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# CIPP EVALUATION MODEL BASED ON MOBILE PHONE IN EVALUATING THE USE OF BLENDED LEARNING PLATFORMS AT VOCATIONAL SCHOOLS IN BALI

# <sup>1</sup>DEWA GEDE HENDRA DIVAYANA, <sup>2</sup>DEWA BAGUS SANJAYA, <sup>3</sup>ANAK AGUNG ISTRI NGURAH MARHAENI, <sup>4</sup>I GEDE SUDIRTHA

<sup>1</sup>Faculty of Technical and Vocational, Department of IT Education,

<sup>2</sup>Faculty of Social Science, Department of Civic Education,

<sup>3</sup>Faculty of Language and Arts, Department of English Education,

<sup>4</sup>Faculty of Technical and Vocational, Department of Family Welfare Education,

Universitas Pendidikan Ganesha, Indonesia

E-mail: <sup>1</sup>hendra.divayana@undiksha.ac.id, <sup>2</sup>sanjaya@undiksha.ac.id, <sup>3</sup>marhaeni@undiksha.ac.id, <sup>4</sup>sudirtha@undiksha.ac.id

#### **ABSTRACT**

The purpose of this study was to obtain information about the platform most suitable for use in supporting the implementation of blended learning at vocational schools in Bali to determine the highest level of effectiveness on each platform in terms of components of context, input, process, and product by using CIPP evaluation model based of mobile phone. Using this model, the education evaluator can to evaluate the use of the platforms for blended learning at vocational schools in Bali as a whole from the component of context, input, process and product that will be able to provide appropriate recommendations to determine the selection of a suitable platform used for blended learning at vocational schools in Bali. Subjects in this study consisted of: managers of blended learning, students, and teachers. The method used in this study is an evaluative study, using the CIPP evaluation model. The results obtained in this study indicate that the highest level of effectiveness in the component of context amounted to 86.6% that used the Edmodo platform, the highest level of effectiveness in the component of process amounted to 87.2% that used the Edmodo platform, the highest level of effectiveness in the component of process amounted to 88.9% that used the Quipper School platform, and the highest level of effectiveness in the component of product amounted to 89.3% that used the Edmodo platform. The most suitable platforms used to support the implementation of blended learning at vocational schools in Bali is Edmodo Platform.

## **Keywords:** Blended Learning, Platforms, Evaluation, CIPP.

### 1. INTRODUCTION

Currently, there are some educational services based on information technology used in assisting the learning process at vocational schools in Bali. Utilization of information technology in improving vocational education services is generally done on the basis of the need to be able to answer the demands of the market and industry is increasingly rapid changes that are tailored to the advancement of technology. With the demands of the fast, the quality of education must be rapidly improved through changes in the curriculum, the subject matter in vocational tailored to the needs of the industry, and the optimal educational services. Forms of educational services are optimal in the

learning process at vocational schools in Bali can be obtained through the use of information technology such as e-learning as a learning model that is fully able to take advantage of computers, e-library as one of the educational facilities based on computer that is used to locate the digital teaching material and blended learning as one of the forms of learning model that combines conventional concepts learned in class with information technology assisted learning facilities, so it may give positive support to education development in the era of technological advances. This is similar to the study conducted by Divayana, Suyasa, and Sugihartini, which states that: "Various models of learning by utilizing a computer such as: e-learning (electronic learning), Computer Assisted Instruction (CAI),

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Computer Based Instruction (CBI), and e-teaching (electronic teaching) it is possible to facilitate the development of education"[1].

Good learning process at vocational schools happens if the interaction between teachers and students can take place optimally. Currently, in order to optimize the interaction between teachers and students in the learning process, we need the help of the use of information technology to facilitate the transfer of knowledge through teaching materials based on digital that can be accessed by students whenever and wherever they are, both in the classroom and outside the classroom.

The need for information technology in helping the process of interaction and communication between teachers and students is needed at this time, because most of the student's behavior is more likely to follow in the surrounding environment which is dominated by the influence of advances in information technology. Therefore, it is important seek new breakthroughs in the learning process conducted between teachers and students, so that students are interested in following the learning process. One such breakthrough that utilizes blended learning in assisting the learning process at vocational schools.

There are some choices of platforms that can be used for blended learning in the learning process at school, which among others are Edmodo, quipper school, Moodle, Kelase, etc [2]. From all platforms, there are advantages and disadvantages of each. In general, these platforms have been able to provide the facilities required for the purposes of information technology-based learning process at vocational schools.

However, the fact was found at vocational schools shows that not all learning processes that use blended learning platforms can run optimally. Therefore, there is a need to do a comprehensive evaluation of the use of blended learning platforms at vocational schools. The evaluation process that needs to be done by educational evaluators is an evaluation that is capable of seeking information comprehensively and accurately on the extent of highest level of effectiveness of the use of blended learning platforms at vocational schools viewed from the components of context, input, process and output. There are some aspects evaluated concerning the use of blended learning platforms at vocational schools viewed from the component of context, such as: vision, missions, goal, legal foundation, and support from the school community

for the implementation of blended learning platforms. The aspects evaluated in the component of input, such as: the structure of management, teacher's ability, students' readiness, management's ability, and readiness in terms of infrastructure and facilities. The aspects evaluated in the component of process, such as: the process of financial management in blended learning implementation, the process of introducing blended learning platforms to the users, and the process of teaching the users to operate blended learning platforms. The aspects evaluated in the component of product, such as: service quality of blended learning platforms from the points of view of tangibles, responsiveness, reliability, empathy, and assurance. The evaluation process of the use of blended learning platforms at vocational schools is expected to be done anywhere and anytime by the evaluators.

To overcome that's problems, then the evaluation model which is appropriate to use is CIPP model based on mobile phone. By using the model, the educational evaluators can evaluate the use of blended learning platforms thoroughly the component components of context, input, process and product, that is done anywhere and anytime they are so that they can give an appropriate recommendation to improve the learning process by using blended learning platforms at vocational schools.

From the above background, there are several issues that must needs be studied include: 1) Which is the platforms obtain the highest level of effectiveness in supporting the implementation of blended learning at vocational schools in Bali when viewed from the component context?, 2) Which is the platforms obtain the level of effectiveness highest in supporting the implementation of blended learning at vocational schools in Bali when viewed from the input component?, 3) Which is the platforms obtaining the highest level effectiveness in supporting the implementation of blended learning at vocational schools in Bali when viewed from the process components?, 4) Which is the platforms obtain the level of effectiveness highest in supporting the implementation of blended learning at vocational schools in Bali if the terms of product components?, 5) What is the most appropriate platform to support the implementation of blended learning at vocational schools in Bali?, 6) How is the use of mobile phone in support of the implementation of the CIPP model evaluation to the platforms used for blended learning at vocational school in Bali?

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This study aimed to obtain information about the platform most suitable for use in supporting the implementation of blended learning at vocational schools in Bali to determine the highest level of effectiveness on each platform, such as: Edmodo, Quipper School, Moodle, and Kelase terms of components context, input, process and product by utilizing the CIPP evaluation model based on mobile phone.

There are some results of the research underlying this research, including research conducted in 2015 by Divayana [3] which is about "program evaluation of HIV/AIDS with CIPP model-Computer Assisted" by the acquisition of the results showed that the use of CIPP evaluation modelcomputer assisted generate calculations faster and more accurate than using the conventional calculation method. This was evidenced by the percentage of total effectiveness of HIV/AIDS with the conventional calculation result of 91,000%, while the computer assisted calculation results obtained by 91 600% with a very high category. Weaknesses were found in this research that has not been able to find the highest level of effectiveness in the individual components of context, input, process, and product in evaluating of HIV/AIDS programs.

Research was conducted in 2015 by Sanjaya and Divayana [4] is about "An Expert System-Based Evaluation of Civics Education as a Means of Character Education Based on Local Culture in the Universities in Buleleng" with the acquisition of the results that the CIPP model can evaluated the civics education processes at all the public and private universities in Buleleng regency objectively, especially in probing local culture in character educational development. Meanwhile, the certainty factor method is used to determine the extent or degree of certainty of a component being evaluated in civics educational processes. Weaknesses were found in this study are generally not able to show clearly the effectiveness of the program and in particular also has not been able to explain the highest level of effectiveness in the individual components of context, input, process, and product in program evaluating of civics education as a means of character education based on local culture.

Research was conducted in 2016 by Ariawan, Sanjaya, and Divayana [5] which is about "An Evaluation of the Implementation of Practice Teaching Program for Prospective Teachers at Ganesha University of Education Based on CIPP-Forward Chaining" with the acquisition of the

results are the components of contex, input, process, and product of the implementation of Practice Teaching (PPL-Real) of the education students in 2015 is effective. Although in the components of contex, input, process, and product of the implementation of Practice Teaching (PPL-Real) of the education students of Undiksha in 2015 is effective, but there are some problems that need to be improved, including the requirement that has to be met by the guiding teachers concerning their status, and improvent of the regulation for the implementation of the practice teaching (PPL Real). Another constraint is the research has not explained the effectiveness of the program and the highest level of effectiveness in the individual components of context, input, process, and product in evaluating the implementation of Practice Teaching (PPL-Real) of the education students of Undiksha.

There are several studies related to this research, including the research done in 2010 by Tseng, et al [6] about "Using the Context, Input, Process and Product models to assess an engineering curriculum", have in common with those carried out by researchers in terms of evaluation model used to evaluate the research object that CIPP evaluation model. The difference lies in the object under study, where research conducted by Tseng, et al studied the engineering curriculum, while the object of research conducted by researchers is the use of blended learning platforms.

Research was conducted in 2011 by Hanif [7] about "an evaluation of the athlete special school at SMP/SMA Ragunan Jakarta", have in common with those carried out by researchers in the evaluation models used to evaluate the object which CIPP evaluation model. The difference lies in the object under study, where research conducted by Hanif examine the implementation of a athlete special school at SMP/SMA Ragunan Jakarta, while the object of research conducted by researchers is the use of blended learning platforms at vocational schools in Bali.

Research was conducted in 2012 by the Usmani, et al [8] about "Meta Evaluation of a Teachers' Program Using CIPP Evaluation Model", have in common with those carried out by researchers in the evaluation models used to evaluate the object which CIPP evaluation model. The difference lies in the object under study, in which the research carried out by Usmani, et al studied the "Teachers Evaluation System" of a public sector university in Pakistan, while the object of research conducted by researchers is the use of blended learning platforms at vocational schools in Bali.

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## 2. LITERATURE REVIEW

#### 2.1 Blended Learning

Blended Learning is a student-centered learning using a systematic approach that combines face-to-face learning and online learning aided by ICTs [1]. Blended learning is also defined as learning that can conventionally be defined in the classroom combined with online learning both independently and in a collaboration by using information and communication technology facilities [9]. Blended learning is a strategic and systematic approach to combining times and modes of learning, integrating the best aspects of face-to-face and online interactions for each discipline, using appropriate ICTs [10].

Definitions of blended learning range from the very broad where practically any learning experience that integrates some use of ICTs qualifies, to others that focus on specific percentages of online curriculum and face to face instruction. Most people agree that blended learning combines teaching and learning methods from both face to face, mobile and online learning and that it includes elements of both synchronous and asynchronous online learning options [11]. Blended learning is a student-centered approach to creating a learning experience whereby the learner interacts with other students, with the instructor, and with content through thoughtful integration of online and face-to-face environments [12]. Generally, blended learning is a learning model that combines conventional learning (through face to face in the classroom) with information technology assisted learning (computers) through online system [13]. Blended learning has many advantages over Elearning; the most important one is that blended learning participants being able to socialize face-toface interaction in order to motivate the less independent student [14]. The core of blended learning theory is the integration of multiple teaching means, teaching media, and teaching environments [15].

Based on some opinions on the above, then blended learning is a learning model that seeks to combine the learning face to face directly in the classroom with online learning through information technology facilities, but the learning interactions still exists between teachers and students both in the classroom and outside of the classroom.

# 2.2 Blended Learning Platforms

Some choice for blended learning platform that can be used in the learning process at schools, among others:

### 2.2.1 Edmodo

Edmodo is a global education network that helps connect all learners with the people and resources needed to reach their full potential. Edmodo can be seen at <a href="https://www.edmodo.com/">https://www.edmodo.com/</a> [1],[16]. The display of Edmodo platform also can be seen in the following figure 1.



Figure 1: Display of Edmodo Platform

# 2.2.2 Moodle

Moodle is a learning platform designed to provide educators, administrators and learners with a single robust, secure and integrated system to create personalised learning environments. Moodle can be seen at <a href="https://moodle.org/">https://moodle.org/</a> [1],[17]. The display of Moodle platform also can be seen in the following figure 2.



Figure 2: Display of Moodle Platform

# **2.2.3** Kelase

Indonesia's online education space just got another boost of confidence today as *Kelase*, a private social network for education, received an undisclosed amount seed funding from PT Insights Investments, a financial and investment firm in Indonesia. The money will be used for Kelase's product development, recruitment, and system maintenance. Kelase rolled out its trial version on June 2014. The startup allows education institutions to have their own social networks. Teachers and students can store and share numerous files on Kelase including education videos, e-books, and academic calendars some of which Kelase itself

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provides [1],[18]. Kelase can be seen at <a href="http://www.kelase.net/">http://www.kelase.net/</a>. The display of Kelase platform also can be seen in the following figure 3.



Figure 3: Display of Kelase Platform

# 2.2.4 Quipper School

Quipper School is a FREE online platform for teachers and students. Quipper School consists of two parts: LINK for teachers, and LEARN for students. Quipper School Link is where teachers manage their classes online and check students' progress. Quipper School Learn is where students study. It's packed with features that make learning safe and fun. Quipper School can be seen at <a href="https://school.quipper.com/en-PH/">https://school.quipper.com/en-PH/</a> [1],[19]. The display of Quipper School platform also can be seen in the following figure 4.



Figure 4: Display of Quipper School Platform

### 2.3 Evaluation

Evaluation is a research in order to collect, analyse, and present worthwhile information in relation to an object of evaluation, judging by making comparison with the indicators of evaluation and the results would be utilized when a decision should be made related to the object of evaluation [20].

Evaluation is an activity for collecting, understanding and reporting the result of analysis of a particular program/object in such a way that the result can be used for consideration in making a decision whether the program will be continued or stopped [21].

Evaluation is a process of judging something based on a predetermined criteria or

purpose, and then followed by making decision to the object being evaluated [22]. Evaluation is an activity for collecting, analyzing and presenting information about a particular object under an investigation to be used as a consideration in making a decision [23]. The evaluation is an activity for data collecting, data analyzing and data presenting into information about a particular object under study so that the results can be used to take a decision [24]. Evaluation is a process of understanding, giving meaning, obtaining and communicating an information for the purpose of taking a decision [25]. Evaluation is an activity for collecting, analyzing, and explaining comprehensively information about a particular object/program/policy being studied and the result can be used for a consideration in making a decision to continue or stop the object/program/ policy [1].

Based on some of the above opinion can be concluded in general that evaluation is an activity to collect, analyze, and present information about an object to be evaluated, where the results of these evaluations are used for consideration in making a decision that is precise, accurate, and reliable.

# 2.4 CIPP (Context-Input-Process-Product)

The CIPP model is the most widely known and applied model that is used by evaluators. This model was developed by Stufflebeam. CIPP is an acronym using an initial letter of each of four words, that is, Context, Input, Process and Product [26]. Stufflebeam stated that the core concept of the CIPP model denoted by the CIPP acronym, which stands for the evaluation context, input, process. and product [27]. Basically, the CIPP evaluation model requires that a series of questions be asked about the four different elements of the model on context, input, process, and product [28]. Wirawan also explained that the CIPP evaluation model consists of four types, namely: context evaluation, input evaluation, process evaluation and product evaluation [20]. The CIPP evaluation model the improvement/accountability belongs in category, and is one of the most widely applied evaluation models [29]. One of the strengths of CIPP model is, especially, that it is a useful and tool for helping evaluators produce questions of vital importance to be asked in an evaluation process [30].

Based on some of the above opinion, the CIPP evaluation models is a model of that Essentially has four stages of evaluation are: 1) evaluation of the context component, which aims to

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provide value and description of the demands or needs which led to a program exists; 2) input component, which aims to provide value and an overview of the strategies, work plans and budgets are prepared so that the program can be run; 3) process component, which aims to provide value and an overview of the activities carried out for the attainment of the objectives of existing programs; 4) product component, which aim to provide value and an overview of the results that have been achieved so that it can be used in making decisions on the program organized.

## 3. RESEARCH METHODOLOGY

#### 3.1 Object of Study

The object of this study was blended learning at vocational schools. Selection of this object is based on the increasing use of information technology, especially blended learning to help the learning process at vocational schools in Bali, but the difficulty selecting suitable platform for the implementation of blended learning at vocational schools in Bali.

# 3.2 Subject of Study

The subjects of this study were teachers, students, and blended learning management. The subjects were determined by Purposive Sampling. Teachers involved as a research subject as many as 10 teachers, students involved as a research subject as many as 10 students and managers involved blended learning as a research subject as many as 5 managers.

# 3.3 Location of Study

The locations of this study were vocational schools in Bali, which consists of SMK N 2 Singaraja (representing the northern part of Bali), SMK TI Udayana (representing the southern part of Bali).

# 3.4 Methods of Data Collection

The methods of data collection used were questionnaire distribution, observation, and documentation. Mobile phone utilizing a questionnaire filled out by teachers, students, and managers of blended learning. The observations were made directly by researchers using observation in view of mobile phone used. Documentation is made to acquire all of the physical evidence related to research, such as research reports and the documents of results of data processing.

#### 3.5 Design of the Study

The study used design of CIPP model based on mobile phone, which can be shown as follows.

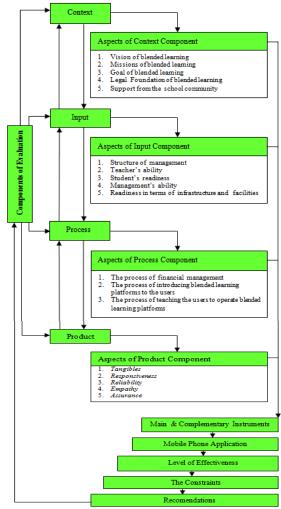


Figure 5: A Design of CIPP Evaluation Model Based on Mobile Phone

#### 3.6 Technique of Data Analysis

Data analysis about the implementation of an evaluation of the use of blended learning platforms at vocational schools in Bali by using quantitative descriptive technique. Determination of the highest utilization rate calculation effectiveness of blended learning platforms is obtained by comparing the results of the effectiveness of each platform based of evaluation aspects on the component of context, input, process, and product. Determining the most suitable platform for the implementation of blended learning at vocational schools in Bali was based on the evaluation results of each aspect of evaluation that meets the standard value limits the effectiveness of the use of blended learning at vocational schools in Bali.

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# 4. RESULTS AND DISCUSSION

#### 4.1 Results

# The Standard of the Effectiveness of the Use of Blended Learning Platforms at Vocational 4.1.1

The Standard effectiveness of the use of blended learning platforms at vocational schools in Bali can be shown in Table 1 as follows.

Table 1: The Standard of Effectiveness of the Use of Blended Learning Platforms at Vocational School by Using CIPP Model

N o	Evaluation Components	Evaluation Aspects	Effectiveness Standard (%)
		Vision of blended learning	85-100
		Missions of blended learning	85-100
1.	Context	Goal of blended learning	85-100
		Legal Foundation	88-100
		Support from the school community	85-100
		Structure of management	85-100
		Teacher's ability	86-100
2.	Input	Student's readiness	86-100
		Management's ability	88-100
		Readiness in terms of infrastructure and facilities	85-100
		The process of financial management	90-100
3.	Process	The process of introducing blended learning platforms to the users	85-100
		The process of teaching the users to operate blended learning platforms	85-100
		Tangibles	88-100
		Responsiveness	88-100
4.	Product	Reliability	88-100
		Empathy	88-100
		Assurance	88-100
Note	•		
		ectiveness Standard Scales	
	Very High	90%-100%	
	High	80%-89%	
	Satisfactory	70%-79%	
	Low Vory Low	60%-69% 0%-59%	
	Very Low	U%o-39%o	

#### 4.1.2 Results of the Evaluation of the Use of Blended Learning Platforms at Vocational Schools in Bali

The results of the evaluation of the use of blended learning platforms at vocational schools in Bali by using Mobile Phone-based CIPP Model can be seen in Table 2 as follows.

Table 2: Results of the Evaluation of the Use of Blended Learning Platforms at Vocational Schools in Bali by Using Mobile Phone-Based CIPP Model

No	Evaluation	Evaluation Aspects		<b>Result of E</b>	valuation (%	<b>6</b> )
110	Component	Evaluation Aspects	B1	B2	В3	B4
		Vision of blended learning	86.4	85.6	85.6	85.6
		Missions of blended learning	87.2	86.4	85.6	84.8
1	Context	Goal of blended learning	88.8	86.4	85.6	84.8
		Legal Foundation	91.2	88.8	88.0	87.2
		Support from the school community	87.2	86.4	85.6	85.6
		Average of the Context Component	88.16	86.72	86.08	85.60
		Structure of management	85.6	83.2	82.4	84.8
		Teacher's ability	79.2	77.6	76.0	76.8
2.	I	Student's readiness	78.4	77.6	75.2	76.8
2	Input	Management's ability	86.4	85.6	82.4	84.8
		Readiness in terms of infrastructure and facilities	82.4	80.0	77.6	78.4
		Average of the Input Component	82.40	80.80	78.72	80.32

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No	Evaluation	Evaluation Aspects	Result of Evaluation (%)									
110	Component	Evaluation Aspects	B1	B2	В3	B4						
		The process of funds management	85.6	86.4	83.2	84.8						
3	Process	The process of introducing blended learning platforms to the users	86.4	87.2	84.8	85.6						
		The process of teaching the users to operate blended learning platforms	84.8	85.6	83.2	84.0						
		Average of the Process Component	85.60	86.40	83.73	84.80						
		Tangibles	87.2	86.4	85.6	83.2						
		Responsiveness	84.8	84.0	83.2	82.4						
4	Product	Reliability	88.8	88.0	87.2	86.4						
		Empathy	86.4	85.6	84.8	84.0						
		Assurance	86.4	85.6	84.0	83.2						
		Average of the Product Component	86.72	85.92	84.96	83.84						

Notes: Types of Blended Learning Platforms:

: Edmodo B2 : Quipper School В3 : Moodle В4 : Kelase

#### 4.1.3 The Simulation of Mobile Phone Application in Evaluating the Use of Blended Learning at Vocational School by Using CIPP Model

The description about the implementation of mobile phone application in evaluating the use of blended learning at vocational schools by using CIPP model can be visualized in Figure 6 as follows:





Model Based on Mobile Phone Application

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#### 4.2 Discussion

Based on the results that have been described above there are some points that have to be discussed, which are among others are:

# 4.2.1. How making the effectiveness standards used of blended learning at vocational schools

Standard of effectiveness used of blended learning platforms at vocational schools, which are shown in Table 1 is obtained from the construct test and the contents of validation test conducted by education experts and informatics specialists.

# 4.2.2 The Highest Result of Effectiveness Computation

The calculation results of the highest level of effectiveness utilization of platforms for blended learning at vocational schools in Bali using CIPP model based on mobile phone, especially android applications which are shown in Table 2 can be explained as follows:

- 1) In the component of context the highest percentage of effectiveness obtained for the use of blended learning at vocational schools was 88.16% by using edmodo platform, so that edmodo falls into the high category of blended learning platform.
- 2) In the component of input the highest percentage of effectiveness obtained for the use

- of blended learning at vocational schools was 82.40% by using edmodo platform, so that edmodo falls into the high category of blended learning platform.
- 3) In the component of process, the highest percentage of effectiveness obtained was 86.40% for the use of blended learning at vocational schools by using quipper school platform, so that quipper school falls into the high category of blended learning platform.
- 4) In the component of product, the highest percentage of effectiveness obtained was 86.72% for the use of blended learning at vocational schools by using edmodo platform, so that edmodo platform falls into the high category of blended learning platform.
- 5) The highest percentage of the effectiveness of the results in each component of the evaluation showed that the platform Edmodo obtain the highest value on the component of context, input, and the product, so it is generally Edmodo platform suitable used for blended learning at vocational schools in Bali.

To obtain the evaluation results are shown in Table 2, is done by filling the questionnaire by 10 teachers, 10 students and 5 managers of blended learning through the use of mobile phone. As clearly recapitulation of the questionnaire administration can be seen in Table 3 below.

Table 3: Recapitulation Results of Filling the Questionnaire by Teachers, Students, and Manager of Blended Learning to Mobile Phone Facilities in Evaluating the Use of Blended Learning Platforms at Vocational Schools in Bali

	luation nponents										Con	text									
	Evaluation Aspects		Vision				Missions				Goal					from tom		Legal Foundation			
Plat	Platforms		B2	В3	B4	B1	B2	В3	B4	B1	B2	В3	B4	B1	B2	В3	B4	B1	B2	В3	B4
	R1	5	4	5	5	4	4	5	4	4	4	5	4	5	4	4	4	5	4	4	5
	R2	4	4	4	5	5	4	4	4	5	4	4	5	4	4	4	5	5	4	5	4
	R3	4	4	5	5	4	4	4	4	4	4	4	4	5	4	4	4	4	4	5	5
	R4	4	4	4	4	4	5	4	5	4	5	4	4	4	5	4	4	4	4	4	5
	R5	5	4	5	5	5	4	4	4	5	4	5	4	4	4	5	4	5	5	5	4
	R6	4	4	4	4	4	4	5	4	4	4	4	4	4	4	4	5	4	5	4	4
	R7	4	4	4	4	5	5	4	5	5	5	4	4	5	5	4	4	5	4	4	4
	R8	4	4	4	4	5	5	5	4	4	4	4	5	4	4	4	4	5	5	4	4
	R9	5	4	4	4	4	4	4	4	5	4	5	4	5	4	5	4	4	5	5	4
740	R10	4	4	4	4	4	4	4	4	4	5	4	4	4	4	4	4	4	5	5	4
Ħ	R11	4	5	4	4	5	5	5	5	5	4	4	4	4	5	4	4	5	5	4	4
de	R12	4	4	4	4	4	4	4	5	4	5	4	5	5	4	5	4	5	5	4	5
Respondents	R13	5	4	4	4	4	4	4	4	5	4	5	4	5	4	4	4	4	4	4	4
dsa	R14	4	4	4	5	4	4	4	4	5	5	4	4	4	5	4	4	4	4	4	5
~ ≥	R15	4	4	4	4	4	5	4	5	4	4	4	4	5	4	5	4	5	5	4	4
	R16	5	4	4	4	5	4	4	5	4	4	5	4	4	5	5	5	5	4	5	4
	R17	4	5	4	5	4	4	4	4	4	5	4	4	4	4	4	4	4	5	4	4
	R18	4	5	4	4	4	5	4	4	5	4	4	5	4	4	4	4	5	4	5	4
	R19	4	4	4	4	5	4	4	4	4	4	4	4	5	4	5	5	5	4	4	5
	R20	5	5	5	4	5	5	5	4	5	5	4	4	4	5	4	4	4	4	5	4
	R21	4	4	4	4	4	4	5	4	4	4	5	4	4	4	4	5	4	5	4	5
	R22	5	4	5	4	5	4	5	4	5	4	4	5	4	4	4	5	5	4	5	4
	R23	4	5	4	5	4	4	4	4	4	4	5	4	5	5	5	4	4	4	4	5
	R24 R25	4	5	5	4	4	5	4	4	4	4	4	5	4	5	4	5	5	4	5	4
		5	5	5	4	4	4	4	4	5	5	4	4	4	4	4	4	5	5	4	5
	Σ	108	107	107	107	109	108	107	106	111	108	107	106	109	108	107	107	114	111	110	109
	verage	4.32	4.28	4.28	4.28	4.36	4.32	4.28	4.24	4.44	4.32	4.28	4.24	4.36	4.32	4.28	4.28	4.56	4.44	4.40	4.36
Effe	ectiveness	0.864	0.856	0.856	0.856	0.872	0.864	0.856	0.848	0.888	0.864	0.856	0.848	0.872	0.864	0.856	0.856	0.912 0.888 0.880		0.880	0.872
	(%)	86.4	85.6	85.6	85.6	87.2	86.4	85.6	84.8	88.8	86.4	85.6	84.8	87.2	86.4	85.6	85.6	91.2 88.8 8		88.0	87.2

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	luation iponents										In	put										
Evaluation Aspects				ture of gement			Readiness in terms of infrastructure and facilities				Readiness in terms of teacher's readiness				diness udent'				Readiness in terms of management's ability			
Platforms		B1	B2	В3	B4	B1	B2	В3	B4	B1	B2	В3	B4	B1	B2	В3	B4	B1	B2	В3	B4	
	R1	5	4	4	5	4	4	4	4	4	4	4	4	4	4	4	4	4	5	4	4	
	R2	4	4	5	4	4	4	3	4	3	4	4	4	4	4	3	4	5	4	4	5	
	R3	4	4	4	5	5	4	4	3	4	3	4	3	5	4	3	4	4	4	4	4	
	R4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	5	4	5	
	R5	4	5	4	4	4	4	4	4	4	4	4	4	4	4	4	3	4	5	5	4	
	R6	4	4	4	5	4	5	5	4	3	4	4	4	4	4	4	4	4	4	4	5	
	R7	4	4	4	4	4	4	4	3	4	3	4	4	3	4	4	4	5	4	4	4	
	R8	4	4	4	4	4	4	3	4	4	4	4	4	4	4	4	4	4	4	4	4	
	R9	4	5	4	4	4	4	4	4	5	4	4	4	4	4	3	4	4	4	4	5	
	R10	5	4	4	4	5	4	4	4	4	4	4	3	4	4	4	3	5	4	4	4	
ş	R11	4	4	4	5	4	4	4	4	3	4	4	4	4	3	4	4	4	4	4	4	
를	R12	4	4	5	4	4	3	4	3	4	4	3	4	4	4	4	4	4	4	4	4	
Respondents	R13	5	4	4	4	3	4	4	4	4	3	4	4	4	4	3	4	4	4	4	4	
Ğ	R14	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	5	4	4	4	
2	R15	4	5	4	4	4	4	4	4	4	4	3	4	4	4	4	3	4	5	4	4	
	R16	5	4	4	4	4	3	3	4	4	4	4	3	4	3	4	4	5	4	5	4	
	R17	4	4	4	4	4	4	4	4	4	5	4	4	4	4	4	4	4	4	4	4	
	R18	4	4	4	5	5	4	4	4	4	4	4	4	3	4	4	4	4	4	4	4	
	R19	5	4	4	4	4	4	4	4	4	4	3	3	4	4	3	4	4	5	4	4	
	R20	4	4	4	4	4	4	4	4	4	3	4	4	4	4	4	4	5	4	4	4	
	R21	4	5	4	4	5	4	4	4	4	4	4	4	4	3	4	3	4	5	4	5	
	R22	5	4	4	4	4	4	4	5	5	4	3	4	4	4	4	4	5	4	5	4	
	R23	4	4	5	4	4	5	4	4	4	4	4	4	4	4	3	4	4	5	4	4	
	R24	4	4	4	5	4	4	3	4	4	4	4	4	4	4	4	4	5	4	4	4	
	R25	5	4	4	4	4	4	4	4	4	4	3	4	3	4	4	4	4	4	4	5	
	Σ	107	104	103	106	103	100	97	98	99	97	95	96	98	97	94	96	108	107	103	106	
Average		4.28	4.16	4.12	4.24	4.12	4.00	3.88	3.92	3.96	3.88	3.80	3.84	3.92	3.88	3.76	3.84	4.32	4.28	4.12	4.24	
Effectiveness		0.856	0.832	0.824	0.848	0.824	0.800	0.776	0.784	0.792	0.776	0.760	0.768	0.784	0.776	0.752	0.768	0.864	0.856	0.824	0.848	
(%)		85.6	83.2	82.4	84.8	82.4	80.0	77.6	78.4	79.2	77.6	76.0	76.8	78.4	77.6	75.2	76.8	86.4	85.6	82.4	84.8	

Evaluat Compo		Process													
Evaluat Aspects		The pro	ocess of int lear	troducing ning	blended			teaching h ided learn		The process of funds management					
Platfor	ms	B1	B2	В3	B4	B1	B2	В3	B4	B1	B2	В3	B4		
	R1	4	5	4	5	4	4	4	4	4	4	4	5		
	R2	4	4	4	5	4	5	4	4	4	4	4	5		
	R3	4	4	5	4	4	4	4	4	5	5	4	4		
	R4	4	5	4	4	5	4	4	4	4	4	4	5		
	R5	5	4	4	5	4	4	4	4	4	5	4	4		
	R6	4	4	5	5	4	5	4	4	5	4	4	4		
	R7	4	5	4	4	4	4	4	4	4	4	4	4		
	R8	5	5	4	5	4	4	5	4	4	5	4	5		
	R9	4	5	4	4	4	4	4	5	4	4	4	4		
	R10	5	4	4	5	4	4	5	4	4	5	4	4		
its .	R11	4	5	4	4	4	5	4	4	5	4	4	4		
- E	R12	5	4	4	4	4	4	4	4	4	4	4	5		
Respondents	R13	4	4	4	4	5	4	4	5	4	5	4	4		
<del>Ğ</del>	R14	5	4	5	4	4	4	5	4	4	4	5	4		
ž	R15	5	4	4	4	4	4	4	4	5	4	4	4		
	R16	4	5	4	4	4	5	4	5	4	5	4	4		
	R17	4	4	4	4	4	4	4	4	4	4	5	4		
	R18	5	4	5	4	5	4	4	5	5	4	4	4		
	R19	4	4	4	4	4	5	4	4	4	4	5	5		
	R20	4	4	4	4	4	4	4	5	4	5	4	4		
	R21	5	4	5	4	5	4	5	4	4	5	4	4		
	R22	4	5	4	4	4	5	4	4	5	4	4	4		
	R23	4	4	4	4	5	4	4	4	4	4	5	4		
	R24	4	4	5	5	4	5	4	4	4	4	4	4		
	R25	4 108	5	4	4	5	4	4	4	5	4	4	4		
	Σ		109	106	107	106	107	104	105	107	108	104	106		
	Average	4.32	4.36	4.24	4.28	4.24	4.28	4.16	4.20	4.28	4.32	4.16	4.24		
Ef	fectiveness	0.864	0.872	0.848	0.856	0.848	0.856	0.832	0.840	0.856	0.864	0.832	0.848		
	(%)	86.4	87.2	84.8	85.6	84.8	85.6	83.2	84.0	85.6	84.8				

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	luation iponents										Pro	duct									
	Evaluation Aspects		Tangibles				Reliability				Responsiveness				Assu	rance		Empathy			
Platforms		B1	B2	В3	B4	B1	B2	В3	B4	B1	B2	В3	B4	B1	B2	В3	B4	B1	B2	В3	B4
lent	R1	4	5	4	5	5	4	5	4	5	4	4	4	4	5	4	4	4	4	4	5
Respondent	R2	5	4	5	4	4	4	4	5	4	4	4	4	5	4	4	4	5	4	4	4
Res	R3	4	5	4	4	5	4	5	4	5	4	4	4	4	4	5	4	4	4	4	4
	R4	5	4	4	4	5	4	5	4	4	5	4	4	4	5	4	4	4	5	4	4
	R5	4	4	4	4	4	5	4	5	4	4	4	4	4	4	4	5	4	4	5	4
	R6	4	4	5	4	5	4	5	4	5	4	5	4	5	4	4	4	5	5	4	4
	R7	4	5	4	4	5	4	4	4	4	5	4	4	4	4	4	4	4	4	4	4
	R8	5	4	4	4	4	5	5	5	4	4	4	4	4	4	4	4	4	4	4	4
	R9	4	4	4	4	4	4	4	4	4	4	4	5	5	4	4	4	4	4	4	4
	R10	4	4	5	4	4	5	4	5	5	4	4	4	4	5	4	4	4	4	4	4
	R11	4	4	4	4	5	4	5	4	4	4	5	4	5	4	4	5	5	5	5	4
2	R12	5	4	4	5	4	5	4	4	4	5	4	4	4	4	4	4	4	4	4	4
en	R13	4	4	4	4	5	4	4	5	4	4	4	4	4	4	5	4	4	5	4	4
Respondents	R14	4	5	4	4	4	4	4	4	4	4	4	4	4	4	4	4	5	4	5	5
<u>6</u>	R15	5	4	4	4	4	5	4	4	4	4	4	4	4	4	4	4	4	4	4	4
Ş	R16	4	4	4	4	5	4	4	5	4	5	4	4	5	4	4	5	4	4	4	5
_	R17	5	4	4	5	4	5	4	4	5	4	4	4	4	5	5	4	4	4	5	4
	R18	4	4	4	4	4	5	4	4	4	4	4	5	4	4	4	4	5	5	4	4
	R19	5	4	5	4	5	4	4	5	4	4	4	4	4	4	4	4	4	4	4	4
	R20	4	5	4	4	4	4	5	4	4	4	4	4	4	5	4	4	5	5	4	5
	R21 R22	5	5	5	4	4	5	4	4	4	4	5	4	5	4	5	4	4	4	5	4
		4	_	5	4	5	4	5	4	4	4	4	4	4	5	4	4	5	4	5	4
	R23 R24	4 5	5	4 5	5	4	5	4	5	4	5	5	4	5	4	5	5	4	5	4	5
	R24 R25	4	5	4	4	5	4	5	4	5	4	4	5	4	5	4	4	5	4	4	4
				-			_					_							-		
	Σ	109	108	107	104	111	110	109	108	106	105	104	103	108	107	105	104	108	107	106	105
Average		4.36	4.32	4.28	4.16	4.44	4.40	4.36	4.32	4.24	4.20	4.16	4.12	4.32	4.28	4.20	4.16	4.32	4.28	4.24	4.20
Effe	Effectiveness		0.864	0.856	0.832	0.888	0.880	0.872	0.864	0.848	0.840	0.832	0.824	0.864	0.856	0.840	0.832	0.864	0.856	0.848	0.840
	(%)	87.2	86.4	85.6	83.2	88.8	88.0	87.2	86.4	84.8	84.0	83.2	82.4	86.4	85.6	84.0	83.2	86.4	85.6	84.8	84.0

# 4.2.3 The Structure of Mobile Phone-Based CIPP Model Application

This mobile phone CIPP model application was made by using Android application with SQLite database.

# 4.2.4 Constraints in study

The constraints that are found in this study, namely in terms of data input dynamically if any new aspects that affect the level of effectiveness of the implementation of blended learning, so that later the results of calculation of the highest levels of effectiveness can be kept accurate and reliable validity.

#### 5. CONCLUSIONS

Platform that has obtained the highest level of effectiveness in supporting the implementation of blended learning at vocational schools in Bali when viewed from the component of *context* is Edmodo. Platform that has obtained the highest level of effectiveness in supporting the implementation of blended learning at vocational schools in Bali when viewed from the component of *input* is Edmodo. Platform that has obtained the highest level of effectiveness in supporting the implementation of blended learning at vocational schools in Bali when viewed from the component of *process* is Quipper School. Platform that has obtained the highest level of effectiveness in supporting the implementation of blended learning at vocational schools in Bali

when viewed from the component of *product* is Edmodo. From some platforms that can be used for blended learning at vocational school, it turns out that the most appropriate platform used at school is edmodo due to the ease in using it, while the most difficult to use is moodle.

Utilization of mobile phone in supporting the implementation of CIPP evaluation model to platforms used for blended learning at vocational school in Bali is able to measure the percentage of the highest level of effectiveness in terms of components of context, input, process and product are valid and accurate, whenever and wherever evaluators are doing evaluation.

Generally, this research has been able to overcome the constraints on previous research that has been done by Sanjaya and Divayana in 2015, Ariawan, Sanjaya and Divayana in 2016 that has be found the highest level of effectiveness in the individual components of context, input, process, and product in evaluating their programs.

Although this study has obtained good results, but there are only constraints were found. To overcome these constraints, it is necessary to do research on future study about the creating of automatically facility so that the input data on the new aspects that affect the level of effectiveness of the implementation of blended learning platforms can be done dynamically.

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