# The Influence of Learning Model Self Directed Learning and Personality on Student Learning Results of SMP Negeri 7 Kota Ternate

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**Abstract:**

The purpose of this study was to determine the effect of learning models *Self directed learning* (SDL) and *Personality* on student learning outcomes in the structure and function of plant tissue. This study uses an experimental method of 2 x 2 factorial design with a sample of 60 Grade VII students of SMPN-7 Ternate City. The results showed that (1) There was a significant difference in learning outcomes between students learning with the learning model *Self directed learning* and students learning to use the learning model *conventional.* with an average score of learning outcomes ($A_1$) is 75.75, and ($A_2$) is 71.25; (2) There is an effect of interaction between learning models and personality on learning outcomes (AXB) is 78.6% (R. Squared = 0.786); (3) There is a significant difference in student learning outcomes with Extrovert Personality, having better learning outcomes when using the model *Self directed learning*. The score of student learning outcomes ($A_1B_1$) is 83.00 while ($A_2B_1$) is 66.75 and the Test *Tuckey* average score of 24.33; (4) There is a significant difference between students' learning outcomes and *Self directed learning* and learning models *Conventional* for students with Personality Introvert ($A_2B_2$) is 75.75 and the Test has *Tuckey* an average score of 7.25. In conclusion, the learning model *Self directed learning* can improve student learning outcomes in the material structure and function of plant tissues by considering the extroverted and introverted personality types of students.

**Keywords**:   Learning Outcomes; Learning model; Personality

## INTRODUCTION

Education has an important role in improving the quality of human resources which is characterized by the development of increasingly advanced science and technology, especially in the field of science. Humans and their environment are the source of objects, and subjects

of science. While Natural Science (IPA) is a part of science that studies the life of the surrounding environment, and natural phenomena related to human life.

Improving the quality of education is very necessary through good and effective learning outcomes for students. Because the factors that influence student learning outcomes are internal and external factors. Internal factors that influence student learning outcomes include talent, motivation, intelligence, interests, physical and psychological conditions of students. External factors include educational facilities and infrastructure, curriculum and environment. Jayantika (2013) that the level of student learning outcomes is more influenced by internal factors of students themselves than external factors, where 70% of student learning outcomes are influenced by students themselves and 30% are influenced by the environment around students. Sudjana (2012: 22) states that learning outcomes are abilities possessed by students after they receive their learning experience. Furthermore Rifa'i and Anni (2011: 85), learning outcomes are behavioral changes obtained by students after experiencing learning activities. Bloom (Sudjana, 2012: 22) is divided into three domains, namely: (1) cognitive domains related to intellectual learning outcomes and consists of six aspects such as knowledge, understanding, application, analysis, synthetics and evaluation. (2) the affective domain which is related to attitude and consists of five aspects such as acceptance, reaction, judgment, organization and internalization. (3) psychomotor domains related to skills and ability to act and consist of six aspects such as reflex movements, basic movement skills, perceptual skills, harmony, complex skills movements, and expressive movements. Thus learning outcomes are abilities possessed by students after achieving a learning competency. Indicators of learning outcomes are closely related to learning competence.

The role of a teacher in implementing a good Integrated Natural Science (IPA) learning model is as a learning resource, facilitator, manager, demonstrator, guide, motivator, evaluator, and catalyst in learning, as well as controlling science concepts that students understand. If the role is carried out well, it will lead to active, innovative, creative, effective and fun learning. The problem that arises today is that teachers tend to pay attention to students as a whole in class and do not pay attention to each student (individual) or groups of students, so individual differences are not so noted, even though students have unique potential, which can distinguish between the one with others, Therefore in learning should pay attention to the differences of each individual so that it can change the condition of students in terms of personality (*personality*).

The results of the preliminary study of researchers in SMP Negeri 7 Kota Ternate, 2019/2020 academic year found that in the learning process especially integrated science subjects are still centered on the teacher, where students only receive information conveyed by the teacher. Learning activities like this make student motivation decrease because of the lack of activities carried out by students, thus triggering the low learning outcomes of students. In addition, the learning process does not yet involve the role of students as a whole. The low involvement of students in learning is indicated by only 35% who dare to answer questions raised by teachers and 5% who dare to ask questions. Student responsibility towards learning in the form of students' willingness to pay attention, actually has quite good grades. 60% want to pay attention to the explanation given by the teacher. But this attention is not accompanied by the desire of students to develop their potential independently.

Seain that there are still many students who get less Integrated Science subjects and have not yet reached the minimum completeness criteria (KKM). Of all VII grade students, 148 students, 61 students completed, while 87 students did not complete. Sanjaya, (2015: 25), to support the success of learning, learning outcomes are one of the factors that can determine the learning process. In other words, learning outcomes determine what is desired for the learning activities carried out by students. Furthermore Ratnadewi (2013: 2), that one of the indicators

of student success in learning is the acquisition of learning outcomes that reach the Minimum Mastery Criteria (KKM).

Problems in meeting learning needs usually involve learning delays, such as language delays, motor visual delays and others. If the behavior disorder is not resolved in the end the child will be labeled as an unintelligent child, emotionally, socially and intellectually (Suhada, 2012: 2). Learning will be meaningful for students if the teacher is able to apply how to learn, how to think, how to solve problems and make decisions, and how to motivate students to learn. In fact, most learning patterns are still transmissive, teachers transfer concepts directly to students. In this view, students passively "absorb" the knowledge structures provided by the teacher or those contained in textbooks. Learning is just simply conveying facts, concepts, principles, and skills to students (Trianto, 2010: 18). The use of methods used in class also will affect the implementation of the learning process. Furthermore Prastowo (2013: 68), The use of conventional methods or approaches that are teacher centered usually will make learning tend to be passive, bored, and sleepy so that it will reduce concentration, participation and student learning outcomes. The learning model is the cornerstone of learning practices resulting from the decline in educational psychology theory and learning theory that is designed based on an analysis of the implementation of the curriculum and its implications at the operational level in the classroom. The learning model can be interpreted as a pattern used for curriculum preparation, organizing material, and giving instructions to teachers in the classroom (Suprijono, 2016: 64). Dimyati (2013: 239), one of the internal factors that influence learning is learning concentration which is the ability to focus attention on the learning process.

Self directed learning (SDL) is one of the appropriate learning models, involving the environment as a source of learning. Self directed learning (SDL) learning model is a learning model that is flexible but still oriented towards planning, monitoring, and evaluating depending on the ability of students to manage learning according to their autonomy. Rachmawati, (2010) that "The independent activity requires students to be able to manage existing learning resources in accordance with the needs and context of learning". This self directed learning learning model is on the characteristics of students who have high responsibilities. The SDL learning model will empower students that learning is their own responsibility and the teacher only acts as a facilitator in learning activities so that the learning process is carried out optimally which impacts on increasing learning independence and student achievement (Handayani 2017).

According to Aristana, Kusmariyatni, and Widiana (2014), the use of SDL can make critical thinking skills compared to conventional learning models. SDL will create individual awareness to shape and overcome the nature of dependence on instructional media in the classroom (Istiyani, 2009). SDL was found to be better than the conventional way (class learning) in student learning (Kleden, 2015).

Another factor that is very influential on student learning outcomes is the student's personality. Personality (personality) is one of the unique and unique factors of a person that underlies the behavior of students in the school environment in which they study. This is in accordance with the statement of Robbins (2003: 94) that, "personality is the dynamic organization within the individual of those psychophysical systems that determine its unique adjustments to the environment". Personality (personality) of students is one of the factors that influence student learning outcomes that originate in students. Derlega, Winstead & Jones are quoted in (Yusuf, 2011: 3) that personality is a relatively stable system of individual characteristics that are internal, which contributes to consistent thoughts, feelings, and

behavior. Furthermore Suaidin (2012) is responsibility, mutual respect, confidence and competitive.

Hans J. Eysenck distinguishes personality into two types, namely introverts and extroverts. (1) Introvert personality type of individual who always directs his gaze to himself. All attention is directed into the life of his own soul. His behavior is mainly determined by what happens in his own personality. While the outside world for him does not mean much in determining his behavior, therefore individuals with this type often do not have contact with the surrounding environment and (2) Extrovert personality types that are more strongly directing themselves to the surrounding environment, and are generally like friends, friendly, like parties, have lots of friends, need other people to be their interlocutors, don't like to read or study alone, like humor, always ready to answer, like change and relax. Individuals who have extrovert personality types also prefer to keep moving and do something rather than having to be quiet, more aggressive, irritable and sometimes they are not trustworthy people.

One important indicator in achieving student learning outcomes is the formation of (affective) attitudes. Therefore, with a good student personality, the teacher can improve student learning outcomes on the material structure and function of plant tissue through the application of self directed learning learning models. The results of the study (Butsi, 2016), about introverted and extroverted personalities prove that students have introverted personalities where individuals with this personality have shy traits and only want to be listeners so they are less able to train, certainly different from extroverted personality types. Therefore this research is very important to be studied scientifically for writers, with the aim of how to explore and elaborate issues regarding the influence of self directed learning and personality learning models on student learning outcomes in the structure and function of plant tissue. Theoretically, there are many factors that affect student learning outcomes when linked to the application of self directed learning and personality learning models. Practically, it can make a strong contribution and significantly influence the variables of self directed learning and personality learning models that can improve student learning outcomes in the material structure and function of plant tissues.

## RESEARCH METHODS

This study used a sample experimental method of 60 Grade VII students of SMPN-7 Ternate City. Data analysis for hypothesis testing was performed using a two-way variance (ANAVA) technique with the help of the SPSS computer program. This research uses factorial design model design treatment *by* level 2 x 2 presented in table 1.

**Table. 1 Model design treatment *by* level 2 x 2**

| Personality (B) | Learning Model (A) | |
| --- | --- | --- |
| | Self directed learning (A1) | Conventional (A2) |
| Extroverts (B1) | A1B1 | A2B1 |

| | | |
|---|---|---|
| Introverts (B2) | A1B2 | A2B2 |

## RESEARCH RESULTS AND DISCUSSION

### 1. Data

Description The statistical data description in this study describes the learning outcomes score that is influenced by the learning model factor as the first factor and Personality as the second factor. The learning model factors used are the *Self directed learning learning* model and thelearning model *conventional*. While Personality factors are distinguished based on Extrovert Personality and Introvert Personality, based on high frequency low according to the following histogram:

The research data obtained from respondents' answers as many as 18 students, score learning outcomes of students who learn to use thelearning model *Self directed learning* as a whole has the highest frequency in the class interval 64-68 as many as 4 respondents (25%), while Interval Classes 84-88 4 respondents (25%), 69-73 interval classes 3 respondents (18.75%), 79-83 interval classes 3 respondents (18.75%), while the lowest frequency at 74-78 interval classes is 2 respondents (12.5%). Furthermore, the learning outcomes of students who learn to use thelearning model *Conventional* have the highest frequency in the 70-74 interval class of 6 respondents (37.5%), while the Interval Class 65-69 of 4 respondents (25%), Class intervals of 60-64 2 respondents (12.5%), 75-79 interval classes were 2 respondents (12.5%), while the lowest frequency in the 80-84 interval class was 2 respondents (12.5%).

Data Scores learning outcomes of students who learn to use thelearning model *Self directed learning* with Personality Extroverted as many as 8 students, have the highest frequency in the class interval 83-85 by 3 respondents (37.5%), while Interval Class 77-79 for 2 respondents (25%), the 86-88 interval class was 2 respondents (25%), while the lowest frequency in the 80-82 interval class was 1 respondent (12.5%). Furthermore, student learning outcomes score data learning usinglearning models *Conventional* with Extrovert Personality as many as 8 students have the highest frequency in class intervals 69-71 by 3 respondents (37.5%), while Interval Class 63-65 by 2 respondents (25 %), Class interval 66-68 as many as 2 respondents (25%), while the lowest frequency in the Class interval 60-62 as much as 1 respondent (12.5%).

Data Scores learning outcomes of students who learn to use thelearning model *Self directed learning* with Personality Introvert as many as 8 people have the highest frequency in the class interval 67-69 by 3 respondents (37.5%), while the Interval Class 64-66 by 2 respondents (25 %), 70-72 interval classes were 2 respondents (25%), while the lowest frequency in the 73-75 interval class was 1 respondent (12.5%). Data Scores learning outcomes of students who learn to uselearning models *Conventional* with Personality Introverts as many as 8 have the highest frequency in the 72-74 interval class of 4 respondents (50%), while the Interval Classes of 75-77 are 2 respondents (25%), while the Frequency The lowest Class interval was 78-80 by 1 respondent (12.5%) and the Class interval by 81-83 by 1 respondent (12.5%).

### 2. Analysis of the two-way ANAVA variance analysis

*Hypothesis 1:* The average score of learning outcomes of students learning with thelearning model *Self directed learning* ($A_1$)is 75.75 while the average score of learning outcomes of learning with thelearning model *conventional* ($A_2$) is 71.25. The two-way ANAVA calculation results obtained $F_{count}$ for the learning model of 12.565 while $F_{table} = 4.20$ at the real level α = 0.05. then ($H_0$) is rejected and $H_1$ is accepted meaning that there are significant differences.

*Hypothesis 2:* The average score of student learning outcomes that have Personality Extroverts ($B_1$) is 74.88 while the average score of learning outcomes that has Personality Introverts ($B_2$) is 72.13. The two-way ANAVA calculation results obtained $F_{count}$ for the learning model of

4.693 while $F_{table}$ = 4.20 at the real level $\alpha$ = 0.05. then ($H_o$) is rejected and $H_1$ is accepted meaning that there is a significant difference

**Hypothesis 3:** The ANAVA calculation results that the $F_{count}$ for the interaction factor is 85.668 greater than the $F_{table}$ which is 4.20 at the real level $\alpha$ = 0.05. thus tolah $H_o$ and thank $H_1$ and concluded influences of the interaction between the use of learning model and Personality on learning outcomes. Summary of the results of the analysis of Variance Analysis (ANAVA) of two paths in table 2.

**Table 2**. **Calculation Results of Analysis of Variance (ANAVA) of Two Paths**

Tests of Between-Subjects Effects

Dependent Variable: Student Learning Outcomes (Y)

| Source | Type III Sum of Squares | df | Mean Square | F | Sig. |
|---|---|---|---|---|---|
| Corrected Model | 1327.000$^A$ | 3 | 442 333 | 34 308 | .000 |
| Intercept | 172872.000 | 1 | 172872.000 | 13408.355 | .000 |
| A | 162 000 | 1 | 162 000 | 12 565 | .001 |
| B | 60,500 | 1 | 60,500 | 4693 | .039 |
| A * B | 1104.500 | 1 | 1104.500 | 85 668 | .000 |
| Error | 361 000 | 28 | 12 893 | | |
| Total | 17,456,000 | 32 | | | |
| Corrected Total | 1688,000 | 31 | | | |

a. R Squared = .786 (Adjusted R Squared = .763)

### 3. Tuckey Test

**Hypothesis 4:** The average score of learning outcomes of students learning with the Self directed learning learning model with Personality Extroverts (A1B1) is 83.00 while the average score of learning outcomes learning outcomes with Conventional learning models with Extrovert Personality (A2B1) is 66.75 and the Tuckey Test shows an average difference of 16.25. This means that there are significant differences in learning outcomes.

**Hypothesis 5:** The average score of learning outcomes learning with Self directed learning model with Personality Introvert (A1B2) is 68.50 while the average score of learning outcomes learning with Conventional learning model with Personality Introvert (A2B2) is 75.75 and Tuckey's Test showed a difference in average score of 7.25 This means that there are significant differences in learning outcomes. Summary of Tuckey's test in table 3.

**Table 3**.  **Test The *Tuckey's* score of student learning outcomes learning with the *Self directed learning* model and thelearning model *conventional* with extroverted personality and Introvert**

| Multiple Comparisons | | | | | | | |
|---|---|---|---|---|---|---|---|

| Dependent Variable: Student Learning Outcomes (Y) | | | | | | | |
|---|---|---|---|---|---|---|---|

| Tukey HSD | | | | | | | |
|---|---|---|---|---|---|---|---|

| (I) AXBI) AXBI) | ((J) AXB | Mean Difference (IJ) | Std. Error | | Sig. | 95% Confidence Interval | |
|---|---|---|---|---|---|---|---|
| | | | | | | Lower Bound | Upper Bound |
| A1B1 (MP Sdl-Prs Ex) | A1B2 (MP Sdl-Prs Int) | 14.5000* | 1.79533 | | .000 | 9.5982 | 19.4018 |
| | A2B1 (MP Kvs-Prs Ex)Prs Ex | 16.2500* | 1.79533 | | .000 | 11.3482 | 21.1518 |
| | A2B2 (MP Kvs--Prs  7.25001.79 5332.3482 12.1518 | * | | | .002 | | Int) |
| A1B2 (MP Sdl-Prs Int) | A1B1 (MP Sdl- Prs  -14.50001.7953 3 .000 -19.4018 -9.5982 | * | | | | | Ex) |
| | A2B1 (MP Kvs- Prs Former) | 1.7500 | 1.79533 | | .765 | -3.1518 | 6.6518 |
| | A2B2 (MP Kvs- Prs Int) | -7.2500* | 1,79533 | | .002 | -12.1 518- | -2.34 82- |

258

| | | | | | 21.1 518 | 11.3 482 |
|---|---|---|---|---|---|---|
| A2B1A1B 2 (MP Kvs-Prs Ex)Kvs-Prs Ex)Kvs-Prs Ex)(MP Kvs-Prs Ex) | A1B1A1B1A1 B1A1B1 (MP Sdl-Prs Ex)(MP Sdl-Prs Ex)(MP Sdl-Prs Ex)(MP Sdl-Prs Ex) | -16.25 00- 16.25 00- 16.25 00- 16.25 00**** | 1.795331.795331.795 33.0001.79533 | .000.00 0.000 | -21.1 518- 21.1 518- 21.1 518 | -11.3 482- 11.3 482- 11.3 482 |
| | A1B2A1B2A1 B2MPd (MP(MP(- Prs Int) | -1.750 0 | 1.79533 | .765 | -6.65 18 | 3.15 18 |
| | A2B2 (MP Kvs- Prs Int) | -9.000 0* | 1.79533 | .000.00 0 | -13.9 018- 13.9 018 | -4.09 82- 4.09 82 |
| A2B2A2B 2 (MP Kvs-Prs Int)(MP Kvs-Prs Int) | A1B1A1B1 (MP Sdl- Prs Ex)(MP Sdl-Prs Ex) | -9.000 0- 7.250 0** | 1.795331.79533 | .002 | -12.1 518 | -2.34 82 |
| | A1B2 (MP Sdl-Prs Int) | 7.250 0* | 1.79533 | .002 | 2.34 82 | 12.1 518 |
| | A2B1 (MP Kvs-Prs Ex) | 9,000 0* | 1,79533 | .000 | 4.09 82 | 13.9 018 |

Based on observed means. The error term is Mean Square (Error) = 12,893.

## CONCLUSION

1. Research has found that there are significant differences in learning outcomes between students learning with thelearning model *Self directed learning* and students learning to use thelearning model *conventional*. Learning outcomes in students who are taught with thelearning model *Self directed learning* are higher than students who use thelearning model *conventional*.

2   The results of the research on hypothesis testing indicate there is an influence of the interaction between the learning model and Personality on learning outcomes.

3   There is a significant difference in the learning outcomes of students who study with the Self directed learning learning model and the conventional learning model for students with extrovert personality.

4   There are significant differences in the learning outcomes of students who learn with the Self directed learning learning model and the conventional learning model for students with Introverted Personality.

## ACKNOWLEDGMENTS

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