User Interface Design of SEVIMA EdLink Platform for Facilitating Tri Kaya Parisudha-Based Asynchronous Learning

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***Abstract*—This research aims to show the user interface design of the SEVIMA EdLink platform to facilitate *Tri Kaya Parisudha*-based asynchronous learning in the nuances of independent learning. This research used the Research and Development method with the Borg & Gall development model, which focused on several stages, including research and field data collection, planning, design development, initial trial, and revision of the initial trial results. The number of respondents involved in the initial trial of the user interface design was two education experts, two informatics experts, 40 teachers of Tourism Vocational Schools in Bali, and 60 students of Tourism Vocational Schools in Bali. The data collection tool for the initial trial of the user interface design was a questionnaire consisting of ten questions. The analysis was conducted by comparing the effectiveness percentage of the user interface design with the effectiveness categorization standard referring to the five scales. The results showed that the user interface design of the SEVIMA EdLink platform was effective in facilitating *Tri Kaya Parisudha*-based asynchronous learning. The impact of this research on stakeholders in the field of education is the existence of new information related to the existence of an online learning platform called SEVIMA EdLink, which is integrated with an asynchronous learning strategy, independent learning policy, and Balinese local wisdom.**

***Keywords*—Design user interface; SEVIMA EdLink; asynchronous; Tri Kaya Parisudha; independent learning**

I. Introduction

One of the efforts made by Tourism Vocational School to improve the quality of learning and the character of its students in the frame of implementing the independent learning policy is to determine the right learning strategy. One of the learning strategies used to make this happen is asynchronous learning. However, an asynchronous learning strategy has still not been effectively implemented. This is because the teacher does not directly meet the students like in-class learning. In addition [1], in asynchronous learning, teachers are also constrained to assess each student's character and quality of learning objectively. Teachers can easily assess the character and quality of student learning if they can interact with students directly in the classroom. An innovation is needed to solve the problems associated with such asynchronous learning. One of the innovations is adapting the SEVIMA EdLink platform into asynchronous learning based on the concept of Tri Kaya Parisudha. SEVIMA EdLink [2] is a learning platform that can be freely obtained from the internet. This platform provides facilities to make the learning process asynchronous, which refers to the cognitive, affective, and psychomotor domains [3]. The concept of Tri Kaya Parisudha consists of three parts [4], namely Manacika (thinking well), Wacika (saying well), and Kayika (doing well). Manacika [5] can be used as a foundation in asynchronous learning to determine the quality of student learning, especially in the cognitive domain. Wacika [5] determines student character (affective domain). Kayika [5] is used as a basis for determining the quality of student learning, especially in the psychomotor domain. The innovation will run well if followed by implementation. The initial effort made to implement the innovation was to design the user interface design of the SEVIMA EdLink platform based on Tri Kaya Parisudha. Based on this, the research question is: How is the user interface design of the SEVIMA EdLink platform to facilitate asynchronous learning based on Tri Kaya Parisudha in the nuances of independent learning?

II. Literature Review

Some of the research behind this study includes research by Utomo & Ahsanah [6], which shows that online learning using the Edmodo application is very effective. This is based on the results obtained from the field trial: giving a pretest and posttest and seeing the quantity of student communication in the forum and chat through the Edmodo application. The obstacle of Utomo & Ahsanah's research is that it has not shown the visualization of online learning in terms of material content and test questions used in measuring the quality of students' abilities and characters. Research by Soesanto et al. [7] showed the aspects of measuring the effectiveness of the blended learning model based on user activities in accessing content. The constraint of Soesanto et al.'s research has not shown the completeness of blended learning regarding test questions used in measuring the user's ability and character. Research by Sela et al. [8] shows that the blended learning model assisted by Google Classroom is very effective based on the percentage of learning implementation results. The limitation of Sela et al. research is that it has not shown the completeness of blended learning regarding material content

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and test questions used in measuring the quality of students' abilities and characters. The research of Anggraeni et al. [9] showed the measurement of the level of effectiveness of the blended learning model based on independent and collaborative asynchronous activities. The research constraint of Anggraeni et al. is that it has not shown the completeness of blended learning in terms of material content and test questions used in measuring the quality of students' abilities and characters.

Papadakis' research [10] states that people can access educational content for free through platforms that provide online learning content. The limitation of Papadakis' research is that it does not specifically explain the platforms that can be used for the online learning he means. Papadakis et al.'s research [11] shows the combined power of cloud technology and augmented reality in supporting the educational process. The limitation of Papadakis et al.'s research is that it has not shown in detail the process of combining cloud technology and augmented reality that can support the educational process, especially in measuring the quality of student's character.

III. Method

A. Research Approach

The approach of this research was development. This research used the Research and Development method, with a research development model, namely Borg & Gall, which consists of 10 stages of development [12], [13], [14], [15], including (1) research & field data collection; (2) planning; (3) design development; (4) initial trial; (5) revision of initial trial results; (6) field trial; (7) revision of field trial results; (8) usage trial; (9) final product revision; (10) desimination and implementation of the final product. Specifically for this 2024 year research, several stages were carried out, including (1) research and field data collection, (2) planning, (3) design development, (4) initial trial, and (5) revision of the initial trial results.

B. Research Subjects

The subjects in this study were determined using the Purposive Sampling technique. This technique was conducted by selecting research subjects initially determined based on the subject's direct relationship with the SEVIMA Edlink platform to facilitate Tri Kaya Parisudha-based asynchronous learning. The subjects involved in this 2024 year research were two education experts, two informatics experts, 40 Tourism Vocational School teachers in Bali, and 60 Tourism Vocational School students in Bali who will be involved in conducting the initial trial. All subjects involved have obtained official and valid consent from each individual without any coercion or conflict of interest.

C. Object and Location of Research

The object of research was the main topic that must be studied and researched in depth. The object of this study was the design of the SEVIMA Edlink platform to facilitate asynchronous learning based on Tri Kaya Parisudha in the nuances of independent learning. This research is implemented in several Tourism Vocational Schools spread across six regencies in Bali Province. The six regencies are Gianyar, Tabanan, Buleleng, Klungkung, Badung, and Denpasar.

D. Research Data Collection Instruments

The instruments used in collecting data in this research are questionnaires. The questionnaires were used to obtain primary data in the form of quantitative data from respondents as a basis for making decisions about the percentage level of effectiveness of the design of the SEVIMA Edlink platform used in asynchronous learning based on Tri Kaya Parisudha in the nuance of independent learning at some Tourism Vocational School in Bali.

E. Data Analysis Techniques

The technique used to analyze the collected data was quantitative descriptive technique through descriptive percentage calculation. The results of the descriptive percentage calculation were used as the basis for interpreting the results of the research on the design of the SEVIMA Edlink platform used in the asynchronous learning based on Tri Kaya Parisudha in the nuanced of independent learning to improve the learning outcomes of Tourism Vocational School students in Bali in the cognitive domain, affective, and psychomotor domains. The formula for calculating the descriptive percentage is as follows [16], [17], [18], [19], [20], [21].

$$P = \frac{f}{N} \times 100\% \quad (1)$$

Notes:

P = Effectiveness percentage

f = Total acquisition value

N = Maximum total value

The percentage results obtained from that formula are then converted into the following Table I [22], [23], [24], [25], [26].

TABLE I. Categorization Standards Referring to Five's Scale

Category of Effectiveness	Percentage of Effectiveness (%)	Follow-up
Poor	0-54	Revision
Less	55-64	Revision
Moderate	65-79	Revision
Good	80-89	No Revision
Excellence	90-100	No Revision

IV. Results and Discussion

A. Results

Some of the research results in 2024 were focused on five stages that refer to the Borg and Gall model. The five stages include 1) research and field data collection stage, 2) planning, 3) design development, 4) initial trial, and 5) revision of the initial trial results. The research results based on these five stages can be shown as follows.

1) The results of the research and field data collection stage: At this stage, data related to several things supporting asynchronous learning for entrepreneurship subjects in the Tourism Vocational School was obtained. The data intended includes 1) the content of entrepreneurship material given to students, 2) examples of test questions based on the concept of Tri Kaya Parisudha, and 3) the features needed in the SEVIMA EdLink platform to support learning asynchronous

in the nuances of independent learning. The data related to entrepreneurship material content can be seen in Table II. Examples of test questions based on the Tri Kaya Parisudha concept can be seen in Table III. The features provided in the SEVIMA EdLink platform to support the occurrence of asynchronous learning based on Tri Kaya Parisudha in the nuances of independent learning can be seen in Table IV.

TABLE II. CONTENT OF ENTREPRENEURSHIP MATERIALS PROVIDED TO STUDENTS OF TOURISM VOCATIONAL SCHOOL IN BALI

No	Content Material
1	Identify entrepreneurial attitudes and behaviors
2	Prestigious work attitudes and behaviors
3	Problem solution formulation
4	Development of spirit entrepreneurship
5	Build commitment to self and others
6	Business risks
7	Decision making

TABLE III. EXAMPLES OF ENTREPRENEURSHIP TEST QUESTIONS BASED ON THE CONCEPT OF TRI KAYA PARISUDHA

No	Content Material	Test Questions	
1	Identify entrepreneurial attitudes and behaviors	*Manacika*	Explain the difference between entrepreneurship, self-employment, and entrepreneurship!
		Wacika	Make a sound recording that shows an entrepreneur who can appreciate the work and experience of others as input for his/her development!
		Kayika	Make a video recording that shows the attitude of an honest and realistic entrepreneur!
2	Prestigious work attitudes and behaviors	*Manacika*	Explain the meaning, purpose, and benefits of presentative work behavior!
		Wacika	Make a voice recording that shows an entrepreneur's ability to maintain their emotional self while realizing presentative work behavior!
		Kayika	Make a video recording that shows the attitude of an entrepreneur who always works to get ahead!
3	Problem solution formulation	*Manacika*	Explain the meaning and difference between problems and non-problems!
		Wacika	Make a voice recording that shows an entrepreneur negotiating well when solving a problem!
		Kayika	Make a video recording that shows the attitude of an entrepreneur who always has how to determine alternative solutions to problems!
4	Development of spirit entrepreneurship	*Manacika*	Explain factors that influence entrepreneurial morale!
		Wacika	Make a voice recording that shows the attitude of an entrepreneur who can influence work morale!
		Kayika	Make a video recording that shows an entrepreneur being able to inspire the spirit of entrepreneurship!
5	Build commitment to self and others	*Manacika*	Explain the factors that show a person is highly committed to their entrepreneurial activities!
		Wacika	Make a voice recording that shows the attitude of an entrepreneur who can maintain a high commitment to self-control!
		Kayika	Create a video recording that shows an entrepreneur who is punctual in his work environment and daily life!
6	Business Risks	*Manacika*	Describe the types of risk in a business!
		Wacika	Make a voice recording that shows the attitude of an entrepreneur in avoiding/minimizing risk in business!
		Kayika	Make a video recording that shows the attitude of an entrepreneur when handling risks in business !
7	Decision making	*Manacika*	Explain the steps of decision-making in an enterprise!
		Wacika	Make a voice recording that shows the attitude of an entrepreneur when giving instructions to subordinates!
		Kayika	Make a video recording that shows the attitude of an entrepreneur in making a decision fairly!

TABLE IV. FEATURES PROVIDED IN THE SEVIMA EDLINK PLATFORM TO SUPPORT ASYNCHRONOUS LEARNING BASED ON TRI KAYA PARISUDHA IN INDEPENDENT LEARNING

No	Features
1	Class
2	Material
3	Task
4	Info
5	Quiz
6	Event
7	Survey
8	Comments

2) The result of planning stage: Data about the number of people involved, personal job descriptions, and the time needed to complete this research was obtained at this stage. The total time prepared for data collection and the revision of the trial results of the user interface design of the SEVIMA EdLink platform to facilitate Tri Kaya Parisudha-based asynchronous learning in nuances of independent learning was 30 days. The complete data related to this research planning can be seen in Table V.

TABLE V. DETAILS OF THE NUMBER OF PERSONAL JOB DESCRIPTIONS AND COMPLETION TIME USER INTERFACE DESIGNS OF SEVIMA EDLINK PLATFORM TO FACILITATE TRI KAYA PARISUDHA-BASED ASYNCHRONOUS IN THE NUANCES OF INDEPENDENT LEARNING

No	Total Personal	Personal Job Description	Time (Day)
1	6	Field data collection	6
2	3	Designing user interface of SEVIMA EdLink Platform to facilitate *Tri Kaya Parisudha*-based asynchronous learning	8
3	104	Initial testing of user interface design	12
4	3	Revision of initial trial results	4
Total	**116**		**30**

3) The result of the design development stage: Referring to some of the features provided in the SEVIMA EdLink platform to support the occurrence of asynchronous learning based on Tri Kaya Parisudha in the nuances of independent learning in some Tourism Vocational Schools in Bali, and the research planning that has been shown in Table V, then the initial design of the user interface of the SEVIMA Edlink platform used in asynchronous learning based on *Tri Kaya Parisudha* in the nuances of independent learning at several

Tourism Vocational School in Bali can be done. The user interface design of this platform was taken directly from the SEVIMA EdLink platform. The results of the initial design of the SEVIMA Edlink platform used in asynchronous learning based on *Tri Kaya Parisudha* in the nuances of independent learning can be seen in Fig. 1 to Fig. 8.

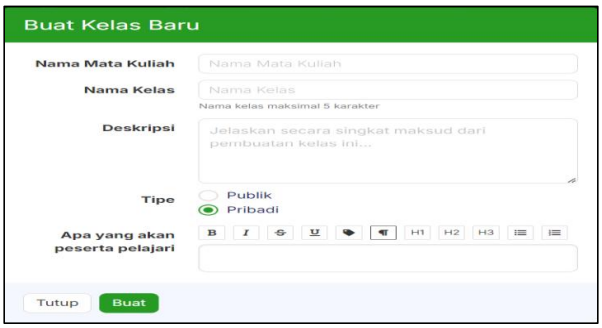

Fig. 1. Design showing facilities for creating classes (in bahasa format).

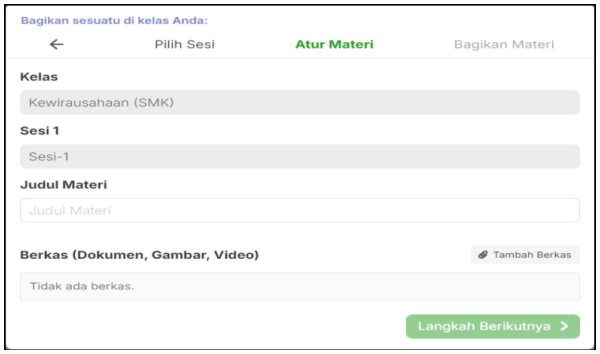

Fig. 2. Design showing facilities for entering course materials (in bahasa format).

Fig. 3. Design showing facilities for entering tasks (in bahasa format).

Fig. 4. Design showing facilities for entering news/information related to learning (in bahasa format).

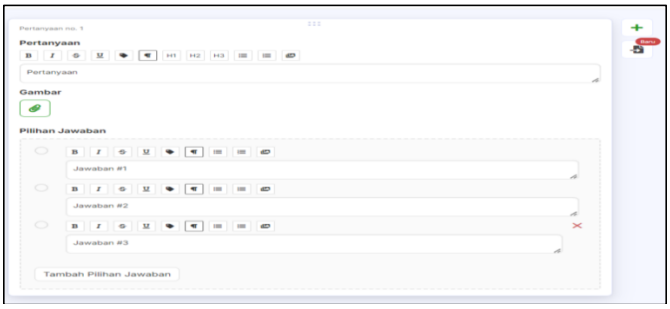

Fig. 5. Design showing the facility for entering test questions (in bahasa format).

Fig. 6. Design showing facilities for entering events/programs related to learning (in bahasa format).

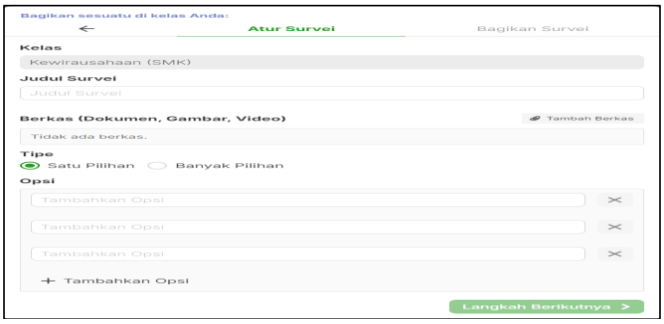

Fig. 7. Design showing the facility for entering questionnaire items for a survey (in bahasa format).

Fig. 8. Design showing the facility to enter comments (in bahasa format).

4) The result of the initial trial stage: Based on the initial design shown in Fig. 1 to 8, an initial trial of the design was conducted. 104 respondents participated in the initial trials. The results of the initial trial can be seen in Table VI.

TABLE VI. TEST RESULTS OF THE USER INTERFACE DESIGN OF THE SEVIMA EDLINK PLATFORM TO FACILITATE TRI KAYA PARISUDHA-BASED ASYNCHRONOUS LEARNING IN THE NUANCES OF INDEPENDENT LEARNING

Respondent	Items-										Σ	Percentage of Effectiveness (%)
	1	2	3	4	5	6	7	8	9	10		
Respondent-1	5	5	5	5	4	5	4	5	4	5	47	94.00
Respondent-2	4	5	4	4	4	5	5	4	5	4	44	88.00
Respondent-3	5	4	4	5	4	4	4	4	4	5	43	86.00
Respondent-4	4	4	4	5	4	5	5	5	5	5	46	92.00
Respondent-5	4	5	5	4	4	4	5	4	5	4	44	88.00
Respondent-6	4	5	5	4	5	5	4	5	4	4	45	90.00
Respondent-7	4	4	4	5	5	4	5	4	4	4	43	86.00
Respondent-8	4	4	4	4	4	5	5	4	5	5	44	88.00
Respondent-9	4	4	5	5	4	4	4	4	5	5	44	88.00
Respondent-10	4	4	4	5	4	4	4	4	4	4	41	82.00
Respondent-11	5	4	4	5	5	4	4	4	4	4	43	86.00
Respondent-12	5	5	4	4	4	4	5	4	4	5	44	88.00
Respondent-13	4	5	4	5	5	4	5	4	4	4	44	88.00
Respondent-14	4	5	4	4	5	4	5	5	4	4	44	88.00
Respondent-15	4	4	5	5	4	5	4	5	5	4	45	90.00
Respondent-16	4	4	4	4	5	5	4	4	4	4	42	84.00
Respondent-17	4	5	5	4	4	4	4	5	4	5	44	88.00
Respondent-18	4	4	5	4	4	4	4	5	4	5	43	86.00
Respondent-19	4	4	5	5	4	4	4	4	5	4	43	86.00
Respondent-20	5	4	4	4	4	5	4	4	4	5	43	86.00
Respondent-21	5	4	5	5	4	5	4	5	5	5	47	94.00
Respondent-22	5	4	4	5	4	5	5	4	5	4	45	90.00
Respondent-23	4	5	5	4	4	5	5	4	5	5	46	92.00
Respondent-24	4	5	4	4	5	4	4	4	4	4	42	84.00
Respondent-25	5	4	5	5	4	5	5	4	4	5	46	92.00
Respondent-26	4	4	4	4	4	5	5	4	4	5	43	86.00
Respondent-27	5	4	4	4	4	4	4	5	4	5	43	86.00
Respondent-28	5	5	4	4	4	4	4	4	5	4	43	86.00
Respondent-29	4	4	4	4	4	4	5	4	5	4	42	84.00
Respondent-30	4	5	5	4	5	5	4	5	4	5	46	92.00
Respondent-31	4	5	5	4	5	5	4	5	5	4	46	92.00
Respondent-32	4	4	4	4	4	4	5	4	4	5	42	84.00
Respondent-33	4	4	4	4	4	4	4	5	5	5	43	86.00
Respondent-34	4	4	5	4	4	5	5	5	4	4	44	88.00
Respondent-35	4	4	4	4	4	4	5	4	5	4	42	84.00
Respondent-36	5	4	4	5	4	4	5	5	4	4	44	88.00
Respondent-37	5	5	4	5	5	4	4	4	4	5	45	90.00
Respondent-38	4	4	4	4	4	4	4	5	4	5	42	84.00
Respondent-39	4	5	5	4	5	4	5	4	5	4	45	90.00
Respondent-40	4	4	5	4	5	5	4	4	5	4	44	88.00
Respondent-41	5	5	4	4	5	5	4	4	4	5	45	90.00
Respondent-42	5	4	4	5	4	4	4	4	4	4	42	84.00
Respondent-43	4	5	5	4	5	5	4	4	4	4	44	88.00
Respondent-44	4	4	4	4	5	5	4	5	5	4	44	88.00
Respondent-45	4	4	4	4	4	4	5	5	5	4	43	86.00
Respondent-46	5	4	4	4	4	4	4	4	4	4	41	82.00
Respondent-47	4	4	4	4	4	5	4	4	4	5	42	84.00
Respondent-48	5	5	4	5	5	4	5	4	5	5	47	94.00
Respondent-49	5	5	4	5	5	4	5	4	4	4	45	90.00
Respondent-50	4	4	4	4	4	5	4	4	4	5	42	84.00
Respondent-51	4	4	4	4	4	4	5	5	4	5	43	86.00
Respondent-52	4	5	4	4	5	5	4	5	4	4	44	88.00
Respondent-53	4	4	4	4	4	5	4	4	4	4	41	82.00
Respondent-54	4	4	5	4	4	5	4	4	4	4	42	84.00
Respondent-55	5	4	5	5	4	4	4	4	5	5	45	90.00
Respondent-56	4	4	5	4	5	5	4	4	5	5	45	90.00
Respondent-57	5	4	4	5	4	5	5	4	4	4	44	88.00
Respondent-58	5	4	5	4	5	4	5	5	4	4	45	90.00
Respondent-59	4	4	4	4	4	4	4	5	4	5	42	84.00
Respondent-60	4	4	4	4	5	5	4	4	4	4	42	84.00
Respondent-61	5	4	4	5	4	4	4	4	4	4	42	84.00
Respondent-62	4	4	4	4	4	4	4	4	5	4	41	82.00
Respondent-63	4	5	4	4	4	4	4	4	4	4	41	82.00
Respondent-64	4	5	5	4	4	4	5	4	4	4	43	86.00
Respondent-65	5	4	5	4	5	4	4	5	4	5	45	90.00
Respondent-66	5	5	4	4	5	4	5	4	4	5	45	90.00

Respondent	Items-										Σ	Percentage of Effectiveness (%)
	1	2	3	4	5	6	7	8	9	10		
Respondent-67	5	5	4	4	4	4	4	4	5	4	43	86.00
Respondent-68	4	4	4	4	4	4	4	4	4	5	41	82.00
Respondent-69	4	5	5	4	5	4	4	5	5	5	46	92.00
Respondent-70	4	5	5	4	4	4	4	4	5	4	43	86.00
Respondent-71	4	4	4	5	4	5	4	4	5	5	44	88.00
Respondent-72	4	4	4	4	4	5	5	4	4	4	42	84.00
Respondent-73	4	4	5	4	5	4	5	4	5	4	44	88.00
Respondent-74	5	5	4	5	5	5	4	4	5	4	46	92.00
Respondent-75	5	5	4	5	5	5	4	4	4	4	45	90.00
Respondent-76	4	4	5	4	4	4	4	4	4	5	42	84.00
Respondent-77	4	4	4	5	5	5	4	4	4	4	43	86.00
Respondent-78	4	5	5	5	5	5	4	5	5	4	47	94.00
Respondent-79	4	4	5	4	4	4	5	5	5	4	44	88.00
Respondent-80	4	5	5	4	4	4	4	4	4	4	42	84.00
Respondent-81	4	4	5	4	4	5	4	4	4	4	42	84.00
Respondent-82	5	5	4	4	5	4	5	4	5	4	45	90.00
Respondent-83	5	5	4	5	5	4	5	4	4	4	45	90.00
Respondent-84	4	4	4	4	4	5	4	4	4	4	41	82.00
Respondent-85	4	4	4	4	4	4	5	5	4	5	43	86.00
Respondent-86	4	5	4	4	5	5	5	4	4	5	45	90.00
Respondent-87	4	4	4	4	4	5	4	5	5	4	43	86.00
Respondent-88	4	4	5	4	5	5	4	5	4	4	44	88.00
Respondent-89	5	4	5	4	4	5	4	5	5	4	45	90.00
Respondent-90	4	5	5	5	4	4	4	5	5	4	45	90.00
Respondent-91	5	5	5	5	4	4	5	4	4	4	45	90.00
Respondent-92	5	4	4	4	5	5	4	5	5	4	45	90.00
Respondent-93	5	4	4	4	4	4	4	5	5	4	43	86.00
Respondent-94	5	4	4	5	4	4	4	4	4	5	43	86.00
Respondent-95	4	4	5	4	5	4	4	4	4	4	42	84.00
Respondent-96	4	5	5	4	5	4	4	4	5	4	44	88.00
Respondent-97	4	4	4	5	4	4	5	5	4	5	44	88.00
Respondent-98	4	4	4	4	5	4	5	5	4	5	44	88.00
Respondent-99	4	4	5	5	5	4	4	4	5	4	44	88.00
Respondent-100	4	4	4	5	4	4	4	4	4	5	42	84.00
Respondent-101	5	4	5	5	4	4	4	5	5	5	46	92.00
Respondent-102	5	5	4	4	4	5	4	4	5	4	44	88.00
Respondent-103	5	4	4	4	4	4	4	4	5	5	43	86.00
Respondent-104	5	4	4	4	5	5	5	4	4	4	44	88.00
Average												**87.38**

Respondents made several suggestions during the initial trial of the user interface design of the SEVIMA EdLink platform to facilitate Tri Kaya Parisudha-based asynchronous learning. These suggestions, which can be seen in Table VII, were used to improve the user interface design.

5) Revision stage of the initial trial results: Referring to the respondents' suggestions in Table VII, it was necessary to revise the user interface design of the SEVIMA EdLink Platform to facilitate Tri Kaya Parisudha-based asynchronous learning. Three research teams made revisions. The revised user interface design can be seen in Fig. 9 to Fig. 14.

TABLE VII. SUGGESTIONS FROM RESPONDENTS WHO WERE GIVEN ON THE INITIAL PILOT TEST

No	Respondents	Suggestions
1	Respondent-10	Show the facility to create *Manacika*-based test questions in detail
2	Respondent-16	Demonstrate the feature to set question weight and the minimum passing score for *Manacika*-based test
3	Respondent-24	Show the facility to create *Wacika*-based tasks in detail
4	Respondent-42	Indicate the existence of a feature to randomize test questions based on *Manacika.*
5	Respondent-50	Show the facility to create *Kayika*-based tasks in detail
6	Respondent-63	Show the feature to set a time limit for *Manacika*-based test questions
7	Respondent-84	Demonstrate the feature of setting question weights on tests to measure students' cognitive abilities
8	Respondent-95	Show the feature to randomize cognitive test questions

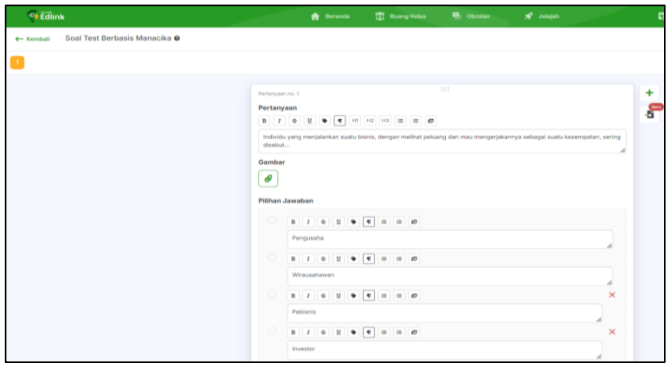

Fig. 9. Design showing the facilities for creating manacika-based test questions in detail (in bahasa format).

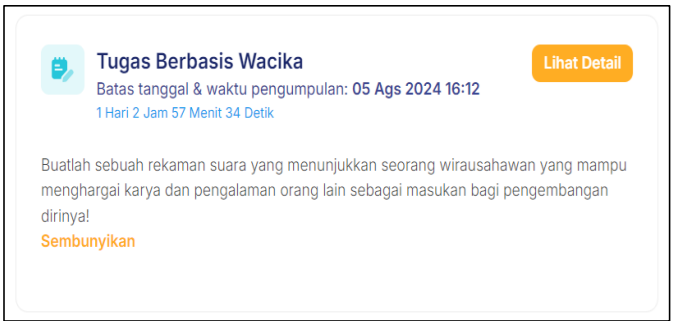

Fig. 10. Design showing the facilities for creating wacika-based tasks in detail (in bahasa format).

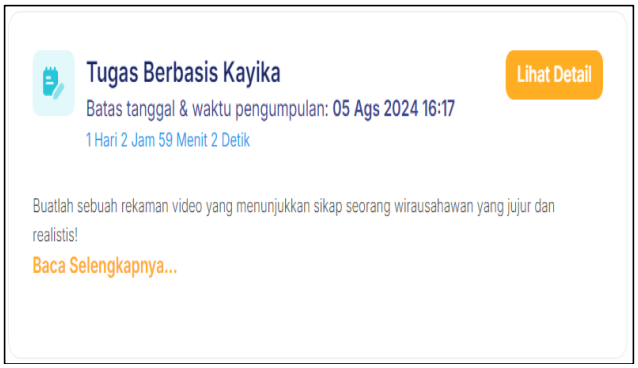

Fig. 11. Design showing the facilities for creating kayika-based tasks in detail (in bahasa format).

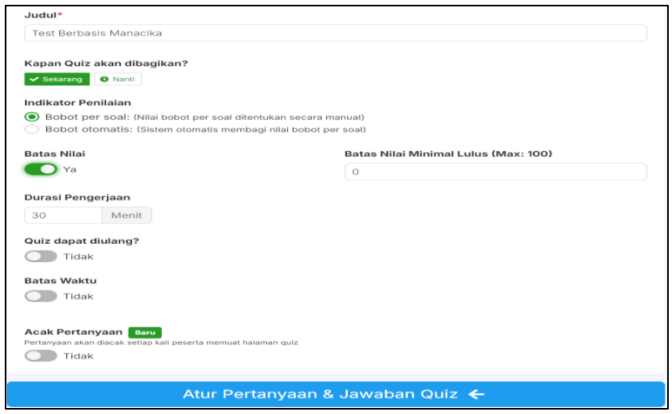

Fig. 12. Design showing features for setting question weights and minimum passing limits for manacika-based tests (in bahasa format).

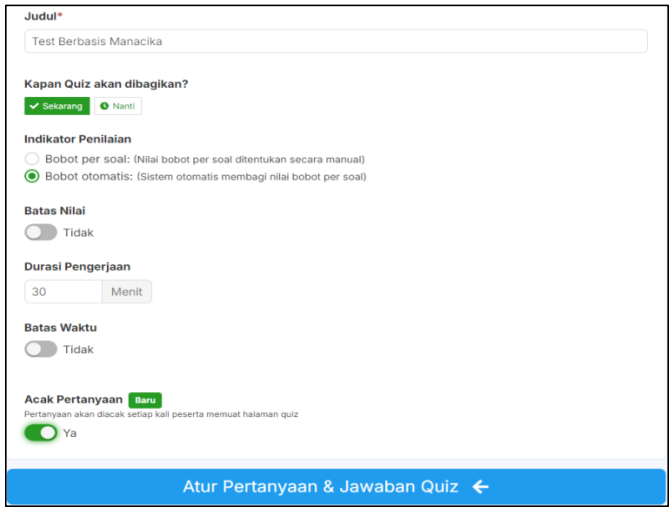

Fig. 13. Design showing the existence of a feature to randomize manacika-based test questions (in bahasa format).

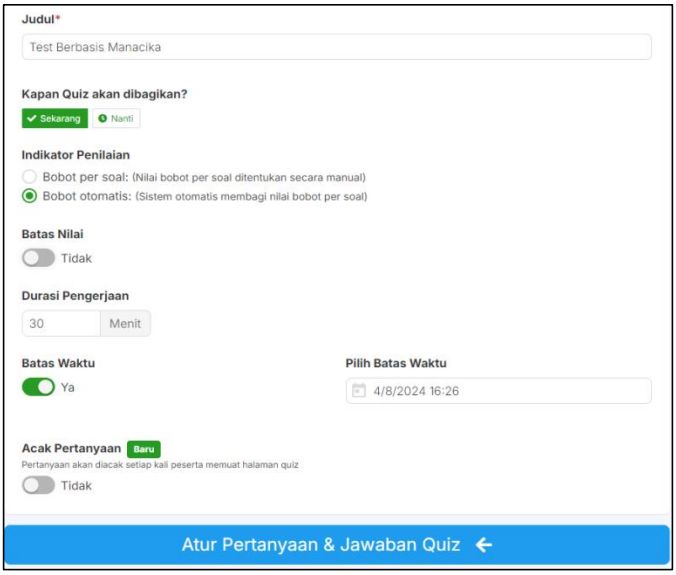

Fig. 14. Design showing features to set time limits for completing test questions based on manacika (in bahasa format).

B. Discussion

The effectiveness of the SEVIMA EdLink platform user interface design to facilitate Tri Kaya Parisudha-based asynchronous learning was included in the category of good effectiveness level. This was because the average percentage of effectiveness was 87.38%. When referring to the effectiveness categorization standard, which refers to a five-scale in Table I, it was evident that the average percentage of effectiveness was included in the good category. The underlying reason for testing the effectiveness of the SEVIMA EdLink platform user interface design is to show developers and users on a wider scale that the design has been tested and is ready to be developed into the application product creation stage.

There were ten questions used in the initial trial of the user interface design of the SEVIMA EdLink platform to facilitate Tri Kaya Parisudha-based asynchronous learning. Item-1 is related to the suitability of the design form that shows the

facility to create a class. Item-2 is related to the suitability of the design form which indicates the presence of facilities for entering the subject matter. Item-3 is related to the suitability of the design form that shows the facilities for entering Wacika and Kayika concept-based tasks. Item-4 is related to the suitability of the design form that shows the presence of facilities for entering learning information/news. Item-5 is related to the suitability of the design form that shows the facility to create Manacika concept-based test questions. Item-6 is related to the suitability of the design form that shows the facility to enter events/programs related to learning. Item-7 is related to the suitability of the design form that shows the facility to enter survey question items. Item-8 is related to the suitability of the design that showed the facility to enter comments. Item-9 is related to the ease of use of the SEVIMA EdLink platform in realizing Tri Kaya Parisudha-based asynchronous learning in the nuances of independent learning. Item-10 is related to data storage security in the SEVIMA EdLink platform to realize Tri Kaya Parisudha-based asynchronous learning in the nuances of independent learning.

The entire user interface of the SEVIMA EdLink platform, which facilitates Tri Kaya Parisudha-based asynchronous learning, uses the Indonesian language format. This is because the SEVIMA EdLink platform is an online learning platform developed by one of the limited liability company in Indonesia, namely PT. Sentra Vidya Utama (SEVIMA). This platform is intended to support the online learning process in Indonesia.

Fig. 9 is the revised user interface design of the SEVIMA EdLink Platform to facilitate Tri Kaya Parisudha-based asynchronous learning to follow up on the suggestion from respondent 10. Fig. 9 shows the facility to create Manacika-based test questions in detail. Figure 10 is the revised user interface design of the SEVIMA EdLink platform to facilitate Tri Kaya Parisudha-based asynchronous learning to follow up on the suggestions from respondent 24. Fig. 10 shows the facility to create Wacika-based tasks in detail. Fig. 11 is the revised user interface design of the SEVIMA EdLink platform to facilitate Tri Kaya Parisudha-based asynchronous learning to follow up on the suggestions from respondent 50. Fig. 11 shows the facility to create Kayika-based tasks in detail. Fig. 12 is the revised user interface design of the SEVIMA EdLink platform to facilitate Tri Kaya Parisudha-based asynchronous learning to follow up on the suggestions from respondent-16 and respondent-84. Fig. 12 shows the ability to set question weights and minimum passing scores for Manacika-based tests to measure students' cognitive abilities. Fig. 13 is the revised user interface design of the SEVIMA EdLink platform to facilitate Tri Kaya Parisudha-based asynchronous learning to follow up on the suggestions from respondent-42 and respondent-95. Fig. 13 shows the existence of a feature to randomize test questions based on Manacika in order to measure students' cognitive abilities. Fig. 14 is the revised user interface design of the SEVIMA EdLink platform to facilitate Tri Kaya Parisudha-based asynchronous learning to follow up on the suggestion from respondent-63. Fig. 14 shows the presence of a feature to set a time limit for tests based on Manacika.

This research has been able to answer the limitations of Utomo & Ahsanah' research [6], research by Soesanto et al. [7], research by Sela et al. [8], and Anggraeni et al.'s research. [9], by showing the user interface design of an online learning platform called SEVIMA EdLink, which is integrated with asynchronous learning strategies, independent learning policies, and Balinese local wisdom. This platform is appropriate for use as an asynchronous learning facility to improve student learning outcomes in the cognitive, affective, and psychomotor domains. This research in principle has the same characteristics, objectives, and concepts as research by Arvianti & Wahyuni [27], research by Fajri & Saputri [28], research by Hikmawati et al. [29], research by Ramdhani et al. [30], research by Supiatman et al. [31], and research by Yulianto et al. [32], which internalized the concept of local wisdom into the online learning process.

The novelty of this research is in the form of an innovative learning platform user interface design that combines the SEVIMA EdLink platform, asynchronous learning strategy, independent learning policy, and Balinese local wisdom, namely Tri Kaya Parisudha. This user interface design shows the SEVIMA EdLink platform used in facilitating asynchronous learning based on Tri Kaya Parisudha in the nuances of independent learning. Therefore, the presence of this platform can provide practical impacts that support the improvement of learning outcomes of Tourism Vocational School students in Bali in the cognitive (knowledge), affective (character), and psychomotor (skills) domains in the nuances of independent learning.

Although this research has novelty, but in reality this research also has limitations. The limitation of this research is that it has not been shown in detail how to operate the SEVIMA EdLink platform to facilitate Tri Kaya Parisudha-based asynchronous learning. This is because the research is focused only on the design of the user interface.

V. Conclusion

In general, the results of this research have produced a user interface design for the SEVIMA EdLink platform used in facilitating asynchronous learning based on Tri Kaya Parisudha in nuances independent learning with good quality. This user interface design shows the visualization form of Sevima EdLink learning platform, asynchronous learning strategy, independent learning policy, and Balinese local wisdom, namely Tri Kaya Parisudha, to give birth to a unique and distinctive form of learning platform in order to improve the learning outcomes of Tourism Vocational School students in Bali in the cognitive, affective, and psychomotor domains. The future work that needs to be done to overcome the obstacles of this research is to show how to operate the SEVIMA EdLink platform to facilitate Tri Kaya Parisudha-based asynchronous learning at the Tourism Vocational School in Bali. The impact of this research on stakeholders in the field of education is the existence of new information related to the existence of an online learning platform called SEVIMA EdLink, which is integrated with an asynchronous learning strategy, independent learning policy, and Balinese local wisdom. Educational stakeholders can use this online learning platform to present an asynchronous learning process based on Balinese local culture to improve the learning outcomes of Tourism Vocational

School students in Bali in the cognitive, affective, and psychomotor domains.

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