INDONESIAN JOURNAL OF EDUCATIONAL RESEARCH AND REVIEW
Volume 5 Nomor 3 2022, pp 631-642
E-ISSN: 2621-8984; P-ISSN: 2621-4792
DOI: https://doi.org/10.23887/ijerr.v5i3.58626

Evaluation of the Implementation of the Discovery Learning Model in Learning Mathematics in Deaf Special Junior High Schools

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Abstrak

Pembelajaran matematika di SMPLB sama dengan pembelajaran di sekolah pada umumnya. Perbedaannya hanya pada substansi materi dan cara guru mengajarkan materi di kelas, dimana interaksi dilakukan dengan menggunakan bahasa isyarat, gerak tangan, dan penekanan pada gerakan bibir yang disebut dengan komunikasi total. Penelitian ini menganalisis keefektifan penerapan model pembelajaran discovery dalam pembelajaran matematika di Sekolah Luar Biasa (SLB) Tuli. Penelitian ini termasuk dalam jenis penelitian studi evaluasi. Sampel penelitian ini adalah guru matematika dan siswa SMPLB tuli kelas tujuh dan delapan yang diambil dengan menggunakan teknik cluster random sampling. Jumlah guru yang terlibat 3 orang, dan jumlah siswa 18 orang—metode pengumpulan data menggunakan angket, wawancara, dan dokumentasi. Teknik analisis data yang digunakan adalah deskriptif kuantitatif dengan menggunakan rumus Z-score. Hasil penelitian menunjukkan bahwa penerapan model pembelajaran discovery dalam pembelajaran matematika di SMPLB siswa tunarungu tergolong kurang efektif. Variabel konteks memiliki skor positif, variabel input memiliki skor negatif, variabel proses memiliki skor negatif, dan variabel produk memiliki skor negatif. Guru tergolong efektif, konteksnya positif, masukannya positif, prosesnya negatif, dan produknya positif. Hasil penelitian menunjukkan bahwa skor Z yang bertanda positif sama banyaknya dengan yang negatif, sehingga hasilnya sama dengan nol. Kemudian skor positif diberikan karena Z mendekati skor positif. Hal itu terjadi karena jumlah sampel penelitian genap. Evaluasi penerapan model pembelajaran discovery dalam pembelajaran matematika masa pandemi di SMPLB B bagi guru menunjukkan hasil yang tergolong efektif.

***Kata kunci*:** *Pembelajaran penemuan, Evaluasi, Matematika, Tuli.*

Abstract

Learning mathematics at SMPLB is similar to normal schools in general. The difference is only in the substance of the material and the way the teacher teaches the material in class, where the interaction is carried out using sign language, hand gestures, and emphasis on lip movements which is called total communication. This study analyzed the effectiveness of implementing the discovery learning model in learning mathematics in deaf special schools (SLB). This research is included in the type of evaluation study research. The sample of this study was a mathematics teacher and deaf SMPLB students in grades seven and eight who were taken using a cluster random sampling technique. The number of teachers involved is 3, and the number of students is 18—data collection methods used in questionnaires, interviews, and documentation. The data analysis technique used is quantitative descriptive using the Z-score formula. The results showed that implementing the discovery learning model in learning mathematics in SMPLB for deaf students was classified as less effective. The context variable had a positive score, the input score was negative, the process variable had a negative score, and the product variable had a negative score. The teacher is classified as effective, the context is positive, the input is positive, the process is negative, and the product is positive. The study findings showed that there were as many Z scores with positive signs as negative ones, so the results were equal to zero. Then a positive score was given because Z was closer to the positive score. It happened because the number of research samples was even. Evaluation of implementing the discovery learning model in learning mathematics during a pandemic at SMPLB B for teachers showed that the results were classified as effective.

Keywords: Discovery learning, Evaluation, Mathematics, Deaf.

History:
Received : August 19, 2022
Revised : August 23, 2022
Accepted : October 14, 2022
Published : October 25, 2022

Publisher: Undiksha Press

1. INTRODUCTION

The curriculum used in education in Indonesia today is the 2013 curriculum. The learning process in the 2013 curriculum is expected to carry out learning with a scientific approach by applying learning models, including discovery learning models, inquiry learning models, project-based learning, and problem-based learning (Mustika et al., 2020; Zuhra et al., 2021). The fulfillment of the right to education is not only aimed at normal children in

general but also at children with special needs. There are several special education services for children with special needs, but the most frequently encountered are regression education services or special schools (Utari, 2019; Winda et al., 2021). The results of preliminary observations made at the three deaf special schools in Bali obtained data that in teaching mathematics, the teacher used the discovery learning model, both online and in limited face-to-face meetings, also offline. In general, the discovery learning model is a learning model that requires teachers to guide students in discussing, asking questions and finding information on their own, finding ideas or ideas from the material being studied (constructivism) (Galih et al., 2019; Maryono et al., 2018). The discovery learning model can be the right learning model to encourage students to build experiences from previous knowledge, use their intuition, imagination and creativity, and seek new information to find new facts, correlations and truths (Astari et al., 2018; Hannya et al., 2020; Siswanti, 2019). Through the discovery learning model, students find concepts through a series of data or information obtained through observation or experiment so that students gain knowledge through their discoveries (Fitriyah et al., 2017; Hadi et al., 2020). The principle of discovery learning is that learning material is not presented entirely, but students are asked to find and identify information independently. Therefore, the application of discovery learning effectively increases student learning outcomes. In the classroom implementation process, when students carry out experiments and observations, students' oral and written communication skills start to run. It is what affects students' final test scores (Setyaningrum et al., 2020; Ulfa et al., 2017).

Learning mathematics at Special Junior High Schools is similar to normal schools. The difference is only in the substance of the material and the way the teacher teaches the material in class, where the interaction is carried out using sign language, hand gestures, and emphasis on lip movements which is called total (comtal) communication. Mathematics for normal students is a subject that is considered difficult because of its abstract nature and also the teacher. Even though it cannot be denied that mathematics often comes with concepts that help solve problems, this makes every human activity inseparable from mathematics—for example, buying and selling activities, measuring, counting objects, and calculating the area. For deaf students, the problem of learning mathematics will become even more complex due to their communication barriers. Delivering subject matter to deaf students certainly cannot be equated with normal students. Based on interviews with mathematics teachers at Special Schools in Bali. Information was obtained that there were many obstacles teachers experienced during the pandemic, even though they had implemented innovative learning models, in this case, discovery learning but had not been able to run optimally because some students did not respond when given a task. So that a home visit must be carried out, and every student interviewed wants always learning to be carried out face-to-face so that they can easily understand the material being discussed. Deaf students are often called visual children because they absorb more information by seeing their visual senses and experience limitations in receiving auditive information (Utari, 2019; Winda et al., 2021). The limited ability to hear in deaf students is often followed by articulation difficulties, making it difficult to communicate. The students' vocabulary is very small, so the teacher must convey the teaching material clearly and consistently use vocabulary. It causes the teacher difficulty in delivering abstract material. The essence of math is not just determining the right answer but thinking creatively. Students need the ability to think creatively, especially to solve real-life problems. Hence the importance of connecting the real world with mathematics. It is necessary to conduct an evaluation related to learning mathematics in Special Schools during a pandemic to avoid giving a subjective assessment. Evaluation means a series of activities that give meaning or determine the quality of a measurement result by comparing several results with predetermined criteria. Evaluation is the center of all forms of improvement,

especially in the quality of education (Haryanto, 2020). A program evaluation aims to determine the achievement of program objectives to help provide recommendations for program sustainability (Suhendi, et al., 2018). Several previous research findings regarding evaluating the implementation of online learning have been numerous. Learning services in the antecedent aspect have been going well. Well-planned lecture services evidence this during the pandemic. However, the transaction aspect still needs to be improved, given that effective lecture methods have yet to be implemented during the pandemic and the outcome aspect, which is still not optimal (Purwaningsih et al., 2020). Evaluation of the implementation of online learning with e-learning in terms of the teacher's ability to implement e-learning, the results show that teachers are less committed to carrying out e-learning learning, and not all teachers and students can provide a base for accessing the internet (Irwandani et al., 2019; Sriyanti et al., 2021). The results of evaluating the CIPP model can increase the optimal level of accuracy as evaluation material. The CIPP model failed to answer several evaluation questions, burdening the evaluation. These studies are generally carried out in high schools, and similar yet to been conducted in special schools, especially for SMPLB B. The purpose of this study was to analyze the effectiveness of the implementation of the discovery learning model in learning mathematics. The results of this study are expected to provide an actual picture of the things that have not been fulfilled in the implementation of the discovery learning model in learning mathematics during a pandemic and things that are experienced and felt by teachers and students of SMPLB B.

2. METHODS

This research includes evaluative research. Evaluative research involves collecting, documenting, providing, describing, and assessing a work (Kantun, 2017; Yuniarti et al., 2021). This research uses a quantitative descriptive approach (Dantes, 2012; Sugiyono, 2017). This study evaluates the effectiveness of implementing the learning model through comparison with the implementation of ideal learning. The evaluation model used in this study is the CIPP evaluation model. The CIPP evaluation model is an evaluation model. CIPP's evaluation model evaluates context, input, process, and product variables (Hidayati, 2010; Syahrir et al., 2021; Syifa, 2020). The population in this study were all seventh and eighth graders of deaf junior high schools and mathematics teachers at the Special School of Bali Province for the 2021/2022 academic year who implemented the discovery learning model in learning. Samples were taken using the cluster random sampling technique, taking into account the areas and schools that apply the discovery learning model. The area in question is West Bali with SMPLB N 1 Jembrana with as many as seven deaf students, Central Bali has SLB N1 Tabanan with six deaf students, and East Bali has SLB N1 Amlapura with five deaf students, so the total sample is 18 people, and there are three math teachers.

The instruments used in this study were closed questionnaires, observation sheets, interview guidelines and documentation. This questionnaire was compiled using closing statements and suspensions using a Likert scale with five alternative answers, SS (Strongly Agree), S (Agree), KS (Less Agree), TS (Disagree), and STS (Strongly disagree). Prior to use, the questionnaire was tested for validity and reliability. The research questionnaire was tested involving two experts from the Mathematics study program and one evaluation expert. From the content validity analysis, the content validity coefficient obtained was from 0.67 to 0.92, meaning that the item has good content validity. Based on the empirical test results obtained from the number of items in the teacher's questionnaire statement, as many as 34 items were obtained from 28 valid questionnaire statements. The student questionnaire from the 27 items tested obtained 22 valid statement items. The research instrument is valid, then

the reliability coefficient is calculated, and the reliability of the teacher's questionnaire is 0.98, and the student's questionnaire is 0.882. This research uses several research instruments. The first is a closed questionnaire in which the respondent selects only 1 (one) of 5 (five) alternative answers as long as they are considered following the respondent's opinion regarding the statement displayed. The use of a closed questionnaire was carried out with the aim that the scope of the research was narrow enough so that it was focused on getting answers adjusted to the researcher's expectations. The documentation method is a supporting method that supports and strengthens the data obtained by filling out several questionnaires. This evaluation study used unstructured interviews in which: the researcher followed up on the answers that the respondents had put forward in giving answers to the questionnaire to get more in-depth reinforcement.

Data analysis technique using T-score. Z scores must be calculated first in calculating using T-scores, so the formula: T-score = 50 + 10Z is used (Carey & Delaney, 2010). Based on the T-score obtained for each variable, it will be concluded with the following rules. If the T-score exceeds 50, the analyzed variable will fall into the positive (+) category. If the T score is less than or equal to 50, the analyzed variable will fall into the negative (-) category. In this case, if the variable is in a positive category, it means that implementing the discovery learning model on that variable has been implemented effectively. Meanwhile, if the variable is in the negative category, implementing the discovery learning model on this variable must be implemented effectively. To get conclusions regarding the categories for variables included in positive or negative for the analysis of the four CIPP variables using the calculation of the T score, if the number of positive (+) scores from respondents is more than negative (-), then these variables are included in the positive (+) category and vice versa. The results of calculating the T score obtained for context, input, process, and product variables were analyzed using the modified Glickman Quadrant to determine the program's effectiveness.

3. RESULTS AND DISCUSSION

Results

In the implementation of filling out the questionnaire, students are accompanied by accompanying teachers who help students if they need help understanding the meaning of the statements in the questionnaire. The results of data analysis on the implementation of the discovery learning model for students are presented in Table 1, Table 2, Table 3, and Table 4.

Table 1. Results of Variable Context Analysis for Students

Respondent Number	(X) Score	Context Variable Analysis				T-Score	Direction T-Score (+,-)
		M	X-M	SD	Z-Score		
K1	24	21.06	2.94	2.80	1.07	60.69	+
K2	24	21.06	2.94	2.80	1.05	60.52	+
K3	25	21.06	3.94	2.80	1.41	64.07	+
K4	25	21.06	3.94	2.80	1.41	64.07	+
K5	24	21.06	2.94	2.80	1.05	60.50	+
K6	21	21.06	-0.06	2.80	-0.02	49.79	-
K7	22	21.06	0.94	2.80	0.34	53.36	+
K8	23	21.06	1.94	2.80	0.69	56.93	+
K9	21	21.06	-0.06	2.80	-0.02	49.79	-
K10	20	21.06	-1.06	2.80	-0.38	46.21	-
K11	20	21.06	-1.06	2.8	-0.38	46.21	-

Respondent Number	(X) Score	Context Variable Analysis				T-Score	Direction T-Score (+,-)
		M	X-M	SD	Z-Score		
K12	22	21.06	0.94	2.80	0.34	53.36	+
K13	17	21.06	-4.06	2.80	-1.45	35.50	-
K14	18	21.06	-3.06	2.80	-1.09	39.07	-
K15	17	21.06	-4.06	2.80	-1.45	35.50	-
K16	17	21.06	-4.06	2.80	-1.45	35.50	-
K17	19	21.06	-2.06	2.80	-0.74	42.64	-
K18	20	21.06	-1.06	2.80	-0.38	46.21	-
Total +							**8**
Total -							**10**
Result							**Negative**

Table 2. Results of Input Variable Data Analysis

Respondent Number	(X) Score	Input Variable Analysis				T-Score	Direction T-Score (+,-)
		M	X-M	SD	Z-Score		
I1	27	2167	533	2.50	2.14	71.36	+
I2	21	21.67	-0.67	2.50	-0.27	47.33	-
I3	25	21.67	3.33	2.50	1.33	63.32	+
I4	24	21.67	2.33	2.50	0.93	59.32	+
I5	22	21.67	0.33	2.50	0.13	51.32	+
I6	25	21.67	3.33	2.50	1.33	63.32	+
I7	24	21.67	2.33	2.50	0.93	59.32	+
I8	20	21.67	-1.67	2.50	-0.67	43.32	-
I9	19	21.67	-2.67	2.50	-1.07	39.32	-
I10	19	21.67	-2.67	2.50	-1.07	39.32	-
I11	22	21.67	0.33	2.50	0.13	51.32	+
I12	20	21.67	-1.67	2.50	-0.67	43.32	-
I13	21	21.67	-0.67	2.50	-0.27	47.32	-
I14	22	21.67	0.33	2.50	0.13	51.32	+
I15	19	21.67	-2.67	2.50	-1.07	39.32	-
I16	20	21.67	-1.67	2.50	-0.67	43.32	-
I17	22	21.67	0.33	2.50	0.13	51.32	+
I18	18	21.67	-3.67	2.50	-1.47	35.32	-
Total +							**9**
Total -							**9**
Result							**0 (+)**

Table 3. Process Variable Data Analysis Results

Respondent Number	(X) Score	Process variable analysis				T-Score	Direction TScore (+,-)
		M	X-M	SD	Z-Score		
Ps1	22	17.22	4.78	3	1.59	65.92	+
Ps2	16	17.22	-122	3	-0.41	45.93	-
Ps3	23	17.22	5.78	3	1.93	69.27	+
Ps4	18	17.22	0.78	3	0.26	52.60	+
Ps5	20	17.22	2.78	3	0.93	59.27	+

Respondent Number	(X) Score	Process variable analysis				T-Score	Direction TScore (+,-)
		M	X-M	SD	Z-Score		
Ps6	16	17.22	-1.22	3	-0.41	45.93	-
Ps7	19	17.22	1.78	3	0.59	55.93	+
Ps8	13	17.22	-4.22	3	-1.41	35.93	-
Ps9	13	17.22	-4.22	3	-1.41	3593	-
Ps10	21	17.22	3.78	3	1.26	62.60	+
Ps11	18	17.22	0.78	3	0.26	52.60	+
Ps12	15	17.22	-2.22	3	-0.74	42.60	-
Ps13	16	17.22	-1.22	3	-0.41	45.93	-
Ps14	19	17.22	1.78	3	0.59	55.93	+
Ps15	16	17.22	-1.22	3	-0.41	45.93	-
Ps16	14	17.22	-3.22	3	-1.07	39.27	-
Ps17	14	17.22	-3.22	3	-1.07	39.27	-
Ps18	17	17.22	-0.22	3	-0.07	49.27	-
Total +							**8**
Total -							**10**
Result							**Negatives**

Table 4. Results of Product Variable Data Analysis

Respondent Number	(X) Score	Product variable analysis				T-Score	Direction T-Score (+,-)
		M	X-M	SD	Z-Score		
Pd1	15	14.61	0.39	2.40	0.16	51.63	+
Pd2	19	14.61	4.39	2.40	1.83	68.29	+
Pd3	18	14.61	3.39	2.40	1.41	64.13	+
Pd4	14	14.61	-0.61	2.40	-0.25	47.46	-
Pd5	18	14.61	3.39	2.40	1.41	64.13	+
Pd6	14	14.61	-0.61	2.40	-0.25	47.46	-
Pd7	16	14.61	1.39	2.40	0.58	55.79	+
Pd8	14	14.61	-0.61	2.40	-0.25	47.46	-
Pd9	11	14.61	-3.61	2.40	-1.50	34.96	-
Pd10	15	14.61	0.39	2.40	0.16	51.63	+
Pd11	13	14.61	-1.61	2.40	-0.67	43.29	-
Pd12	12	14.61	-2.61	2.40	-1.09	39.13	-
Pd13	12	14.61	-2.61	2.40	-1.09	39.13	-
Pd14	14	14.61	-0.61	2.40	-0.25	47.46	-
Pd15	13	14.61	-1.61	2.40	-0.67	43.29	-
Pd16	15	14.61	0.39	2.40	0.16	51.63	+
Pd17	12	14.61	-2.61	2.40	-1.09	39.13	-
Pd18	18	14.61	3.39	2.40	1.41	64.13	+
Total +							**8**
Total -							**10**
Result							**Negative**

Based on Table 1, Table 2, Table 3, and Table 4, the average for context variables is 21.06, for input variables is 21.67, process variables are 17.22, and products are 14.61, with a standard deviation of each of 2.8; 2; 5; 3; and 2,4. The results of the analysis of context variables, input, processes and student products are presented in Table 5.

Table 5. Results of the Analysis of Context Variables, Input, Process and Student Products

Variable	T-Score DIrection			Description
	F +	F -	Result	
Context	8	10	-	- + - -
Inputs	9	9	+	
Process	8	10	-	
Product	8	10	-	

Data from the analysis of context, input, process and student product variables shows that the context component has a - score, the input has a + score, the process is marked -, and the product is marked -. Based on the Glickman prototype, implementing the discovery learning model in learning mathematics during a pandemic at SMPLB B Province of Bali for students is classified as ineffective. It should be noted that the input variable has as many positive T signs as negative ones, so the result equals zero. However, in this study, it is given + because it is closer to positive Z. After all, the number of samples is even (Candiasa, 2011). The results of the analysis of the questionnaire data for teachers are in Tables 6, 7, 8 and 9.

Table 6. Results of the Analysis of Context Variables for Teachers

Respondent Number	(X) Score	Context Variable Analysis				T-Score	T-Score Direction (+,-)
		M	X-M	SD	Z-Score		
K1	21	20.67	0,33	2.50	0.13	51.32	+
K2	18	20.67	-2.67	2.50	-1.06	39.39	-
K3	23	20.67	2.33	2.50	0.93	59.27	+
Total +							**2**
Total -							**1**
Result							**Positive**

Table 7. Results of Variable Input Analysis for Teachers

Respondent Number	(X) Score	Input Variable Analysis				T-Score	T-Score Direction (+,-)
		M	X-M	SD	Z-Score		
I1	35	33.67	1.33	7.10	0.19	51.88	+
I2	26	33.67	-7.67	7.10	-1.08	39.19	-
I3	40	33.67	6.33	7.10	0.89	58.93	+
Total +							**2**
Total -							**1**
Result							**Positive**

Table 8. Results of Process Variable Analysis for Teachers

Respondent Number	(X) Score	process variable analysis				T-Score	T-Score Direction (+,-)
		M	X-M	SD	Z-Score		
Ps1	18	19.67	-1.67	2.08	-0.801	41.992	-
Ps2	19	19.67	-0.67	2.08	-0.320	46.796	-
Ps3	22	19.67	2.33	2.08	1.121	61.206	+
Total +							**1**
Total -							**2**

Respondent Number	(X) Score	process variable analysis				T-Score	T-Score Direction (+,-)
		M	X-M	SD	Z-Score		
Result							**Negative**

Table 9. Results of Analysis of Product Variables for Teachers

Respondent Number	(X) Score	Product variable analysis				T-Score	T-Score Direction (+,-)
		M	X-M	SD	Z-Score		
Pd1	14	12.33	1.67	2.10	0.80	58.01	+
Pd2	10	12.33	-2.33	2.10	-1.12	38.79	-
Pd3	13	12.33	0.67	2.10	0.32	53.20	+
Total +							**2**
Total -							**1**
Result							**Positive**

Based on the analysis results, it was obtained an average for context variables of 20.67, input variables of 33.67, process variables of 21.67, and products of 12.33 with a standard deviation of 2.5 each; 7.1; 2,5;2,1. The results of the analysis of context, input, process and teacher product variables are presented in Table 10.

Table 10. Results of Analysis of Context, Input, Process, and Teacher Product Variables

Variable	T-Score Direction			Description
	F +	F -	Result	
Context	2	1	+	+ + - +
Inputs	2	1	+	
Process	1	2	-	
Product	2	1	+	

Based on the calculation results in Table 10, related to context, input and positive product variables, the process variable has a negative score (CIPP = ++-+). Based on this, there are three variables which, according to the calculation of the T Score, are said to have been running effectively following the ideal process standards of the Minister of Education and Culture Regulation No. 22 of 2016. Meanwhile, one variable, the process variable with the results of the T Score calculation, is said to be running less effectively following the standard ideal process of Minister of Education and Culture Regulation No. 22 of 2016. Therefore, implementing the discovery learning model in mathematics learning during a pandemic at SMPLB B Bali province is classified as effective.

Discussion

Evaluation of the implementation of the discovery learning model in mathematics learning during a pandemic at SMPLB B in the province of Bali for teachers showed that the results were classified as effective. Several things cause the results that are classified as effective. From the aspect of learning objectives, learning objectives make the learning process continue even in a pandemic and make teachers carry out their obligations as educators. Learning tools with innovative models have been adapted for each subject based on the applicable curriculum and pandemic conditions. Therefore, the subject matter is made or presented attractively so that it is easily understood and prepared with visual representations (Apriana et al., 2019; Karma et al., 2021; Rullestad et al., 2021). Viewed

from the aspect of the need for the implementation of mathematics learning, nowadays, people are required to think forward and be smart in adjusting to the conditions that exist during a pandemic. However, with increasingly sophisticated technology, online learning and offline/home visits are here to help the world of education continue. Of course, this is a new need in updating the education system, so teachers must prepare more appropriate and appropriate material and hone their skills in the technology field—information and communication- to face the digital era in the world of education. Due to the limitations of students' parents and limited time, I use applications such as WhatsApp to change the learning process to the current situation during the pandemic and home visits. Besides that, I adjust the learning objectives. Judging from the curriculum indicators of implementing the discovery learning model in learning mathematics, the score obtained from the calculation of T is positive. It means that when viewed from the curriculum indicators, there are no deviations from the expected curriculum. Mathematics learning using the discovery learning model is already underway, although not optimal, considering the pandemic conditions and students' abilities (Adawiyah et al., 2020; Black et al., 2018; Rivai et al., 2021). However, there is a teacher factor that gets a negative T calculation score. It shows that there are still teachers who need to gain knowledge in applying discovery learning models, such as creating a classroom atmosphere that can improve students' abilities in exploring concepts and solving mathematical problems.

On the other hand, the indicators for facilities, infrastructure, and funding obtained are still in the negative category, meaning that there are still obstacles to implementing an ideal learning model and are influenced by this. Based on the findings, the availability of facilities and infrastructure in schools used as object research still needs to be completed. However, Special Schools always receive good attention from the government regarding the availability of facilities and funding to support the learning process in schools. The availability of facilities and infrastructure suitable for disabilities and learning materials has not been supported. If there are such flat and spatial visual aids, they have not been managed properly, so several tools or media supporting the implementation of learning are not utilized properly (Dr. Desak Putu Parmiti, 2017; Ertikanto et al., 2018). Applying the discovery learning model in mathematics learning for SMPLB B students in the province of Bali is effective when viewed through the input aspect. The application of discovery learning can make students become active thinkers and the emergence of student curiosity so that students can generalize their knowledge. Obstacles in implementing the discovery learning model in mathematics learning during a pandemic at SMPLB B in the province of Bali. There is a negative paradigm that mathematics is difficult and unpleasant (Hadi et al., 2020; Wedekaningsih et al., 2019). Mathematics in Special Schools is thematic, so the portions are small, and students are unhappy with mathematics. It may be because education in Special Schools is more geared towards life skills (Pranata, 2014; Sulistyaningrum et al., 2018). It makes students less motivated to learn mathematics. Therefore, in the input context, paying attention to students' motivation in learning mathematics is necessary. Lesson time is limited. It tends to be felt less by teachers because in meeting the demands of an ideal learning process, it passes through a series of fairly long stages, introduction, core, and closing. In addition, the assessment process must be carried out quite complexly by simultaneously paying attention to assessing knowledge, attitudes and skills competencies. Even though a few students are in each batch, the learning process is thematic. The two batches are combined, there are still problems when learning mathematics because there are always students to visit, so even though teacher planning has followed Minister of Education and Culture Regulation No. 22 of 2016, but still needs to run optimally. In addition, because the learning is thematic, some teachers still need to be able to plan, implement, evaluate, and supervise mathematics learning ideally. It is an obstacle to implementing effective

mathematics learning. Follow-up recommendations that provide opportunities for teachers to train and facilitate the dissemination of the training results to other mathematics teachers in the form of workshops. With this, it is hoped that they can supervise, monitor, report, and the follow-up process can take place properly and follow the design of an ideal lesson plan. The second is to make implementing the discovery learning model in mathematics learning effective to meet the standards for implementing learning according to government regulatory process standards. It does not only apply to teachers, but students' abilities must also receive attention because this can be a central point for realizing effective learning (Tyas et al., 2014). The expectation of the learning process takes place according to the planned model and following the ideal learning process. Home visits for SMPLB B students with problems are still being carried out effectively and efficiently to motivate them to want to study during the pandemic. Even though schools have started going offline, students and teachers always need to gain knowledge regarding the use of information technology so they can compete in all situations.

4. CONCLUSION

Follow-up recommendations that provide opportunities for teachers to train and facilitate the dissemination of the training results to other mathematics teachers in the form of workshops. With this, it is hoped that they can supervise, monitor, report, and the follow-up process can take place properly and follow the design of an ideal lesson plan. The second is to make implementing the discovery learning model in mathematics learning effective to meet the standards for implementing learning according to government regulatory process standards. It does not only apply to teachers, but students' abilities must also receive attention because this can be a central point for realizing effective learning (Tyas et al., 2014). The expectation of the learning process takes place according to the planned model and following the ideal learning process. Home visits for SMPLB B students with problems are still being carried out effectively and efficiently to motivate them to want to study during the pandemic. Even though schools have started going offline, students and teachers always need to gain knowledge regarding the use of information technology so they can compete in all situations.

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