# THE EFFECT OF LEARNING MOTIVATION ON LEARNING OUTCOME THROUGH STUDENT ENGAGEMENT IN ONLINE LECTURE SYSTEMS

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## ABSTRACT

**Introduction/Main Objectives:** Online learning has grown in popularity in recent years due to the impact of the coronavirus which forced people to stay indoors and learn from home. One of the impacts of the rise of online learning is that schools and universities are starting to conduct learning and teaching through online media such as online courses and online meetings with teachers. Even after the coronavirus subsided, online learning is still one of the alternative teaching tools used by universities or schools to teach their students. **Background Problems:** This study was conducted with the aim of determining the influence of learning motivation on learning outcomes through student engagement in online learning. **Novelty:** No other research has been conducted to analyze the effect of learning motivation on learning outcomes through student engagement in online learning. **Research Methods:** This research is quantitative research with a sample of active universities students and have participated in online learning. The sample was obtained randomly using a non-probability sampling technique, namely purposive sampling. Data collection used a research questionnaire. Data processing and analysis techniques using SmartPLS version 4.0. **Finding/Results:** The results showed that learning motivation does not directly affect learning outcomes, but through student engagement as a mediation between

learning motivation and learning outcomes can have a significant positive effect. Student engagement has a significant positive effect on learning outcomes. Learning motivation also has a significant positive effect on student engagement. **Conclusion:** The conclusion of this research shows that student engagement is an important thing to be considered by lecturers during online training so that courses can run well.

**Keywords:** Oline learning, learning motivation, learning outcomes, student engagement

**JEL Classification:** D13, I31, J22, K31

## INTRODUCTION

The World Health Organization (WHO) in March 2020 categorized COVID-19 as a global pandemic due to the outbreak with a total number of cases reaching 177 million globally (Syahruddin et al., 2021). The COVID-19 pandemic has an impact on all sectors of people's lives, including the education sector (Sulisworo et al., 2020). The policy in handling COVID-19 has a major impact on people's lives in various fields, including in the education sector. Learning ranging from elementary school to university level is trying to be done through an online learning system. Educational institutions in various countries are facing unprecedented challenges due to the COVID-19 virus pandemic. School and college closures in a short period of time created severe disruptions, and educational institution leaders had to mobilize staff to teach remotely with little preparation or training time (Bubb & Jones, 2020). The Indonesian government also issued a study-from-home policy for schools and universities, and in a relatively short time. Government policies related to efforts to deal with COVID-19 have been responded by academics by organizing online lectures so that the teaching and learning process at various levels of education can continue even in a pandemic situation (Haris et al., 2021).

Online lectures have a number of advantages, especially in mastering online technology because online learning causes students to at least be able to operate online technology to continue to access the teaching and learning process during the pandemic (Sukendro et al., 2021). The advantages of online lectures felt by students are at least related to efficiency and savings in terms of time, energy, and costs. Efficiency and savings in online lectures actually provide an attraction for students to follow, so that many campuses equip digital technology so that lectures can be conducted online and offline. Students are given the choice to be able to take online lectures even though the COVID-19 pandemic is considered to be under control.

Online lectures during the pandemic also have problems, one of which is boredom. Students can feel bored with online lecture practices due to the lack of direct social interaction between fellow students and lecturers, which has an impact on concentration during lectures (Suyadi & Selvi, 2022). The boredom felt by students causes the effectiveness of knowledge transfer during lectures to be reduced so that the mastery of the knowledge taught is also weak. Motivation in online learning is important so that students still have enthusiasm in participating in online lectures.

## LITERATURE REVIEW

According to Lemay et al. (2021) that barriers to online learning include: proficiency in the use of online technology, time management, and maintaining commitment to online learning interest and motivation. Proficiency in the use of online technology can be learned and the longer it is, the more proficient it can be, but for time management, it requires high seriousness because online learning has many distractions from activities outside of study hours because it is done at home or other informal places. In addition, it is also difficult to maintain commitment in online learning because it will face high boredom if it is carried out continuously.

Learning motivation is a driving factor so that students consistently have interest and interest in learning science or consistency in participating in the teaching and learning process (Cazan, 2015). Motivation in learning as stated by Collie dan Martin (2019) leads to the tendency, energy, direction, and drive of individuals with respect to learning and achievement. Previous research shows that learning motivation will also affect student engagement (Hsieh, 2014). Student engagement is the level of involvement of thoughts, actions, and emotions that reflect the tendency, energy, and drive in the learning process (Dickinson et al., 2022). Strong learning motivation causes students to be more actively involved in the learning process and have strong concentration to be able to receive the transfer of knowledge taught in lectures.

Chan et al. (2021) explain that student engagement is characterized by the level of attention, curiosity, interest, optimism, passion, sense of belonging, deep learning, interaction, participation and sense of autonomy and control experienced by students. Student engagement involves more than participation in an activity; it also includes emotions, feelings and finding value in an experience so that students who have high student engagement are willing to involve spending time and effort to learn. Student engagement is the key to educational success. The success of education is measured by the ability to create quality graduates seen from academic mastery and other skills in accordance with the scientific specifications that students pursue during lectures. The success of the recovery process at the university is not only measured by the continuity of the learning process but also the strong intention and commitment of students, academics, and other parties related to the lecture process.

Sedaghat et al. (2021) explained that strong student engagement causes students to be more active in solving various problems when the learning process cannot run effectively. Student engagement also causes students to not easily despair when facing difficulties in transferring knowledge in the lecture process. Student engagement has a positive impact on academic achievement and mastery of the knowledge taught in lectures. Academic achievement (learning outcome) is also directly influenced by learning motivation because strong motivation encourages enthusiasm to master knowledge in lectures (Sedaghat et al., 2011).

## METHOD, DATA, AND ANALYSIS

This research uses a type of quantitative research. Quantitative research is research that uses the positivism philosophy to examine a certain population or sample (Sugiyono, 2018). The reason this study uses quantitative methods is to measure the correlation between the dependent variable and the independent variable where this study examines the correlation between the learning motivation variable and learning outcome, the learning motivation variable and student engagement and the student engagement variable and learning outcome. The sample population in this research is university students. The sample in this

study was taken using purposive sampling technique. Where the sample criteria in this study are students who are active and have participated in online learning. The questionnaire distributed to respondents was taken based on previous research.

Learning Motivation used items and questionnaires from Tho (2017), to measure Learning Motivation in university students. This questionnaire consists of 4 questionnaire items. To measure the Learning Outcome variable in this study, using questionnaires and items from Hsieh (2014). The questionnaire consists of 9 items to measure Learning Outcome in university students. To measure Student Engagement, a questionnaire from Hsieh (2014) was used. The questionnaire consists of 11 questions.

The data collection technique in this study used a research questionnaire. distributed online and collected via google form. The object of this research is active universities students and have participated in online learning. The total respondents of this study were 167 people.

## RESULT AND DISCUSSION

Hair et al. (2018) stated that convergent validity requirements were met when a factor loading > 0.5. Based on Table 1, the validity of individual items from each factor loading is significant (> 0.5). There are 2 indicators of learning motivation, 2 indicators of student engagement and 6 indicators of learning outcomes from a total of 24 indicator items that have a factor loading <0.5. Therefore, the ten indicators are considered invalid and not included in further testing.

Fornell and Larcker (1981) stated that Average Variance Extracted (AVE) 0.4 can be accepted. If AVE is less than 0.5, but composite reliability is higher than 0.6, the convergent validity of the construct is still adequate, therefore convergent validity is met.

TABLE I.     MODEL MEASUREMENT RESULTS

| CONSTRUCT | ITEMS | LOADING FACTOR (> 0.5) | CR > 0,7 | AVE (> 0.4) |
|---|---|---|---|---|
| LEARNING MOTIVATION | LM02 | 0.832 | 0.736 | 0.585 |
| | LM03 | 0.691 | | |
| STUDENT ENGAGEMENT | SE01 | 0.615 | 0.877 | 0.447 |
| | SE04 | 0.680 | | |
| | SE05 | 0.682 | | |
| | SE06 | 0.759 | | |
| | SE07 | 0.784 | | |
| | SE08 | 0.711 | | |
| | SE09 | 0.506 | | |
| | SE10 | 0.544 | | |
| | SE11 | 0.687 | | |
| LEARNING OUTCOME | LO02 | 0.612 | 0.705 | 0.446 |
| | LO08 | 0.615 | | |
| | LO09 | 0.765 | | |

TABLE II.     HYPOTHESIS TESTING RESULTS

| HYPOTHESIS | PATH | PATH COEFFICIENT | p-Value | T Value | Result |
|---|---|---|---|---|---|

| $H_1$ | LM → LO | 0.118 | 0.274 | 1.095 | Insignificant |
|---|---|---|---|---|---|
| $H_2$ | LM → SE | 0.633 | 0.000 | 12.405 | Significant |
| $H_3$ | SE → LO | 0.403 | 0.000 | 4.096 | Significant |
| $H_4$ | LM → SE → LO | 0.256 | 0.000 | 3.885 | Significant |

Table 2 shows the results of hypothesis testing. The results of testing the effect of learning motivation (LM) on learning outcomes (LO) obtained a path coefficient of 0.118 with a *T value* of 1.095 and a *p value* of 0.274. Because the calculated *t value > t table* 1.96 and *p value <* alpha 0.05, it can be interpreted that learning motivation (LM) has no significant effect on knowledge sharing (KS), so the hypothesis $H_1$ is rejected.

The testing results of the effect of learning motivation (LM) on student engagement (SE) obtained path coefficient of *0.633* with *T value* of *12.405* and *p value* of *0.000.* Since *T value > t-table* 1.96 and *p value <* alpha *0.05*, it means that learning motivation (LM) significantly influences student engagement (SE), therefore hypothesis $H_2$ is accepted.

The results of testing the effect of student engagement (SE) on learning outcome (LO) obtained path coefficient of *0.403* with *T value* of *4.096* and *p value* of *0.000.* Since *T value > t-table* 1.96 and *p value <* alpha *0.05*, it means that student engagement (SE) significantly influences learning outcome (LO), therefore hypothesis $H_3$ is accepted.

The results of testing the mediating effect of student engagement (SE) on the relationship between learning motivation (LM) and learning outcomes (LO) show a path coefficient of 0.256 with a calculated *T value* of 3.885 and a *p value* of 0.000. The calculated *> t-table* 1.96 and *p value <* alpha 0.05. This provides empirical evidence of the mediating role of student engagement on the effect of learning motivation on learning outcomes. Thus, hypothesis $H_4$ is accepted.

This study explores the influence of learning motivation on student engagement and learning outcomes among university students. From the findings of this study, it can be concluded that learning motivation does not directly affect learning outcomes. Students who have high student motivation does not mean that they have the best learning outcomes. This results are does not in line with prior studies (Bruinsma (2004); Barba, Kennedy and Ainley (2016); Froiland and Worrel (2016); Raza, Qazi and Umer (2019)). This could be due to differences in students' cultural and environmental factors. Another cause could be the different learning system with the previous research. The previous study examined offline learning while this study used online learning.

Another finding from this study is that learning motivation affects student engagement. This means that students with high motivation have high engagement in their learning. This means that student motivation must be maintained in online learning, which is needed in producing passionate students. This results are in line with prior studies (Susomrith and Coetzer (2019); Lee and Koszalka (2016); Walker, Greene and Mansell (2006)).

Furthermore, the findings regarding the relationship between student engagement and learning outcomes suggest that students who are engaged in their learning will produce good learning outcomes. These results also suggest that student engagement is seen as an important facilitator for producing students with good learning outcomes on their academic factors. In online learning, instructors need to pay attention to student engagement in the learning process and increase interaction with their students so that students are more engaged in their lessons to produce successful online learning. This result supports Ladd and Dinella (2009) and Raza, Qazi and Umer (2019) research.

## CONCLUSION

In conclusion, the findings prove that student engagement significantly and positively mediates the relationship between learning motivation and learning outcomes. This result suggests that the stronger students' learning motivation, the higher their willingness to engage in the lesson, which will ultimately improve learning outcomes. This suggests that student engagement should be maintained in online learning sessions, so that online courses become a useful alternative teaching tool.

## IMPLICATION/LIMITATION AND SUGGESTIONS

There are several limitations in this study that require further research to better understand how learning motivation affects learning outcomes. First, this study rejects the theory that learning motivation directly affects learning outcomes which is not in line with previous studies. This issue should be considered in future studies and research. Secondly, the respondents used in this study were from Indonesia and only university students. Future research can be conducted outside Indonesia and students from high school to university level. Third, this study only includes one mediating variable. Future research could examine more fully the mechanisms that drive learning outcomes.

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