The Development of Blended Learning-Based Vocationalogy Media as a Practicum Learning Loss Solution for Creative Products and Entrepreneurship (PKK) Lessons in SMK

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Abstract. The negative impact of PJJ/BDR or combined online and offline learning (Blended Learning) that is currently being carried out has not been able to provide optimal results, especially in productive subjects such as Creative Products and Entrepreneurship (PKK). Therefore, digital media is needed that can be collaborated with blended learning models in overcoming practice learning loss in these subjects, namely Vocationalogy media. The purpose of this research is to develop a blended learning-based Vocationalogy media that is relevant and effective with PKK subjects in SMK. This media development collaborated with teachers and students in 5 vocational schools, namely SMK NU Sunan Ampel Poncokusumo, SMK Maarif NU 04 Pakis, SMK IT Asy-Syadzili, SMK Sunan Kalijaga Jabung, and SMK Plus Al Maarif Singosari. The research method used is a research and development method to produce a product innovation. The results of product development in this study are: 1) Prototype of blended learning-based vocationalogy media, 2) tools for content on Vocationalogy media including lesson plans, teaching materials, assessments (LKPD), and learning videos, 3) Validation of media experts related to system aspects in the form of website display, color and interface display, ease of operating the media, and the suitability of evaluation/LKPD with RPP has good quality.

Keywords: Media Vocationalogy Based on Blended Learning · Practicum Learning Loss · Creative Products and Entrepreneurship

1 Introduction

The Covid-19 pandemic has caused changes in various lives, including contributing to the disruption in the world of education, where there is a loss of meaninglearning during online learning experienced by students and teachers during this pandemic situation is unavoidable [1]. Technology has emerged as an alternative solution by bringing up various learning models, one of which is online learning. However, learning that is carried out through internet media does not automatically make learning outcomes maximal.

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SMK as a form of vocational school is identical to learning that leads to being ready to work, inseparable from the problem of the impact of the pandemic. Some findings in the field of study lead to not achieving complete learning (learning loss) [2–4]. Some of the negative impacts of Distance Learning (PJJ)/Network Learning (BDR) or combined online and offline learning (blended learning) that are currently being carried out have not been able to provide optimal results, especially in productive subjects such as creative products and entrepreneurship (PKK). The results of students' hard skills in practicum are in accordance with the demands of an independent curriculum that must be directed to projects and students must be able to produce products, during the covid pandemic it is still very low and lacking. Students have not been able to apply theory directly and learn only through textbooks/modules. Therefore, digital media in the form of vocational education is needed in collaboration with the blended learning model in overcoming the practice of learning loss in PKK subjects.

PKK subjects, especially project-based, have not been so massive in various schools. Teachers have constraints in designing and implementing them, in practice their learning in the field only has little literature and tends to be conventional, so learning must be designed to be able to stimulate and use relevant and effective learning media based on the progress of developing educational technology, including activities and learning materials that can be used. Improve the competence of knowledge, skills, and attitudes needed to create real work, and create market opportunities [2]; Project-based learning causes students to be more responsive and more exploratory, where each group is able to produce better work so that overall student competence increases [3]; and project-based collaborative learning through presentations and communication using technology is one of the suggested scenarios in learning [4].

The impact of the pandemicin the era of the industrial revolution 4.0 it also allows learning to be no longer taught with conventional learning, but learning that can improve higher order thinking skills (HOTS). There are at least 4 competencies that must be possessed by teachers in this era of the industrial revolution 4.0, namely comprehensive assessment, having 21st century competencies: character, morals and literacy, presenting modules according to students' passion, being able to carry out innovative authentic learning, [5]. To achieve 21st century skills, learning trends and best practices must also be adjusted, one of which is through integrated learning or blended learning that allows reflection on learning and is able to combine online-based learning with face-to-face learning in class [6–9], although e-learning has a weakness, namely physically separating students and teachers so that face-to-face interaction is reduced, the application of the blended learning model makes student activities in the classroom more efficient. varied, because students do not only rely on the information conveyed by the teacher, but try to seek information from various sources [10]. Creative and innovative technology-based problem solving using e-learning and m-learning as a solution in learning, especially for the digital generation, supported by mobile phones equipped with advanced feature programs and has provided sites that can support learning, it is very important to combine learning directly with online learning (blended learning).

2 Method

This study aims to produce Vocationalogy digital media combined with blended learning as a practical learning loss solution in Creative Products and Entrepreneurship learning in the Covid-19 era. Media development uses an R&D approach in the field of education [11] with modifications as proposed by Sugiono with 3 steps: 1) Preliminary study, 2) Media development, 3) Media testing. The research approach is as follows: making blended learning-based Vocationalology media with the following activities: 1) Preliminary study, in this activity researchers can design blended learning-based vocational media through literature studies, and conduct focus group discussions (FGD) involving Creative Products teachers and Entrepreneurship from 5 Maarif Vocational Schools in Malang Regency, 2) Vocationalogy media development, with the steps of a) compiling tools for media content including lesson plans, media, teaching materials, assessments, practicum guidebooks, Student Worksheets (LKPD), and making learning videos; b) developing Vocationalogy media based on blended learning;

The questions developed were focused on 3 (two) aspects, namely: (1) the system aspect; (2) aspects of the user (User); and (3) aspects of interaction (Interaction). On the system aspect, it contains the attractiveness of the vocational vocational media display, the colors and interfaces on android whether it is pleasing to the eye or boring, the ease of operating vocationalogy media, and the suitability of the evaluation of the vocationalogy media against the lesson plan; (2) user aspect, with indicators: ease of understanding the menus on vocationalogy media, whether the material/content in vocationalogy media is easy to understand, the examples provided help understand the material on vocationalogy media, evaluation helps measure understanding of material on vocationalogy media, and whether vocational media can be used for self-study at home; and (3) interaction aspects, including: there is easy access to information from all the menus provided; Are all links working optimally, evaluation questions can be accessed properly, and whether the score can be read at the end of the evaluation. The assessment is done by putting a check mark on one of the options that have been given, namely: Very Eligible (SL), Eligible (L), Fairly Eligible (CL), and Not Eligible. In this Validation Sheet, a place is also given for the validator to provide conclusions regarding the PKK map that has been developed.

3 Result and Discussion

3.1 Results of Vocationalogy Media Development

The development of vocationalogy media is used to accommodate learning in SMK for PKK subjects. Media in the form of this website displays a package of teaching materials ranging from lesson plans, video materials and LKPD which are adapted to the conditions of each school. This website is used to communicate learning between students and teachers through online media that can be accessed together, so that if there are changes and scientific developments, both theoretical and practical, improvements can be made to be used together so that schools will have material enrichment. This website in the future will become a portal for teachers and vocational students to obtain teaching materials as well as enrichment of materials from various sources that support learning in schools. Expert validation of the developed instruments (Learning Tools,

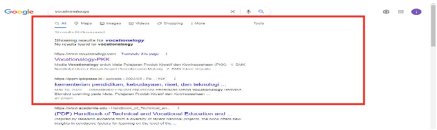

Fig. 1. Google Search

and Vocationalogy Media) was carried out by experts in IT-based learning media and material content.

This media was created as a manifestation of technological developments as an alternative solution for blended learning models that can be used online or offline. The need for digital media that can be collaborated with blended learning models in overcoming practical learning loss in subjects, especially those based on practicum, such as "Creative Products and Entrepreneurship" is an urgent need. This web-based media is made by utilizing the Builder facility from Google Site. The development of this LMS website is based on the SMK curriculum in the subjects of creative products and entrepreneurship (PKK). The teaching materials are designed for class XI by adopting several PKK activities that have been adapted to each department in SMK. In addition to the material here, RPP is given, Complete Learning Videos and LKPD for each KIKD meeting. The website also provides documentation of student activities that can be adopted by other vocational schools to support learning activities. This media is dedicated specifically to the vocational field, especially SMK which can be accessed for free and can be downloaded for re-development.

The manual book in the use of vocational media is as follows.

1. Product Overview

This online-based LMS website product was developed using the Google Site Builder. Then published on the official Domain and Hosting www.vocationalogy.com. The product is a collaboration between learning media for vocational/vocational schools and technology to reduce student and teacher learning loss due to distance and time constraints. This product was developed and presented to all Vocational Schools in the subjects of Creative Products and Entrepreneurship (PKK). This product does not require login and installation because it has been applied to the web which can be viewed, downloaded and developed for free.

2. Product Usage

Go to Website page

The vocationalogy website can be accessed by searching for a name on the google search engine by typing "vocationalogy" it will appear as shown in Fig. 1.

Links can be directly clicked, accessed, or by typing this address in the URL field. https://www.vocationalogy.com. This website can be accessed directly without having to use a login first.

Fig. 2. Media Vocationalogy Web Homepage

Fig. 3. KIKD Material Menu

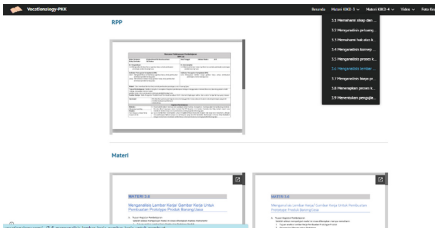

Fig. 4. KIKD Material Menu 3.6

Go to Home/Home page

The main/home page shown in Fig. 2 will appear when the link is active and open, on this page a welcome from the management team will be displayed to be able to continue using this website.

Enter the KIKD page

On the menu of Core Competencies/Basic Competencies (KIKD) Fig. 3, you can see the buttons to go to KIKD for each competency. The button can be clicked or directly select the KIKD menu contained in the dropdown menu that appears.

Enter Material Page

On this Fig. 4 page, visitors can view the lesson plans and materials as well as download them.

To display the lesson plans or the material you want to see, you can click the "pop-out" sign. After being clicked, a new window will appear that displays the contents of the lesson plan or full screen material. To download, click on the 3 dots on the top right and the file can be downloaded directly. See Fig. 5.

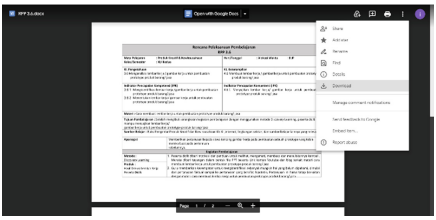

Fig. 5. RPP 3.6

Fig. 6. Video 3.6

As with taking the lesson plans and materials above, the same thing can be done to view or download the LKPD.

Login Video Page
The video page on the website menu contains videos of learning activities that are not yet included in the KIKD material as enrichment material for students. In the Video section to play it, you can directly click 2x on the intended video (Fig. 6).

Login Activity Photo Page
On this page, visitors can find out about FGD activities from joint research with several vocational schools in partnership with PGRI Kanjuruhan University, where on this page displays PKK activities related to students' mastery of KIKD at school.

Login to About. Page
This page shows the research team developing vocationalogy. media.

Login Partner Page
This page displays Research Partners, namely several vocational schools that have collaborated in the development of vocational media. The blue button below can be clicked to go to the web page of each school, so that it can also be used as a means of school promotion (Fig. 7).

3. Installation
This website product does not require special installation on a gadget/smartphone because it is already in the form of a website and online. Jasi can be accessed widely on the Internet via a browser. This product has been designed according to 3 forms of gadgets, namely PC/Laptop, Tablet, and Android Smartphone. So users/visitors can access it using any device/gadget as long as it is connected to the internet.

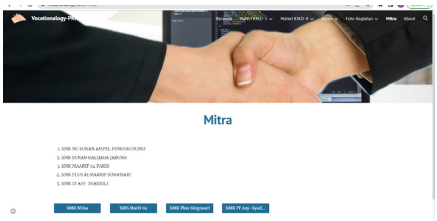

Fig. 7. All SMK Partners

3.2 Validation Results

Validation results from media experts related to system aspects that include website display, color and interface display, ease of operating the media, and the suitability of evaluation/LKPD with lesson plans (RPP) have 81% quality or are good; Meanwhile, from the user aspect, which includes the instrument of understanding the menus on the Media Vocationalogy website, materials, videos to help understand the material, examples in videos according to real needs, evaluations to measure understanding of available materials, and This Media Vocationalogy website can be run independently, the score is 85%, which means it is good; while from the aspect of interaction seen from the ease of accessing the information in the menu, all links work optimally, all links work optimally, and the score can be read showing a value of 87.5% which means it is good. Based on this data, the average value of all aspects is 84.6% or it is good and Vocational Media Website declared fit for use as its function as Blended Learning for Vocational High School Students.

4 Conclusion

The results of the development of vocational vocational media through the collaboration of the research team with partners have been carried out intensively, based on student learning needs, and referring to the preparation for the implementation of the independent curriculum so that during the transition to this curriculum change, vocational media can still be applied. Validation of media experts related to system aspects in the form of website display, color and interface display, ease of operating the media, and the suitability of evaluation/LKPD with RPP has good quality; Meanwhile, from the user aspect, which includes the instrument of understanding the menus on the Vocational media websites, materials, videos to help understand the material, examples in videos according to real needs, evaluations to measure understanding of materials are available, and this vocationalogy media website can be run independently, it is obtained a good score; while from the aspect of interaction seen from the ease of accessing the information in the menu,all links work optimally, all links work optimally, and the score can be read already well, thus vocationalogy media websitedeclared fit for useas its function as blended learning for vocational students to communicate learning that can be accessed together.

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