

EMPOWERMENT OF CSE-UCLA MODEL BASED ON GLICKMAN QUADRANT AIDED BY VISUAL APPLICATION TO EVALUATE THE BLENDED LEARNING PROGRAM ON SMA NEGERI 1 UBUD

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ABSTRACT

The purpose of this research was to obtain information about effectiveness level of blended learning program implementation on SMA Negeri 1 Ubud through evaluation result evaluated from the component of system assessment, program planning, program implementation, program improvement, program certification by using *CSE-UCLA* model based on *Glickman quadrant* aided by visual application. Besides, this study also aims to obtain information about the constraints found in the implementation of blended learning program on SMA Negeri 1 Ubud. The approach used in this research was qualitative with an evaluative method. The evaluation design used in this research was the *CSE-UCLA* model, which consists of five evaluation components, such as system assessment, program planning, program implementation, program improvement, and program certification. Subjects involved in this research, consist of head of school, head of computer laboratory, and two Information technology teams, all subjects involved during the interview. The activity to obtain data from questionnaire distribution results, it involves five teachers and ten students. Determination of all research subjects using purposive sampling technique. The results showed good category on the effectiveness of blended learning program implementation on SMA Negeri 1 Ubud. Those statement reinforced by an evaluation based on the *Glickman* quadrant aided by visual application, where the evaluation results lie in the 'Good' quadrant, which is indicated by a combination of + + + - + values for each evaluation components.

Keywords: *CSE-UCLA, Evaluation, Glickman Quadrant, Blended Learning*

1. INTRODUCTION

The profession as a teacher is a field of work that requires special skills based on the principle of professionalism that should develop professionalism continuously to change the character of learners from the unknown to known, from the bad to be good or from good and even become better. Encounter the character of learners who are always different and has been affected by technological progress becomes a challenge for a

teacher. As a teacher, ideally must have the willingness to continue for learning and develop themselves following the development of science and technology increasingly sophisticated, so inevitably and likes or dislike, a teacher is required to have to learn and adapt to technological advances that occur today.

Technological advances greatly affect the various fields of life, including also in the field of

education, where advances in technology affect the interaction that occurs among teachers and learners in the learning process. Learning process not only occurs conventionally through face to face in the classroom but also has developed in the form of online learning through internet facilities. Learning that combines the learning process through face to face in the classroom with the learning process through online is often said as blended learning. Through blended learning, synchronous and asynchronous online learning can be implemented without leaving the face-to-face learning process. This statement consistent with the concept that blended learning as a mix learning model that led by traditional instructors, synchronous online learning, self-learning asynchronously, and task-based structured training from a teacher [1].

Blended learning can well do if supported by good infrastructures, one of them is the availability of adequate platform. Some platforms can be used in learning with blended learning such as Group Miling List (Mailing Lists, like Yahooogroups, Google+, etc.), Web Blogs, Social Media (Facebook, Twitter, Instagram, Path, etc.) Learning Management Systems or LMS applications (such as Moodle, Edmodo, Quipper, Kelase), etc. [2].

One school in the area of Bali, especially in Gianyar regency that has applied blended learning in the learning process through learning program that uses the Moodle application platform that is SMA Negeri 1 Ubud [3]. At first glance, the blended learning program implemented by SMA Negeri 1 Ubud has been running smoothly, but the reality in this program is still found obstacles both regarding the provision of facilities and infrastructure, human resources, policies and others. To problem-solving these problems, it is necessary to evaluate the blended learning program implemented on SMA Negeri 1 Ubud.

Evaluation activities are conducted with the aim of obtaining an overview of the program progress and provision of appropriate recommendations to improve the constraints found in the program. Those statement following the basic concepts of evaluation that have been expressed in several studies conducted in 2018 by Mahayukti, *et al* [4]; in 2015 by Sanjaya and Divayana [5]; in 2017 by Divayana, *et al* [6-9]; in 2017 by Jampel, *et al* [10]; in 2017 by Divayana, Ardana and Ariawan [11]; in 2017 by Divayana and Sanjaya [12]; in 2017 by Divayana, Adiarta and Abadi [13-16]; in 2017 by Divayana [17-19]; in 2017 by Suandi, Putrayasa and Divayana [20]; in 2017 by Arnyana, *et al* [21]; in 2016 by Divayana [22]; in 2016 by Divayana and

Sugiharni [23]; in 2016 by Ariawan, Sanjaya and Divayana [24]; in 2017 by Picciotti, *et al* [25]; in 2018 by Norman and Parker [26]; in 2017 by Ardana, Ariawan and Divayana [27]; in 2016 by Singh and Wassermann [28]; in 2017 by Finestack, *et al* [29]; in 2017 by Andrews and Syeda [30]; in 2015 by Harris-Packer and Ségol [31]; in 2014 by Hassan and Wium [32]; in 2017 by Wilcox and Heudes [33]; in 2015 by Molas-Gallart [34]; in 2017 by Hanchon, *et al* [35]; in 2014 by Virués-Ortega, *et al* [36]; in 2014 by Lucas, Dippenaar and Toit [37]; in 2018 by Chow and Hollo [38]; in 2016 by Pöldoja, Duval and Leinonen [39]; in 2015 by Mengoni, Bardsley and Oates [40]; in 2015 by Schwab [41]; in 2014 by Saucier, *et al* [42]; in 2017 by Climie, Mah, Chase [43]; in 2017 by Brink and Bartz [44]; in 2016 by Arnold and Reed [45]; in 2016 by Toyoda [46]; in 2016 by Liu, Xu and Stronge [47]; in 2016 by Climie and Henley [48]; in 2017 by Wotela [49]; in 2017 by Sung, Noh and Chon [50]; in 2017 by Hui, Brown and Chan [51]; in 2016 by Yim and Cho [52]; in 2016 by Ng and Galbraith [53]; in 2017 by Hamilton [54]; in 2017 by Paganini, M. Bondi and A. Rubini [55]; in 2017 by Washburn, Herman and Stewart [56]; in 2016 by Montezor [57]; in 2016 by Verger, Bonal and Zancajo [58]; in 2016 by Madigan, *et al* [59]; in 2017 by Sumual and Ali [60]; in 2016 by Bichi, Hafiz and Bello [61]; in 2017 by Gagnon, Hall and Marion [62]; in 2014 by Zumbach and Funke [63]; in 2018 by Mapitsa and Khumalo [64]; in 2016 by Martinez, Schweig and Goldschmidt [65]; in 2017 by Faddar, Vanhoof and Maeyer [66]; in 2017 by Machaka [67]; in 2018 by Finucane, Martinez and Cody [68]; in 2018 by Jin, *et al* [69]; in 2018 by Zhang [70]; in 2017 by Erford, *et al* [71]; in 2017 by Desai and Stefanek [72]; in 2018 by Dahler-Larsen [73]; in 2016 by Ahmed and Bhatti [74]; in 2014 by Widarwati, Budiastuti and Karomah [75]; in 2015 by Xu, *et al* [76]; in 2012 by Saunders [77]; in 2017 by Culkin [78]; in 2015 by Bolyard [79]; in 2016 by Abrams, Varier and Jackson [80]; in 2016 by Southall and Wason [81]; in 2017 by Cutts, *et al* [82]; in 2016 by Cornelius, Wood and Lai [83]; in 2018 by Yuan and Kim [84]; in 2017 by See, Gorard and Siddiqui [85]; in 2016 by Hepplestone, *et al* [86]; in 2017 by Derrington and Kirk [87]; in 2017 by Comings, Strucker and Bell [88]; in 2015 by Donaldson and Papay [89].

Evaluation results can show the program weaknesses clearly so that later can be used as a basis for making improvements to the blended learning program. The new findings that can be done to overcome the obstacles in the implementation of blended learning program on

SMA Negeri 1 Ubud in the form of empowering *CSE-UCLA* model based on visual application, because this evaluation model is very suitable to evaluate service program (such as blended learning) so ease in determining the effectiveness level of the program's implementation and can get the right recommendations based on valid and accurate calculations following the Glickman pattern through visual application.

That statement is consistent with the concept that *CSE-UCLA* evaluation model is appropriate and suitable for evaluating service programs, such as library programs, cooperatives, and banks [90]. Through *CSE-UCLA* evaluation model, the program can be evaluated from several components such as system assessment to evaluate the initial existence of the program, program planning to evaluate the things needed as input in the program, program implementation to evaluate the program promotion, program improvement to evaluate program performance, and program certification to evaluate the impact/usefulness of the program for its users.

Some previous research results related to the evaluation of service programs in general and the evaluation of blended learning programs in particular that researchers can use as a basis, reference and comparison in this research include the research results have conducted by Dewa Gede Hendra Divayana about the evaluation of digital library programs based on expert systems on Universitas Teknologi Indonesia [2] has similarities with the researcher concerning utilization the evaluation model used to evaluate the services program, i.e. *CSE-UCLA*, whereas the difference lies in the evaluated object, where Dewa Gede Hendra Divayana evaluates the digital library program based on the expert system, while the authors evaluate the blended learning program.

The research results obtained by Hardjanto, Koestoro, and Riswandi about the evaluation of learning mathematics based on blended learning model in class VII of SMP Islam Terpadu Ar Raihan [91] have similarities with researchers regarding the object being evaluated is the blended learning program, while the difference lies in the utilization of evaluation model used to evaluate the program, where Widodo Tri Hardjanto, Budi Koestoro, and Riswandi use CIPP model, while the author uses *CSE-UCLA* model. The weakness found in research conducted by Hardjanto, Koestoro, and Riswandi was not yet able to show the promotion of blended learning model in Mathematics learning which explained in detail to the students.

The research results conducted by Alfina and Hanum on the Effectiveness of Management of Teachers' Working Groups Kindergarten I of Manguharjo Districts, Madiun City [92] also have similarities concerning utilizing evaluation models used to evaluate the program, i.e., *CSE-UCLA*, whereas the difference lies in the evaluated object, wherein Alfina and Hanum evaluate the management of working group of kindergarten teachers, while the author evaluates the blended learning program. The research results obtained from Yuniarto on the implementation of evaluation on moodle-based blended learning in Chemistry learning in college [93] have similarities with research results that conducted by researchers in this research about the evaluated object, i.e. blended learning program, while the difference lies in the utilization evaluation model used to evaluate the program, where Yuniarto uses evaluation model based on process and outcome, while the author uses *CSE-UCLA* model.

Based on the problems and previous research conducted by some researchers related to the evaluation of service programs so that it can be precisely explained the problem statements of this research, such as (1) How is the effectiveness level of blended learning program that evaluated using *CSE-UCLA* model based on Glickman quadrant with aided by visual application regarding system assessment component, program planning component, program implementation component, program improvement component, and program certification component?; (2) What are the constraints found in the implementation of blended learning program on SMA Negeri 1 Ubud after conducting the evaluation using *CSE-UCLA* model based on visual application aided by Glickman quadrant and how does the solution solve those constraints?

2. RESEARCH METHODOLOGY

2.1 Research Approach

The approach used in this study was a qualitative approach. The method used in this research was evaluative research method. The evaluation design used was the *CSE-UCLA* model, which has five stages:

a. System Assessment

On this stage, the provision of information about the initial state of the blended learning program was evaluated. The stages of the system assessment aims to provide information about the initial conditions that need to be evaluated in the

blended learning program, including 1) the vision of blended learning implementation, 2) the mission of blended learning implementation, 3) the purpose of blended learning implementation, 4) Legal law of blended learning implementation, 5) Strategy to fulfill the human resource competency requirement that is involved in the blended learning implementation, 6) support of school community in the blended learning implementation.

b. *Program Planning*

On this stage the selection of effective attributes to meet the needs of the program. On this stage also aims to help select the effective aspects to meet the identified needs of system assessment. The effective aspects used to evaluate the fulfillment of the needs of blended learning program implementation are: 1) the readiness of teacher ability in the blended learning operation, 2) the readiness of students' ability in the blended learning operation, 3) the readiness of development team in preparing the blended learning program, 4) the availability of organizational structure clearly from the management team and the developer of blended learning program; 5) availability of facilities and infrastructure supporting the implementation of blended learning programs; and 6) availability of funds to support the implementation of blended learning program.

c. *Program Implementation*

On this stage has done giving information or introduction program to the blended learning user. The purpose of this stage was to socialize the blended learning program to the user to facilitate the user in understanding the function of the blended learning program and understand the tools needed in the operation of blended learning. Things that need to be evaluated at this stage include: 1) socialization of blended learning features for users, 2) introduction of hardware needed in blended learning, and 3) introduction of software needed in blended learning.

d. *Program Improvement*

On this stage, information gives to the user about the operation of the blended learning program, the work of the development team in realizing the blended learning program and information about the mechanism of budget management in a transparent manner in the blended learning implementation was reported to the Head of School and the stakeholders. Some of the things that are evaluated include: 1) Learning make the Blended Learning Content for teachers, 2) learning for teachers and students about the use of blended learning program features, 3) installation and setting hardware and software to realize the blended

learning, 4) budget management for the implementation of blended learning.

e. *Program Certification*

Some things are evaluated on this stage include: 1) quality of the physical display of blended learning applications (tangibles), 2) the level of accessibility of blended learning (reliability) applications, 3) response speed of the blended learning application (responsiveness), security in the utilization of blended learning application (assurance), and 5) ease level of implementation of discussion forum through blended learning application (empathy).

2.2 Research Subject

Research subjects were used in this study include five teachers, ten students, two information technology team, head of the computer lab, head of school. Determination of research subjects using purposive sampling technique, namely the stakeholders with the implementation of blended learning program on SMA Negeri 1 Ubud.

2.3 Research Object

The object of this research was blended learning program applied on SMA Negeri 1 Ubud.

2.4 Research Location

The location of this research was on SMA Negeri 1 Ubud.

2.5 Instruments of Data Collection

The data collection instruments used in this research was to obtain some expected data that is in the form of questionnaires given to the users of blended learning program (teachers and students) to get the assessment result of system assessment components in the blended learning program, especially on two aspects, such as 1) the strategy of fulfilling the human resource competency that needs to be involved in the blended learning implementation, and 2) the support of school community in the implementation of blended learning. Besides, the questionnaires given to teachers and students are also used to obtain the assessment results of program planning components, especially on two aspects, such as 1) the readiness of teachers and students ability in the operation of blended learning, 2) the readiness of facilities and infrastructure supporting the blended learning implementation. On the program implementation components, the questionnaires were used to obtain assessment results on all aspects of the implementation program, such as 1) the socialization of blended learning features, and

2) the socialization of hardware and software needed in blended learning. On the program improvement components, the questionnaires were used to obtain the assessment results on two aspects, such as 1) Learning to make the Blended Learning Content for teachers, and 2) learning the use of blended learning program features for teachers and students. On the program certification components, the questionnaire was used to obtain the assessment results on all aspects of the program certification, such as 1) tangibles, 2) reliability, 3) responsiveness, 4) assurance, and 5) empathy.

The data collection instruments in the form of interview guidelines were used as a guide for interviewing with Head of School to obtain all information about blended learning program, especially in information related to vision, mission, objective, and law legality, and funding preparation of blended learning. Interview guides are also used as guidance in interviewing with the heads of laboratories and development teams related to some information, such as 1) preparedness of development team in preparing blended learning program, 2) organizational structure of management team and blended learning developer, 3) facilities and infrastructure supporting the implementation of blended learning program, 4) installation and setting of hardware and software supporting blended learning, and 5) budget management for the implementation of blended learning.

The data collection instruments in the form of observation guidance were used as a reference in conducting direct observation in the field to obtain information about the readiness of facilities and infrastructure supporting the implementation of the blended learning program. Documentation instrument was authentic evidence of the research implementation which in the form of photographs of the research process on SMA Negeri 1 Ubud, such as photos of judges expert, photos of questionnaires spread, and photos of observation implementation.

2.6 Data Analysis Techniques

Data analysis about the blended learning implementation program on SMA Negeri 1 Ubud was reviewed from the component of system assessment, program planning, program implementation, program improvement, and program certification using quantitative descriptive analysis tool. While data analysis about the constraints found in the blended learning

implementation on SMA Negeri 1 Ubud using a qualitative descriptive analysis tool.

The stages of data analysis that conducted in evaluating the blended learning program on SMA Negeri 1 Ubud, such as:

1. Primary data analysis was done by analyzing data obtained from the results of filling questionnaires from program users (i.e., teachers and students). The steps in analyzing the primary data, including:

a. Calculates the effectiveness percentage of each evaluation aspects and converts it into Guilford’s classification of validity, shown in Table 1 below.

Table 1: Categorization of Effectiveness Percentage that Referring to Guilford’s Validity Classification

Range of Effectiveness Level	Classification/ Categorization
0.80 – 1.00	Excellent
0.60 – 0.80	Good
0.40 – 0.60	Moderate
0.20 – 0.40	Less
0.00 – 0.20	Poor

b. Changed the scores obtained into the standard score (z-score) with the following formula [94]:

$$z = \frac{X - \bar{X}}{SD} \tag{1}$$

Notes:

- z = Standard score
- X = Raw scores obtained by respondents
- \bar{X} = Mean
- SD = Standard Deviation

c. Changed the z-score into a T-score with the formula:

$$\text{Skor T-score} = (z\text{-score} * 10) + 50 \tag{2}$$

Where:

T > 50 : high component values, symbolized by ‘+’

T < 50: low component values, symbolized by ‘-’

If 50 is a constant number which is the average limit of the normal curve moving from 20 to 80 with six standard deviation values, so that a value of standard deviation is 10.

d. Interpreting T-scores of each component into the category of Glickman Quadrant implementation level, as shown in Table 2 and then implemented into a computerized system aided by visual application to obtain quick and accurate calculations.

Table 2: Effectiveness Level of Program on All CSE-UCLA Components Following the Glickman Pattern

GOOD					EXCELLENT				
System Assessment	Program Planning	Program Implementation	Program Improvement	Program Certification	System Assessment	Program Planning	Program Implementation	Program Improvement	Program Certification
+	+	+	+	-	+	+	+	+	+
+	+	+	-	+	+	+	+	+	+
+	+	-	+	+	+	+	+	+	+
+	-	+	+	+	+	+	+	+	+
-	+	+	+	+	+	+	+	+	+

POOR					LESS				
System Assessment	Program Planning	Program Implementation	Program Improvement	Program Certification	System Assessment	Program Planning	Program Implementation	Program Improvement	Program Certification
-	-	-	-	-	+	-	-	-	-
-	-	-	-	-	-	+	-	-	-
-	-	-	-	-	-	-	+	-	-
-	-	-	-	-	-	-	-	+	-
-	-	-	-	-	-	-	-	-	+
-	-	-	-	-	+	+	-	-	-
-	-	-	-	-	-	+	+	-	-
-	-	-	-	-	-	-	+	+	-
-	-	-	-	-	-	-	-	+	+
-	-	-	-	-	+	-	-	-	+
-	-	-	-	-	-	+	-	+	-
-	-	-	-	-	-	-	+	-	+
-	-	-	-	-	+	-	+	-	-
-	-	-	-	-	+	-	-	+	-

- e. The next step was to interpret the analysis results of the components that researched for each component, among components and holistically to obtain information about the effectiveness level of each component.
2. Secondary data analysis was done by several stages:
- a. Confirming the results of the primary data tabulation (obtained from questionnaire distribution results) with data obtained through interviews, observation, and documentation.
 - b. Conducting searches, discussions, and inferences on the things that led to the information about the effectiveness of

blended learning implementation on SMA Negeri 1 Ubud.

Based on two analysis stages, both the primary and secondary data, it can be found problems or constraints that exist and can be recommended it solutions.

3. RESULTS AND DISCUSSION

3.1 Results

3.1.1 The effectiveness level of blended learning implementation viewed from system assessment component

Effectiveness level of blended learning implementation on SMA Negeri 1 Ubud if viewed from the perspective of *system assessment* components can be seen more in Table 3 below.

Table 3: Effectiveness Level of Blended Learning Program Implementation Viewed from System Assessment Component

No	Evaluation Aspects	Percentage of Effectiveness (%)
	Indicator or Criteria	
A1	The strategy of fulfilling the human resource competency needs	86.00
X1	Efforts to increase user competence in making digital files that are used as learning resources or content of blended learning	88.00
X2	Efforts to increase user competence in the operating of blended learning	84.00
B1	Support from school community and society	84.70
X3	Support from the school community and society in the form of thoughts (suggestions and criticism) to hold the blended learning	86.70
X4	Support from school community and society in the form of funds for the purchase of infrastructure and facilities supporting the blended learning	82.70
	Average of Total the Effectiveness Percentage	85.30

3.1.2 The effectiveness level of blended learning implementation viewed from *program planning* component

Effectiveness level of blended learning implementation on SMA Negeri 1 Ubud if viewed from the perspective of *program planning* components can be seen more in Table 4 below.

Table 4: Effectiveness Level of Blended Learning Implementation Viewed from Program Planning Component

No	Evaluation Aspects	Percentage of Effectiveness (%)
	Indicator or Criteria	
A2	The readiness of user ability in the blended learning operation	67.10
X5	Users can use computers and internet	70.70
X6	Users can create and manage documents or digital files to be uploaded or published into blended learning	66.70
X7	Users can use blended learning support facilities	64.00
B2	Facilities and infrastructure supporting the implementation of blended learning program	62.70
X8	The availability of classrooms or laboratories are adequate and suitable with the needs of the implementation of blended learning	65.30
X9	The availability of server computers are adequate to support the implementation of blended learning	54.70
X10	Availability of client computers are adequate to support the implementation of blended learning	58.70
X11	Availability of adequate computer network facilities to support the implementation of blended learning	58.70
X12	The availability of stable internet access to support the implementation of blended learning	64.00
X13	The availability of stable electrical resources to support the implementation of blended learning	73.30
X14	Availability of adequate supporting equipment for creating digital documents or digital files	61.30
X15	Availability of adequate air conditioning facilities in the classroom	56.00
X16	Availability of tables and chairs with adequate conditions in the classroom	72.00
	Total of Average	63.80

3.1.3 The effectiveness level of blended learning implementation viewed from *program implementation* component

Effectiveness level of blended learning implementation on SMA Negeri 1 Ubud if viewed from the perspective of *program implementation* components can be seen more in Table 5 below.

Table 5: Effectiveness Level of Blended Learning Implementation Viewed from Program Implementation Component

No	Evaluation Aspects	Percentage of Effectiveness (%)
	Indicator or Criteria	
A3	Socialization of blended learning features for users	61.30
X17	The availability of clear socialization are provided to the users about the existence of blended learning through pamphlets or brochures posted on information boards or from Whatsapp	65.30
X18	The availability of clear socialization are provided to the user about the existence of blended learning through the manual book	57.30
B3	Introduction of hardware and software in realizing blended learning	59.30
X19	The availability of clear forms of socialization through pamphlets or brochures are given to users about the hardware and software needed to blended learning implementation	62.70
X20	The availability of clear forms of socialization are provided to users about the hardware and software needed for the implementation of blended learning program through a manual book	56.00
	Average of Total the Effectiveness Percentage	60.30

3.1.4 The effectiveness level of blended learning implementation viewed from *program improvement* component

Effectiveness level of blended learning implementation on SMA Negeri 1 Ubud if viewed from the perspective of *program improvement* components can be seen more in Table 6 below.

Table 6: Effectiveness Level of Blended Learning Implementation Viewed from Program Improvement Component

No	Evaluation Aspects	Percentage of Effectiveness (%)
	Indicator or Criteria	
A4	The learning to make the content of blended learning	64.70
X21	Users have following the training/workshop about creating the account to access blended learning	74.70
X22	Users have following the training/workshop about creation the suitable content with file formats that can be incorporated into blended learning	54.70
B4	The learning to blended learning usage	59.30
X23	Users have following the training/workshop about the use of features to create new classes, discussion forums and upload material content into blended learning	65.30
X24	Users have following the training/workshop about the use of features to create task facilities, quiz, middle test and final test into blended learning	53.30
	Average of Total the Effectiveness Percentage	62.00

3.1.5 The effectiveness level of blended learning implementation viewed from program certification component

Effectiveness level of blended learning implementation on SMA Negeri 1 Ubud if viewed from the perspective of *program certification* components can be seen more in Table 7 below.

Table 7: Effectiveness Level of Blended Learning Implementation Viewed from Program Certification Component

No	Evaluation Aspects	Percentage of Effectiveness (%)
	Indicator or Criteria	
A5	The Effectiveness of Blended Learning Program From Tangibles Dimension	59.20
X25	Classroom or laboratory conditions are still adequate for use in the implementation of blended learning	54.70
X26	Classroom or laboratory circulations are still adequate for use in the implementation of blended learning	53.30
X27	The condition of tables and chairs are adequate and worth for use in the implementation of blended learning	65.30
X28	The rooms lighting are still decent	64.00
X29	Availability of LCD projectors that are still eligible to use	66.70
X30	The main device used to operate the blended learning (especially computers) are still inadequate condition	62.70
X31	Blended learning materials in digital form are still complete	68.00
X32	Blended learning materials have updated	64.00
X33	Handbook/manual/operational standards for the use of blended learning are adequate	64.00
B5	The Effectiveness of Blended Learning Program From Reliability Dimension	76.00
X34	Blended learning programs are easily accessible to all users	82.70
X35	Access the blended learning programs can be done by the user whenever and wherever they are	82.70
X36	The teams of blended learning developers are always there when needed	62.70
C5	The Effectiveness of Blended Learning Program From Responsiveness Dimension	73.70
X37	The services provided by the blended learning development team are done quickly if there are users who encounter problems while operating blended learning	64.00
X38	The services provided by the blended learning team are done earnestly	68.00
X39	Blended learning application is very fast in giving a response in the form of notification when the user finished doing activities to upload content material into blended learning	76.00
X40	Response blended learning applications in the process of data manipulation (input, edit, delete) on the material content can be done quickly	86.70
D5	The Effectiveness of Blended Learning Program From Assurance Dimension	81.80
X41	The content of material stored in blended learning applications can be guaranteed it security	86.70
X42	Access rights for the use of blended learning applications by a user can be secured and not accessible by others without permission from the owner	81.30
X43	The teams of blended learning developers can be trusted to maintain the comfort and safety of the users of blended learning applications	77.30
E5	The Effectiveness of Blended Learning Program From Empathy Dimension	76.30
X44	The teams of blended learning developers are willing to respond the complaints and problems of blended learning from users when they have difficulty in operating blended learning	78.70

No	Evaluation Aspects	Percentage of Effectiveness (%)
	Indicator or Criteria	
X45	The teams of blended learning developers provide clear and easily understood information by blended learning users related to the way of operation and the things that are needed in the implementation of blended learning	68.00
X46	Some facilities enable users to provide comments and suggestions on blended learning programs	77.30
X47	Some facilities facilitate discussion among users of blended learning in the form of online discussion forums	81.30
Average of Total the Effectiveness Percentage		71.10

3.1.6 Effectiveness Level of Each Evaluation Component Based on the Glickman Quadrant

The effectiveness level when viewed from the perspective of all CSE-UCLA evaluation components that follow the Glickman Quadrant aided by visual application to produce T-Score which is used as the basis for categorizing the effectiveness of blended learning program on SMA Negeri 1 Ubud. The display of visual application that used to assist in determining the effectiveness level based on Glickman Quadrant of the blended learning implementation on SMA Negeri 1 Ubud can be seen in Figure 1, and the calculation result recapitulation of effectiveness level can be seen in Table 8 below.

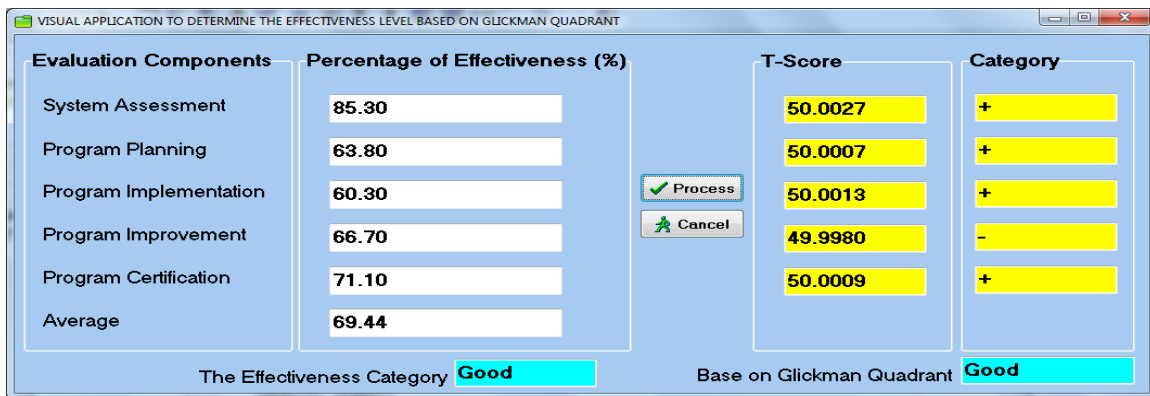


Figure 1: Display of Visual Application to Determine the Effectiveness Level Based on Glickman Quadrant

Table 8: Recapitulation of the Effectiveness Level of Blended Learning Program Implementation Viewed from All CSE-UCLA Evaluation Components and T-Scores Following the Glickman Quadrant

No	Evaluation Components	Percentage of Effectiveness	Evaluation Results	T-Score	Category
1.	System Assessment	85.30	Excellent	50.0027	+
2.	Program Planning	63.80	Good	50.0007	+
3.	Program Implementation	60.30	Good	50.0013	+
4.	Program Improvement	66.70	Good	49.9980	-
5.	Program Certification	71.10	Good	50.0009	+
Average Score		69.44	Good	Glickman Quadrant	Good

3.1.7 Constraints in the evaluation of blended learning program on SMA Negeri 1 Ubud

Although in general the effectiveness of blended learning program implementation on SMA Negeri 1 Ubud has been classified in the good category, but there are still constraints found in the implementation of blended learning program on SMA Negeri 1 Ubud based on evaluation result using CSE-UCLA evaluation model, such as:

- Constraints found in the program planning component

Through the program planning component, found some weaknesses in the implementation of blended learning program on SMA Negeri 1 Ubud, such as 1) server and client computers used to support the implementation of blended learning was inadequate, 2) computer network used to support

the implementation of blended learning also inadequate.

b. Constraints found in the program implementation components

Through the program implementation components, noticed some weakness in the implementation of blended learning program on SMA Negeri 1 Ubud, such as 1) socialization through an instruction manual given to the user about the existence of blended learning still not optimal, and 2) socialization through the guidebook given to users about the hardware and software needed to run the blended learning program still not optimal.

c. Constraints found in the program improvement components

Through the program improvement components, found some weakness in the implementation of blended learning program on SMA Negeri 1 Ubud, such as 1) the implementation of content creation training following the file format that can be incorporated into the blended learning has not run optimally and 2) the training of features used to create task facilities, quiz, middle test and final test in blended learning has not run optimally.

d. Constraints found in the program certification components

Through the program certification component, found some weakness in the implementation of blended learning program on SMA Negeri 1 Ubud especially in aspects of tangibles, where air circulation and classroom or lab conditions used in the implementation of blended learning was still inadequate.

3.2 Discussion

Based on the percentage of effectiveness level of blended learning program implementation on SMA Negeri 1 Ubud concerning the *system assessment* component was shown in Table 3 above and compared with Guilford Classification shown in Table 1, it can be explained that in the component of the *system assessment*, especially for aspect A1 (the strategy of fulfilling the human resource competency needs) was included in the 'excellent' category because the percentage effectiveness score of 86.00% was within the range of 0.80 - 1.00. Therefore the aspect of A1 should be maintained its effectiveness. In the aspect of B1 (support from school community and society) was

included in the 'excellent' category because the effectiveness percentage score of 84.70% was in the range 0.80 - 1.00. Therefore the aspect of B1 needs to be maintained its effectiveness. Average of total the effectiveness percentage on the *system assessment* component of 85.30% belongs to the 'excellent' category, therefore this component must be maintained its effectiveness.

Based on the percentage of effectiveness level of blended learning program implementation on SMA Negeri 1 Ubud concerning the *program planning* component was shown in Table 4 above and compared with Guilford Classification shown in Table 1, it can be explained that in the component of the *program planning*, especially for aspect A2 (the readiness of user ability in the blended learning operation) was included in the 'good' category because the percentage effectiveness score of 67.10% was within the range of 0.60 - 0.80. Therefore the aspect of A2 should be maintained its effectiveness. In the aspect of B2 (facilities and infrastructure supporting the implementation of blended learning program) was included in the 'good' category because the effectiveness percentage score of 62.70% was in the range 0.60 - 0.80. Therefore the aspect of B2 needs to be maintained its effectiveness. Average of total the effectiveness percentage on the *program planning* component of 63.80% belongs to the 'good' category, therefore this component must be maintained its effectiveness.

Based on the percentage of effectiveness level of blended learning program implementation on SMA Negeri 1 Ubud concerning the *program implementation* component was shown in Table 5 above and compared with Guilford Classification shown in Table 1, it can be explained that in the component of the *program implementation*, especially for aspect A3 (socialization of blended learning features for users) was included in the 'good' category because the percentage effectiveness score of 61.30% was within the range of 0.60 - 0.80. Therefore the aspect of A3 should be maintained its effectiveness. In the aspect of B3 (introduction of hardware and software in realizing blended learning) was included in the 'moderate' category because the effectiveness percentage score of 59.30% was in the range 0.40 - 0.60. Therefore the aspect of B3 needs to be improved its effectiveness. Average of total the effectiveness percentage on the *program implementation* component of 60.30% belongs to the 'good' category, therefore this component must be maintained its effectiveness.

Based on the percentage of effectiveness level of blended learning program implementation on SMA Negeri 1 Ubud concerning the *program improvement* component was shown in Table 6 above and compared with Guilford Classification shown in Table 1, it can be explained that in the component of the *program improvement*, especially for aspect A4 (the learning to make the content of blended learning) was included in the 'good' category because the percentage effectiveness score of 64.70% was within the range of 0.60 - 0.80. Therefore the aspect of A4 should be maintained for its effectiveness. In the aspect of B4 (the learning to blended learning usage) was included in the 'moderate' category because the effectiveness percentage score of 59.30% was in the range 0.40 - 0.60. Therefore the aspect of B4 needs to be improved its effectiveness. Average of total the effectiveness percentage on the *program improvement* component of 62.00% belongs to the 'good' category, therefore this component must be maintained its effectiveness.

Based on the percentage of effectiveness level of blended learning program implementation on SMA Negeri 1 Ubud concerning the *program certification* component was shown in Table 7 above and compared with Guilford Classification shown in Table 1, it can be explained that in the component of the *program certification*, especially for aspect A5 (the effectiveness of blended learning program from *tangibles* dimension) was included in the 'moderate' category because the percentage effectiveness score of 59.20% was within the range of 0.40 - 0.60. Therefore the aspect of A5 should be improved its effectiveness. In the aspect of B5 (the effectiveness of blended learning program from *reliability* dimension) was included in the 'good' category because the effectiveness percentage score of 76.00% was in the range 0.60 - 0.80. Therefore the aspect of B5 needs to be maintained its effectiveness. In the aspect of C5 (the effectiveness of blended learning program from *responsiveness* dimension) was included in the 'good' category because the effectiveness percentage score of 73.70% was in the range 0.60 - 0.80. Therefore the aspect of C5 needs to be maintained its effectiveness. In the aspect of D5 (the effectiveness of blended learning program from *assurance* dimension) was included in the 'excellent' category because the effectiveness percentage score of 81.80% was in the range 0.80 - 1.00. Therefore the aspect of D5 needs to be maintained its effectiveness. In the aspect of E5 (the effectiveness of blended learning program from *empathy* dimension) was included in the 'good' category

because the effectiveness percentage score of 76.30% was in the range 0.60 - 0.80. Therefore the aspect of E5 needs to be maintained its effectiveness. Average of total the effectiveness percentage on the *program certification* component of 71.10% belongs to the 'good' category, therefore this component must be maintained its effectiveness.

Based on the results of effectiveness level recapitulation and the T-score following the Glickman Quadrant showed in table 8 and reinforced by the application shown in Figure 1 above shows that there was a similarity of categorization value is 'good category', where between the evaluation results obtained from the average score of effectiveness percentage of all evaluation components with categorization results obtained from the T value referring to the Glickman quadrant, where the value of '+' (positive) in the system assessment component, the value of '+' (positive) in the program planning component, the value of '+' (positive) in the program implementation component, the value of '-' (negative) in the program improvement component, and the value of '+' (positive) in program certification component, also shows the same categorization value that is 'good category'.

Therefore, it can be decided that result of the implementation of the blended learning program on SMA Negeri 1 Ubud has been running well. The results of this research have successfully answered the weaknesses found earlier by Hardjanto, Koestoro, and Riswandi in research they have done, which in this research has been able to show the existence of socialization of blended learning program and at the same time there are socialization about hardware and software used for support the implementation of the program.

Although this research has advantages and can answer weaknesses in previous studies by other researchers, but this study also has weaknesses, especially regarding difficulty determine the most dominant aspects and components in influencing and determining the optimization of blended learning program.

4. CONCLUSIONS

The evaluation of blended learning implementation on SMA Negeri 1 Ubud has been running well, which was marked by the evaluation result on every evaluation component of the *CSE-UCLA* model has shown good category and especially excellent in the system assessment

component. Although in general evaluation results have shown the implementation of blended learning program on SMA Negeri 1 Ubud has been running well, but apparently, there are some constraints found in the components of program planning, program implementation, program improvement, and program certification.

Solutions that can be offered to overcome the obstacle found in this research is by using one of decision support method (weighted product or simple additive weighted) which is part of artificial intelligence, to determine the most dominant aspects and components in influencing the optimization of the blended learning program.

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