

Differentiated Learning: A Pre-School Student's Perspective

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Abstract. The purpose of this study; (1) to analyze the understanding of PAUD teachers in Surakarta about differentiated learning: (2) to analyze the implementation of learning in PAUD Surakarta. The method of this research used in this study is descriptive with qualitative approach. In this study the subject used is PAUD that has implemented differentiated learning, with the number of participants 12 teachers. The results of this study consist of :(1) The understanding of teachers get a score of 89.00%, meaning that the teacher's understanding of the concept of differentiated learning is very good: (2) components that must be understood, implemented and held on differentiated learning consists of : (a) diagnostic assessment: (b) mapping:(c) learning process; (d) student learning outcomes; (e) supporting facilities. supportive facilities.

Keywords: learning implementation, differentiated learning, pre-school student's perspective

INTRODUCTION

Students have different levels of readiness, interests and learning profiles. Good and interesting education is differentiated learning, which is learning according to students' needs. Differentiated learning shows that differentiated learning has the principle of integration of all the different ways to gain information from what has been learned. [1] This is based on the idea that Student Behavior which includes interest, interest and student profile has a significant influence on learning factors which include content and learning environment, learning and materials. [2]

A teacher must understand the differentiation of students and cannot generalize students in content, process or product in learning. This is in line with the opinion which says that skilled teachers can identify and appreciate individual student differences and provide the learning environment needed reinforced which states that teacher professionals contribute to student learning outcomes The level of student learning readiness is influenced by students' previous learning experiences and is identified through the student's learning profile. [3] [4]

One of the learning models referring to the process is through groups and individuals. there are students who tend to like to learn in groups and there are students who tend to learn individually and teachers are actively involved in student activities this is in accordance Collective and individual learning can complement each other and strengthen development outcomes for teachers and improve student learning. [5] Assessment is the starting point for the implementation of differentiated learning from the assessment of the teachers starting to map the learning plan and then determine the strategy in the learning process, something similar is expressed that the results of diagnostic assessments affect the instructional decision making of teachers [6], also reinforced, analysis of the assessment of each individual student is very important to make good instructional decisions reinforced also, which states that diagnostic tests are effective and play an important role in knowing the strengths and weaknesses of students. [6] [7]

The phase of human life that has unique characteristics is in the early childhood phase, among these characteristics is having a short concentration span and learning from concrete learning. The definition of Early Childhood according to the National Association for Education of Young Children (NAEYC) says that childhood is between the ages of zero to eight years, this period is a period of growth and diversity in human life. Curriculum for children should

pay attention to the characteristics of child development. Jean Piaget and Lev Vygotsky argue that children are strong and able to create their own knowledge (Ahmad Susanto. 2017). PAUD provides the best service so that all parts of the child's body function to prepare the child for the next level. Then the result of PAUD Montessori is a child who is smart, schat. creative, independent and confident. [8]

Previous studies that have considered different types of learning are: (1) Sholhiem, et al. (2018) studied different learning methods such as group and individual; (2) Geletua, et al. (2022) discussed different types of learning related to professional teachers: (3) Gell, et al. (2022) reviewed different methods of learning mathematics; (4) Zarai. et al. (2021) on creativity and diverse learning.

That differentiated education is education that accepts, serves and recognises students with learning differences as students. Readiness, enthusiasm and interest in learning. [9] [10]

This concept can be implemented as follows: (1) Students can learn easily with friends who have the same or different abilities according to their strengths and interests; (2) Providing a curriculum based on students' interests and willingness to learn, but still paying attention to learning objectives; (3) Education based on research and educational needs; (4) Students learn according to the same curriculum objectives and use different methods of achievement; (5) Students determine their own learning; (7) Educational programmes.

The use of different studies is only done in some cases, as in previous studies such as Solhiem (2018). Geletua, et al (2022), Gell, et al (2022) and Zerai, et al (2021). The researcher intends to conduct research using different learning methods according to Carol Ann Tomlison's theory. The aims of this study are: (1) To determine the understanding of PAUD teachers in Surakarta about differentiated education; (2) To find out the organisation of education in PAUD Surakarta.

METHOD

This study aims to investigate the implementation of differentiated education in PAUD Surakarta. Qualitative methods were used to describe the research methods. Focused research as defined by Bogdan and Taylor describes qualitative research as a research method that collects descriptive data in written and oral form from people. and see action. The selection of subjects in this study was done using a sampling method such as.

This decision is made, for example, by a decision maker who is well aware of the need or perhaps the ability to facilitate the identification of products/situations that have been studied. In this study, the research consisted of 15 PAUD teachers. The main topic of this research was taken from PAUD schools in Surakarta city that use different learning methods. The evaluation in this study used a questionnaire on teachers' understanding of differentiated learning, use of differentiated learning methods, and workplace support capacity to use these methods. This sample was used to evaluate the implementation of differentiated learning methods in the early childhood education sector in Surakarta City. In collecting data, the researcher distributed questionnaires to teachers and principals in classrooms in Surakarta City.

The results obtained from the interviews and interviews were analyzed using different research concepts. The interview process in this study was based on a pre-planned interview process. The interviews focused on teachers with the aim of finding out how teachers perceive different learning styles. Direct discussions were conducted using the results of the interviews to provide a detailed description of the meaning, usefulness and tools that teachers have to support the ability to use different learning methods, which were reinforced by the rubric results. Results and Discussion This study generated data in the form of in-depth interviews.

In this study, researchers collected data directly. The contents of the index include; (1) Clinical examination: (2) reports; (3) learning process; (4) educational outcomes; (5) understanding: (6) equipment:

Aspects
Indicator

Observation at the beginning of the school year
b. Use observation results as a basis for developing learning

Ampping

a. Mapping students' learning readiness
b. Mapping students' interest in learning

3. Learning Process
a. Teaching modules that meet students' needs
b. Teaching materials based on student readiness and interest groups
c. Learning strategies based on students' readiness and interests

4. Learning outcomes

a. Presentation of learning outcomes according to interests

Aspects	Indicator
	b. Diversity of student learning outcomes
	c. Formative and summative assessment
5. Compehension	a. Definition of differentiated learning in general
	b. Characteristics of differentiated learning
	c. Definition of assessment
6. Facilities	a. Wheeled table and chairs
	b. Microphone
	c. Ropes of various sizes
	d. Various objects to recognize the concept

RESULTS AND DISCUSSION

Diagnosis assessment analysis

In Table 1, the results of the questionnaire on the implementation of differentiated learning and the graph of the implementation of differentiated learning show that the code AD (diagnostic assessment) gets a value of 94.00%, which means that the implementation of diagnostic assessment has been carried out. The code AD (Diagnostic Assessment) gets a value of 94.00%, which means that the implementation of diagnostic assessment has been carried out.

At the beginning of the school year. The diagnostic assessment is carried out twice, the first time before the start of the new school year, the teachers carry out diagnostic assessments with rubrics prepared by the teacher. The rubric includes: (1) responding to greetings; (2) responding to questions with confidence; (3) assembling with different media; (4) colouring; (5) stating one's name; (6) stating parents' names; (7) stating gender; (8) stating home address: (9) mentioning colours; (10) mentioning three basic geometric shapes: (11) naming different shapes of objects. The second diagnostic assessment was carried out during the first two weeks of schooling and covered the following aspects of basic skills: (1) Recognition of religious values and ethics; (1) Adequate social and language skills to interact with peers and others; (2) Emotional maturity sufficient for activities in the learning environment; (3) Positive meaning of learning; (4) Development of motor skills and self-care sufficient for independent participation in the school environment. In this diagnostic assessment, the child's data on the student's readiness to learn and interest in learning were obtained. The child's data on the student's learning profile is obtained by interviewing the parents.

Mapping Analysis

The Mapping stage with code P1 received a score of 90.82%" meaning that the mapping of students' readiness and interests has been done well.

Learning Readiness Mapping Group A (4 - 5 years old)

- 1. Social-emotional conditioning
- 2. Needs assistance, meaning that students can do the task but need to be accompanied to complete it.
- 3. Needs guidance means that students in doing the task starting from the beginning of working need to be guided.
- 4. The results of the readiness mapping are presented in the following graph:

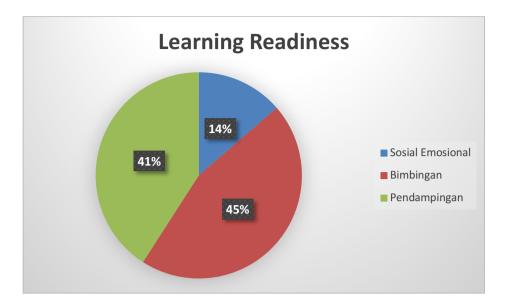


Figure 1. Learning Readiness

In Figure 1. Learning Readiness of group B (5-6 years old) can be presented as follows:

- 1. Social-emotional conditioning reaches 67.5%, or 50 students out of 74 students, this is a group of 4-5 year old children whose social-emotional needs more guidance, because the prominent characteristic in children aged 4-5 years is egocentric (Rahmi & Mahyuddin, 2020).
- 2. Need Guidance reaches 18.9% or 14 students out of 74 students, meaning that as many as 14 students in starting to do their assignments must be guided.
- 3. Needs assistance reached 13.5% or 10 students out of 74 students, meaning that as many as 10 students need to be accompanied when starting to do their assignments.

Group B Learning Readiness Mapping (5-6 years)

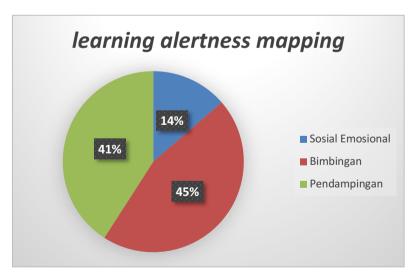


Figure 2. Learning alertness mapping

- In Figure 2, the readiness mapping of Group B (5-6 years old) can be explained as follows:
- 1. Social-emotional conditioning reached 13.63% or 9 students out of 66 students, meaning that group B students (aged 5-6 years), 9 out of 66 students, still have to be conditioned first regarding social-emotional readiness.
- 2. Guidance reached 45.45% or 30 students out of 66 students, meaning that students still need to be guided from the beginning of starting to do the task
- 3. Assistance reaches 40.90% or 27 students out of 60 students, meaning that students only need to be accompanied when starting to do the task.

Analysis of the learning process

The learning process with code P2 gets 73.91% of the questionnaire value is not so high, meaning that the differentiated learning process has not been implemented optimally.

The acquisition of this value is reinforced by the results of interviews with G5, who stated that the differentiated learning process in PAUD starts quite complicated before entering the differentiated learning materials, the socioemotional readiness of students is organized first so that they are really ready to receive differentiated learning materials.

Comprehension analysis

The highest value is in PM, namely understanding the concept of differentiated learning, which means that teachers generally understand the concept of differentiated learning, this is supported by the results of teacher interviews regarding understanding the concept of differentiated learning The results of teacher interviews, namely with G1, G2, G3 and G4 who stated that the definition of differentiated learning is learning that gives freedom to students to increase their potential according to their learning readiness, interests and learning profiles.

G1,G2,G3 and G4 stated that the definition of differentiated learning is learning that provides flexibility for students to increase their potential according to their learning readiness, interests and learning profiles. Differentiated learning begins with diagnostic assessment as a foothold to determine the formulation of learning objectives.

Analysis of Learning Outcomes

Learning outcomes abbreviated as HB received a questionnaire score of 83.33% and this value is quite high, this is supported by observations of diverse student work according to the interests of each student.

Facility Analysis

Facilities abbreviated as F received a questionnaire score of 76.5% and this value is quite low, this is supported by the results of observations, namely objects in the classroom that support differentiated learning activities are still lacking, for example, the globe of the world map, table chairs with mic wheels and various ropes, wheeled mic and various ropes are still lacking.

DISCUSSION

Differentiated learning is an effort to change the learning process in the classroom to meet individual learning needs. Differentiated learning is a decision often made by teachers who seek the needs of students. [11] Differentiated education makes learners different in terms of learner preparation, interests and learning profiles, who said that differentiated education is learning that helps support all the differences of students with open eyes. [12]

The implementation stage of differentiated learning consists of:

Diagnostic assessment, this diagnostic assessment as a foothold to map the level of student readiness and interest in learning. PAUD Surakarta at the beginning of the new school year has conducted a diagnostic assessment, the results of diagnostic assessment as a foothold in formulating learning objectives of learning planning, learning strategy planning and assessment planning. The results of the diagnostic assessment as the basis for care services for students in accordance with the individual characteristics of students. Therefore it is important for teachers to understand about diagnostic assessments in order to serve students in accordance with the individual characteristics of this sishal that learning diagnostics will strengthen subsequent handling through more innovative learning innovations which is more innovative. [12]

There are three categories of **mapping**, including students' social-emotional readiness, guidance and mentoring. The results of mapping as a basis for preparing service strategies and student learning. In the mapping, students' readiness to learn, students' learning styles and interests are obtained, opinion that students' learning needs are grouped based on learning styles, learning readiness and interests. [1]

The learning process, the most difficult learning process at the level of using different learning methods, is the key to educational success. The teacher's ability to create learning that suits the students and the different interests of the students is the basis for the success of the learning process. statement that children aged 0-6 years is an age where children's imagination is still short, children prefer to move rather than sit. This situation is common in schools because children aged 0-6 years like to play. [13] Education that meets the needs of students will lead to good education, this cannot be separated from professional and efficient teachers, education and management, the ability to provide feedback and support, and the ability to develop students themselves. [14]

Different education can help students to achieve better learning outcomes because the product will be created according to their interests. Production can be shown in different activities according to each student's skills and interests. Students are allowed to choose how to express their understanding as they wish, such as collage, painting, pasting, shading, folding and others.

Different learning notions include different learning concepts and different learning levels. The understanding that needs to be known is knowing student characteristics, showing student readiness and student interest, preparing teaching materials that match student characteristics, organizing classes to accommodate different students, and appropriate learning methods. student needs and assessment. Teachers should understand their role and work effectively to help encourage all the different abilities that each student has, so that everyone has a group. education has different characteristics but their educational needs can be met.

Facilitation, the use of tools and methods in the implementation of education is very useful to improve the quality of students during learning. At the PAUD level there are many types of activities that can be used as child learning, one of which is the use of toys as a learning environment. [15] This is based on the same learning principle in PAUD, which is learning through play. As well as having fun, teachers have many ways to enhance learning, such as using new and different types of media, so that the development of all pupils can be well supported. [16]

CONCLUSION

The results of the research and discussion conclude that differentiated learning is learning based on student needs, from the differences in student characteristics, mapping is carried out through diagnostic assessments from diagnostic assessments to obtain student categories based on interests and readiness After mapping the interests and readiness of student learning, lesson planning and learning outcome plans. Students' learning outcomes will naturally vary according to their interests, readiness and abilities. The implementation of differentiated learning must be supported by the teacher's understanding of the concept of learning and by adequate facilities for the implementation of differentiated learning.

REFERENCES

- [1] Tomlinson, C. A. (2001). How to Differentiate Instruction in Mixed-Ability Classrooms. Upper Saddle River, NJ: Pearson Education.
- [2] Melesse & Belay.2022. Differentiating instruction in primary and middle schools: Does variation in students' learning attributes matter?. Cogent Education ISSN: (Print) (Online) Journal homepage:

- [3] Ali Tared Aldossari 2018 The Challenges of Using the Differentiated Instruction Strategy: A Case Study in the General Education Stages in Saudi Arabia. International Education Studies; Vol. 11, No. 4;2018 ISSN 1913-9020 E-ISSN 1913-9039 Published by Canadian Center of Science and Education
- [4] Geletu. Mihiretie 2022 The effects of primary school teachers' professional development activities on differentiated instructional practices and possibilities of elevating students'
- [5] Solheim. Roland & Sigrun (2018) K. ErtesvägTeachers' perceptions of their collective and individual learning regarding classroom interaction. EDUCATIONAL RESEARCH 2018, VOL. 60, NO. 4,459-477 https://doi.org/10.1080/00131881.2018.1533790 indonesian
- [6] Clark, Nash & Karvonen,2022. Teacher Assessment Literacy: Implications for Diagnostic Assessment Systems. Applied Measurement in Education Volume 35, 2022 Issue 1
- [7] Tabacudkk.2020 Looking for a pattern: Error analysis as a diagnostic assessment for making instructional decisions to promote academic suciess. Preventing School Failure: Alternative Education for Children and Youth ISSN: 1045-988X (Print) 1940-4387 (Online) Journal homepage: https://www.tandfonline.com/loi/vpsf20
- [8] Maria. 2019. Praxishandbuch der Montessori-Methode Verlag Herder GmbH.Rizky Dewi Anggraini_D98216054.Pdf." n.d. Accessed October 17,2020.http://digilib.uinsby.ac.id/44064/2/Rizky%20Dewi%20Anggraini_D98216054
- [9] Hasan, A, Hyson, M., & Chang, M. C. (2013). Early Childhood Education and Development in Poor Villages of Indonesia: Strong Foundations, Later Success.
- [10] Tomlinson, C. A. (2014). The differentiated classroom: Responding to the needs of all learners. Ascd.
- [11] Atik Siti Maryam. (2021). Stategi Pelaksanaan Pembelajaran Berdiferensiasi. Kementrian Pendidikan, Kebudayaan, Riset Dan Teknologi.
- [12] Darmiyati, D. (2020). Penilaian Unjuk Kerja Dalam Pengembangan Agama Dan Moral Anak Usia Dini. Jurnal Pendidikan Kewarganegaraan. 10(1). 74.
- [13] Masdudi. (2018). Implementasi Tehnik Hypnoteaching Dalam Proses Pemebelajaran Anak Usia Dini. Awlady,
- [14] Mulyasa, E. (2013). Standar Kompetensi dan Sertifikasi Guru. Remaja Rosdakarya.
- [15] Handiyani & Muhtar.2022. JURNAL BASICEDU Volume 6 Nomor 4 Tahun 2022 Halaman 5817 -5826 Research & Learning in Elementary Education https://jbasic.org/index.php/basiceduMengembangkan Motivasi Belajar Siswa melalui Strategi Pembelajaran Berdiferensiasi: Sebuah Kajian Pembelajaran dalam Perspektif Pedagogik-Filosofis
- [16] Taib, B., & Mahmud, N. (2021). Analisis Kompetensi Guru PAUD Dalam Membuat Media Video Pembelajaran. Jurnal Obsesi: Jurnal Pendidikan Anak Usia Dini, 6(3), 17991810. https://do..org/10.31004/obsesi.v613.1842

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