

JOFF Model in the Frame of Asta Amertaning DIVAYANA Model as a Form of Metamorphosis Evaluation Model for Determining the Psychofun-Hybrid Learning Quality

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Abstract—This research aimed to show the design of the *Justification-Observation-Finalization-Functionalization (JOFF)* model in the frame of *Asta Amertaning Description-Input-Verification-Action-Yack-Analysis-Nominate-Actualization (DIVAYANA)* model. The *JOFF* model has evaluation stages from the metamorphosis of the eight stages (*Asta Amertaning*) of the *DIVAYANA* model into four stages. The four stages of the *JOFF* model can determine recommendation priorities from the highest to the lowest ranking in evaluating the quality of *Psychofun-Hybrid Learning* at IT vocational schools. This research approach was developed using the Borg and Gall development model. In 2024, the research focuses on several development stages, including research and collection field data, planning, design development, initial trials, and revision of initial trial results. The respondents involved in conducting initial trials on the initial design of the *JOFF* model in the frame of *Asta Amertaning DIVAYANA* model were 64 respondents. The data collection tool for the initial trial results of the evaluation model was a questionnaire. Data analysis from initial trials of this model design was by comparing the results of initial trials with quality standards referring to a five scale. The results of this research showed that the quality of the model design was good. The results of this research have a positive impact on the progress of educational evaluation and educational technology by showing the existence of a new evaluation model design that can determine priority recommendations. Recommendations start from the highest ranking to the lowest from the evaluation process for the *Psychofun-Hybrid Learning* model. It will improve students' cognitive, psychomotor, and character quality at IT vocational school in the innovative and sustainable era of independent learning.

Keywords—*Justification- Observation- Finalization-Functionalization (JOFF)* model, *Asta Amertaning, Description-Input-Verification-Action-Yack-Analysis-Nominate-Actualization (DIVAYANA)* model, metamorphosis, *Psychofun-Hybrid Learning*

I. INTRODUCTION

Hybrid learning in the era of independent learning policies and post-COVID-19 is very appropriate to use because it provides students with the opportunity to actively learn independently or guided by utilizing online technology and classical direct learning in the classroom [1–3]. The independent learning policy allows students to learn more actively through a hybrid learning process. It sustainably will develop students' creativity, innovation, cognitive abilities, and character. However, reality shows that many students complain about hybrid learning being online. Students feel the bored or saturated cause of the uninteresting and monotonous content of the online material offered, and there

is no direct interaction with the teacher during the learning process. Therefore, a breakthrough model emerged in the form of *Psychofun-Hybrid Learning*. this *Psychofun-Hybrid Learning* model brings psychological joy and high enthusiasm when learning online or offline.

The word 'psycofun' is interpreted as psychological pleasure obtained from changing unpleasant behavior into pleasant behavior. The word 'psychofun' consists of two words, namely psycho and fun. The word 'psycho' is used to describe people who behave unpleasantly [4], while 'fun' means pleasure [5]. In the concept of the learning model developed, *psychofun* means trying to create a learning model that can change the behavior of people who are initially unhappy to become happy. If it is related to the learning process, *psychofun* means the behavior of students who enjoy the learning process they are participating in. Hybrid learning combines face-to-face learning with computer-based learning (offline/online) or other information technology-based social media, such as smartphones, video conferencing, weblogs, etc. However, the percentage of online learning implementation for hybrid learning is higher compared to blended learning [6–8].

Even though the *Psychofun-Hybrid Learning* model is considered a new learning model, it is also necessary to evaluate it to determine its quality in terms of positive and negative disparities in its implementation. One evaluation model that is a solution is the *DIVAYANA (Description-Input-Verification-Action-Yack-Analysis-Nominate-Actualization)* model. The *DIVAYANA* model evaluates IT-based education services, IT-based learning processes, IT education policies, and other matters in IT education. Judging from the name, the *DIVAYANA* model is an acronym for the following words: *Description, Input, Verification, Action, Yack, Analysis, Nominate, and Actualization* [9–11]. The main objective of the *DIVAYANA* evaluation model is to determine the priority of recommendations from the highest to the lowest level from several recommendations.

However, because the *DIVAYANA* model has eight evaluation stages (*Asta Amertaning*), it needs to be simplified through metamorphosis into shorter stages not to reduce the function and essence of each stage. This metamorphosis process presents a new evaluation model called the *JOFF (Justification-Observation-Finalization-Functionalization)* model.

The difference between the *DIVAYANA* and *JOFF* models lies in the number of evaluation stages each model incorporates. The *DIVAYANA* model consists of eight stages,

whereas the *JOFF* model has four stages. One advantage of the *JOFF* model is its ability to produce sustainable ranking results, even if there are changes in the number of experts or decision-makers providing ranking weights. This capability is not present in the *DIVAYANA* model. The development of the *JOFF* model is very relevant to be used in overcoming the challenges of *Psychofun-Hybrid Learning* to present the quality of learning in terms of positive and negative disparities in its implementation. In order to obtain the quality of learning, the *JOFF* evaluation model offers the convenience of determining the priority of recommendations from the highest to the lowest ranking and can also show sustainable ranking results.

Based on these problems and innovation ideas, the problem statement of this research is: How is the design of the *JOFF* model in the frame of *Asta Amertaning DIVAYANA* model as a form of metamorphosis of the *Psychofun-Hybrid Learning* quality-determining evaluation model?

II. LITERATURE REVIEW

Several previous research results form the background for this research. Research by Li *et al.* [12] showed the effectiveness level of hybrid-based learning and teaching practices is already working well. The limitations of Li *et al.*'s [12] research were not clear that there is an evaluation model to determine priority aspects to measure the effectiveness of hybrid-based learning and teaching practices from low to higher levels. Research by Kamath *et al.* [13] demonstrated the effectiveness level of the hybrid model in the delivery of human physiology experimental teaching sessions. Limitations of Kamath *et al.*'s [13] research were not yet clear that there is an evaluation model to determine priority aspects to measure the effectiveness of the hybrid model in delivering human physiology experimental teaching sessions from the lowest level to the top level. Research by Alwaddood *et al.* [14] showed students' perceptions of hybrid learning. They said hybrid learning helps facilitate and accelerate the knowledge transfer between students and educators. Limitations of Alwaddood *et al.*'s [14] research was not yet a demonstrated assessment/evaluation model to determine which aspects are priorities for ensuring the effectiveness of hybrid learning, starting from the highest priority to the lowest.

Tisza's research [15] shows that the effectiveness level of the fun role in the learning process is running optimally. However, it did not prove an evaluation model to determine the dominant aspects that are priorities for measuring the effectiveness of the fun role in the learning process from the lowest level to the highest. Research by *DIVAYANA et al.* [16] shows a recapitulation of the ranking results of priority recommendations from the highest to the lowest ranking given to policymakers to make decisions to optimize the implementation of information technology-based learning at the IT vocational school level in Bali. The limitations of *DIVAYANA et al.*'s [16] research include the lengthy stages of the *DIVAYANA* model used to prioritize recommendations, ranging from the highest to lowest ranking. Therefore, it is essential to simplify these stages. *DIVAYANA*'s research [17] demonstrates the process of measuring which aspects receive priority recommendations, from low to high priority. However, a significant limitation

of this research is that the *DIVAYANA* formula used for determining recommendation priorities does not consistently yield sustainable ranking results when there is a change in the number of experts or decision-makers providing ranking weights.

III. MATERIALS AND METHODS

A. Research Approach

This research used the Research and Development method, with a research development model, namely Borg and Gall, which consists of ten development stages [18–24], including: (1) research and collection field data; (2) planning; (3) design development; (4) initial trial; (5) revision of initial trial results; (6) field trials; (7) revision of field trial results; (8) trial use; (9) final product revision; (10) dissemination and implementation of the final product. Based on the policy of the Directorate General of Research and Development, Ministry of Education, Culture, Research and Technology of the Republic of Indonesia for research in 2024, specifically for research in 2024, 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. Subjects, Object, and Location of Research

In this research, the subjects were determined using the purposive sampling technique. This method involved selecting research subjects based on their direct relationship with the *JOFF* model in the frame of the *Asta Amertaning DIVAYANA* model. This approach represents a transformation of the *Psychofun-Hybrid Learning* quality evaluation model, which is applied in IT vocational schools in Bali.

The number of subjects involved in the 2024 research were two education experts, two informatics experts, 20 education evaluators, and 40 teachers at IT vocational schools in Bali who were involved in conducting initial trials. All subjects involved in conducting the initial trial were knowledgeable about *Psychofun-Hybrid Learning*, which was applied in IT vocational schools in Bali. Education experts were selected as subjects involved in conducting the initial trial for the reason of providing assessments and suggestions according to science in the field of developing fun learning strategies. Informatics experts were selected as subjects involved in conducting the initial trial for the reason of providing assessments and suggestions according to science in the field of digital learning platforms. Education evaluators were selected as subjects involved in conducting the initial trial for the reason of providing assessments and suggestions according to science in the field of educational evaluation. Teachers were selected as subjects involved in conducting the initial trial for the reason of providing perceptions of the level of satisfaction as users and organizers of *Psychofun-Hybrid Learning* at IT vocational schools in Bali. However, the next trial may involve education experts or education evaluators in different contexts to strengthen the applicability and robustness of the *JOFF* model in the frame of *Asta Amertaning DIVAYANA* model. In principle, this model is not only applied to the field of informatics education but can also be applied to other fields as long as the criteria used in

evaluating the evaluated object are correct and clear.

The research object is the main topic that must be studied and researched in depth. The object of this research was the *JOFF* model in the frame of *Asta Amertaning DIVAYANA* model as a form of metamorphosis of the evaluation model for determining the quality of *Psychofun-Hybrid Learning*. This research was on several IT vocational schools spread across six districts in Bali Province. The six districts include Gianyar, Tabanan, Buleleng, Klungkung, Badung, and Denpasar.

C. Data Collection Instruments

The instruments/tools used to collect data in this research were questionnaires. The questionnaires were to obtain primary data in the form of quantitative data from respondents as a basis for making decisions regarding the percentage level of effectiveness in implementing the *JOFF* model in the frame of *Asta Amertaning DIVAYANA* model as a form of metamorphosis of the *Psychofun-Hybrid Learning* quality evaluation model in several IT vocational schools in Bali. The number of questions in the instrument created before the content validity test was carried out was 15 items. The fifteen items of the instrument covered all relevant dimensions to evaluate the quality of the *JOFF* model in the frame of *Asta Amertaning DIVAYANA* model. The fifteen items were created by the researcher and after a content validity test involving two educational evaluation experts, 10 valid items were obtained. The formula used to calculate the content validity test of the instrument items is the Gregory formula. The results of the content validity test showed that the 10 items of the instrument were categorized as high validity, so the instrument could be used as an initial trial tool. The measurement scale for each question item uses a *Likert* scale consisting of five measurement scores. The five scores are [25–27]: score-1 for the poor category, score-2 for the less category, score-3 for the moderate category, score-4 for the good category, and score-5 for the excellence category.

D. Data Analysis Techniques

The technique used to analyze the data was a quantitative descriptive technique through descriptive percentage calculations. The results of the descriptive percentage calculations as a basis for interpreting the results of research

on the development and implementation of the *JOFF* model in the frame of *Asta Amertaning DIVAYANA* model as a form of metamorphosis of the *Psychofun-Hybrid Learning* quality evaluation model at several IT vocational schools in Bali. Those results were converted into a five-scale categorization table. The descriptive percentage calculation formula is in equation (1) [28, 29]. The five-scale categorization table can be seen in Table 1 [30–33].

Table 1. Categorization standards referring to five's scale

No	Category of Quality	Percentage of Quality (%)	Follow-up
1	Excellence	90–100	No Revision
2	Good	80–89	No Revision
3	Moderate	65–79	Revision
4	Less	55–64	Revision
5	Poor	0–54	Revision

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

P = Percentage of quality;

f = Total acquisition value;

N = maximum total value.

IV. RESULTS AND DISCUSSION

A. Results

Several research results have been obtained specifically in 2024 based on the Borg and Gall stages. The research results only focus on the research & field data collection stages, planning, design development, (4) initial trials, and (5) revisions to the initial trial results. Some of the research results intended can be shown as follows:

1) The results at the stage of research and field data collection

At this stage, several evaluation components, aspects, and the *JOFF* model to evaluate the quality of *Psychofun-Hybrid Learning* implemented at IT vocational schools, especially in Bali. The *JOFF* model evaluation components consist of Justification, Observation, Finalization, and Functionalization. The *JOFF* model evaluation aspects to evaluate the quality of *Psychofun-Hybrid Learning* can be seen in Table 2. Evaluation instrument items can be seen in Table 3.

Table 2. *JOFF* model evaluation aspects

Evaluation Components	Aspect Code	Evaluation Aspect
Justification	A1	There is a reason for implementing <i>Psychofun-Hybrid Learning</i> at IT vocational schools in Bali Province.
	A2	There are obstacles to implementing <i>Psychofun-Hybrid Learning</i> at IT vocational schools in Bali Province.
	A3	There is the existence of alternative solutions to obstacles.
Observation	A4	Existence of standards/criteria for evaluation success.
	A5	Existence of conformity checking results between alternatives and evaluation success standards.
	A6	There is a recapitulation of the results of field trials implementing <i>Psychofun-Hybrid Learning</i> at IT vocational schools in Bali Province.
Finalization	A7	There is agreement on the arguments made by experts and evaluators in focus group design activities.
	A8	There is an analysis of the agreed arguments.
Functionalization	A9	There is a priority ranking of recommendations from highest to lowest level.
	A10	There is actualization of recommendations starting from the priority to the last priority.

2) The results at the stage of planning

This stage showed the job description, the total of human resources involved, and the time required to complete this research. The total time prepared from data collection to

revision of the trial results on the design of the *JOFF* model in the frame of *Asta Amertaning DIVAYANA* model was 42 days. Complete information regarding the planning of this research can be seen in Table 4.

Table 3. JOFF model evaluation instrument items

Aspects Code	Items Code	Instrument Items
A1	I1	There is a government policy that supports the implementation of Psychofun-Hybrid Learning at IT vocational schools in Bali Province.
	I2	The school's vision, mission, and goals support Psychofun-Hybrid Learning.
	I3	School regulations that support the implementation of Psychofun-Hybrid Learning.
	I4	School community support for implementing Psychofun-Hybrid Learning.
	I5	Adequate financial support to realize the implementation of Psychofun-Hybrid Learning.
	I6	The right platform to support the implementation of Psychofun-Hybrid Learning.
	I7	Adequate supporting infrastructure so that the implementation of Psychofun-Hybrid Learning can run smoothly
	I8	Adequate human resources to support the implementation of Psychofun-Hybrid Learning.
	I9	Adequate material content to support the implementation of Psychofun-Hybrid Learning.
A2	I10	Unclear school regulations in implementing Psychofun-Hybrid Learning.
	I11	Limited budget for implementing Psychofun-Hybrid Learning.
	I12	The low ability of the development/management team in implementing Psychofun-Hybrid Learning.
	I13	The low ability of teachers and students to operate computers and the internet supports the implementation of Psychofun-Hybrid Learning.
	I14	Teachers' low interest in learning processes or discussions through Psychofun-Hybrid Learning.
	I15	Low student interest in learning independently through Psychofun-Hybrid Learning supporting platforms.
	I16	Limited facilities and infrastructure to support the implementation of Psychofun-Hybrid Learning.
	I17	The low quantity and quality of material content available in the Psychofun-Hybrid Learning support platform.
A3	I18	Readiness of school regulations that support the implementation of Psychofun-Hybrid Learning.
	I19	Budget readiness to realize the implementation of Psychofun-Hybrid Learning.
	I20	Readiness of the development/management team's capabilities in implementing Psychofun-Hybrid Learning.
	I21	Readiness of teachers and students in operating computers and the internet to support the smooth implementation of Psychofun-Hybrid Learning.
	I22	Encouraging teachers' interest in Psychofun-Hybrid Learning in the learning process or discussions with students.
	I23	Encouraging student independence to learn independently through the implementation of Psychofun-Hybrid Learning.
	I24	Readiness of facilities and infrastructure to support the implementation of Psychofun-Hybrid Learning.
	I25	Optimization of the amount and quality of material content to support the implementation of Psychofun-Hybrid Learning.
A4	I26	The percentage of effectiveness of the availability of government policies regarding Psychofun-Hybrid Learning is $\geq 95\%$.
	I27	The percentage of effectiveness of the availability of the school's vision, mission, and goals that support the implementation of Psychofun-Hybrid Learning is $\geq 95\%$.
	I28	The percentage of effectiveness of the availability of school regulations that support the implementation of Psychofun-Hybrid Learning is $\geq 95\%$.
	I29	The percentage of effectiveness of the availability of school community support for Psychofun-Hybrid Learning is $\geq 86\%$.
	I30	The percentage of effectiveness of the availability of adequate funds to realize the implementation of Psychofun-Hybrid Learning is $\geq 88\%$.
	I31	The percentage of effectiveness of providing the right platform to support the implementation of Psychofun-Hybrid Learning is $\geq 95\%$.
	I32	The percentage of effectiveness in the availability of supporting infrastructure for the implementation of Psychofun-Hybrid Learning is $\geq 92\%$.
	I33	The percentage of effectiveness of adequate human resource availability to support the implementation of Psychofun-Hybrid Learning is $\geq 88\%$.
	I34	The percentage of effectiveness in providing qualified material content to support the implementation of Psychofun-Hybrid Learning is $\geq 90\%$.
A5	I35	The accuracy of alternative constraint solutions.
	I36	Accuracy of evaluation success standards.
	I37	Correspondence between alternative solutions to obstacles and evaluation success standards.
A6	I38	Accuracy of calculating the average percentage for each alternative solution to obstacles.
	I39	The accuracy of the recapitulation results of field trials implementing Psychofun-Hybrid Learning at IT vocational schools in Bali Province.
A7	I40	The joint agreement arguments agreed upon by experts and evaluators through focus group discussion activities.
	I41	The accuracy of qualitative data obtained from the results of focus group discussions.
A8	I42	The accuracy of the analysis of agreed arguments on quantitative data.
	I43	The accuracy of the analysis of agreed arguments on qualitative data.
A9	I44	The accuracy of the calculation process for determining recommendation priorities using the JOFF formula.
	I45	Accuracy of priority ranking of recommendations from highest to lowest level.
A10	I46	Accuracy of priority recommendations.
	I47	Accuracy of recommendations for last priority.
	I48	Suitability of recommendations that can be actualized from the initial priority to the end priority.

Table 4. Details of job description, number of human resources, and completion time for JOFF model design in the frame of Asta Amertaning DIVAYANA model

Job Description of Human Resources	Total of Human Resources (Person)	Time (Day)
Field data collection	6	10
Making the JOFF model design in the frame of Asta Amertaning DIVAYANA model	3	10
Initial trials of the JOFF model design in the frame of Asta Amertaning DIVAYANA model	10	16
Revised initial trial results on the JOFF model design in the frame of Asta Amertaning DIVAYANA model	3	6

3) The results at the stage of design development

Based on several evaluation components and aspects of the JOFF model that have been shown previously at the stage of research and field data collection, and research planning at the planning stage, the next step is design development. The design developed is the initial design of the JOFF model in the frame of Asta Amertaning DIVAYANA model. Development of this evaluation model design using the Visio application. The results of the initial design development of the JOFF model in the frame of Asta Amertaning DIVAYANA model can be seen in Fig. 1.

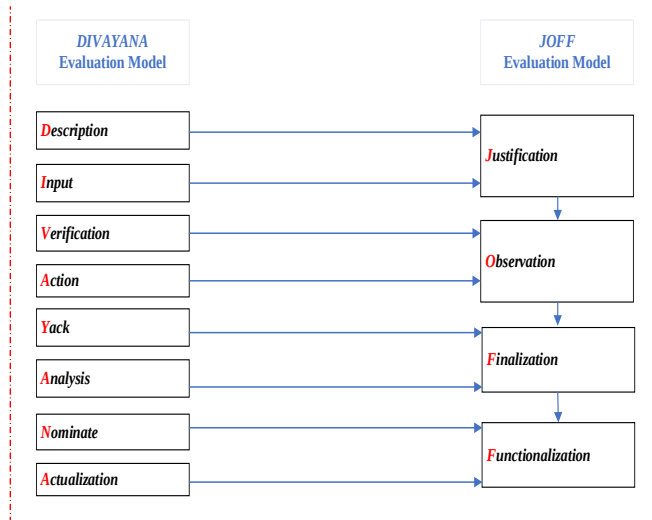


Fig. 1. Initial design of the JOFF model in the frame of Asta Amertaning DIVAYANA model.

Fig. 1 shows the design of the JOFF model which evaluation components on the eight (Asta Amertaning) components of the DIVAYANA evaluation model. The Justification component in the JOFF model is from two evaluation components of the DIVAYANA model. They are the Description component and the Input component. The Observation component in the JOFF model is from two evaluation components of the DIVAYANA model. They are the Verification component and the Action component. The Finalization component in the JOFF model is from two evaluation components of the DIVAYANA model. They are the Yack component and the Analysis component. The Functionalization component in the JOFF model is from two evaluation components of the DIVAYANA model. They are the Nominate component and the Actualization component.

4) The results at the stage of initial trial

According to the initial design of the JOFF model in the frame of Asta Amertaning DIVAYANA model shown in Fig. 1, initial trials on the initial design by 64 respondents, including two education experts, two informatics experts, 20 education evaluators, and 40 teachers of IT vocational school in Bali. The initial trial results can be seen in Table 5.

Apart from carrying out quantitative assessments, respondents also provided qualitative research in the initial trials. The qualitative evaluation is in the form of suggestions for improving the JOFF model design in the frame of Asta Amertaning DIVAYANA model. Some suggestions given by respondents can be seen in Table 6.

5) Revision stage of initial trial results

Based on the suggestions in the initial trial, the researchers

then revised the design of the JOFF model in the frame of Asta Amertaning DIVAYANA model. Three research teams carried out the revisions. The complete results of the revision of the evaluation model design can be seen in Fig. 2.

Table 5. Initial trial results of the JOFF model design in the frame of Asta Amertaning DIVAYANA model

Respondents	Items										Percentage of Quality
	1	2	3	4	5	6	7	8	9	10	
EXP-01	5	5	4	5	4	5	4	5	4	5	92.00
EXP-02	5	4	5	4	5	5	4	4	5	4	90.00
EXP-03	4	5	4	4	4	4	5	4	4	4	84.00
EXP-04	4	4	4	5	4	4	4	5	4	5	86.00
EVL-01	5	4	5	4	5	5	4	4	5	4	90.00
EVL-02	4	5	4	4	5	4	5	4	5	4	88.00
EVL-03	4	5	4	4	4	4	4	4	4	4	82.00
EVL-04	5	4	5	4	4	4	5	4	4	4	86.00
EVL-05	4	4	4	5	5	4	4	5	5	4	88.00
EVL-06	4	4	4	5	4	5	4	5	4	5	88.00
EVL-07	4	4	4	4	4	4	4	4	4	4	80.00
EVL-08	5	4	4	4	4	5	5	4	4	4	86.00
EVL-09	4	4	4	4	4	4	4	4	4	4	80.00
EVL-10	5	4	4	4	4	4	5	4	5	4	86.00
EVL-11	4	5	4	5	4	4	4	4	4	4	84.00
EVL-12	4	4	4	4	4	4	4	5	4	4	82.00
EVL-13	5	4	4	4	4	4	5	4	5	4	86.00
EVL-14	4	5	5	5	5	4	4	4	4	4	88.00
EVL-15	4	4	4	4	4	4	4	4	4	4	80.00
EVL-16	5	4	4	4	4	4	4	5	5	4	86.00
EVL-17	4	4	4	4	4	4	4	4	4	5	82.00
EVL-18	5	4	4	4	4	4	4	4	4	4	82.00
EVL-19	4	5	5	5	5	4	4	4	5	4	90.00
EVL-20	4	5	4	5	4	5	4	4	4	4	86.00
TCR-01	4	4	4	4	4	4	4	4	4	5	82.00
TCR-02	5	4	4	4	4	4	4	5	5	4	86.00
TCR-03	4	4	4	4	4	4	4	4	4	4	80.00
TCR-04	5	4	4	4	4	4	4	4	4	4	82.00
TCR-05	4	4	4	4	4	4	4	5	5	4	84.00
TCR-06	4	5	4	4	4	4	4	4	4	4	82.00
TCR-07	4	4	4	5	4	4	4	4	4	4	82.00
TCR-08	4	5	4	4	5	4	4	4	4	5	86.00
TCR-09	4	4	5	5	4	4	4	4	4	4	84.00
TCR-10	4	4	5	4	5	4	4	4	4	4	84.00
TCR-11	4	4	4	4	5	4	5	4	4	4	84.00
TCR-12	4	4	4	5	4	5	4	4	4	4	84.00
TCR-13	5	4	4	4	4	4	4	4	4	5	84.00
TCR-14	4	4	4	4	5	4	4	4	4	4	82.00
TCR-15	4	4	4	5	4	5	4	4	5	5	88.00
TCR-16	5	5	4	4	4	4	4	5	4	4	86.00
TCR-17	4	4	4	4	4	4	4	4	4	4	80.00
TCR-18	4	4	4	4	5	5	4	4	5	4	86.00
TCR-19	4	4	4	4	4	4	5	5	4	5	86.00
TCR-20	4	4	4	4	4	4	4	4	5	5	84.00
TCR-21	5	5	4	4	4	5	4	5	4	5	90.00
TCR-22	5	4	5	4	4	4	4	4	4	5	86.00
TCR-23	4	4	4	5	4	5	4	4	5	4	86.00
TCR-24	5	4	4	4	4	4	4	4	5	5	86.00
TCR-25	4	4	4	4	5	4	4	4	4	4	82.00
TCR-26	4	4	4	5	4	5	4	4	4	5	86.00
TCR-27	5	5	4	4	4	4	5	4	5	4	88.00
TCR-28	4	4	4	5	4	4	4	4	4	4	82.00
TCR-29	5	4	5	4	4	4	4	5	4	4	86.00
TCR-30	4	4	4	4	4	4	5	4	5	4	84.00
TCR-31	4	4	4	4	5	5	4	4	4	4	84.00
TCR-32	4	4	4	4	4	4	4	4	4	4	80.00
TCR-33	4	4	4	4	4	4	4	5	5	4	84.00
TCR-34	4	4	4	4	5	5	4	4	4	5	86.00
TCR-35	4	4	4	4	4	4	4	4	4	4	80.00
TCR-36	5	4	4	4	4	4	4	4	5	4	84.00
TCR-37	4	5	4	4	4	4	5	4	4	4	84.00
TCR-38	5	4	4	4	4	4	4	4	4	5	84.00
TCR-39	4	5	4	4	4	4	4	5	5	4	86.00
TCR-40	4	5	4	5	4	4	4	5	4	5	88.00
Average											84.75

Table 6. Suggestions given by respondents

No	Respondents	Suggestions
1	EXP-1	Notably, it should be connecting lines between evaluation components in the <i>DIVAYANA</i> evaluation model as in the <i>JOFF</i> evaluation model.
2	EXP-2	The <i>JOFF</i> formula needs to be in the <i>JOFF</i> model evaluation component. The <i>DIVAYANA</i> formula needs to be in the <i>DIVAYANA</i> model evaluation component.
3	EXP-3	The codes of the evaluation aspect and <i>JOFF</i> evaluation model instrument item should be for each <i>JOFF</i> evaluation model component.
4	EXP-4	It is necessary to show the evaluation aspects and item codes for the <i>JOFF</i> evaluation model instrument for each so that the completeness of the <i>JOFF</i> evaluation model components appears in more detail.
5	EVL-7	<i>Even though this research focuses more on the JOFF evaluation model, it is also necessary to add a connecting line between the evaluation components of the DIVAYANA evaluation model because each DIVAYANA evaluation model component has an influence and is the basis for each JOFF evaluation model.</i>
6	EVL-18	It is necessary to display the formula of <i>DIVAYANA</i> and <i>JOFF</i> in the design to show the existence of the evaluation model metamorphosis.
7	TCR-14	Notably, aspects and items of the evaluation instrument for each component of the <i>JOFF</i> evaluation model must demonstrate the completeness of their attributes.
8	TCR-28	The <i>DIVAYANA</i> formula and the <i>JOFF</i> formula should be displayed in the <i>JOFF</i> model design in the frame of <i>Asta Amertaning DIVAYANA</i> model as evidence of the metamorphosis process that occurred from the <i>DIVAYANA</i> model to the <i>JOFF</i> model.

From Fig. 2, it can be explained that the *JOFF* evaluation model consists of four components, including *Justification*, *Observation*, *Finalization*, and *Functionalization*. The four components of the *JOFF* evaluation model can be seen in the orange boxes. The *Justification* component in the *JOFF* model is a simplification of two *DIVAYANA* model evaluation components, including the *Description* component and the *Input* component. The *Observation* component in the *JOFF* model is a simplification of two *DIVAYANA* model evaluation components, including the *Verification* component and the *Action* component. The *Finalization* component in the *JOFF* model is a simplification of two *DIVAYANA* model evaluation components, including the *Yack* component and the *Analysis* component. The *Functionalization* component in the *JOFF* model is a simplification of two *DIVAYANA* model evaluation components, including the *Nominate* component and the *Actualization* component. The *DIVAYANA* evaluation model components can be seen in the green boxes.

Evaluation aspects of the *Justification* component, including A1, A2, and A3. Evaluation aspects of the *Observation* component, including A4, A5, and A6. Evaluation aspects of the *Finalization* component, including A7 and A8. Evaluation aspects of the *Functionalization* component, including A9 and A10. Aspects A1 to A10 are depicted with blue circles. Detailed explanations of A1 to A10 have been explained previously in Table 2. Instrument items for Aspect A1, including I1 to I19. Instrument items for Aspect A2, including I10 to I17. Instrument items for Aspect A3, including I18 to I25. Instrument items for Aspect A4, including I26 to I34. Instrument items for Aspect A5, including I35 to I37. Instrument items for Aspect A6, including I38 to I39. Instrument items for Aspect A7, including I40 to I41. Instrument items for Aspect A8, including I42 to I43. Instrument items for Aspect A9, including I44 to I45. Instrument items for Aspect A10, including I46 to I48. Instrument items I1 to I48 are depicted with black circles in transparent bubbles. Detailed explanations of I1 to I48 have been explained previously in Table 3.

A complete explanation of the use and simulation of the *DIVAYANA* formula calculation in the *Nominate* component of the *DIVAYANA* evaluation model can be seen from the results of *DIVAYANA*'s research [17]. His research is entitled "*Utilization of DIVAYANA Formula*

in Evaluating of Suitable Platforms for Online Learning in the Social Distancing" and can be accessed at the following link: <https://online-journals.org/index.php/i-jim/article/view/1578>. A complete explanation of the use and simulation of the *JOFF* formula calculation in the *Functionalization* component of the *JOFF* model can be seen from the results of *DIVAYANA et al.*'s research [34]. Their research is entitled "*The Presence of the JOFF Formula as an Effort to Optimize the DIVAYANA Formula Ranking Results*" and can be accessed at the following link: <https://ieeexplore.ieee.org/document/10748133>.

B. Results

Based on the initial trial results of the *JOFF* model design in the frame of *Asta Amertaning DIVAYANA* model in Table 5, it appears the model design is good. The proof is from the results of the model quality percentage of 84.75%. When compared with the standard for categorizing model quality refers to a scale of five (shown in Table 1), it is correct that this model design is good. There were 10 questions given to 64 respondents to provide an assessment of the initial design of the *JOFF* model in the frame of *Asta Amertaning DIVAYANA* model. Item 1 relates to the suitability of the *Justification* component in the *JOFF* evaluation model. Item 2 relates to the suitability of the *Observation* component in the *JOFF* evaluation model. Item 3 relates to the suitability of the *Finalization* component in the *JOFF* evaluation model. Item 4 relates to the suitability of the *Functionalization* component in the *JOFF* evaluation model. Item 5 relates to the suitability of the *Description* and *Input* component in the *DIVAYANA* evaluation model as the basis for the *Justification* component in the *JOFF* evaluation model. Item 6 relates to the suitability of the *Verification* component and *Action* component in the *DIVAYANA* evaluation model as the basis for the *Observation* component in the *JOFF* evaluation model. Item 7 relates to the suitability of the *Yack* component and the *Analysis* component in the *DIVAYANA* evaluation model as the basis for the *Finalization* component in the *JOFF* evaluation model. Item 8 relates to the suitability of the *Nominate* component and the *Actualization* component in the *DIVAYANA* evaluation model as the basis for the *Functionalization* component in the *JOFF* evaluation model. Item 9 relates to the suitability of the evaluation model design. Item 10 relates to the suitability of the relationships between components that show a strong connection between the components of the *JOFF* model.

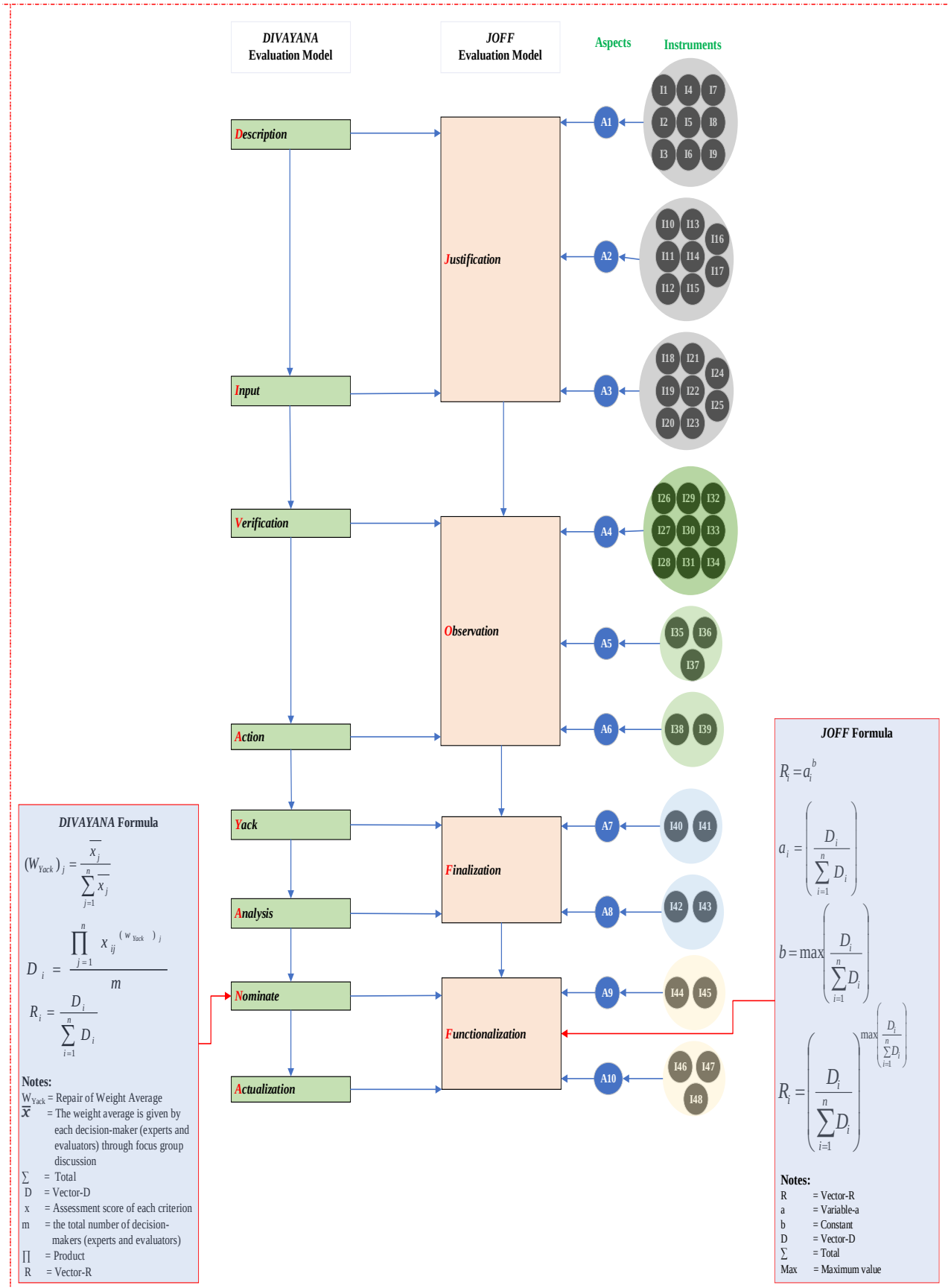


Fig. 2. Revision results of the initial design of the JOFF model in the frame of Asta Amertaning DIVAYANA model.

The design in Fig. 2 answers suggestions from EXP-1 and EVL-7. It appears that there are connecting lines between evaluation components in the DIVAYANA evaluation model as well as in the JOFF evaluation model. The JOFF formula in the 'functionalization' component in the JOFF evaluation

model and the DIVAYANA formula in the 'nominate' component in the DIVAYANA evaluation model answer suggestions from EXP-2, EVL-18, and TCR-28. The answer to suggestions EXP-3, EXP-4, and TCR-14 is that there are the codes of evaluation aspect and JOFF evaluation model

instrument item for each component of the *JOFF* evaluation model.

The results of this research can answer the limitations found by Li *et al.* research [12], Research by Kamath *et al.* [13], Research by Alwaddood *et al.* [14], Tisza's research [15], *DIVAYANA et al.*'s research [16], and *DIVAYANA* Research [17], by realizing a *JOFF* model in the frame of *Asta Amertaning DIVAYANA* model. The *JOFF* evaluation model can determine recommendation priorities from the highest to the lowest ranking. The *JOFF* evaluation model can also show sustainable ranking results if there is a change in the number of experts/decision-makers who give weight to the ranking.

In principle, the results of this research also have similar concepts and meanings to the research of Saarikko *et al.* [35], Yazdi *et al.* [36], Poornima and Karthika [37], Songe and Yamamoto [38], Alshamsi *et al.* [39], Deschênes [40], and Kotsis and Panagou [41], related to determining the best recommendation and the priority of several existing alternative recommendations. The novelty of this research is the existence of a new evaluation model created by Dewa Gede Hendra Divayana called the *JOFF* model [34] in the frame of the *Asta Amertaning* (eight stages) *DIVAYANA* model. This model is a derivative of the *DIVAYANA* evaluation model. The *JOFF* model is a metamorphosis of the *DIVAYANA* evaluation model as a determinant of the quality of *Psychofun-Hybrid Learning* in the independent learning era is innovative and sustainable to improve the cognitive, psychomotor, and character quality of IT vocational school students in Bali. The unique contribution and advantage of the *JOFF* model compared to other educational evaluation models is that it can determine continuous ranking results from the highest to the lowest. This is adjusted to changes in the number of experts or decision-makers who provide ranking weights.

The utilization of the *JOFF* model will affect the evaluation practices at IT vocational schools in Bali in particular and in vocational schools in general, in terms of facilitating teachers in determining the priority of recommendations from the highest to the lowest ranking. Later, the priority of the recommendations will be used as a basis for decision-making by the headmaster in improving the quality of the implementation of *Psychofun-Hybrid Learning* so that it can improve the quality of cognitive, psychomotor, and character of students.

The long-term benefits of this model for improving the quality of education can be demonstrated through the effectiveness of the best recommendation results derived from the *JOFF* formula during the evaluation process. Additionally, the *JOFF* model can be applied beyond the context of IT vocational schools by adapting the evaluation criteria to suit the specific characteristics of the program or object being evaluated. Even though the results of this research have high novelty, they are certainly not perfect because of obstacles or limitations in its implementation. Some of the limitations of this research are that it does not show the manual calculation process using the *JOFF* formula, and its implementation is not yet in the form of a computer-based application. The reason is that this research only focuses on making the *JOFF* model design in the frame of *Asta Amertaning DIVAYANA* model. Another limitation is

that this study only examines the use of the *JOFF* model in the evaluation practice of *Psychofun-Hybrid Learning* in the IT vocational school in Bali, and does not examine evaluation practices on a wider scale.

V. CONCLUSION

In general, the results of this research have been able to show that the *JOFF* model design in the frame of *Asta Amertaning DIVAYANA* model is good quality. The model design created by Dewa Gede Hendra Divayana is derivative of the previous evaluation model, namely the *DIVAYANA* model. The advantage of the *JOFF* model is that it has shorter evaluation stages than the *DIVAYANA* model, and the evaluation process is quick. The *JOFF* model is a metamorphosis of the *DIVAYANA* model. The *JOFF* model is a metamorphosis of the eight stages (*Asta Amertaning*) of the *DIVAYANA* model to evaluate the quality of *Psychofun-Hybrid Learning*. Evaluation results using the *JOFF* model can show the priority of recommendations from the highest ranking to the lowest. Future work to solve the obstacles or limitations of this research is to conduct research related to the manual calculation process using the *JOFF* formula and create a computer-based *JOFF* model evaluation application. Additionally, it is essential to conduct a comprehensive study of evaluation practices on a global scale. This will ensure that the research findings can be applied not only in the IT vocational school in Bali but also in other contexts around the world. The results of this research have a positive impact on progress in the field of educational evaluation and educational technology. The proof is in the existence of a new evaluation model for determining a priority recommendation starting from the highest to the lowest ranking from the evaluation process of the *Psychofun-Hybrid Learning* model at IT vocational schools in the innovative and sustainable independent learning era. In addition to the field of educational evaluation, the results of this study also have a positive impact on multidisciplinary science. Therefore, the long-term effectiveness of the *JOFF* model in the frame of *Asta Amertaning DIVAYANA* model in increasing its usefulness, versatility, and adaptability as one of the solutions to solving problems of complexity and diversity of science is apparent. The positive impact on multidisciplinary science can be shown specifically by providing convenience for policymakers or stakeholders in various fields of science in making decisions referring to the right recommendation priorities. The recommendation priorities start from the highest to the lowest ranking based on correct and clear measurement aspects or criteria.

CONFLICT OF INTEREST

The authors declare no conflict of interest.

AUTHOR CONTRIBUTIONS

Conceptualization: DGHD; Methodology: DGHD, AA, and PWAS; Software: DGHD; Validation: DGHD, AA, and PWAS; Formal Analysis: DGHD, AA, and PWAS; Investigation: DGHD, AA, and PWAS; Resources: DGHD; Data Curation: DGHD, AA, and PWAS; Writing Original Draft Preparation: DGHD; Writing Review and Editing:

DGHD; Visualization: DGHD, AA, and PWAS; all authors had approved the final version.

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