Development of Case Methods and Team-Based Projects In Indonesian History Lessons Using Web-Based LMS

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Abstract. This research is motivated by the importance of blended learning that is relevant to technological developments in the field of education and the limitations of features and applications that support PBM activities on the education platform at the high school level. The LMS application or learning media is directed at case-based methods and project bases that will be more student-centered, this is by Kepmendikbud No.3/M/2021 concerning PT KPI, namely IKU No.7. It is hoped that these products can increase learning interactions between students and teachers, reach students in broad scope, facilitate the refinement and storage of learning materials, and students can access learning anywhere and anytime without being limited by space and time to help improve students' abilities in learning. solve problems/cases in groups on a project-based basis. This study uses the Research and Development (R&D) method developed by Borg and Gall (2003). Data collection was carried out using questionnaires, observations, interviews, and documentation studies. The research instrument was tested using content validity. The data analysis technique used quantitative and qualitative descriptive. The literature developed refers to the development stage which is grouped into several stages, namely preliminary studies or data collection, product development and refinement, field testing, and product dissemination and socialization. Literature that is developed quantitatively and qualitatively is expected to be feasible to be applied in learning Indonesian history in high school.

Keywords: Case Method, Indonesian, History

1 Introduction

In the 21st century, science and technology have developed rapidly in human life, especially in the field of education. The education sector has had a positive impact from the development of information technology, thus sparking the birth of the idea of electronic learning (e-learning) [1]. Currently and in the future e-learning technology can be a solution and alternative technology to be used in learning methods [2]. The new paradigm in learning has begun to shift from face-to-face learning (face-to-face course) between teachers and students to modern internet-based learning or electronic learning (e-learning). With the existence of e-learning, it can change the concept of one-way learning into two directions, such as learning interactions between students and teachers and students with students.

According to Soufan Amri [3], e-learning is a learning activity that utilizes the internet network as a method of delivery, interaction, and facilitation and is supported by various other forms of learning services. LMS is a learning platform that runs on a web-based basis, which requires a web server as a medium to run correctly. Deni Darmawan [4]. The use of LMS learning media

must have the functions of uploading and sharing materials, forums and chats, quizzes and surveys, gathering and viewing assignments, and recording grades [5]. In this study, e-learning functions as a complement or complement so the approach used is blended learning. Blended learning is combining face-to-face learning with online learning. The implementation of Blended learning assisted by a web-based LMS is expected to be a stimulus in improving problem-solving skills (case studies) among students, especially through collaborative history learning in groups using the Team-Based Project model.

This e-learning learning media aims to improve learning interactions between students and teachers, reach students in broad scope, facilitate the improvement and storage of learning materials, and students can access learning anywhere and anytime without being limited by space and time so that it participates in learning activities. improve students' ability to solve problems/cases in groups on a project-based basis (Team Based Project). Amri [6]. Learning using a web-based LMS is a distance learning innovation that utilizes electronic media in delivering learning that is accessed via the internet. Such learning applied by several high schools in North Sumatra is wrong, especially in terms of providing education during the pandemic. After the pandemic period ends, blended learning at the high school level is certainly still very relevant to the development of information technology in the field of education today. Based on observations made by researchers on the online teaching and learning process in several public high schools in the city of Medan, online learning is carried out using the Google For Education (Google Classroom) Platform, a platform developed by the Google company to develop web-based learning. However, it is constrained by the limited features and applications that support online PBM activities on the educational platform. Facing these difficulties, several public high schools such as using various platforms such as Edmodo, Schoology, etc. as alternative online learning media. The use of these platforms turned out to be less effective because to get full features, teachers, and students as USERs had to pay a relatively high price to get an account with full features. Therefore, it takes a complex learning media in the form of a Web-based LMS to help the effectiveness of teaching and learning activities in public high schools, especially in the city of Medan, even more so in the era of R.I 4.0.

Developing problem-solving skills, thinking sharpness and positive attitudes of students towards the environment is the main goal of the national curriculum [7]. Through the use of web-based LMS during learning activities, the competence of Problem Solving (Case Method) students by utilizing the web as a learning medium is expected to increase. In addition, the web-based LMS is expected to increase the collaborative learning activities of Team-Based Projects. Through this research, the development and application of a web-based LMS in the subject of History as a learning medium for students is expected to improve problem/case-based learning skills (case method) and collaborative project learning (Team Based Project).

2 Methodology

The method used in this research is the research and development method. Development research method is a method used to produce certain products, and test the effectiveness of these products [8]. Research and Development is a process or steps to develop a product or improve existing products, which can be accounted for [9].

The process of developing this interactive digital-based North Sumatra History Ledger Application uses the research and development (R&D) model by Borg and Gall [10]. The stages of the R&D development model include: a) the needs analysis stage, consisting of student analysis, material analysis, and goal specification; b) the design phase of teaching materials products, including the selection of teaching materials, and initial design; c) the

production/implementation stage of initial product development, including the manufacture of teaching materials, and the preparation of assessment instruments (validation sheets, questionnaires/questionnaires; d) the validation stage, including assessments from design experts (Historical Education Lecturers), and assessments from material experts (History Education Lecturer); e) the revision stage, which includes revisions or improvements to the media based on suggestions by the validators; f) the product trial phase, including testing the material on students, filling out questionnaires by students and carrying out learning outcomes tests; g) the final revision and dissemination stage, including the analysis of the success of the media and the final improvement or revision of the media as well as the dissemination of the media. The last step in this research is the effectiveness test [11].

3 Result and Discussion

The process of developing a web-based LMS to improve case-based learning activities (case method) and project-based collaborative learning (team-based project) for high school students in Indonesian history subjects is carried out based on the 10-stage development model proposed by Sugiyono [12]. The first stage begins with observing the potential and problems that occur. Several problems often occur, such as the lack of activity during the history learning process, as well as the influence of social networks used by students, making them often ignore lessons. In the second stage, researchers collect information to make planning materials, especially on the material for the arrival of western nations starting from the selection of designs to the preparation of teaching materials on the developed media. In the third stage, researchers design product designs (learning tools). In this case, the researcher considers the students' initial ability level. In the fourth stage, researchers will produce a final product in the form of an online learning model using a Moodle-based LMS that is ready to be used, then the product is validated. The fifth stage is to revise the design until the product development is feasible to be tested. In the last or sixth stage, a trial was conducted in class XI IPA 2 SMAN 6 Binjai which aims to assess and produce an interesting and effective learning model. After the six stages above are carried out, a further level of analysis is carried out regarding the purpose of the product to be developed [13].

The results of developing a web-based LMS to improve case-based learning activities (case method) and project-based collaborative learning (team-based project) for high school students in Indonesian history subjects for class XI IPA 2 SMA Negeri 6 Binjai shows that this media product can be accessed using a computer. as well as android based phones. The resulting products consist of: (1) Online Learning Model Syntax; (2) Instructions for Use of Media, (3) Learning videos, which contain video shows about the material for the arrival of the western nation. The video was adapted from YouTube in HD (High Definition) format. (3) Practice questions and quizzes, which contain practice questions of various types, such as multiple choice, filling in, true and false, matchmaking, and essays. These practice questions and quizzes serve as a means of student practice to determine students' abilities after using the e-learning model with a Web-based LMS [14].

Based on the results of interviews with students and teachers, data was obtained that students actively use the internet outside of learning hours, and most of them also have personal laptops. Indonesian History Learning has also used the help of PowerPoint slides as media. The obstacles faced by teachers are the limited time allocation to explain all the material in detail to students and the lack of ability to develop interesting learning to support the achievement of the history learning objectives [15].

The availability of supporting facilities for the use of computer-assisted learning media, such as the availability of LCDs, and computers (laptops) owned by the teacher. The age range of students is between 16-17 years, meaning that when referring to Piaget's theory, where students in that age group are in the formal operational stage or they have been able to think abstractly. In addition, most students already have and can operate laptops/computers that they can use to support their history learning activities.

E-learning systems generally describe the major processes that occur on the site. The e-learning learning site has four major processes and two processes which are user authentication processes, namely the process that occurs in the Login area is a component of e-learning that allows students to access e-learning facilities for historical subjects. This component is useful for finding out users who are currently online or currently accessing e-learning. This component allows teachers to add certain types of activities according to learning needs. This component allows teachers to add certain types of learning resources according to learning needs. Two actors, the user and administrator will do login access before entering the site if they are already registered. If the two actors are not registered, the actor will be directed to the registration menu. When the actor has entered the site, then the actor can use the four other functions contained on the site, namely libraries, learning media, interactive multimedia, and synchronous and asynchronous communication between users.

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4 Conclusion

The developed Web-based LMS can be one of the effective learning media for students and help teachers in learning Indonesian history based on Case Method and Team-Based Project. The Hybrid Learning model will certainly be more effective when coupled with the use of the Web-based LMS. In addition, the use of a web-based LMS can stimulate students in developing a learning and independent culture and also increase students' Literacy Hots skills.

References

[1] Amri, S. (2013). Pengembangan dan Model Pembelajaran dalam kurikulum 2013. Jakarta: Prestasi Pustaka.

[2] Arsyad, Azhar. (2011). *Media Pembelajaran*. Jakarta: Rajagrafindo Persada.

[3] Darmawan, D. (2014). Pengembangan E-Learning Teori dan Desain. Bandung: PT Remaja Rosdakarya.

[4] Effendi, Empy dan Hartono Zhuang, (2005). "E-learning Konsep dan Aplikasi". Penerbit: Andi Offset. Yogyakarta.

[5] Hobri. (2009). *Metodologi Penelitian dan Pengembangan (Dvelopmental Research) (Aplikasi pada Penelitian Pendidikan Matematika)*. Jember: FKIP Universitas Jember.

[6] Kadir. (2015). Statistika Terapan. Jakarta: Raja Grafindo Persada.

[7[Lehman, Lynn. (2007). *A Proactive Approach to Employee Training & Development.* Rising Sun Consultants.

[8[Miarso, Yusufhadi. (2007). *Menyemai Benih Teknologi* Pendidikan. Jakarta: Kencana Prenada Media Group.

[9] Muhtadi, Ali. (2013). Pemanfaatan Program *Computer Assisted Instruction* (CAI) *dalam Program Pembelajaran Berbasis Internet*. Universitas Negeri Yogyakarta. Diakses pada tanggal 6 Desember 2013.

[10] Munadi, Y. (2013). Media Pembelajaran Sebuah Pendekatan Baru. Jakarta Selatan: Referensi.

[11] Musfiqon. (2012). *Pengembangan Media dan SumberPembelajaran*. Jakarta: Prestasi Pustaka Publisher

[12] Nasr, Ahmad. (2011). *Attitude Towards Biology and Its Effect on Students Achievement.* International Journal of Biology,Vol.3,No.4 Oktober 2011.

[13] Nasution, Abd Haris. (2021). Pembelajaran Sejarah abad 21. Obelia Publisher: Medan.

[14] Putu Gilang Marya Putra, W. S. (2015). Pengembangan E-Learning Berbasis Moodle Pada Mata Pelajaran IPS Kelas VII di SMPN 1 Selemadeg. e-journal Edutech Universitas Pendidikan Ganesha.

[15] Sadiman, Arief S.(2010). *Media Pendidikan*. Jakarta:RajaGrafindo Persada.

[16] Sugiyono, P. D. (2017). Metode Penelitian Kuantitatif, Kualitatif, dan R&D. Bandung: Alfabeta.