the analysis of digital literacy owned by students, analysis of student needs in the development of this Google classroom-based learning design. The data analysis technique used was a descriptive analysis of the results of interviews and questionnaires to students to uncover problems in the learning process, difficulties encountered and the learning design used.
Based on the results of the questionnaire given to students taking integrated learning courses in the 2018/2019 school year, most students need a Google classroom-based learning design in order to improve their digital literacy. The questionnaire data are presented in Table 1.

### TABLE I. THE QUESTIONNAIRE DATA

<table>
<thead>
<tr>
<th>No</th>
<th>Question</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Students have difficulty understanding the concept of integrated learning without using any media.</td>
<td>83.33% of students have difficulty</td>
</tr>
<tr>
<td>2</td>
<td>Learning resources used by students are only books and modules</td>
<td>100% of students only use books and modules</td>
</tr>
<tr>
<td>3</td>
<td>Students have problems in finding learning information via internet searching</td>
<td>22.67% of students have difficulty</td>
</tr>
<tr>
<td>4</td>
<td>Students have difficulties in processing content digital information in the form of text, images, sounds, etc.</td>
<td>63.33% of students have difficulty</td>
</tr>
<tr>
<td>5</td>
<td>Students have difficulties in understanding hypertext and hyperlinks on a website</td>
<td>63.33% of students have difficulty</td>
</tr>
<tr>
<td>6</td>
<td>Students have problems analyzing the truth of information from a website</td>
<td>86.67% of students have difficulty</td>
</tr>
<tr>
<td>7</td>
<td>Ability to create a personal newsfeed or notification of the latest news that will be obtained by joining and subscribing to news in a newsgroup, mailing list or other discussion groups that discuss or discuss a particular topic as needed. a know the topic of a particular problem</td>
<td>90% of students have difficulty</td>
</tr>
<tr>
<td>8</td>
<td>Students have problems analyzing the workings of the website including knowledge of bandwidth, .http, .html, and URL</td>
<td>93.33% of students have difficulty</td>
</tr>
<tr>
<td>9</td>
<td>Students are familiar with the google classroom application for learning</td>
<td>100% of students do not know</td>
</tr>
<tr>
<td>10</td>
<td>Students know how to use google classroom in learning</td>
<td>100% students don't know how to use</td>
</tr>
<tr>
<td>11</td>
<td>Provides integrated classroom learning design based on google classroom</td>
<td>100% students agree</td>
</tr>
<tr>
<td>12</td>
<td>Contents of google classroom in the form of material, videos, teaching simulations and so on.</td>
<td>100% of students agree</td>
</tr>
</tbody>
</table>

Based on the data above states that the digital literacy of students is quite low. This can be due to learning that is rigid and only limited to books and teaching modules so that the need for the development of contemporary learning designs that are in accordance with the industrial revolution 4.0 is needed. With the existence of a google classroom-based learning design, it is very necessary that students are accustomed to processing information both lecture material digitally independently, effectively and efficiently.

Based on the results of in-depth interviews with several students showed that there are some obstacles in the learning process, especially in integrated learning courses, namely students have difficulty when describing the concepts and application of integrated learning in the field. This difficulty is triggered because of the limited explanation given by lecturers and the information obtained is limited from books and teaching modules without giving students the opportunity to explore various learning implementations in the elementary school environment both at home and abroad. This will have an impact on the student’s mastery of integrated learning subjects is not optimal. In essence, integrated learning is a compulsory subject given to 6th-semester students. This is done before they practice teaching skills in elementary schools. This subject studies the basic concepts of integrated learning (rational, understanding, goals, characteristics, advantages and disadvantages, integrated learning models), development of integrated learning planning in elementary schools (syllabus and lesson plans), implementation of integrated learning in elementary schools (Peer Teaching), as well as an assessment of the process and learning outcomes of elementary students in integrated learning according to the applicable curriculum.

### IV. DISCUSSION

The objectives of integrated learning courses include: (1) students have knowledge of the basic concepts of integrated learning (rational, understanding, goals, characteristics, integrated learning models), the basic concepts of the 2013 curriculum, the basic concepts of syllabus and RPP development, (2) Students are skilled in developing integrated learning plans for elementary students (syllabus and lesson plans) according to the applicable curriculum, (3) Students are skilled in carrying out integrated learning for elementary students according to the applicable curriculum, and (4) Students skilfully plan and carry out assessment of the process and learning outcomes of elementary students in integrated learning according to the applicable curriculum [21].

In its implementation, students will carry out many tasks in the form of projects. These tasks include the development of planning, implementation, assessment of processes and results in integrated learning in elementary schools. The tasks are done in groups and independently. Thus,-based learning google classroom can be used as the right choice to be applied in this course so that educators can measure student achievement in learning. With the integrated learning design based on google classroom, students become free in exploring the entire content of information related to this course. In addition, this program also presented several examples of learning videos that are in accordance with the latest curriculum so that students will easily understand the implementation of this course in the field later. This finding is in line with some research results that revealed that learning using media technology will have a significant influence on the result [8], [11].

### V. CONCLUSION

Based on the results of research that has been done it can be concluded that integrated learning lectures require innovative learning designs that adapt to technological developments. In addition to helping improve understanding of lecture material, it can also improve student digital literacy so students are able to process digital information independently, effectively and responsibly. This research is
preliminary research from the research section of integrated learning development based on google classroom so that further research is still needed to measure the validity of the learning concepts developed.

REFERENCES