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Profile of David Kolb's Learning Style of Students on Biology Learning in the Distance Learning

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ABSTRACT

Distance learning in biology subject at Public Islamic High School (MAN) 1 Tasikmalaya City is considered less effective. Using the approaches based on students' learning styles can consider more effective. This research was conducted to determine the distribution of the learning styles of students of class XI MIPA about Biology with the methods of distance learning in MAN 1 Kota Tasikmalaya based on the theory of David Kolb. This research was conducted with a survey, and data analysis techniques using descriptive quantitative and qualitative following the Miles and Huberman. The sample used whole class XI MIPA (N=119 students). The instrument used is KLSI (Kolb Learning Style Inventory). The findings are students of MIPA in MAN 1 Kota Tasikmalaya has four learning styles, namely diverger, assimilator, converger, and accommodator. The most learning styles owned by the learners is the assimilator (31%), followed learning style accommodator 28%, learning style diverger 23% and learning styles converger 18%.

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Keywords: Accomodator, Assimilator, Converger, Diverger

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Introduction

The pandemic condition has made the government to make statement that all forms of face-to-face learning sessions must be carried out using the distance learning method. The remote learning process takes place with the separation of educators and students but still uses developed technology as an intermediary. The distance learning process will provide a different learning experience from the previous conventional learning. The learning experience will form the habits of students in understanding learning which is called learning style. According to Yaumi (2017) the factors that determine learning success include general characteristics, special initial abilities, multiple intelligences, and student learning styles. Given the learning style is one of the factors that influence success in learning, it is very important to know by educators and students.

Students' learning styles can be identified through various learning style models, one of the learning style models used is David Kolb's learning style. Kolb (2014) argues that based on the experiential learning theory, a person in his learning will have four learning experiences consisting of a Concrete Experience (CE) learning experience, namely getting the experience of feeling (feeling) in learning, Reflective Observation (RO) getting the experience of observing (watching) in learning. Abstract Conceptualization (AC) gets the experience of thinking (thinking) in learning and Active Experiment (AE) gets experience of acting (doing) in learning. Ideal learning is obtained when students get the four learning experiences. From the four learning experiences that students go through, two dominant learning experiences will be formed. The two learning experiences that dominate students are formed into types of learning styles, namely diverger (dominant in CE and RO), assimilator (dominant in RO and AC), converger (dominant in AC and AE) and accommodator (dominant in AE and CE).

Kim and Kim (2012) describe one of the learning styles that is effective in identifying students' learning styles is David Kolb's learning style. Furthermore, Azrai (2017) suggests that by identifying Kolb's learning style, it can support and facilitate educators in implementing learning models so that it is expected to have an impact on increasing learning outcomes. In addition, Stirling (2013) revealed that the application of Kolb's learning style can contribute to increasing the effectiveness of learning, because educators are able to deliver learning according to the characteristics of students.

Biology subjects seem to have dense material, contain many interrelated theories, and require students to practice, of course forming David Kolb's various learning styles. This is shown by the research of Soraya et al (2020), regarding the profile of David Kolb's learning style in biology learning with the results of the distribution of learning styles, namely 83% diverger, 10% assimilator learning style, 5% accommodator learning style and 2% converger. Diverger learning style is more dominant, meaning that in the learning process students seem to observe a lot rather than act this is in accordance with the learning method that is often used by educators to their students in biology learning, namely by using expository and question and answer methods, and the conveger learning style has the lowest percentage because the learning experience gained by students is lacking in practice. The research was conducted before the distance learning period. As for the distribution of David Kolb's learning style in biology learning during distance learning, it is not necessarily the same because the learning experiences that are formed are different.

Based on the results of interviews with Biology teachers at MAN 1 Tasikmalaya City, distance learning in biology subjects takes place using supporting media such as e-learning. Educators upload all material in the form of files and videos on e-learning madrasah, besides those educators hold learning quizzes using assessment media that are already available on the e-learning. During distance learning, educators assume that most students are less enthusiastic about the learning. So far, educators have never known the learning styles of students. Though the learning style of students can be used as a guide for designing lesson

plans. In addition, according to Sukmana (2017), the weaknesses and strengths of a student in the learning process can be identified by first analyzing the type of learning style they have.

Learning styles have an important role in the learning process, because learning styles include how students concentrate on obtaining and absorbing the information provided. According to Rijal (2015), when someone knows their own learning style, that person should be able to manage themselves and adjust the conditions that make that person able to maximize learning.

This study aims to determine the distribution of David Kolb's learning style in Grade XI of MIPA MAN 1 Tasikmalaya City. Educators who know the distribution of student learning styles will try to determine appropriate learning plans. So that students don't look like as they're being forced in ways that are not suitable.

Methods

The research used a survey method. The population in this study were students of grades 10 of Mathematic Science (MIPA) at Islamic Public School (MAN) 1 Tasikmalaya City for the academic year 2020 - 2021, which consisted of 5 classes (N= 171 students). Sampling was run by saturated sampling technique. Sugiyono (2017), explains that the saturated sampling technique means using all members of the population as a sample. In this study, the number of students in grade 10 MIPA was 171 all students, and all were instructed to fill out a questionnaire. Among those number, 119 students participated (the participation rate was 69.5%). This research was conducted from 22 May 2021 to 4 June 2021.

Data collecting method in this research was a non-test method. The data in this study were obtained through distributing questionnaires and following by unstructured interviews. Questionnaires were filled out by students while interviews were conducted with biology teaching teachers and student representatives from each type of learning style of David Kolb.

The instrument used in this research is the KLSI (Kolb Learning Style Inventory) 3.1 questionnaire downloaded from the University of Miami website. This questionnaire consists of 12 items. Each item consists of four statements of experiential learning experiences, so a total of 48 statements. Students as respondents give a sequence of 1-4 on the statement that is in accordance with the learning experience experienced. Number 1 for the choice is not appropriate, number 2 for the choice is not appropriate, number 3 for the appropriate choice and 4 for the choice that is very suitable for students when studying.

The questionnaire was validated constructively by one of the lecturers of the Department of Biology Education at UNSIL and empirical validity was carried out by conducting pre-research on filling out the questionnaire in grade 12 MIPA MAN 1 Tasikmalaya City. The reliability test used the Alpha Cronbach formula through the IBM SPSS Statistic 25 software for windows, resulting in a reliability coefficient of 0.61. According to Guildford (in Aminoto and Agustina, 2020), the coefficient is $0.40 \le r$ _11 < 0.70. including moderate.

The data analysis method used in this research is Miles and Huberman data analysis model that consists of reduction, data display and conclusion. The raw data in the questionnaire was grouped based on David Kolb's learning style. Kolb (2005) learning styles can be determined by separating AC-CE scores from AE-RO scores, then the results are plotted on a learning style grid. The cut-off point on the Kolb learning style grid was determined based on the fiftieth percentile of the respondents' overall data on the AC-CE and AE-RO scores. Kolb in his research obtained the intersection point of AC-CE +7 and AE-RO +6, the two intersection points produced a formula for determining the type of learning style, the divergent learning style was determined based on the AC-CE score <= 7 and the AE-RO score <= 6, the assimilator learning style was determined by the AC-CE score >=8 and AE-RO <=6, the converger learning style by the AC-CE score >=8 and AE-RO >=7 and the

accomodator learning style by the AC-CE score < =7 and AE-RO >=7. In this study, the intersection point obtained by AC-CE is +1 and AE-RO is 0, so that the diverger learning style formula is determined by the AC-CE score 1 and the AE-RO score 0, the assimilator learning style is determined by the AC-CE score. CE 2 and AE-RO score 0, converger learning style was determined by AC-CE score 2 and AE-RO 1, and accomodator learning style was determined by AC-CE 1 and AE-RO 1. The grid diagram is shown in Figure 1.

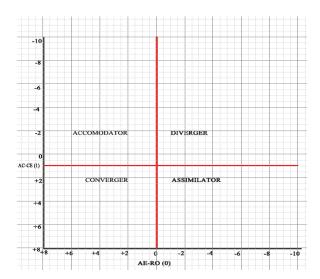


FIGURE 1. Grid Diagram with AC-CE (1) and AE-RO (0) Intersections

The data from interviews were conducted on representatives of students and biology teachers. The results of the interviews were analyzed by looking at the answers and reasons proposed. Therefore, additional information was obtained about the factors that influence the distribution of students' learning styles.

The categorization of learning style in the data display is presented in form of graphs and narration. The conclusion is generated from the triangulation data result (questionnaires, interviews with the students and the biology teacher).

Result and Discussion

Result

The results of AC-CE scores with AE-RO for each student are plotted on a grid diagram, spread over four quadrants of learning styles. The distribution is shown in Figure 2.

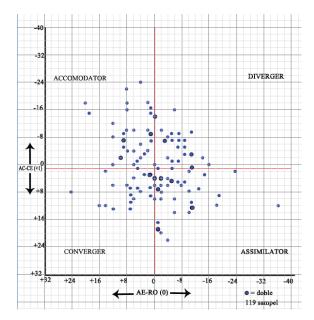


FIGURE 2 Plotting AC-CE and AE-RO scores on a Grid Diagram

Figure 2 shows the distribution of David Kolb's learning style 3.1 based on plotting AC-CE and AE-RO scores on a grid diagram. Each dot represents one student. Based on the figure, most of the points are scattered in the assimilator and accommodator learning style columns, and the points are not too much scattered in the converger and diverger learning style columns. This means that the number of students has more assimilator and accomodator learning styles than converger and diverger learning styles, but there are still some points that are right on the AC-CE and AE-RO lines, meaning that there are still some students whose learning styles have not been identified, so the formula for determining learning styles that has been described previously is needed, with this formula all learning styles of students can be identified. Table 1 is the result of identifying learning styles using the formula for determining the type of learning style by David Kolb.

Table 1. Distribution of David Kolb's Learning Style Class XI MIPA MAN 1 Tasikmalaya City

Learning	Percentage	Numbers of
Style	(%)	The Students
Diverger	23	28
Assimilator	31	37
Converger	18	21
Accomodator	28	32

Based on the table, most students have an assimilator learning style with a percentage of 31% (37 students) and students who have a converger learning style have the least amount of 18% (21 students), this is consistent with Figure 2. The results show overall score for each learning experience is based on the following learning style.

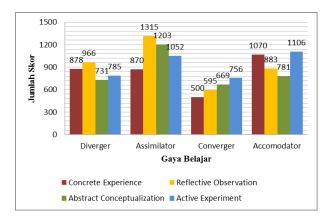


FIGURE 3. Total Score for each Learning Experience based on David Kob's Learning Style

The figure shows that each type of learning style will have two tendencies of learning experiences, this is indicated by the two highest scores of learning experiences for each type of learning style. The diverger learning style has the highest score on the CE and RO learning experience, the assimilator learning style has the highest learning experience score on the RO and AC, the highest score on the converger learning style is the AC and AE learning experience, and the accomodator learning style has the highest learning experience score on CE and AE. The combination of the highest scores of two learning experiences obtained assimilator learning style and the lowest was converger. This means that the dominant students have an assimilator learning style and the number of students who have the least converger learning style. These results are consistent with Figure 2. The following is the average score for each learning experience.

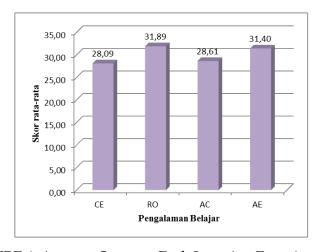


FIGURE 4. Average Score on Each Learning Experience

Figure 4 shows that the learning experience in learning biology with the distance learning method that is most dominantly owned by students is RO (Reflective Observation), meaning that while learning experiences are lacking, they are and CE (Concrete Experience).

Discussion

Distribution of Learners' David Kolb Learning Styles

David's learning style owned by students of class XI MIPA MAN 1 Kota Tasikmalaya consists of 23% diverger learning style (28 students), assimilator learning style 31% (37 students), converger learning style 18% (21 students) and accommodator learning style 28% (32 students).

Students have more assimilator learning styles than other learning styles and students have less converger learning styles. The same thing was also found in the research of Dj et al (2015) whose research results show that assimilator learning styles tend to be owned by many students, because this research and Di's research in learning activities tend to provide experiences of reflective observation and abstract conceptualization (learning experiences that shape the assimilator learning style).). In Azrai's research (2018), the converger learning style also has the lowest percentage. This equation is due to the biology learning in Azrai's research and in this study rarely carry out practicums that provide experience of abstract conceptualization and active experiment (former of converger learning styles). Meanwhile, in the research of Rofiqoh et al (2016) which has the highest percentage of converger learning style research results. This difference occurs because the learning experience gained by students is different. In Rofiqoh's research in his learning, he applies a lot of theory to working on questions (applicative), these activities form an abstract conceptualization and active experiment learning experience, so the dominant learning style is the converger learning style. Meanwhile, in this study, the students only did practicum once in learning so that the converger learning style students in this study had the lowest percentage.

In the results of this study, the largest percentage is assimilator learning styles (tends to have learning experiences of observing (watching) and thinking (thinking), the number of students who have this learning style is more than other types of learning styles. This is due to the combined score of learning experiences which make up the assimilator learning style (reflective observation and abstract conceptualization) has the highest score than the combined scores that make up other learning styles can be seen in Figure 3. Kolb (2014) explains that in this group the dominant learning ability is in the experience of abstract conceptualization and reflective observation. it is based on interview data for the type of distance learning communication in biology learning carried out in class XI MIPA MAN 1 Tasikmalaya City dominantly using asynchronous communication types. The application of asynchronous communication can train students to learn independently but understanding learning and communication depends on reading and writing skills (Sitomson, 2019). Asynchronous communication carried out in learning is by providing material without direct interaction with students, then students are required to observe and read the material provided besides being trained to understand the material by doing assignments afterwards, so that the learning experience provided during distance learning Far is reflective observation, which is a learning experience in the form of observing material (reading and observing) and abstract conceptualization, namely a learning experience that trains people to think such as conceptualizing various theories into a single unit (summarizing) and working on various problems. Based on the interviews of students who have an assimilator learning style, they understand biology learning by reading, listening, and observing the material, there are also those who understand learning by summarizing a lot. This finding is consistent with Tuna's (2016) finding that individuals with assimilator learning styles tend to understand learning by observing and thinking.

Convergent learning style has the lowest percentage. Fuad (2015) explains that someone who has a converger learning style tends to have abstract conceptual and active experiment learning experiences. Figure 3 shows that the combination of learning experience scores that make up the converger learning style has the lowest score. Saragih (2015) suggests that those who have a converger learning style tend to think theoretically and require practical experience (it is easier to absorb lessons if theory and practice are in balance. Abstract conceptual and active experiment learning experiences can be obtained from practical activities, based on student interviews and biology teacher, during distance learning the practicum only takes place once. Based on interviews, students who have a converger learning style easily understand learning by doing practicum and during distance learning they tend

to like and understand the material by trying to work on demanding questions and think deeper. Saragih (2015) explains that the converger learning style group tends to make decisions by using intellect, not based on intuition or feelings.

The superiority of the results of this study with previous research, previous research only presents data in the form of percentage figures through one diagram, in this study presents two diagrams namely in Figure 2 and Figure 3 which support the data on the distribution of learning styles in Table 1. Figure 2 to apply David's theory Kolb (2005) who explains that the determination of learning styles is done by plotting the results of the AC-CE and AE-RO raw scores on a grid diagram. After the application, the grid diagram can reveal two learning styles that are more owned by students compared to the other two learning styles, but in detail there are still students whose learning styles have not been identified so it is necessary to use a formula to obtain overall percentage data. Identification using a formula gives the same results as the grid, the advantage is that some students who have not been identified on the grid diagram can be identified using a formula, so that a more detailed distribution of learning styles can be obtained. The percentage results are supported by the diagram in Figure 3. This diagram is presented to prove Kolb's (2014) theory which explains that this type of learning style is formed based on two tendencies from four learning experiences. Figure 4 shows that each learning style is formed based on the highest score of the two learning experiences, besides the highest combination score on the assimilator learning style shows the number of students who have this learning style more than the others and the lowest score combination, namely the converger learning style, shows the number of participants. Students who have this learning style are less than others.

Distance Learning Learning Experience of Students in Biology Learning

Kolb (2014) states that each type of learning style is formed based on the learning experiences experienced by students. David Kolb's type of learning style is formed based on four learning experiences in experiential learning theory which consist of concrete experience, reflective observation, abstract conceptialization, and active experiment. Here's an explanation of each trend.

Concreate Experience (CE)

Concrete experience focuses on engaging in experience and dealing with situations that occur to humans directly. A person gains learning experience on things that are experienced directly. A person learns by relying on his feelings (feeling) (Kolb, 2015). One of the activities that make up the concreate experience is learning by establishing relationships (discussion) (Putra, 2015).

Distance learning carried out at MAN 1 Tasikmalaya City asynchronously (without any direct interaction) for students the learning is not very easy to understand because the learning provided is only in the form of learning theories that are not accompanied by an explanation video from the teaching teacher. The media used in learning is only e-learning madrasas because the teaching teachers lack mastery of technology. This proves that teaching teachers do not provide con- crete experience in their learning. Some students get this learning experience when they take the initiative to discuss with other students and there are some who take online tutoring, but most students are unable to have discussions or take tutoring to help understand their learning because of signal constraints, quotas, and residence regulations that limit the use of gadgets. This causes most students not to give high scores on the concreate learning experience (figure 4) so that they have the lowest average of other learning experiences.

Reflective Observation (RO)

Kolb (2014) explains that at this stage a person has a learning experience in the form of understanding the meaning of an idea and situation through observation (waching).

The implementation of biology learning during distance learning uses communication with asynchronous methods, namely learning takes place without direct interaction. The teacher sends teaching materials in the form of material in the form of writing, images and video links on e-learning madrasas. In addition, students also look for other learning resources from the internet and YouTube to help understand the learning they are facing. These activities form a reflective observation learning experience. Many students give high scores on the RO learning experience (reflective observation) because in learning students tend to make a lot of observations. This makes the average score of the reflective observation experience (in Figure 4) higher than the other learning experiences.

Abstract Conceptualization (AC)

Kolb (2014) explains that this learning experience is obtained from a learning process that demands thinking. This learning experience forms a person to understand something with a theoretical basis and solve problems scientifically, able to design plans systematically and analyze. Forming an attitude of thoroughness and discipline in analyzing an idea and having good sensitivity from a neat design system. Zull (2002) also explains that this learning experience includes combining several understandings into the design of a concept. The teacher forms an abstract conceptualization experience by giving assignments to read, summarize, and work on questions. So based on interviews some students who understand more about the material by summarizing, like analyzing activities and trying to solve biology problems that require them to think more deeply.

Active Experiment (AE)

Kolb (2014) active experiment provides a learning experience in the form of a person's active involvement in a situation. Nur (2014) explains that this learning experience forms a tenacious attitude in carrying out tasks, trying to complete work, daring to take risks. Based on interviews, the teacher determines the assignment deadline, and provides sanctions for students who are late in giving assignments. In addition, during the lesson, there was once a practicum meeting. These actions form an active experimental learning experience for students, so that students try to move actively to complete assignments on time and form a responsible attitude.

Danaher and Umar (2010), suggest that the key to distance learning is that educators can manage and design distance learning creatively and innovatively, manage learning time well from educators and students, and use technology effectively. In this study, educators are constrained in mastering technology, so it is necessary to train educators in the use of technology for learning, so that educators can design learning and choose effective technology in learning. In addition, according to Simonson et al (2015), so that distance learning does not take place rigidly, this learning should be carried out in a hybrid, communication using synchronous (direct and real time learning) and asynchronous (indirect) learning adapted to learning needs. In this study, students lacked concreate experience because learning that took place tended to use asynchronous methods, this learning made students feel bored, students needed direct learning experiences. According to Simanihuruk et al (2020) visual learning directly helps students understand the material, this learning is carried out with synchronous communication. So, distance learning biology learning should be done with two methods, namely synchronous and asynchronous.

Media that can be used in synchronous communication include video conferences (zoom, google meet and other media) to explain various concepts in biology learning, monitoring and providing feedback in learning, short messages and chat (whatsapp) used for online discussions between educators and the whole students and other media that can be done

directly and face to face. While the media used in asynchronous communication (media to provide learning experiences reflective observation, abstract conceptualization, and active experience) include e-mail, google classroom, e-learning. The media can be used to provide complex assignments that are scheduled and do not answer directly, feedback is not given before the task is completed.

Characteristics of Learners based on David Kolb's Learning Style

Kolb (2014) states that no individual is dominated by one learning experience but a combination of two learning experiences occurs to form a learning style. The learning styles formed consist of diverger, assimilator, converger and accomodator. In this study, the characteristics were obtained from the dominance of students who chose the "very appropriate" option in the learning experience statement. The following is an explanation of its characteristics.

Diverger Learning Style

Husamah (2018) explains that the divergent learning style is a combination of CE (Concrete Experience) and RO (Reflective Observation) tendencies. Putra (2013) individual characteristics that tend to the CE (Concrete Experience) dimension have an open attitude to new experiences. Ghufron and Rini (2014) stated that individuals who have a tendency to experience RO (Reflective Observation) take a long time to solve problems so that they seem to procrastinate in solving problems. Abdulkadir and Tuna (2016) stated that those who have a divergent learning style understand information and process it through an observation (observation). They are more adaptable to learning through observation than to do something actively or take an action. They form a thought based on feelings (intentions), intuition and their own opinions, tend to have an introverted feeling personality.

In this study, 28 students had diverger learning style, based on the synchronization of filling out questionnaires and interviews, the characteristics of students formed in the diverger learning style were obtained from the CE and RO experiences, including the following.

- 1. It is easy to understand biology learning with distance learning methods through observing and listening to the material. Interview data of students who have divergent learning styles, during distance learning they like reading, listening, and observing the material.
- 2. It takes a long time to perform an action. This statement relates to the ability to make decisions, students who have a divergent learning style during distance learning, many students live in Islamic boarding schools so that in doing actions in biology such as assignments, they tend to be sent late because of the difficulty of dividing time between attending lessons in Islamic boarding schools and doing homework. school assignments, besides that they also don't explore the material too much so that the assignments they do tend to be late.
- 3. Quiet and not much of an opinion. This happens because learning activities are not facilitated to interact such as discussion forums in distance learning so that the activeness of students cannot be seen. Thus forming a quiet or introverted attitude.
- 4. Relying on impulse, in accordance with the statement of students who have a divergent learning style, namely in dealing with distance learning in biology subjects rely a lot on conscience, if the mood is good then learning will be followed with enthusiasm and vice versa.
- 5. Accept and be open to new experiences. Learners who have a divergent learning style stated that they tried to accept and adapt to learning biology with distance learning methods. This statement shows openness to new experiences in learning, namely

distance learning and trying to adapt shows an attitude of accepting the learning situation.

Assimilator Learning Style

Kolb (2014) explained that in this group the dominant learning abilities were in the experience of AC (Abstact Conceptualization) and Reflective Observation (RO). This group is able to assimilate various observations into a unified and unified (integrated) explanation. This group is more concerned with abstract ideas and concepts than assumptions from other people, the most important thing is that the theory is formed logically and carefully, they have an introvert intuition personality type. Fuad (2015) also explained that this learning style in learning situations likes teaching, reading, taking time to think about things in depth and exploring analytical models. Ghufron and Rini (2014) explain that if someone with an assimilator learning style then in solving the problem will look for various data and information related to the problem. In addition, it takes a long time to solve problems so that it seems to procrastinate in solving problems.

Based on filling out the questionnaire, 37 students who had a dominant assimilator learning style scored on the RO statement and CE statement. The characteristics of students who are formed in the assimilator learning style based on filling out questionnaires and interviews are as follows.

- Easy to understand and like learning from observing and listening. Students who have an assimilator learning style stated that during distance learning they were used to learning that demanded to read and observe material so that it was easier to understand biological material by reading, listening, and observing material explanations.
- 2. Be careful, based on interview data, students who have an assimilator learning style like reading activities besides distance learning in biology subjects is carried out by providing a lot of material to be read, so to have an understanding and to complete assignments students must read intensively This activity is able to form accuracy in students.
- 3. Follow the lesson calmly, quietly and don't ask a lot of questions. In accordance with interview data, students who have an assimilator learning style stated that in learning biology during pandemic conditions they tend to understand the material and do their own work because they feel more focused than getting information from other people whose truth is not yet clear. Another supportive situation is distance learning communication that takes place asynchronously, does not facilitate learning with discussion forums so that the activeness of students to ask questions and express their opinions is not trained.
- 4. Participate in distance learning by trying to engage the mind. This statement is in accordance with the interview data of students who have an assimilator learning style which states that in distance learning they are much required to understand the material provided, they summarize the material to help understand learning. In addition to distance learning, they collect a lot of learning resources to be compared with other sources which are then compiled into a single unit (summarized). Summarizing activities train students to think and conceptualize.
- 5. Solve problems by looking at various sources. This statement is in accordance with interview data from students who have an assimilator learning style stating that when there are questions in biology that demand deeper thinking, they tend to look for various solutions from various sources.
- 6. It takes a long time to take action. Learners with assimilator learning styles tend to think a lot in making decisions and consider a lot. Based on interviews, students who

have an assimilator learning style tend to take a long time to do something in biology learning such as assignments because it is difficult to divide study time at school and in Islamic boarding schools.

Converger Learning Style

Kolb (2014) details that the converger learning style is based on the ability of abstract conceptual and active experiment. Tuna (2016) stated that in learning they like activities that can practice ideas, plan systematically, analyze logical ideas, solve problems, dare to make decisions. They excel at solving problems and performing a task related to technical rather than social and interpersonal problems. Saragih (2015) explains that the converger learning style group tends to make decisions using intellect, not based on intuition or feelings.

As for the details based on filling out the questionnaire, 21 students who have a dominant converger learning style gave the highest score on the AE statement and CE statement. Based on the questionnaires and interviews with the following characteristics.

- 1. Tend to reason and like analyzing activities. This statement is supported by data from interviews with students who have a converger learning style, they feel very excited and try to solve questions that make them think more deeply.
- 2. Be serious in doing the task. Students who have a converger learning style, in doing their assignments do not only rely on the resources provided by the teaching teacher, they explore more learning resources. This proves their seriousness in studying biology subjects.
- 3. Active and think logically in learning. Second, students who have a converger learning style in distance learning feel that they are active in learning biology because they participate in extracurricular activities related to learning, and do not hesitate to ask the teacher personally about the learning materials. Students with this learning style in completing assignments do not really believe in their friends' arguments before they are proven true with credible sources, this proves that they think logically.
- 4. Understand the material by doing lots of exercises. This statement is in accordance with interview data of students who have a converger learning style, distance learning trains them to learn independently, great curiosity makes them look for additional material from outside such as taking tutoring and doing lots of exercises related to learning.
- 7. Easy to understand learning with the application of theory. This statement is in accordance with the interview data of students who have a converger learning style which states that they like practicum activities and are easy to understand learning when the theory being studied is directly applied.

Accomodator Learning Style

Kolb (2014) suggests that individuals in this learning style group tend to use CE (Concrete Experience) and AC (Active Experience) experiences in their learning. The learning style with the dominant active experiment has an attitude of respecting the influence of the environment and always wants to see a result of something that has been done. This group tends to be stronger in doing things, carrying out plans and tasks and engaging in new experiences, tends to act trial and error. In addition, they depend on others to collect information and do less personal analysis. Fuad (2015) explains that the accomodator learning style is a person's tendency to understand learning by using feelings, or impulses (feeling). Tuna (2016) states that those who have an accomodator learning style are easy to communicate with others and are open-minded.

Based on filling out the questionnaire, 32 students who have a dominant accomodator learning style scored on the CE statement and AE statement, along with the characteristics based on filling out the questionnaire and interviews including

- 1. Involve impulse in learning. Based on interview data, students who have an accommodator learning style stated that the focus in learning on biology subjects depends on their mood, this is because they do not like biology too much.
- 2. Be accepting and open-minded. Based on interview data from three students who stated that in distance learning, biology learning tends to discuss with friends because discussion can help understanding in learning. Discussion activities are activities that give each other arguments and accept arguments, so discussions prove that they are accepting and open-minded.
- 3. Easy to understand learning with personal relationships (explained by the teacher or friends). Based on interview data, students who have an accommodator learning style in dealing with biology learning with the distance learning method tend to discuss a lot with friends to help understand and complete assignments compared to studying alone.
- 4. Tend to want to see the results of the work. Based on interview data, there is a sanction in the form of a reduction in grades in the delay in collecting assignments, making students with the accommodator learning style to seriously consider doing assignments on time so that the grades are not reduced. This attitude proves that they like to see the results of the work they do
- 5. Be responsible and try to complete the task seriously. Based on interview data, students with the accommodator learning style tend to try to complete their work as quickly as possible.
- 6. Feel involved in learning. The participation attitude of students who have an accommodator learning style in participating in distance learning in biology learning is evidenced by their seriousness in doing and collecting assignments.
- 7. Open to new things. Based on interviews, it was found that students with accommodator learning styles sometimes feel bored with biology learning activities that are not varied in distance learning. They hope that learning is more varied using existing learning media so as to provide new experiences.

Conclusion

Profile of David Kolb's learning style 3.1 in class XI MIPA MAN 1 Kota Tasilkmalaya students consist of four types of learning styles David Kolb spread across class XI MIPA as many as 37 (31%) students, accommodator learning styles as many as 33 (28%) students, 28 (23%) students have divergent learning styles and 21 (18%) students have converger learning styles. Each learning style has different characteristics according to the learning experience it has. The implementation of distance learning and the way students learn during distance learning also determine the distribution of learning styles in class XI MIPA.

Information about learning style profiles and learning experience tendencies in biology learning during distance learning is expected to be used as a guide for educators in designing distance learning in biology learning that is more effective than before. Besides that, it can be used as a guideline for carrying out further research, but the learning conditions of students must be the same, because the learning styles of students tend to change if conditions are different. As for further research that can be done such as looking for the effectiveness of various learning methods on each type of learning style or doing correlation with other variables.

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