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# THE CORRELATION BETWEEN THE TYPE OF LEARNING MOTIVATION AND STUDENT'S ACADEMIC ACHIEVEMENT

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## *Abstract*

*This research is a descriptive correlative research that is aimed to describe the correlation between the type of learning motivation and student's academic achievement. Data was retrieved from 80 Informatics Engineering students in Islamic University of Lamongan as samples. The variable that was measured in this research was the type of learning motivation that can be differentiated as intrinsic and extrinsic motivation as independent variable and student's academic achievement that can be determined from student's academic achievement index as dependent variable. The data of student's learning motivation type gathered using questionnaire method while student's academic achievement index retrieved from documentation method. The retrieved data then was analyzed using Point Biserial Correlation analysis and interpreted with the value of  $r$  interpretation table to determine the correlation between these variables. The results showed that the average index of student's academic achievement from student whose learning motivation is intrinsic was 3.35 while the extrinsic was 3.11. The analysis result showed that the value of  $r_{pbis}$  is 0.566 while the critical value of  $r$  is 0.220. Thus, it can be concluded that there is moderate correlation between the type of learning motivation and student's academic achievement.*

**Keywords:** *correlation, learning motivation, academic achievement*

## **Introduction**

Motivation is a factor that encourage someone to do something. There are many definition about motivation. Syardiansyah (2016) defined motivation as a conscious effort to trigger someone's willing to do something in achieving certain purpose. Motivation can also defined as an inner part of condition that drive someone behaviour clearly to reach certain goals (Cleopatra, 2015). Furthermore, Yuliawan (2016) describe that motivation in learning activity is driving force from student itself that causing learning activity, the energy that maintain learning activity and give the direction of learning activity, thus the intentional goals of learning can be achieved by the student. Generally, learning motivation can be defined as a reason for student to learn and maintain their involvement in learning activity to attain their intentional goal.

Motivation has important role in learning activity. It can influence learning process and its outcome (Li&Pan, 2009). Sikhwari (2014) found that there is a significant correlation between achievement and student's motivation score. The correlation between motivation and academic achievement is also reported by Yuliawan (2016), he found that the higher student's learning motivation the higher academic achievements they get. Therefore, it is important for teacher to find out the student's motivation in order to help them improving their learning motivation.

Psychologists have identified two distinct forms of motivation based on where the motivation arises. There is intrinsic motivation, while the motivation arise from the inside individual. While the motivation arise

from the outside individual, we called it extrinsic. Intrinsic motivation is the motivation to do something for its own sake and extrinsic motivation is the motivation to do something in order to attain some external goal (Hennessey, Moran, Altringer, & Amabile, 2015).

Researchers have found that intrinsic motivation and extrinsic motivation can have different effects on people behaviors (Cherry, 2018). People with intrinsic motivation find the activity is exciting and enjoyable. Hennessey, Moran, Altringer, & Amabile (2015) said that intrinsic motivation has been related to creativity of performance, longer-lasting learning, and perseverance. It can be a reason why the people with intrinsic motivation can do their best genuinely and feel free to fulfill their excitement through the activity where they are engaged. However, it is possible for people with extrinsic motivation to do their best too. They are encouraged to get involved in an activity and give their best in order to gain some external goal. Therefore, people with extrinsic motivation can perform perseverance and give their best although the activity is not easy for them.

Both of these motivations are important. People may see that intrinsic motivation is better, but it is not always possible in every situation. People need some reinforcement such as an external reward to do unpleasant activities. Extrinsic motivators can be a useful tool when used appropriately in some situations, such as the situations where a person needs to complete a task that they find unpleasant (Cherry, 2018).

## Research methods

This research is a descriptive correlative research that is aimed to describe the correlation between the type of learning motivation and student's academic achievement. Data was retrieved from 80 Informatics Engineering students in Islamic University of Lamongan as samples.

The variable that was measured in this research was the type of learning motivation as independent variable and student's academic achievement as dependent variable. The type of learning motivation is differentiated as intrinsic and extrinsic motivation. Student's academic achievement is determined from student's academic achievement index. The data of student's learning motivation type gathered using questionnaire method while student's academic achievement index retrieved from documentation method. Student's academic achievement index retrieved from Islamic University of Lamongan's document.

The retrieved data then was analyzed using Point Biserial Correlation analysis to determine the correlation between these variables.

$$r_{pbis} = \frac{M_p - M_t}{S_t} \sqrt{\frac{p}{q}}$$

(Arikunto, 2010)

With:

- $r_{pbis}$  : Point biserial correlation
- $M_p$  : Mean score of academic achievement from students whose motivation is intrinsic
- $M_t$  : Total mean score of academic achievement from all students
- $S_t$  : Deviation standard of total score
- $p$  : The proportion of students whose motivation is Intrinsic
- $q$  : 1- p

The  $r_{pbis}$  value then compared with the critical value of r table. If the  $r_{pbis}$  value is greater than critical value of r from table means that there is correlation between the type of learning motivation and student's academic achievement. Otherwise, if the  $r_{pbis}$  value is lower than critical value of r from table means that there is no correlation between the type of learning motivation and student's academic achievement. Another way to interpret the value of  $r_{pbis}$  is using interpretation of r value table as shown in Table 1.

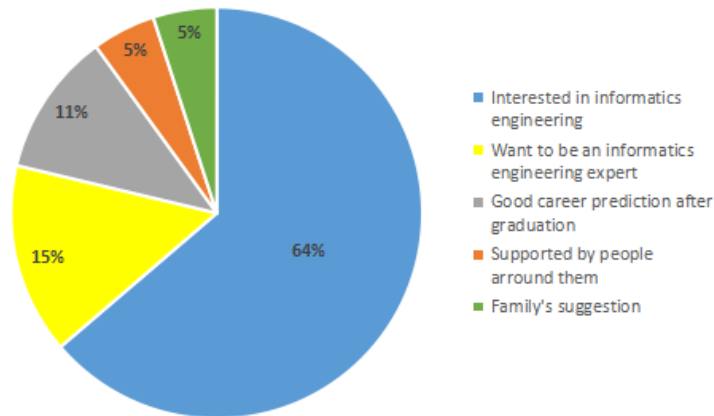
**Table 1.** Interpretation of r value

r value	Interpretation
$0.800 \geq r \leq 1.00$	Very high
$0.600 \geq r \leq 0.800$	High
$0.400 \geq r \leq 0.600$	Moderate
$0.200 \geq r \leq 0.400$	Low
$0.000 \geq r \leq 0.200$	Very low

(Adapted from Arikunto, 2010)

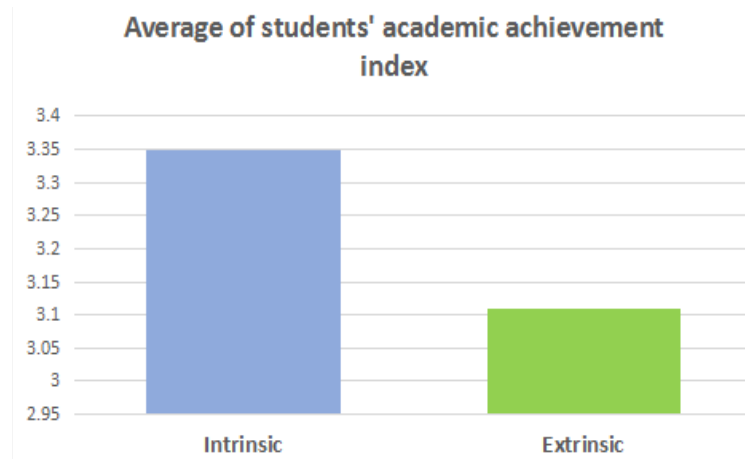
### Research Results and Discussion

Based on the data retrieved from student, the motivation of student shown in Picture 1.



**Figure 1.** Students' learning motivation in Informatics Engineering Program

We can divide the type of motivation whether it is intrinsic or extrinsic from the data above. It is found that 79% students have intrinsic learning motivation and 21% have extrinsic learning motivation. Meanwhile, The average of student's academic achievement index shown in Figure 2.



**Figure 2.** The average of students' academic achievement index

The average index of student's academic achievement from student whose learning motivation is intrinsic was 3.35 while the extrinsic was 3.11. The average index of student's academic achievement from student whose learning motivation is intrinsic is greater than student whose learning motivation is extrinsic by 0.24 point. It is possible for students whose learning motivation is intrinsic to get higher academic achievement because they find that learning is enjoyable and they have natural desire to learn the subject well. Hennessey, Moran, Altringer, and Amabile (2015) said that intrinsic motivation has been related to creativity of performance, longer-lasting learning, and perseverance. Therefore, it is possible for the people with intrinsic motivation can give their best genuinely and feel free to fulfill their excitement trough the activity where they are engaged.

The analysis result showed that the value of  $r_{pbis}$  is 0.566 while the critical value of  $r$  gained from table is 0.220. Thus, it can be concluded that there is correlation between the type of learning motivation and student's academic achievement. It is consistent with the statement from Cherry (2018) that the previous researchers have found that intrinsic motivation and extrinsic motivation can have different effects on people behaviors. If there is two people with different type of motivation perform the same behavior or activity, the way they perceive the activity will different. People with intrinsic motivation will find that the activity is more enjoyable than the other one. It may slightly affects the result as stated by Li&Pan (2009) that motivation can influence learning process and its outcome.

The value of  $r_{pbis}$  of 0.566 can be interpreted as a moderate correlation based on Table 1. It is consistent with the previous research conducted by Lepper, Corpus, & Lyengar (2005), they found that intrinsic and extrinsic motivation to be only moderately correlated. Thus, it can be used to explain the differentiation between the average index of student's academic achievement from student whose learning motivation is intrinsic with the other one. The average index of student's academic achievement from student whose learning motivation is intrinsic is greater than the other one only by 0.24 point.

## Conclusions and recommendations

Based on the result of data analysis and the discussion above, it can be concluded that there is moderate correlation between the type of learning motivation and student's academic achievement. It is recommended to include the amotivation condition as a type of motivation as a complement for further research about the correlation between type of motivation and student's academic achievement.

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