

ANALYSIS OF STUDENT LEARNING STYLES (LEARNING MODALITIES) IN DIFFERENTIATION LEARNING IN CLASS 4 OF PRIMARY SCHOOL N Pesantren

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ABSTRACT

This research was conducted with the aim of obtaining an overview of the learning style profile of fourth grade students at SD N Pesantren. The purpose of the results of this research is for an initial assessment of differentiated learning that will be applied to this class. This research uses qualitative descriptive research. A survey with a self-developed learning style questionnaire based on the indicators described by Bobby De Porter is the method used in this research to obtain data from research subjects. There are three learning styles studied, namely visual, auditory and linesthetic learning styles. Based on data analysis in this class, the majority of students tend to have a visual learning style. However, no student only relies on one learning style, but of the three learning styles, some are more dominant than others. Differentiated learning aims to accommodate the diversity of students' needs. This research was carried out by researchers in class IV to map students' learning needs which then became a guide for planning differentiated learning.

Keywords

*Learning Styles
(Learning Modalities),
Differentiated
Learning*

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INTRODUCTION

Education is a process that includes three dimensions, namely the individual, society or national community of a collection of individuals, as well as all the contents of reality, both material and spiritual, which have a role in determining the nature, fate, form of humans and society. Apart from that, education, according to Nurkholis (2013), means efforts to guide children from birth until the end of their lives to reach physical and spiritual maturity, in the relationship between nature and their environment.

Sujana (2019) believes that education is an effort to help children's souls both physically and mentally, which originates from their natural nature towards a humane and better civilization. Meanwhile, according to Yayan, et al. (2019) education is the most important thing in human life, which means that every Indonesian has the right to get it and can develop in it, education in general has meaning, a process in life in developing each individual to be able to live and continue their life. Therefore, it can be concluded that education is a process of child

development efforts from birth to the end of life to develop themselves both physically and mentally so that they can help in social life.

Along with the development of the times, several changes in behavior and behavior have emerged from humans themselves. Apart from many new developments in terms of information technology and others. These things are factors that renew the development of the education system, including education in Indonesia. Since Indonesia's independence, the education system has experienced many changes and developments as well as changes in the form of changes/development of the curriculum from year to year. Curriculum according to Ujang, et al. (2022) is the "spirit" of education and as times progress and science and technology must always be assessed innovatively, dynamically and cyclically, with competencies that are synchronous and needed by society and graduate users. So the curriculum is the core and most important thing in the world of education. To maintain the core quality of education, the curriculum must always be evaluated and reviewed periodically.

This year there is a new curriculum that has been implemented in several classes at every level of education. The new curriculum that has begun to be implemented as a replacement for the previous curriculum, namely the 2013 curriculum, is the independent curriculum. This independent learning curriculum was created in accordance with the initial ideals of the national education figure or known as the father of Indonesian education, namely Ki Hajar Dewantara. This ideal is education that focuses on the freedom to learn independently and creatively, which is expected to have an impact on creating students who have an independent character in accordance with the opinion of Dela KA (2020).

Apart from that, before the implementation of the independent curriculum there was a new policy from the government, namely the zoning system. The zoning system is a zoning system at elementary school to high school levels. This is in line with the opinion of Rizky T. Widyastuti (2020) who stated that zoning itself occurs as a result of complaints from parents of students who feel left out as a result of the school they are entering prioritizing outstanding grades, thus causing their children to lose out to other children with better grades. good and in line with the criteria desired by the school. Agrees with Nandy AS (2020) who believes that the zoning system policy is considered to ensure equal distribution of education, so that all social classes have the same opportunity to obtain quality education. So, the zoning system is a system/policy that regulates the admission of new students (PPDB) from Kindergarten (TK)

to Senior High School (SMA) based on the pathways and priorities that have been determined in the Minister of Education and Culture.

After the implementation of the zoning system, which resulted in groups of heterogeneous students in one class, what is meant by heterogeneous is diverse. The diversity of each student is certainly different, according to Aiman Faiz, et al. (2022) students have differences in terms of learning readiness, interests, and learning needs. The aspects mentioned are aspects of differentiation learning. Yunike, et al (2022) explained that differentiated learning is an effort to adapt in the classroom to meet the learning needs of each student. The adjustments intended are related to interests, learning profiles, learning readiness which is the diversity possessed by each student in order to achieve improved learning outcomes. This research will discuss student learning styles which will determine the learning needs of diverse students.

Learning style according to Nurzaki Alhafizh (2021) is a way for each individual to absorb and process information obtained easily according to their respective abilities. In line with the opinion of (Joko, 2006) in Evi and Ina (2022) that learning style is a process of behavior, appreciation, and the tendency of a student to learn or acquire knowledge in his own way. So learning style is the way that each individual has to learn or absorb something. According to Subini (2017), there are 3 types of learning, namely visual, auditory and kinesthetic learning styles or usually abbreviated as VAK.

These learning styles are divided into three according to the different ways of absorbing things. Jeanete and Neleke (2016) state that visual learning style means learning style by looking, observing, looking, and the like. Auditory learning style is a learning style that uses listening. Meanwhile, the kinesthetic learning style is a style of learning by moving, working and touching.

With these differences, learning is needed that can accommodate each of these differences. Therefore, there is a need for differentiated learning. Desy Wahyuningsari et al. (2022) stated that differentiated learning is a strategy that teachers can use to meet the needs of each student. Meanwhile, according to Aiman Faiz, et al. states that learning is seen from the perspective of Ki Hadjar Dewantara, who emphasizes that teachers must guide the nature of children so that they become human beings who achieve happiness. This is in line with the statement of Wisman et al. (2022) that differentiated learning is defined as learning practices

that are adapted to the curriculum, teaching strategies, assessment strategies, and classroom environment to the needs of all students. So differentiated learning is learning that is designed and implemented according to a curriculum that is adapted to the students being taught.

Therefore, there are diverse students after the implementation of the zoning system. There are many types of diversity for each student, one of which is learning style which is one aspect of differentiated learning. So to accommodate this learning style, differentiated learning is implemented. Therefore, in this study researchers focused more on learning styles to carry out differentiated learning.

METHOD STUDY

Type study

This research is non-experimental research, namely qualitative descriptive research. Research is carried out using case studies, case studies are a research method carried out to understand, study and describe events naturally without interference from other parties (Salim, 2006). The data studied in this research is data that actually occurred at the location of this research location (Mukhibat S. Aufa, 2020) in Aminuriyah et al, (2022). This research investigates the forms, activities, characteristics, changes, relationships, similarities and differences with other phenomena Sukmadinata (2017) in Fellyson et al. (2016) in researchers' qualitative research.

Time And Place Study

elementary school Country Boarding school is a place to carry out research . The research was carried out in the odd semester of the academic year 20 22 /20 23 from 11 November 2022 to 08 December 2022.

Target / Subject Study

The subjects in the research were all 26 grade IV students at the Islamic Boarding School State Elementary School consists on 12 students Woman And 14 learners man . This research was conducted in this class to determine the learning style of each student so that it can be a guide for teachers in designing differentiated learning.

Procedure study

The data collection procedures carried out were in the form of questionnaires , interviews and documentation.

1. Questionnaires were distributed to students to determine the dominant learning style possessed by students. The questionnaire was given directly with assistance from researchers and class teachers. The questionnaire used is a questionnaire that includes indicators for each student's learning style, namely visual, auditory and kinesthetic. After all students filled out the learning style questionnaire, the researcher carried out data analysis first and continued by conducting confirmation interviews.
2. Interviews were conducted with students . Student interviews were conducted after all students filled out the learning style questionnaire. Interviews were conducted to confirm students' answers and determine the correctness of the results of the learning style questionnaire that students had previously filled out. Interviews with students were developed based on answers from each student.
3. Documentation covers Photo from the researcher's observations while the students were at school.

Data, Instrument And Technique Collection Data

Data Which collected form data student learning style questionnaires which were conducted offline, as well as interview data obtained directly to confirm the answers to the learning style questionnaire which had been filled in previously. The reasons for using student learning style questionnaire data as well as the results of confirmation interviews are used to answer the research focus, namely regarding the analysis of student learning styles in differentiated learning.

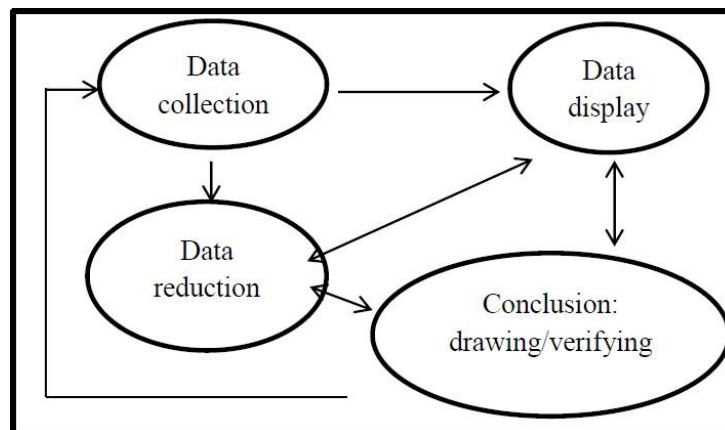
Technique collection data used for this research were questionnaires, interviews and observation techniques. Interviews are conducted during/after students fill out the questionnaires given. Observations are carried out by observing research subjects while learning in class or outside the classroom.

Instrument study Which used by researcher is student learning style questionnaire and interview. Student learning style questionnaire and interview guide to collect data on each student's learning style. This questionnaire consists of three indicators, namely visual 10

statements, auditory 10 statements, and kinesthetic 10 statements which are guided by the opinions of DePorter and Hernacki .

Technique analysis data

Method analysis data used is reduction data, presentation data, as well as drawing data conclusions and verification as follows.



Picture 1 Stage Analysis Data

1. Data reduction (Data reduction)

The data obtained is in the form of data from student learning style questionnaires and data from interviews with students . These two data are used to determine the dominant learning style possessed by students. After obtaining data on the dominant learning style of each student, the researcher then grouped the results of the learning style questionnaire answers based on the dominant learning style possessed by the students, which consisted of visual, auditory and kinesthetic learning styles. Data from student learning style questionnaires still in shape raw data as material for confirmation interviews . After the researcher grouped them based on the students' learning styles, the researchers continued by conducting interviews to confirm the results of the answers from the students' learning style questionnaire. Interview result simplified And processed become data Which Ready used . From the results of the student learning style questionnaire and the results of interviews, researchers can find out what dominant learning style each student has.

2. Data displays (presentation data)

Next stage is that the researcher provides a display regarding the results of tests on adding fractions with different denominators on students' learning styles. Presentation data use narrative text descriptions to describe the research results have been grouped to draw conclusions. The data presented is data analysis Learning outcomes on students' learning styles in adding fractions with different denominators.

3. Verification _ And withdrawal conclusion

Drawing conclusions form conclusion description results study. Researchers match the results of the learning style questionnaire analysis and interview results so that they can reach conclusions and answer the objectives of this research.

RESULTS STUDY AND DISCUSSION

Results

Each image must be provided with information below the image. The information on the table is given above the table. Information is written in lower case except for the first character in each sentence. All images must be numbered sequentially. Images are placed in the middle of the page (center aligned), while tables start at the left edge (left aligned) of the page.

Learning style according to Arylien et al (2014) is the easiest way that everyone can absorb, understand and process the information they have received. This research will examine three learning styles, namely visual, auditory and kinesthetic, which each have their own characteristics.

According to the explanation of DePorter and Hernacki (2000) in Yusri W. (2017), the characteristics of students with a visual learning style are a) organized, disciplined and neat, b) fast in speaking, c) noise does not bother them, d) less able remember by just hearing, it's easier to remember what you see, e) prefer reading aloud rather than just being read to, f) Read quickly, g) Often face situations where you know what you want to say, but have a poor choice of words, h) Remember something that is associated with visuals, i) It is easier to remember written instructions than verbs and often asks someone to repeat them, j) Be thorough in details. Individuals who have a visual learning style tend to understand things more easily by looking at the material in tables, diagrams, pictures and so on.

In contrast to the profile of the visual learning style which prefers and easily understands things by seeing, the auditory learning style more often and likes to use their sense of hearing. So individuals who have an auditory learning style prefer to absorb information through direct explanations and others. The characteristics of students with an auditory learning style according to DePorter and Hernacki (2000) in Yusri Wahyuni (2017) are: (a) they like to talk to each other while working, (b) noise will easily disturb their activities, (c) they like reading aloud and enjoy listening to someone, (d) they have difficulty writing but are good at telling stories, (e) something that is said directly is a way of learning, rather than remembering something that is only seen, (f) likes activities talk, discuss and explain it in detail.

Furthermore, DePorter and Hernacki (2000) in Rona Taula Sari (2018) explained that the characteristics of students with a kinesthetic learning style are: a) speaking slowly, b) having difficulty remembering maps if they don't already exist, c) walking and looking is the way they remember, d) when reading a text, they use their fingers to guide it, e) cannot sit still in one place for a long time f) may write poorly g) always rely on physical and moving activities h) want to do everything. Individuals who have this learning style tend to rely on experience, touch and movement as a way to obtain or absorb information.

Guided by these characteristics, the researcher prepared a questionnaire as a tool to map the learning styles of class IV students at SD N Pesantren. Based on the results of mapping a student's learning style through a student learning style questionnaire which has been classified according to type, the percentage of learning styles of all grade 4 students at SD N Pesantren can be depicted as Figure 1.

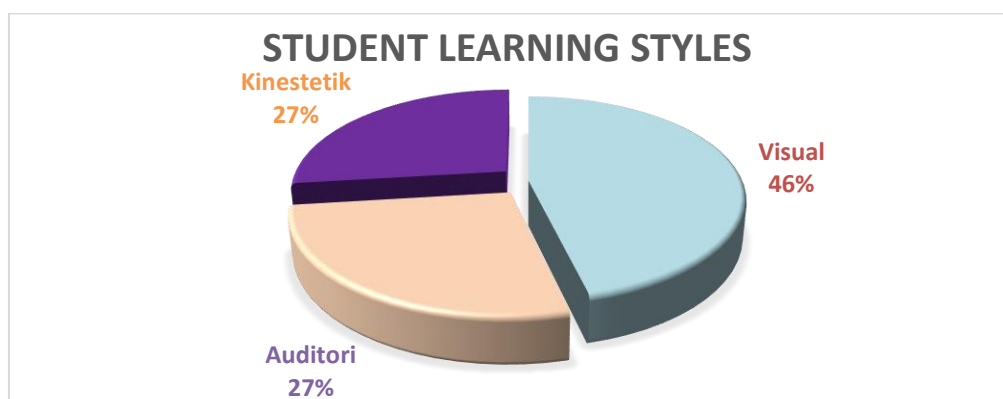


Figure 2. Student Learning Style Profile

Based on the learning style diagram of all class IV students at SD N Pesantren, with a sample/research subject of 26 students, it can be seen that the majority of students' learning styles tend to rely more on/use visual learning styles, namely 48%. Meanwhile, students who tend to have auditory and kinesthetic learning styles have the same presentation, namely 26% of the total. Judging from these results, it can be said that students with a tendency towards a visual learning style are more dominant in class IV of SD N Pesantren, compared to students who have an auditory learning style and a kinesthetic learning style which is directly proportional.

So in class IV of SD N Pesantren, most students rely more on their sense of sight to obtain knowledge or information, such as through pictures, posters and the like, which means these students tend to have a visual learning style. Then there are also students who tend to have a kinesthetic learning style, namely 27% of the total who rely more on direct experience or movement to obtain information. Meanwhile, the remainder, namely the auditory learning style, tends to rely on the sense of hearing to absorb information. The data in more detail on the results of the learning styles questionnaire is in table 2 below.

Table 2. Learning Styles of Class IV Elementary School N Islamic Boarding School Students

No.	Class	Name	Gender	Religion	Learning Style		
					Visual	Audio	Kinesthetic
1.	4	PD 1	L	Islam	74%	90%	78%
2.	4	WW2	L	Islam	69%	65%	55%
3.	4	PD 3	P	Islam	71%	73%	65%
4.	4	PD 4	L	Islam	85%	93%	83%
5.	4	PD 5	L	Islam	80%	73%	68%
6.	4	PD 6	L	Islam	64%	68%	55%
7.	4	PD 7	L	Islam	66%	60%	60%
8.	4	PD 8	L	Islam	89%	77%	58%
9.	4	PD 9	L	Islam	69%	77%	68%
10.	4	PD 10	P	Islam	69%	68%	53%
11.	4	PD 11	P	Islam	39%	50%	75%
12.	4	PD 12	L	Islam	63%	58%	68%
13.	4	PD 13	P	Islam	71%	67%	60%
14.	4	PD 14	L	Islam	81%	65%	78%
15.	4	PD 15	L	Islam	64%	62%	60%

16.	4	PD 16	L	Islam	68%	67%	70%
17.	4	PD 17	L	Islam	56%	70%	53%
18.	4	PD 18	P	Islam	76%	80%	70%
19.	4	PD 19	P	Islam	79%	67%	77%
20.	4	PD 20	L	Islam	60%	68%	70%
21.	4	PD 21	P	Islam	51%	37%	43%
22.	4	PD 22	P	Islam	69%	65%	63%
23.	4	PD 23	P	Islam	75%	68%	60%
24.	4	PD 24	P	Islam	71%	67%	58%
25.	4	PD 25	L	Islam	70%	67%	78%
26.	4	PD 26	L	Islam	71%	60%	73%

The description of the learning styles of all students in class IV of SD N Pesantren is diverse. In Figure 1 and Table 3 above, you can see a description of the diversity of learning styles. If we sort the tendencies from most to least in order, namely visual, audio and kinesthetic learning styles. The aspects that determine the learning needs of each student will be guided by the learning style. The learning carried out must be adapted to this. A concept that can accommodate this diversity is the concept of differentiated learning.

Discussion

Learning style is part of the learning profile which will map the learning needs of each student Nurzaki Alhafizh (2021). This research will focus on learning styles which include 3 types, namely auditory, visual and kinesthetic learning styles. The learning style of each student is different. When they have mapped each student's learning style, teachers can be more sensitive to differences in learning styles between students. In line with Marlina's (2019) explanation, the difference between traditional classes and differentiated classes is that differentiated classes realize the existence of multiple intelligences because each student's interests, talents, readiness to learn, and learning profile are the basis of the learning that will be implemented.

Differentiated learning is an effort used by teachers to carry out learning to meet the needs of each student. This is in line with the opinion of Wiwin Herwina (2021), namely that differentiated learning is an effort to meet individual learning needs by adapting the learning process in the classroom. However, differentiated learning does not mean that teachers have to carry out learning in 26 different ways for a total of 26 students. Neither is learning adapted to a more dominant learning style. However, teachers must be able to innovate in selecting models, methods and strategies that can motivate their students to participate in learning, so that the

quality of learning increases. Differentiated learning is not about grouping students who are smart or vice versa. In simpler terms, differentiated learning is a series of decisions made by teachers guided by and in favor of students' needs.

Regarding differentiation learning, the objectives of this learning according to Marlina (2019) in Wiwin Herwina (2021) are: a) Helping all students learn. So that teachers can be more aware of students' abilities, so that all students can achieve learning goals. b) Helps increase student learning motivation and results. With the aim that each student can achieve learning outcomes commensurate with the level of difficulty of the knowledge that the teacher has and will provide. If teachers can teach students according to their talents, then each student's motivation to learn will increase. c) Establish a harmonious teacher and student relationship. Differentiated learning further improves strong teacher-student relationships so that students are enthusiastic about learning, d) Helps students become independent learners. Students are accustomed to and appreciate the diversity of potential if they follow lessons independently, e) Increase the teacher's level of personal satisfaction. If a teacher implements differentiated learning, it will make the teacher feel more challenged in developing his teaching skills, which makes the teacher creative and innovative.

Differentiated learning is applied in the classroom, teachers must be able to think that each student has more diverse learning needs. Teachers must be able to identify and implement learning plans that can describe how their students can learn. This is in line with the opinion of Savelsbergh et al (2010) in Nurzaki Alhafizh (2022) that training individual skills becomes more open in studies that apply differentiated learning. So students with various characteristics are more likely to indicate the need to modify the curriculum and learning.

According to Marlina (2019) in Ilham Farid et al. (2022) in differentiated learning there are four aspects, namely content, process and learning products. The first component is content differentiation, namely something that students will learn/do related to learning and the educational curriculum as stated by Wasih in Desy Aprima (2022). In this component, a teacher is expected to have the ability to adapt the curriculum and learning materials to suit the learning styles of students who have been mapped and can facilitate the particular conditions of their students. The condition and abilities of students are things that must be used as guidelines in determining the content of the educational curriculum.

The second component of differentiation is process. According to Wasih in Desy Aprima

(2022), process differentiation is about how students can process the information presented. Determining student learning choices is seen from how students interact with the material. Because of the many differences in learning styles and preferences that students have demonstrated, the curriculum must be able to be modified to appropriately accommodate differences in learning needs. Product differentiation is the final component. Product differentiation is about how students demonstrate what they have learned, Wasih in Desy Aprima, (2022). Learning products make it more possible for teachers to provide assessments on material that students have understood and mastered and move on to the next material. Each student's learning style also determines what kind of learning outcomes will be demonstrated to the teacher.

All needs of each student can be accommodated according to the student's learning profile, especially each student's learning style through the implementation of differentiated learning. In line with the findings of Gray (2020) in Nurzaki Alhafizh (2022) who explains that differentiated learning is designed/made for self-control of training participants. Students' learning strengths and needs focus more attention than differentiated learning. The learning profile as an adjustment to the learning needs of each student makes differentiated learning require teachers to focus and provide action to meet all the learning needs of each student.

Teachers have a very important role in the differentiated learning process to direct the talents/potential of each student, so it is very important to pay attention to their own role in efforts to help their students. Becoming a learning leader is one of the important roles of teachers who create well-being in the educational ecosystem at school. Prioritizing learning aspects, for example: curriculum, assessment, learning process, etc. is the teacher's task as a learning leader. Conditions that favor and prioritize students are closely related to well-being.

Differentiated learning applied to a class has a good influence, namely being able to further improve and develop the learning outcomes of each student, as explained by Fira (2022) in his research examining the independent curriculum, more specifically differentiated learning. Suryana et al (2022) conducted research that supports the results of this research. This research explains that the independent curriculum prioritizes students' freedom and independence compared to the 2013 curriculum.

Equal opportunities to learn using the best methods that are in sync with students' talents and interests is something that teachers must always ensure. This is in line with the role and

values of a teacher who is centered and on the side of students. The way to become a teacher who supports students is to always be involved in prioritizing the interests of student development as the main guideline of an educator. All decisions that will be taken by the teacher in learning must be based on the students first, and not on the teacher himself. All things carried out must be aimed at the development of students, not for the purpose of self-gratification of the teacher and/or other people concerned.

CONCLUSION AND IMPLICATIONS

Conclusion

Based on research at SD N Pesantren regarding student learning styles, it is known that all class IV students have varied learning styles. The learning style of class IV students at SD N Pesantren has students with a visual learning style of 46%, an auditory learning style of 27% and a kinesthetic learning style also of 27% of the total number of students in that class. So that learning can accommodate the diversity of learning styles of each student, special learning is needed, namely differentiated learning. This differentiated learning can be implemented based on three components/aspects, namely content, process and product differentiation. So in learning, differentiated learning needs to be applied so that the needs of each student can be met.

Implications

So that learning can accommodate the diversity of learning styles of each student, special learning is needed, namely differentiated learning. This differentiated learning can be implemented based on three components/aspects, namely differentiation of content, process and product. So in learning, differentiated learning needs to be applied so that the needs of each student can be met.

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