Application of Differentiated Learning to Improve Learning Achievement: Study of Christian Religious Education Teachers in Papua, Indonesia

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ABSTRACT

Application of learning is a conceptual framework that describes systematic procedures for organizing learning experiences to achieve certain learning goals and functions as a guide for learning designers and teachers in planning and implementing learning activities. Therefore, teachers need to implement differentiated learning to increase student learning achievement.

Introduction

Education will always provide learning experiences in formal, non-formal, or informal education programs at school. Education aims to develop the potential of students to become human beings who believe in and are devoted to God Almighty, have healthy, noble character, are knowledgeable, capable, creative, independent, and become democratic and responsible citizens (Domínguez et al., 2013; Suherman, 2021). It will enable each individual to develop the potential that exists within him and actualize and function that potential. Education is a human process to improve dignity and standard of life because humans tend to achieve a good life. Education is a real learning process humans have experienced since birth and continues throughout life.

Education is important for every human because, without it, humans cannot develop in line with their aspirations to progress, experience change, and be prosperous and happy as a human outlook on life (Manullang et al., 2022). The higher human aspirations, the more they demand an

increase in the quality of education as a means of achieving a goal. Through education, individuals can develop their potential and personality towards maturity and independence. Education will make humans always try to develop themselves to face every change due to advances in science and technology (Sulistyono et al., 2023).

The first education comes from the family and the surrounding environment, then continues to the formal education level at school (Daud et al., 2021). Formal learning at school is generally carried out in the classroom through face-to-face learning. School is an institution expected to shape the character of the younger generation. In this context, education is interpreted as a process to humanize humans to become fully adult humans. Through education, thought patterns, values, and norms are cultivated in society.

This is reinforced by the research results from Newman & Blackorby that most students experience learning problems that impact decreasing learning achievement. The research results revealed that 32% of students experienced learning problems, while 57% experienced emotional or psychological problems. Emaliana (2017) stated that the main problems of student learning are (a). learning activities and goals, (b). they are relating to their learning development. Meanwhile, Horn & Nunez (2000) stated that 38% of students consult counselors more about learning problems, while 16% about problems with other programs at school.

Furthermore, the results of research conducted by Hartley et al. (2005) shows that education needs to improve student learning problems. Learning problems cannot be separated from learning process problems because learning is a behavior change that is relatively permanent and occurs due to training or experience. This definition includes three prominent elements, namely: (1) learning is a change in behavior, (2) the change occurs due to training or experience, and not due to the process of maturity in the process of physiological growth and development of the organism, and (3) the change is relatively permanent and persists for quite a long time.

The results of Esra & Sevilen research (2021) stated that 70% of student learning problems at school were influenced by internal factors, namely the student's ability to learn, and 30% were influenced by factors outside the student, namely the most dominant environment, namely the quality of learning. Both internal and external factors that play a very important role in helping students' learning problems are the family. Family is the first social group. Children can interact and learn about what their parents do. The influence of the family in the formation and development of personality is very significant (Jabbarov, 2020). Parents are responsible for educating, caring for, and guiding their children to reach certain stages that will prepare them to face social life in the formation of children's learning at school.

Research conducted by Smale-Jacobse et al. (2019) states that the application of differentiated learning can improve learning outcomes on land materials and the sustainability of life. Based on the research results, differentiated learning can improve the activities and mathematics learning outcomes. Based on the results of this research and several other studies, a conclusion can be made that using differentiated learning strategies can influence student learning outcomes.

The application of differentiated learning is more about learning that addresses the needs of students because each student certainly has different abilities. In implementing differentiated learning, teachers need to think about reasonable actions that will later be taken, because

differentiated learning does not mean learning by providing different treatment or actions for each student, as well as learning that differentiates between smart and less intelligent students. Differential learning activities are a form of implementation of Ki Hadjar Dewantara's student-centered teaching philosophy. Using language and task presentation can also strengthen students' numeracy and literacy competencies. Apart from that, it also aims to ensure that each student achieves the expected learning goals.

From the results of researchers' observations in the field, the implementation of differentiated learning for students has not been carried out optimally, impacting learning achievement at school. Therefore, the application of learning needs to be carried out by teachers so that students can improve their learning achievements. Therefore, teachers must be able to become masters of differentiated instruction to meet student needs, restore or accelerate instruction, and provide opportunities for learning and growth for all students. Differentiated instruction is an approach that allows teachers to plan strategies to meet the needs of each student. Differentiated instruction is differentiated learning based on diversity of readiness, learning profile, and interest. Differentiated instruction is a learning theory based on the premise that instructional approaches must be based on differences in individual characteristics in the class that respond to students' needs.

Research Method

The research method used in this research is a quantitative research approach. This research is a type of field research. The steps in this research are an action research design. Research methods study societal problems and the procedures that apply in certain situations, including the relationship between activities, attitudes, views, ongoing processes, and the influence of a phenomenon (Mehrad & Zangeneh, 2019). The total population is 120 students—a sample of 60 students at SMP Negeri 4 Sentani. The analysis used is quantitative analysis, namely adding up the scores obtained by students and then dividing by the number of students in the class to obtain an average score.

Table 1
Interpretation Weight

No.	Percentage	Letter	Weight	Assessment Category
1.	86% - 100%	A	4	Very good
2.	76% - 85%	B	3	Good
3.	60% - 75%	C	2	Enough
4.	55% - 59%	D	1	Not enough

Results and Discussion

From the activities above, students have not been able to answer well because they have not focused on the learning taking place at that time. The results of the implementation of cycle I provide an illustration that what the researcher wants to achieve is still subject to evaluation and only a 14% difference can be seen, so they carry out an action plan in cycle II with a different topic.

From cycle II activities, it was found that students could not answer well because they needed to focus on the learning that was taking place at that time. The results of the cycle I implementation illustrate that what the researcher wants to achieve is still used as evaluation material for carrying out action plans in cycle II.

Table 2
Students' success in working on questions in cycle I

No	Results	Cycle I Test	
	Achievement	Percentage	**Frequency**
1	SB	43 %	20
2	BT	53%	26
3	TT	0%	0

From the data in the table above, it can be seen that the test results of students in cycle I were that only 20 students achieved completeness with a percentage of 43%, while those who had not completed were 26 students, with a percentage of 53%. For this reason, it is hoped that after cycle II's teaching and learning process, these 26 students can develop according to the desired expectations, namely developing very well.

Cycle II

Based on the test results in cycle I, 26 students who did not understand needed to be given further understanding or explanation. Likewise, the 20 students who already understood also needed to be given further explanation or understanding so they could understand more.
After carrying out the learning process in cycle II, 26 students who answered not according to expectations in cycle I did not answer the questions. This is related to learning concentration that is not serious.
To carry out cycle II, students are allowed to randomly draw freely on sheets of white paper that the teacher has distributed related to the topic or material, after which the students tell their drawings, and the teacher assesses them.

Based on the teacher's observations of students' answers, it can be seen that each student dared to speak in front of their friends, only afraid of getting the answer wrong. They are also very active in conveying his stories through his pictures. From the students' answers in cycle I, it was found that 20 students could answer correctly. Meanwhile, the questions given next in cycle

II have increased to 39 students. For students who have yet to be able to answer in cycles I and II, these are students whose results are the same.

Reviewing the students' backgrounds, it turned out that their abilities were weak and slow, so they were given an oral test to 7 students with a performance of 15%. In Cycle II, there was an increase in students, which can be seen in the following table:

Table 3
Students' success in working on questions in cycle II

No	Results	Cycle II Test	
	Achievement	Percentage	**Frequency**
1	Very good	85 %	39
2	Average	15%	7
3	Not good	0%	0

From Table 4.7 above, it can be seen that the test results of cycle II students achieved very high or very good results. There were 39 students, with a percentage of 85%, while seven, with a percentage of 15%, still needed completeness. Students who have yet to achieve this level of completion are given an oral test.

Conclusion

Based on the results of this research using a quantitative research approach, it can be concluded that learning at SMP Negeri 4 Sentani using the discussion and question and answer method will improve student learning outcomes at SMP Negeri 4 Sentani for the 2022/2023 academic year, with the theme Church and the World. This is proven by conducting oral tests to determine student learning outcomes and completion in each cycle. The percentage of initial test data in the tests carried out, the results of learning completion, were only 20 students or a percentage of 43%. In comparison, those who did not complete were 26 students with a percentage of 43% so the teaching and learning process and post-test were carried out in cycle I. With these results, There were 20 students with a percentage of 43%, while 20 students with a percentage of 43% did not complete.

Because we had not achieved complete results in Cycle I, we continued with Cycle II with a different topic, namely "Human responsibility towards nature." In cycle II, there was an increase in completion to 39 students with a percentage of 85%. This can be seen from the results of students in each learning process. There is an increase in completion results with a difference of 53% from Cycle I. In comparison, for seven students with a percentage of 15% who did not complete, their abilities are very weak so a review will be carried out as a follow-up, and an oral test will be held.

From the results of this learning, students can be braver and more enthusiastic in learning and accepting each lesson material taught, as well as this method really motivates students to

develop themselves more actively.

Based on the results of interviews that we conducted with students, 36 students, with a percentage of 78%, preferred to study while answering questions given by the teacher. Meanwhile, 8 students with a percentage of 17% prefer to study and test orally with the reason that the teacher asks and answers directly.

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