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THE DIFFERENTIATED LEARNING IN THE INDEPENDENT CURRICULUM

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Abstract

Every child has different readiness and learning skills. In differentiated learning, there are three aspects that can be differentiated by teachers so that students can understand the lesson material they are studying, namely the content aspect to be taught, the process aspect or meaningful activity that will be carried out by students in class, the assessment aspect in the form of making products that carried out at the end which can measure the achievement of learning objectives.

Keyword: Differentiated Learning, Independent Curriculum, Teaching Method.

BACKGROUND OF STUDY

In the independent curriculum teachers are required to realize differentiated learning. The differentiation learning approach believes that each student has a unique, learning style, and different potential. This approach aims to accommodate these differences by adapting teaching methods, materials, and assessments to suit the needs of each student. Through more precise adjustments to students 'learning styles and levels of understanding, differentiation learning can help improve students' understanding of subject matter and have an impact on improving overall academic achievement. This is certainly reinforced by the search for research that has a discussion in line with this study;

Ditasona (2017: 58) states that Differentiated Instruction (DI) learning has a positive effect on mathematical reasoning ability. It can be concluded that: 1) The Mathematical Reasoning Ability of students who follow differentiation learning is more improved than students who follow conventional learning. 2) Improvement of mathematical reasoning ability of students who follow differentiation learning is better than students who follow conventional learning in terms of students ' initial mathematical ability. 3) There is an interaction between learning (conventional and differentiation) and early mathematical knowledge (up and down) to increase the ability of mathematical reasoning. In other research Lailiyah (2016:52) from his research, the results obtained that the improvement of students ' critical thinking skills with differentiation learning is better than students who get regular learning.

The results of the study are reinforced by the opinion of Tomlinson (2013) who argued that;

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In differentiated learning, teachers teach the material by taking into account the level of readiness, interest, and learning style of learners. Teachers can also modify the lesson content (Content), Learning Process, products or results of learning taught, as well as the learning environment. Differentiated learning process applied by the school in order to free learners in learning because learners are not required to be equal in all respects with others In a study,

Purba (2021: 27) states that differentiated learning is different from individual learning as used to teach children with special needs. In differentiated learning the teacher does not face the learners specifically one by one (on-one-on) so that he understands what is taught. Learners can be in large, small groups or independently in learning.

Based on this opinion, a quality curriculum is one of the basic principles that can help teachers in implementing differentiated learning. Therefore, to realize the differentiated learning, the independent curriculum is the right choice to be implemented. However, implementing an independent curriculum is not easy for all educational units, especially teachers as learning implementers. Most of the mathematics teachers who have not followed the driving teacher certainly have difficulty making it happen, especially if the education unit has not followed the driving school program. Mathematics teachers are faced with the confusion of how to realize differentiated learning in mathematics which in fact is not liked by students.

RESEARCH METHOD

The research method used is qualitative descriptive method. The research was conducted by looking for facts about how the implementation of curriculum development in mathematics learning. The results of the study in the form of descriptions of various problems that occur in the field, including observing the activities, views, attitudes, and processes that take place during the study, and interpret the research findings appropriately. As Sugiyono (2012) states that:

Qualitative descriptive research is intended to describe and describe the phenomena that exist, both natural and Human Engineering, which pay more attention to the characteristics, quality, interrelations between activities. In addition, descriptive research does not provide treatment, manipulation or alteration of the variables studied, but rather describes a condition as it is. The only treatment given was the study itself, which was carried out through observation, interview and documentation.

RESULTS AND DISCUSSIONS

Every human being has fundamental differences that are not shared by other humans (Khodijah & Setiawan, 2020:56). Likewise with students, in understanding and studying mathematics there are differences that have almost nothing in common, but the difference itself is shown by the level of understanding. Each student has intellectual, social, emotional, and other characteristics in particular (Arikunto, 2010), so that these

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characteristics can be distinguished at the level of understanding of high, medium, and low categories.

Students with a high level of understanding of the category can receive and understand the concepts of learning with ease, although the guidance of teachers who are not too intensive. Then students with a medium level of understanding, can accept and understand the concept well with guidance from teachers and from friends who have high abilities. However, students with low ability categories, it takes an extra approach or action from a teacher to provide understanding and instill the same concepts as students with high and medium category understanding.

Differentiated learning has become known in Indonesia since the driving teacher education program was first held in 2020. According to (Tomlinson, 2013) that differentiated learning as an effort to combine differences to obtain information, create ideas, and express or convey the results that students have learned. Differentiated learning is learning that accommodates the needs of each individual to gain learning experience and mastery of the concepts learned (Nurdini, 2021:125).

There are three important aspects as student learning needs in differentiated learning (Tomlinson, 2003), including: 1) learning readiness, namely students are ready with new material to face the next learning process; 2) interest in learning, namely students have personal motivation in encouraging the desire to learn; and 3) student learning profile related to language, health, culture, environmental and family circumstances, and other specificities. Differentiated learning uses a diverse learning approach (multiple approach) in content, process, and product (Andini, 2016:259).

Content differentiation is related to what students understand and learn, process differentiation is related to acquiring information for students to learn, and product differentiation is related to what students have learned and understood. Some research results on differentiated learning show that differentiated learning can improve student learning outcomes (Kamal, 2021:91 the application of good learning practices in schools needs to be implemented and disseminated appropriately to all parties related to this, especially to teachers who are the spearhead of successful learning activities in the classroom. This is important in order to improve access to quality education.

With appropriate capacity building targets are teachers, lecturers, educational institutions and educational personnel, principals, school committees, school supervisors and all parties closely related to educational success. Implementation of good learning practices in schools, providing easy access for teachers, especially to be more effective and efficient in achieving the expected learning objectives, learning activities that are more qualified and meaningful for students is no longer an obstacle for teachers to make it happen. Everyone understands that in this century of conventional teaching activities are no longer relevant to the times, with the demands of 21st century students ' skills, teacher-centered learning is no longer effective in the classroom.

Learning in the classroom is basically intended to help students survive, or even color life. Therefore, learning activities in the classroom, should not be directed to just know,

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remember, or just understand science. Students must be able to utilize the knowledge they learn to provide them in recognizing and overcoming life problems or even in creating something useful for life (life Skills).

Learning activities that emphasize active students (student-centered), provide opportunities for students to interact with each other, not only the interaction between students with each other, but also student interaction with teachers, student interaction with textbooks, but also student interaction with the surrounding environment as a source of learning. So that such learning activities can also be utilized or used by teachers as a means to instill positive attitudes to students.

CONCLUSION

In differentiated learning, there are three aspects that can be distinguished by teachers so that students can understand the lesson materials they learn, namely aspects of the content to be taught, aspects of the process or meaningful activities that will be carried out by students in the classroom, aspects of assessment in the form of making products that are carried out at the end that can measure the achievement of learning objectives.

References

1) Andini, D. W. (2016). "*Differentiated Instruction*": *Solusi Pembelajaran dalam Keberagaman Siswa di Kelas Inklusif*. Trihayu, 2(3)

2) Arikunto, S. (2010). *Prosedur Penelitian Suatu Pendekatan Praktik*. Jakarta : Rineka Cipta.

3) Ditasona, Candra. (2017). *Penerapan Pendekatan Differentiated Instruction dalam Peningkatan Kemampuan Penalaran Matematis Siswa SMP*. *J.EduMat*. 2(1).

4) Kamal, S. (2021). *Implementasi Pembelajaran Berdiferensiasi dalam Upaya Meningkatkan Aktivitas dan Hasil Belajar Matematika Siswa kelas XI MIPA SMA Negeri 8 Barabai* . Julak: Jurnal Pembelajaran dan Pendidik. 1(1).

5) Khodijah, S. S., & Setiawan, W. (2020). *Analisis Minat Belajar Matematika Siswa SMP Kelas IX pada Materi Grafik Fungsi Kuadrat Berbantuan Software Geogebra. Journal of Honai Math*. 3(1)

6) Lailiyah, Evi. (2016). *Pendekatan Differentiated Instruction Untuk Meningkatkan Kemampuan Berpikir Kritis Matematis*. Jurnal Pendidikan Matematika *(ISSN 2528-3901)*. 2(1).

7) Nurdini, D. H. (2021). *Pembelajaran Berdiferensiasi pada Mata Pelajaran Pendidikan Agama Islam dan Budi Pekerti*. Asaatidzah: Jurnal Ilmiah Pendidikan Agama Islam. 1(2)

8) Purba, Mariati, dkk. (2021). *Prinsip Pengembangan Pembelajaran Berdiferensiasi (Differentiated Instruction), pada Kurikulum Fleksibel sebagai Wujud Merdeka Belajar.* 2(1). *Jakarta: Badan Standar, Kurikulum, dan Asesmen Pendidikan*, Kemdikbudristek.

9) Sugiyono, (2012). *Metode Penelitian Kuantitatif, Kualitatif, R&D*. Cet.17. Bandung: Alfabeta.

10) Tomlinson, C. A., & Moon, T. R. (2013). *Assessment and Student Success in a Differentiated Classroom.* Alexandria, VA: *Association for Supervision and Curriculum Development*