Utilization of Schoology for the Development of PPKn Teaching Materials Based on E-Learning

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Abstract-**This article aims to describe the use of Schoology for the development of e-learning based PPKn teaching materials. The research method uses literature study. The results showed that the use of Schoology for the development of e-learning based PPKn teaching materials could strengthen the aspects of civic knowledge, namely understanding the PPKn learning material and aspects of civic skills, namely digital literacy skills.**

Keywords: schoology, teaching materials, e-learning

I. INTRODUCTION

In the 21st century, there has been a paradigm shift in the field of education. These changes lead to preparation and strengthening in order to improve the quality of human resources. According to the National Education Standards Agency, competencies must be possessed by students, namely; critical thinking skills and the ability to present problem solving, the ability to communicate and cooperate, the ability to create and renew, literacy skills in information and communication technology, contextual learning skills, and information and media literacy skills [1].

Efforts to answer the challenges of the 21st century learning paradigm, in fact PPKn is a subject that has a very important role in answering the needs and demands of 21st century learning. Aspects developed in PPKn subjects are aspects of knowledge, attitudes, and skills. (skills). These three aspects have great benefits to improve the quality of human resources. Efforts to achieve this goal, the PPKn learning system that used to be conventional needs to be changed and adapted to 21st century learning or known as the industrial revolution era 4.0.

Isaias states that digital technology and information systems play a role that increasingly enhances planning, design and implementation of systems and the use of e-learning in learning [2]. Learning is further facilitated by the internet as a learning resource. Through the internet, teachers can innovate to create learning systems that use the internet as a supporting tool in the learning process. One of the important things in the learning process is that teaching materials are needed which serve as guidelines for students to direct learning activities.

Teaching materials are a set of learning tools or tools which contain learning materials and activities usually designed in a coherent and systematic manner in order to achieve the expected competencies. Teaching materials can be in the form of books, modules, worksheets, comics, etc.

But teaching materials that are in the form of physical (hard cover) there are disadvantages, namely not being able to last long and costly to be able to buy it. Even though every subject requires teaching materials for student activities in the teaching-learning process.

Wahyuningsih and Makmur, states that learning systems in the digital era must strive for the dissemination of information widely and quickly, so that learning messages can be obtained quickly and accurately [3]. To answer this challenge, currently in the field of education it is necessary to use e-learning facilities to facilitate the learning and learning process. The use of e-learning in learning according to the latest research has a positive impact on learning processes and outcomes. Research from Dabbagh and Rithland, shows that the use of e-learning in a planned and structured manner can increase interactivity, independence, and learning outcomes [4].

According to Pujiriyanto, learning innovation is necessary along with changes and technological developments both in terms of hardware and technology regarding new theories in learning [5]. By utilizing technology, information and communication, the teacher needs to innovate in developing e-learning teaching materials. The research conducted by Lobo, shows that the use of e-learning by using web Schoology can improve student learning activities and outcomes in PPKn subjects in Middle School 1 Middle School [6].

The author is interested in utilizing Schoology for the development of e-learning based PPKn teaching materials, because it is free and suitable for use by teachers and students in learning. Web Schoology is also practical and serves as a complement to learning materials and can be used for learning outside the classroom. The use of Schoology strengthens the aspect of civic knowledge, namely understanding the PPKn learning material and civic skills, namely training students to develop digital literacy through the internet to answer the challenges of 21st century learning.

II. THEORETICAL FRAMEWORK

A. Schoology

Schoology is one of the LMS (Learning Management System) that was first introduced by Jeremy Friedman, Ryan Hwang and Tim Trinidad in 2007 while still a student at one of the American universities, namely Washington University in St. Louis, MO [7].

Schoology is one of the innovative platforms created based on inspiration from Facebook social media which aims at the interests of education. The platform was developed in 2009 in New York. Schoology aims to help teachers open broad opportunities for communication to students so that students can more easily play a role in discussion and teamwork. In addition, Schoology is also supported by various forms of media, such as; videos, audio and images that can attract students' interest in the learning process. Schoology further guides students to apply technology in the learning process. Thus, Schoology is a free service that uses the concept of managing social learning, which is devoted to building an online learning environment that is simple and easy to share information and educational features or content in the form of writing, files and links that can be shared by the teacher. and students. There are special features in the form of courses, groups and resources.

Suprihanto, explains that Schoology has features that strongly support learning activities [8]. The features of Schoology, namely; a) courses (courses), are facilities for making subjects, for example PPKn subjects (Pancasila and Citizenship Education); b) groups (groups), is a facility to create groups in the assignment of tasks carried out based on different themes or class can also be grouped; c) resources (learning resources), this facility serves to present learning resources to individuals and groups. On the course menu, teachers can also make quizzes or questions (this is what Facebook does not have) with various types of multiple choice, right-wrong, matchmaking, short entries, and so on. In addition, the teacher also does not have to make questions for the number of classes that are handled, but it is enough with the import feature of the question.

The advantages of using web Schoology are that the teacher does not have to check the work/ assignments of students. These questions (usually in the form of assignments) can be done at home, the teacher can only control them remotely. For making questions in Schoology, they are equipped with symbols, equations, and latex. So, all kinds of questions containing images, symbols, and equations can be written in Schoology. To include members or students who take part in the teacher class who can provide enough code to the students who are taught.

The advantages of web Schoology according to Adinda, namely available attendance facilities/ presence, which is used to check student attendance, and analytical facilities to see all student activities on each course, assignments, discussions, and other activities that users prepare for students [7]. In addition, Schoology offers tools used by teachers to support online learning activities, providing curricular and collaborative group resources for students and teachers to build and engage in their personal learning networks, can be operated on any web browser, including on mobile applications such as Android and iOS. Schoology is an API (Application Programming Interface) which means that other applications can connect and interact with Schoology programs, for example; google drive, twitter and facebook, free instructional components for teachers and students.

The use of Schoology-based e-learning has been carrying out by several previous researchers. First, Khairil, shows that the internet-based learning model by using Schoology is effective for improving student learning outcomes in Introduction to Language Science courses at the Indonesian Language and Literature Education Study Program FBS Uned 2017-2018 learning years [9]. Second, Natalia, produces findings that the development of e-learning with Schoology has very interesting, easy-to-use and effective qualities used as enrichment learning [10]. Third, Misbah, produces findings that the development of Schoology-based e-learning can train digital literacy and is suitable for use in learning [11].

B. Teaching Materials

Hamdani, explains that teaching materials are all forms of material or material arranged systematically to help teachers or instructors to carry out teaching and learning activities in order to create an environment or atmosphere that allows students to learn [12]. This opinion is in line with Suprihatiningrum, stating that teaching materials are content that must be mastered by students through learning activities. Teaching materials can be developed and modified by the teacher according to the needs of the learning activities [13].

According to Yaummi, there are several positions in teaching materials, including; (1) assist students in learning individually; (2) providing flexibility in presenting short and long term learning; (3) the design of teaching materials is systematic and has a major impact on the development of individual human resources; (4) facilitate the teaching-learning process with a system approach; (5) facilitate learning because it is designed on the basis of knowledge about humans [14].

Tarigan, explains that good teaching materials must meet several criteria including; (1) organization and systematic means that teaching materials contain various information that has been prepared in such a way that is used to fulfill the purpose of making textbooks; (2) the suitability of the content of teaching materials with the curriculum. Teaching materials contain material that continues to develop and is dynamic in line with the progress and demands of the development of society. Teaching materials obtained by students must be able to respond to any developments; (3) material development must be based on the theme/ topic; (4) cognitive development. The use of learning materials to support the ability of students, you should choose learning materials with a level of difficulty that is slightly above average. But the diversity of material is still prioritized to avoid the difficulties of understanding to be conveyed; (5) language use. Teaching materials must use good and correct language according to the rules of writing; (6) suitability of illustration with discourse. This is so that images or illustrations can function properly; (7) moral or moral domain. Moral and moral aspects related to teaching materials must be considered in writing teaching materials used in schools; (8) idiom regional taboos [15]. Teaching materials must avoid the use of indecent or bad idioms.

C. *E-learning*

According to Uden, e-learning is a teaching and learning system that is based on the use of information and communication technology that allows students to learn without time and space without restrictions [16]. The opinion was similarly written by Jinlong, that e-learning is the use of electronic education technology in learning and teaching [17]. Conceptually, e-learning is a broad generalization word with learning technology, information technology and communication in education, multimedia learning, technology-enhanced learning, computer-managed instruction, computer-based training, web-based training, online education, and virtual education. So, it can be concluded that e-learning is learning that uses electronic or web-based media.

Darmawan, states that the benefits of e-learning are from the educator's perspective, namely; 1) increasing the packaging of learning material from what is currently being built; 2) implementing new learning concept strategies and efficiency innovations; 3) utilization of learner access activities; 4) use the resources found on the internet; 5) broader learning interactions and multiple learning resources [18]. Benefits from the perspective of students, namely; 1) improve communication with educators and other students, 2) more available learning material that can be accessed regardless of space and time; 3) various information and organizing material in one online learning material container.

The advantages of web-based learning, namely; 1) classes do not need physical classes, everything can be built into internet applications; 2) WBL programs can be implemented and updated quickly; 3) can accommodate the entire learning process, starting from registration, material delivery, discussion, evaluation, and also transactions; 4) can be accessed from any location and is global; 5) material can be designed multimedia and dynamic; 6) students can connect to various virtual libraries throughout the world and make it a media for research in improving understanding and teaching materials; 7) teachers can add to be able to quickly add reference to teaching materials that are case studies, industry trends and future technology projections through various sources to increase participants' insight into teaching materials [19].

According to Wildavsky, the main weakness of e-learning learning, namely; 1) the frequency of direct contact between students and between students and resource persons is very minimal; 2) the opportunities for students to socialize with other students are very limited [20]. The teacher's step to overcome this weakness is to assign students to work in several groups to develop and present the learning assignments given through the web facility or homepage.

Wena, states that what needs to be understood is that e-learning cannot completely replace conventional learning activities in the classroom [20]. E-learning is used to complement each other with conventional learning in the classroom. E-learning is even a great complement to classroom learning models or as a powerful tool for enrichment programs. It is recognized that independent learning is a "basic thrust" of electronic learning activities, but the types of learning activities still require adequate interaction as an effort to maintain quality. questions, and instructions for learning activities) in the form of files as a complement or additional learning material outside the classroom.

III. DISCUSSION

A. *Innovation in the Development of Citizenship Aspects: Civic Knowledge and Civic Skills*

Learning innovation is very important especially in the PPKn learning. PPKn is an educational discipline that contains a lot of material. The material needs to be packaged in file teaching materials. The author innovates to utilize Schoology for the development of e-learning based PPKn teaching materials. Teaching materials in the form of soft file material, links, and films/ videos related to learning materials can be integrated through web Schoology. The citizenship aspects developed in this innovation are aspects of knowledge and skills. Both aspects are also important to answer 21st century learning goals.

According to Trilling and Fadel, skills that must be possessed in the 21st century include; (1) learning and innovation skills, (2) digital literacy skills, and (3) career and life skills [21]. These three skills are summarized in a scheme called the rainbow skills-knowledge of the 21st century 21st century rainbow knowledge-skills. Seeing the demands and needs of 21st century learning, PPKn Teachers need to innovate using Schoology to equip students with digital literacy skills. In addition, students can have extensive knowledge, not only rely on teaching materials that are textbooks but also based on e-learning which contain several complex learning materials developed by teachers through web Schoology as material supplements or the development of learning activities.

The author chose KD 3.1 about analyzing the process of formulation and establishment of Pancasila as the basis of the state. This material requires interpretation from many sources to strengthen the knowledge aspect. The series of events that began with Japan's urging of allies, then to attract the sympathy of the Indonesian people, then formed BPUPKI I and BPUPKI II by Japan, after the BPUPKI was dissolved the Indonesian founding fathers took the initiative to form PPKI as an effort to prepare for Indonesian independence. At the PPKI I session on August 18, 1945 the 1945 Constitution was passed by establishing Pancasila as the basis of the state. The sequence of events certainly requires correctness and correct analysis. Therefore, the use of Schoologies for the development of e-learning based PPKn teaching materials can help gather many references to analyze the material.

The development of aspects of civic skills is an important goal in the use of Schoology. The characteristics of teaching materials in Schoology are closely related to the use of the internet as a supporter of learning systems. The hope is that students can have the skills to process information well. In addition, the use of Schoology can

motivate students to study online via a smartphone. In the digital era, students are often lazy to open teaching materials that are printed media such as books. They are more interested in being simple and can be carried everywhere and are easy to read and access. The obstacle is the use of Schoology cannot be applied to inland or underdeveloped areas where there is no internet connection. This innovation is carried out for schools whose students already have smartphones, or laptops and areas that have access to the internet easily.

B. Steps for Using Schoology for the Development of Teaching Materials

The first step is to use teaching materials using Schoology, which must make a Schoology account first. In Schoology consists of two accounts, namely accounts for instructors (teachers), and students.

The steps to create an account are as follows.

First, registering an account (teacher and student) through the web address http://app.Schoology.com/register.php will appear as in Figure 1.
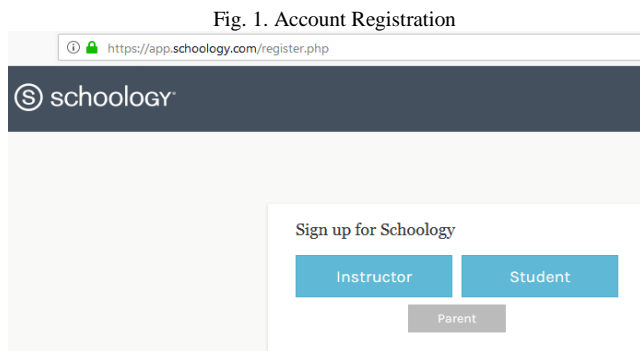
Fig. 1. Account Registration

Second, then the appearance of the Schoology will come out with a choice of two accounts (instructor and student), the next step is to determine the position to be chosen. If you are a teacher, click "instructor", if you are a student, click "student".

Third, creating an account for the teacher After clicking "instructor" it will appear as shown in Figure 2, as follows.
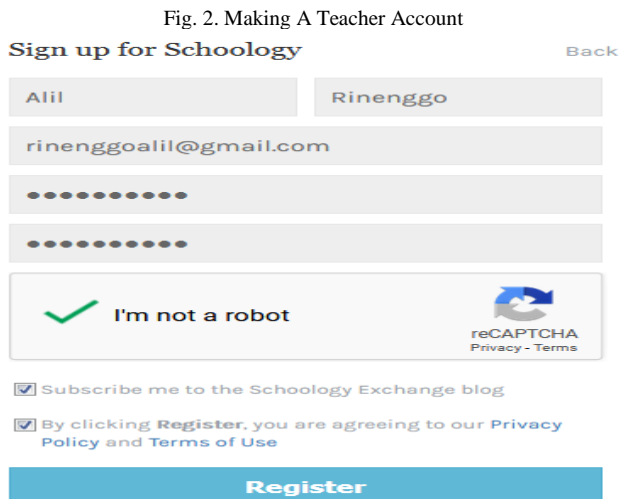
Fig. 2. Making A Teacher Account

Fourth, the next step is to fill in the name, e-mail address, password, click "I'm not a robot" in the check position, and click subscribe... and by clicking register... in the check list position all (√), then click register. After clicking Register, your task is to fill in the country, city, school residence (make sure when writing the name of the school, the school name also appears in the text box).

Fifth, after you have finished registering, your account as an instructor / teacher is ready to use.

Sixth, making accounts for students, namely clicking on student accounts (students), then the menu "sign up for Schoology" will appear in this menu will be asked to enter the access code, the access code is obtained from your teacher who has an account as teacher (access code/ teacher access code found in each class that has been made by the teacher, located in the lower left hand side of the class page view). After the access code is correct and successfully entered, click "continue", the display will appear to fill in (first name), last name, email or username, password, confirm password, birthday: month, day, year). After filling in some of the identities, the check list (√) in the section by clicking register... then click Register. Registration finished.

Seventh, after you have finished registering or already have an account (teacher and student), then the next step is to log into each account according to the position that has been registered as an instructor or student, please go through the web address; https://app.Schoology.com/login, to log in students are told to enter an email or username, password, and the school name must match the correct spelling.

After the process of creating an account at Schoology has been completed, what is done is to arrange teaching materials with the following steps.

First, the teacher analyzes KI (Core Competence) and KD (Basic Competency) 3.1 about the process of formulating and determining the basic state (Curriculum 2013). Then determine the indicators for achieving the objectives to be achieved.

Second, the teacher prepares material in Microsoft Word or Power Point (PPt) in accordance with the indicators of achieving the objectives developed. The preparation and presentation of material can be sourced from books, journal articles, videos from YouTube about (the urgency of Japan over allies, the establishment of the BPUPK, the Jakarta Charter by the Committee of Nine, the Rengasdengklok incident, the proclamation of independence, the PPKI session), which is a series of formulation and determination processes Pancasila as the basis of the country.

Third, the preparation of material can be made simple, a summary that is clear and easy to understand and easy to remember by making a time line (dates and important events/events), can also use donkey bridges (abbreviations for memorization), this is to strengthen aspects of knowledge because this is mostly memorization.

Fourth, after the material has been compiled, the next step is for the teacher to upload to the Schoology website by

logging in first. After logging in, a menu will appear on the web Schoology, select the menu course then click create a course. Then a field will appear about the course name (fill in the name of the subject), section name (fill in the class name), subject area (fill in according to the science cluster, for example select special education, level (fill according to class or school level). After that click create, then the display name and class appear, after that click the add materials menu and select *add folder* then fill in *the title* (folder name), folder color (choose color), *date* (what date was made), availability (choose published) then click create then folder will be formed After that to enter the material in the form of files, click the folder that was created then click add file, select file, click attach file After that search and select the material file you want to upload, wait until the material file is uploaded then click add , then the material file will automatically be attached to the created folder. In addition to the material files that have been created, material or video links can also be included.

Fifth, for writing questions (questions in chapter, daily test, UTS, UAS) can be made in the course menu, then click add materials menu and select add quiz/ test will display create test/ quiz, name will appear on the display (fill in the name of the daily question, UTS or UAS), category select ungraded, scale select numeric, option select published to student until the circle symbol looks green. Then click create. Wait until the add question menu comes out and then click multiple choices (if the question wants to be multiple choice), click short answer/ essay question. Then the display will appear to write the question. Instructions for working on the questions must be written clearly so that students easily understand them.

IV. CONCLUSION

The use of Schoology for the development of e-learning based PPKn teaching materials is an innovative teaching material (in the form of material, links, films/ videos) in the form of files developed through web Schoology. This innovation is very suitable to be developed on subjects of citizenship education, especially on complex material, namely the process of formulating and establishing Pancasila as the basis of the state.

The aspect of citizenship education that can be developed in this teaching material innovation is the aspect of the civic knowledge and civic skills. In the realm of civic knowledge, it is hoped that through the innovation of teaching materials students have many references presented by the teacher or from members of the class group with the note that they must use reliable sources, so that it will strengthen understanding of learning material. Second, in the area of civic skills, students are expected to have digital literacy skills in accordance with the needs and demands of 21st century learning and be able to process information correctly in finding learning materials, wise in disseminating information, and skilled in the use of technology, information and communication.

The weakness of this Schoology utilization is that it cannot be used in all schools, because the use of teaching materials must be connected to the internet, not all regions have a good internet network. In addition, the innovation of teaching materials is online, so that direct interactions that occur between fellow students, students and teachers, become less close and harmonious. Users who first access the web Schoology will find it difficult to understand the features that are available in web Schoology, so that individual or group guidance or training is needed.

ACKNOWLEDGMENT

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