Learning Style Analysis for Differentiated New Paradigm Learning in Public Senior High School 1 Semendawai Suku III East Oku

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Abstract. Learning with a new paradigm is designed based on the principle of differentiated learning so that each student learns according to their needs and stage of development. This study aims to obtain an overview of the trends in the learning styles of students at public senior high school 1 Semendawai Suku III East Oku. These results are intended for initial assessment in preparing differentiated teaching modules that will be used in differentiated learning. This research is a qualitative descriptive study. The method used is a survey using a learning style questionnaire developed by Chislett and Chapman. The survey results were then analyzed and grouped by researchers according to the characteristics of students' learning styles, namely visual, auditory, and kinesthetic learning styles. The results show that in class X, students have a tendency to learn styles, be it visual, auditory, or kinesthetic. From the analysis of the learning styles of students at public senior high school 1 Semendawai Suku III East Oku, the results showed that the tendency of students' learning styles was audio by 46%, visual learning styles by 39%, and kinesthetic learning styles by 15%. These results indicate that in one class the tendency of students' learning styles varies. Differentiated learning needs to be developed by educators in order to facilitate the needs of students' diverse learning styles.

Keywords: learning styles, new paradigm, differentiated learning

Introduction

The covid-19 pandemic has caused many obstacles in learning activities in educational units which have a significant impact. To break the chain of spread of covid-19, since March 16, 2020, the government has adopted a distance learning policy. In July 2021, the government took a policy for regencies/cities that are included in the red and orange zones to continue to carry out online learning, and for districts/cities that are in the
yellow and green zones learning can be carried out offline while still implementing health protocols online (Sakina, 2021). For the curriculum used, the ministry of education and culture gives education units the choice to continue using the 2013 curriculum or the emergency curriculum, which is a simplification of the 2013 curriculum which contains essential materials (Anggraena, 2021). Meanwhile, the government is also gradually initiating a new paradigm of learning (free learning), the new paradigm of learning is student-centered learning (student centered), and in 2022 this new paradigm of learning is officially called the prototype curriculum (free learning), although in practice this independent curriculum is still limited on driving schools.

Public Senior High School 1 Semendawai Suku III East OKU which is located in BK 16, East Oku Regency was chosen to be one of the driving schools based on the decree of the director general of early childhood education, basic education, and secondary education number 6555/c/hk.00/2021 concerning the determination of the unit education for implementing the driving school program. So that with the issuance of the decree starting in 2021 for class X at Public Senior High School 1 Semendawai Suku III East OKU an independent curriculum applies according to the new paradigm of learning concepts, while for class XI and XII still using the 2013 curriculum.

Generally, education in educational units in our country, both before the covid-19 pandemic until now, has tended to be mass classical. This means that educational programs are implemented to serve as many students as possible. Education in Indonesia is also still implementing the old learning system which assumes all children are the same, is more teacher-centered, without giving every student the opportunity to actively participate in learning (Andini, 2016). Students just sit quietly listening to the teacher without doing anything that will add to their learning experience. The teacher seems to only teach one student in one class, while in the class there are approximately 20-36 students who have uniqueness, abilities and diversity of different learning experiences.

The new paradigm curriculum is designed based on the principle of differentiated learning so that each learner learns according to their needs and stage of development (Patilima, 2021). To support the new paradigm curriculum, teachers need to recognize that different learners have different levels of the previous achievement and perhaps with these learner differences, they have barriers to learning (Coe, 2022). Each student has uniqueness and characteristics that are different from other students, so education, should be able to accommodate all these differences, education must be open to all and provide the needs needed by each individual (Faiz, 2021). The main objective of differentiated learning is to provide opportunities for continuous development to each learner and lean on the presence of significant differences among learners (Gobiberia, 2021). The diversity of each learner must always be considered because each learner grows up in a different environment and culture. The new paradigm curriculum, which is more humanistic, is expected to provide opportunities for all students to get a quality education. Providing attention and educational services according to the needs of each student (Andini, 2016). Differentiated learning is learning that has received the attention of educators in many countries as a means to make all learners develop their full potential (Al-Shaboul, 2021).

Learning style is the main modality of learners to learn (Sari, 2014). According to DePorter & Hernacki (2007), learning styles are key to developing performance at work, at school, and in interpersonal situations. If a person is aware of how he and others absorb and process information, then he can make learning and communicating easier in his own way. The way of learning is a combination of how to absorb, organize and process information. Teachers should not only focus on finding the strengths but also the weaknesses of their students. This will help the teacher reflect on the learner’s weaknesses and use specific strategies to build on those weaknesses (Ishaque, 2019), because in one class, there can be a differentiation of learning styles. In general, there are three types of learning styles that students can have, namely visual, kinesthetic, and audio learning styles.
The learning style will allow the teacher to recognize the learner and adopt the appropriate teaching (Incik, 2020). Analysis of learning styles for each learner and providing educational opportunities that match that learning style is important to ensure permanent and effective learning (Demir, 2021).

New paradigm learning is learning that pays attention to student differentiation, including the differentiation of learning styles, so in the new paradigm learning it is necessary for educators at the beginning of learning to analyze students' learning styles, so that educators can develop appropriate learning plans for students whose learning styles are differentiated. The purpose of this study was to get an overview of the learning style trends of students in Public Senior High School 1 Semendawai Suku III East OKU as a driving school. These results are intended for initial assessment in preparing differentiated teaching modules that will be used in differentiated learning. Learning a new paradigm is learning that pays attention to student differentiation, including differentiation of learning styles, so in learning a new paradigm it is necessary for educators at the beginning of learning to analyze the learning styles of students, so that educators can compile the right learning plan for students whose learning styles are differentiated. The purpose of this study is to get an idea of the tendency of the learning style of students at Public Senior High School 1 Semendawai Suku III East OKU as a crusting school. These results are intended for preliminary assessment in compiling differentiated teaching modules that will be used in differentiated learning to support the new paradigm curriculum.

Methods

The subject of this study was class X at Public Senior High School 1 Semendawai Suku III East Oku. The sample taken was one class consisting of 33 students, one class was taken as a sample aimed at making researchers get a picture of the differentiation of learning styles of students in one class. The taking and analysis of the differentiation of student learning styles is carried out at the beginning before the teacher compiles a teaching module in which there is a learning plan. The instrument used is in the form of a learning style questionnaire developed by Chislett & Chapman (2005). This learning style questionnaire consists of 30 illustrations equipped with a choice of statements that are in accordance with student habits with each learning style. Statements in choice column 1 are a visual student habit, choice column 2 is an auditorial student habit, and choice column 3 is a kinesthetic student habit. Students are asked to complete each illustration by putting a checkmark on one of the choice columns 1,2 or 3 that reflects their habits. This instrument must be answered by the learner in just 15 minutes with a high level of concentration and the environment around the test is conditioned to be calm so that the test results are maximal and truly show the learner's true learning style. The learner's test results are then analyzed by calculating how many of the learner's answer scores are. If the learner obtains the highest score on choice 1 then the learner has tendency to visual learning styles. If the learner obtains the highest score on choice 2 then the learner has a tendency to auditorial learning style. If the student gets the highest score on choice 3, the student has a tendency to kinesthetic learning style. So that from these results researchers can group the characteristics of the learning style of visual, audiotory, and kinesthetic students.
Results and discussion

New paradigm learning ensures learner-centered learning practices. The framework for learning development in learning new paradigms is a continuous cycle. Mapping competency standards, independent learning and minimal competency assessments summarized in the new paradigm learning provides a more free space for educators to formulate learning designs and assessments in accordance with the characteristics and needs of students (Sufyadi, et al., 2021). The components of the curriculum, learning, and aligned and influence each other, this alignment is expected to change the learning paradigm so that there is continuous improvement and development of learning practices (Sufyadi, et al., 2021).

Differentiated learning is an attempt to adapt the learning process in the classroom to meet the individual learning needs of each student (Tomlinson, 2000). Tomlinson also states that differentiated learning is a process or philosophy for effective teaching by providing a variety of ways to understand new information for all students in its diverse classroom community, including ways to: obtain content; cultivate, build, or reason ideas; and developing learning products and assessment measures so that all students in a classroom with diverse ability backgrounds can learn effectively (Tomlinson, 2001). From tomlinson's statement, it can be concluded that differentiated learning is carried out to answer the needs, styles, or learning interests of each student.

Differentiated learning is a series of common sense decisions made by the teacher and oriented to the needs of students (Herwina, 2021). The decisions made are related to:

1. How teachers create a learning environment that motivates students to learn and work hard to achieve high learning goals. Then also make sure every student in the class knows that there will always be support for them throughout the process.
2. A curriculum that has clearly defined learning objectives. So it is not only the teacher who needs to be clear with the learning objectives, but also the students.
3. Continuous assessment. How the teacher uses the information obtained from the formative assessment process that has been carried out, to be able to determine which students are still lagging behind, or vice versa, which students have already achieved the set learning goals.
4. How the teacher responds or responds to the learning needs of his students. How the teacher will adjust the lesson plan to meet the learning needs of these students. For example, do teachers need to use different sources, different methods, and different assignments and assessments.
5. Effective classroom management. How the teacher creates procedures, routines, methods that allow flexibility. But also a clear structure, so that although it may be possible to carry out different activities, the class can still run effectively.

Differentiated learning models are driven by effective teaching and learning principles and practices (Marlina, 2020). Therefore, an understanding of differentiated learning and its components is very important to apply it in the classroom. Differentiated learning will work best if the teacher and class have the confidence to implement the why, what, and how of the teacher planning and implementing differentiated learning (Al-Shaboul, et al., 2021). In classes that apply differentiation learning, the teacher as the leader of students must think that students have diverse and different learning needs from one another (Tomlinson, 2016). Teachers must be proactive in finding and planning in various ways to be able to express how their students can learn by paying attention to the three characteristics of differentiation; readiness, interest, and learning profile (Tomlinson, 2001). Learners will show better performance if the tasks given are in accordance with the skills and understanding they previously had (readiness to learn). Then if the tasks trigger
curiosity or desire in a student (interest), and if the task provides opportunities for students to work in the way they like (learning profile).

According to Tomlinson (2001), there are many factors that can affect a person’s learning. Here are a few to watch out for:

1. Environment: temperature, activity level, noise level, amount of light.
2. Cultural influence: relaxed - structured, quiet - expressive, personal - impersonal.
3. Visual: learning by sight (diagrams, power points, notes, maps, graphic organizers).
4. Auditory: learning by listening (lectures, reading aloud, listening to music).
5. Kinesthetic: learning by doing (moving and stretching, hands on activities, etc.).

The new paradigm of learning emphasizes the learner-centered learning process (student centered). Therefore, this learning must be pursued in accordance with the stages of achievement and characteristics of students.

Steps to adjust learning the role of educators in general:
1. Actively seek and listen to the opinions, questions, points of view, aspirations of the students.
2. Providing 'open' questions and assignments so that students have the opportunity to further explore themselves and their knowledge.
3. Provide challenges and assistance for students in need.
4. Provide opportunities and feedback for students to provide feedback to themselves and among students to each other.
5. Involving students as collaborators in their learning communities by providing opportunities for them to make decisions about what, why, and how they learn.
6. Communicate expectations clearly to students, about the understanding you want to learn, the skills you want to have, and the profile of the intended student.
7. Make a mutual agreement with students to respect each other and build mutual trust.
8. Creating daily routines by getting used to a positive culture, and consistently being a role model for students.

According to Marlina (2020), learning adjustments can be made including the following:

1. Adjusting the scope of learning materials
   The scope of learning material means what educators will teach in class or what students will learn in class. The purpose is; to facilitate learning for students who have different levels of readiness, interest and competency mastery.
2. Customizing learning outcomes
   The purpose of adjusting learning outcomes is so that students can demonstrate their understanding and application of the learning material being studied, show ownership of the product, feel motivated and take responsibility for the product made.
3. Customizing the learning process
   Adjusting the learning process and assignments to the readiness, needs, and competencies of students. The purpose is; provide a choice of strategies to students so that they can complete tasks and take responsibility in stages.
4. Conditioning the learning environment
   Class structure personally, socially, and physically are included in the components of the learning environment. In the differentiated learning process, the learning environment must also be adapted to the readiness, interests and learning styles of students, so that students have high learning motivation. The aim is to provide support for the flexibility, comfort and safety of learning for students from a physical and psychological perspective.
To implement differentiated learning, a preliminary analysis of the learning styles of students is needed. Because, according to Bell, et al (2017) learning style is an important component that is able to lead students to achieve success in the learning process. Ishikaku (2018) also said that knowledge of learning styles can help teachers create a multi-sensory learning environment, which best serves the individual needs of each student. According to Setiana (2020) learning style is a typical way of learning for students. This typical method is individual which is often not realized by students who after forming will tend to last for a long time. In line with the opinion of Irawati (2021) learning style is a way for a person to feel easy, comfortable, and safe when learning, both in terms of time and in the senses. So students really need to be helped and directed to recognize learning styles that suit him so that learning objectives can be achieved effectively (Kadir, 2020). Related to the importance in designing learning, teachers must consider the variety of learning styles of their students (Azrai, 2018), because by utilizing the concept of diversity and accepting different learning styles, teachers become more effective in determining learning strategies and students can become more confident learners and more satisfied with their learning progress (Prashnig, 2004). Based on studies that have been conducted by Hanifah & Mulyaningrum (2021) and Alhafiz (2022) that learning styles consist of visual learning styles, auditory learning styles and kinesthetic learning styles. Therefore, in this study, the learning styles of students at Public Senior High School 1 Semendawai Suku III East OKU will be analyzed. The results showed an audio learning style of 46%, a visual learning style of 39%, and a kinesthetic learning style of 15%. In conclusion it can be seen in Figure 1.

![Figure 1. Learning style diagram of class x students of public Senior High School 1 Semendawai Suku III East OKU](image)

Students who have a visual learning style are 39% of the total number of students of Public Senior High School 1 Semendawai Suku III East OKU. They can learn very well just by seeing others do it (Burak, 2021). Visual learners find it easier to remember a certain concept or material by optimizing vision ability (Astiti, 2021) because students with a visual learning style must see to understand something (Harahap, 2021). Visual learners are more likely to remember information by witnessing firsthand the source of the information. They like the way information is presented in a coherent manner (Nancekivell, 2020). During the lesson, the learner likes to write what the educator says (Afni, 2021). DePorter & Hernacki (2007) state that the characteristics of students with a visual learning style are: a) neat and organized, b) speaking quickly, c) usually not distracted by commotion, d) remembering what is seen rather than what is heard, e) preferring to read rather than being read aloud, f) the reader is quick and diligent, g) often knows what to say, but not good at choosing words, h) remembering visual associations, i) having...
problems remembering verbal instructions unless they are written, and often ask people for help to repeat them, j) being meticulous about details. According to Lu & Yang (2018) visual learners prefer content with drawings, diagrams, and sketches and best remember the details of what they learn through drawings and illustrations. So that good facilities are used in learning such as charts, color modules, handouts, graphs, posters, and so on (Wahyuni, 2017).

For the auditory learning style group, it shows that the students who are modeling this learning style are 46% of the total number of students of Public Senior High School 1 Semendawai Suku III East OKU. This type of learning style is that students rely solely on the ability to hear. The auditorial learning style is a learning style that utilizes the sense of hearing to facilitate the learning process (Anggoro, et al., 2019). DePorter & Hernacki (2007) explain in detail the characteristics of students with auditory learning styles as follows: (a) talking to themselves at work, (b) easily distracted by noise, (c) likes to read aloud and listen, (d) find it difficult to writes, but is great at storytelling, (e) learns by listening and remembering what is discussed rather than seen, (f) likes to talk, likes to discuss and explain things at length. Auditory learners tend to be good speakers. They easily learn by discussing with others a particular material. In learning activities based on auditory learning styles, students need an atmosphere that can optimize their hearing abilities. One way is to provide opportunities to discuss in groups and present their findings.

Students who have a learning style that is kinesthetic is 15%. Characteristics student learning styles prefer to learn by being directly involved (Laksono, 2019). Kinesthetic learning style is a learning style that is easier to absorb information by moving, doing, and touching something that provides certain information so that he can remember it (Ramadandi, 2020). The characteristics of students with a kinesthetic learning style are: a) speak slowly, b) have difficulty remembering maps unless they have been there, c) memorize by walking and looking, d) use fingers as a guide when reading, e) do not can sit still for long periods of time, f) is likely to have poor writing, g) is always physically oriented and moves a lot, h) wants to do things (DePorter, 2007). So, kinesthetic children tend to remember information by carrying out their own learning activities (Wahyuni, 2017). In applying learning based on kinesthetic learning styles, a media that is directly experienced by students is needed in the learning process (Gusmaweti, 2021). This will make students active in learning.

The results of the descriptive analysis of the learning style data of the students of Public Senior High School 1 Semendawai Suku III East OKU, generally are in the audio learning style type, as many as 15 students. In general, the learning style of students in the audio learning style type can be caused by several factors, one of which is the habit factor (Sutomo, 2019). During the pandemic, students learn from home, when students study from home, the control of students' learning discipline is reduced, the tendency of students to read and write more is reduced, students are more exposed to gadgets and televisions that display a lot of interesting audio. So that the habit factor affects students to tend to develop the type of audio learning style. The results of the descriptive analysis also show that very few students have a kinesthetic learning tendency, this can also be caused by the habit of students during the pandemic who do less physical exercise or are more silent, because they interact more often with gadgets and television.

Each student has a different ability to receive and process information (Muflihah, 2019), this results in students also taking different ways to receive this information. One of them is the presence of differences learning style that learners have. This means that when the teacher carries out the learning process with the lecture method in front of the class, question and answer, and doing exercises in this case it will benefit students who have an auditory learning style, even though not all students have this auditory learning style. If the learning style is in line with their abilities, the learning outcomes are also good, and it cannot be separated from the teacher as the key, creative and innovative in choosing
learning methods (Aldiyah, 2021). Differentiated learning is a solution to meet the needs of diverse learning styles of students, especially during the learning recovery period during the Covid-19 pandemic and of course supports the new paradigm curriculum or independent curriculum that was just inaugurated by the Ministry of Education and Culture.

Conclusion

New paradigm learning is student-centered learning. To implement the learning of the new paradigm, teachers must analyze the learning styles of students to obtain an overview of the differentiation of student learning styles. Based on preliminary research by researchers at Public Senior High School 1 Semendawai Suku III East OKU regarding learning styles, students at the school have varied learning styles, with audio style tendencies of 46%, visual learning styles of 39%, and kinesthetic learning styles of 15%. Differentiated learning is learning that will accommodate students who have this varied learning style. Differentiated learning adjustments can involve adjusting the scope of learning materials, processes, and products.

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