



The Impact of Changes in the Learning System on Students' Learning Motivation

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Abstract: This study aims to determine how the impact of changes in the learning system on student learning motivation. The research design in this study is a mixed method design. The population in this study were all active students majoring in Physics Education Teacher Training and Education Department in Syiah Kuala University as many as 274 people. The sampling technique in this study used purposive sampling technique. So that the sample used is 132 people. The instrument used is by using a questionnaire with the help of google form. The analytical technique used in this study will be processed using a Likert scale which is then categorized based on a score index to determine the level of student learning motivation and use the Mann-Whitney Test to determine the impact. The results showed that learning motivation when using the offline learning system was 486.11 with the "High" category and 372.28 with the "Low" category when online. Based on the impact analysis test, it shows that changes in the learning system on students' learning motivation have significant differences (p value = 0.00; $p < 0.05$). The conclusion of this study is that changes in the learning system make learning motivation of Physics Education student is subject to change.

Keywords: Impact; Learning Motivation; Learning System Changes

Introduction

The Corona virus pandemic that started to hit Indonesia starting from March 2020 until now has certainly left quite a mark in the world of education in particular (Septiana and Sholeh, 2021; Wagiran et al., 2022). So that the education and learning system at that time was disrupted and was impacted by this (Azubuike et al, 2021; Patel et al., 2022). Including the learning system in higher education is also affected. This can be seen from the learning system which is also adjusted so that learning can be carried out in accordance with the conditions suggested by policy makers to minimize fatal risks and impacts on health (Azubuike et al, 2021; Wagiran et al., 2022). So that the learning system is suddenly required to use fully networked learning as the only way to achieve learning goals (Nurmalahayati et al., 2022; Patel et al., 2022; Zahro et al., 2021). Including many universities also apply the same thing.

Syiah Kuala University through its rector circular number B/1952UN11/KP.11.00/2020 is also doing the same thing, namely conducting lectures with an online learning system. This was chosen because online learning is learning that utilizes technology to be used in the teaching and learning process so that teachers and students do not have to meet/face-to-face. (Dewi and Sadjiarto, 2021; Syarifudin, 2020). Even though currently many universities in Indonesia are holding face-to-face lectures again. However, the use of the online learning system is sometimes also used so that of course it still has an impact on students. This is because changing study habits will cause its own problems for students and lecturers (Caron et al., 2022; Ahdar and Natsir, 2021). Especially if changes to the system used occur quickly and suddenly which makes unpreparedness to follow it. So it is necessary to study the impact on problems due to the implementation of online learning policies (Stecula and Wolniak, 2022). Especially regarding aspects of attitude such as learning

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motivation, attention and ability to share study time (Cahyani et al, 2020, Caron et al, 2022;).

Based on interviews conducted with several students majoring in Physics education at the Teacher Training and Education Department, Syiah Kuala University in the odd semester of 2021-2022, it is known that with online learning, the pattern of their learning activities has also changed. Lack of interaction, network problems and an atmosphere in learning due to the use of online learning is also said to reduce their enthusiasm to attend lectures. This is also in accordance with the statements of Aji (2020); Ilyas and Liu (2020); Ndoa and Jumadi (2022), that online learning has its own difficulties, starting from the lack of direct interaction with lecturers, limited internet facilities, lack of interaction with colleagues and so on that the motivation will be affected as well.

Learning motivation is the driving force that lies within a student which will bring up the intention to do learning so that the goals to be achieved by the student can be fulfilled (Cahyani et al., 2020; Nuraisyah et al., 2021; Putra et al., 2022). Motivation will make students study harder, be tenacious, diligent and have more concentration in the learning process. Especially when using online learning. Learning motivation is fundamental and necessary in stimulating these online learning activities (Mendoza et al., 2023; Wagiran et al., 2022). So that motivation is something that needs to be raised and made something important in the student learning process (Izzatunnisa et al, 2021).

Learning motivation also has a significant effect on learning, especially online learning (Baber, 2020). This is because the learning climate in online learning can affect student learning motivation (Sari and Rusmin, 2018). So that any disturbance to the learning process will definitely affect student motivation. even though learning motivation simultaneously influences student learning outcomes in online learning during the Covid-19 pandemic (Ningtiyas and Surjanti, 2021). Based on the things above, the researchers feel the need and are interested in knowing whether changes in the learning system lead to changes and impacts on student motivation in learning Physics in the Department of Physics Education, Syiah Kuala University.

Method

This study uses a mixed method research design method. The population in this study were all 273 active students majoring in Physics Education, Teaching and Education Departement, Syiah Kuala University. Then, the sample was taken using a non-random sampling technique by purposive sampling. This technique was used because the sample had to experience two situations, namely face-to-face (offline) and online lectures. So that the selected sample was 132 people.

The instrument in this study used a questionnaire in the form of a questionnaire to measure student learning motivation offline and online which was distributed with the help of Googleform. The questions in the questionnaire contained 18 statements based on the 6 indicators referred to, namely the desire and desire to learn, the existence of hopes and aspirations for the future, perseverance, tenacity in the face of adversity, the presence of interesting activities and conducive situations and the joy of finding and solving problems (Nasrah and Muafiah, 2020; Sardiman, 2012; Uno, 2013). The analysis technique used in this study was using Likert and categorizing based on the level of referenced learning motivation standards to find out the changes then using the Wilcoxon Signed Rank Test difference test to find out whether the hypothesis was rejected or accepted.

The Wilcoxon Signed Rank Test is a difference test was used with the help of the SPSS program with a significance = 0.05. If the sig. > 0.05 then H₀ is accepted and H_a is rejected so that it can be interpreted that there is no difference due to changes in the offline and online learning systems. Meanwhile, if the sig. < 0.05 then H₀ is rejected and H_a is accepted so that it can be interpreted that there are differences due to changes in the offline and online learning systems.

Result and Discussion

The aspects of student learning motivation measured in this study were based on two different conditions and times. So that the data obtained is processed according to the respondents' answers to the conditions and time. The condition in question is when learning with a face-to-face system (offline) and learning with a virtual system (online). So that the results obtained during offline and online conditions can be seen in Table 1.

Table 1. Student Learning Motivation Using Offline and Online Learning Systems

	Score		Category	
	Offline	Online	Offline	Online
1	508.67	403.67	High	High
2	458.33	328.67	High	Low
3	506.00	381.67	High	Low
4	502.67	399.67	High	High
5	511.00	384.00	High	Low
6	430.00	336.00	High	Low
Amount	486.11	372.28	High	Low

Based on Table 1, it can be seen that the motivation to learn when using offline and online learning systems has changed. The decrease in the learning motivation index can also be seen from several indicators such as indicators 2, 3, 5 and 6. In indicator 2, when using an offline learning system it has a score of 458.33 to 328.67

when using an online learning system. In indicator 3, when using an offline learning system it has a score of 506.00 to 381.67 when using an online learning system. In indicator 5, it has a score of 511.00 when using an offline learning system to 384.00 when using an online learning system. In indicator 6, it has a score of 430.00 when using an offline learning system to 336.00 when using an online learning system. So that for these four indicators, learning motivation when using an offline learning system is in the "High" category to be in the "Low" category when using an online learning system. So that in general student learning motivation when offline is 486.11 in the "High" category and when online is 372.28 in the "Low" category. These changes can also be seen in the following Figure 1.

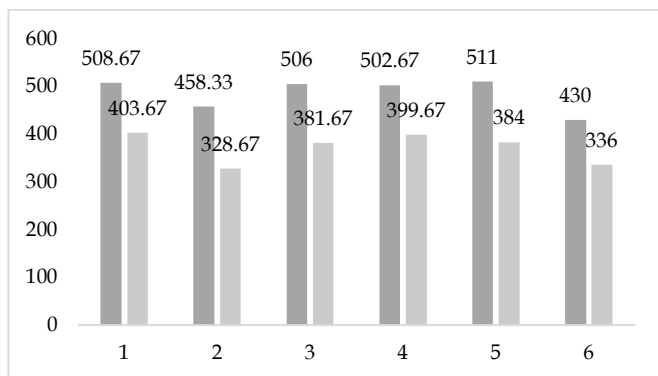


Figure 1. Student Learning Motivation Using Offline and Online Learning Systems

To find out whether changes in the learning system make a difference or not to student learning motivation, this study uses the Wilcoxon Signed Rank Test non-parametric difference test. This is because the research data in this study are not normally distributed and homogeneous. So the parametric test cannot be used. This is because normal and homogeneous conditions are not met. So the non-parametric test is an option. The results of the Wilcoxon Signed Rank Test with the help of SPSS can be seen in Table 2.

Table 2. Wilcoxon Signed Rank Test

Learning system	N	Z	Sig. (2-tailed)	Results
Luring	132	-9.470	0.000	There are differences
Daring	132			

Based on Table 2, it is known that the sig value obtained is 0.000. If the sig value > 0.05, there is no difference in learning motivation using offline and online learning systems. Meanwhile, if sig < 0.05, there are differences in learning motivation using offline and online learning systems. So, based on the test results, it is known that the significance value obtained is 0.000 < 0.05. From these results, H₀ is rejected and H_a is accepted. So it is known that there are differences in the

learning motivation of Physics Education students in Syiah Kuala University when using offline and online learning systems.

Based on the results of the categories and tests above, it can be seen that changes in the learning system on the learning motivation of Physics Education students in Syiah Kuala University have decreased and have had an impact. It is known from several indicators appear to have decreased in category. Indicators 2, 3, 5 and 6 which initially had a high category changed to low. This is because changes in the learning system make changes to the learning atmosphere so that the pattern of learning activities from students also changes. Learning that previously took place directly in class must be changed to online which will make a change in motivation. This can happen because changing the way of learning from offline learning to online learning will require strong motivation, discipline, good time management skills so that learning is carried out well even though the obstacles encountered will also be many times more than offline learning (Sliwa et al., 2021). Moreover, these changes had to be made due to conditions and situations that made students unprepared (Alam et al., 2022). Sari and Rusmin (2018) in their research also stated that the learning climate created by using online learning also influences student learning motivation.

Besides that, changing the categories of some of these indicators is also driven by the interactions that occur during learning that cause problems in conducting online learning. Things such as the lack of direct interaction with lecturers, lack of interaction with colleagues, limited internet facilities and so on can make student learning motivation go down and up (Aji, 2020). So that during the pandemic, their learning motivation was affected as a result of changes in the learning system which caused these problems (Mendoza et al., 2023).

Even though these changes occurred and were clearly visible from the four indicators, other indicators also experienced the same thing. However, the changes and decreases that occurred in the other two indicators were not significant and remained in the same category. As can also be seen in Figure 1. This indicates that changes in the learning system have resulted in changes to the learning motivation of USK FKIP Physics Education students, in this case a decrease. This is in accordance with the statement of Lukita and Sudibjo (2021) in their research which revealed that the use of online learning systems will reduce one's learning motivation. Cahyani, et al (2020) also said that learning motivation was affected by changes in the learning system.

Conclusion

Based on the results of the analysis and tests that have been carried out, it can be concluded that changes

in the learning system have resulted in changes to the learning motivation of Physics Education students at the Teacher Training and Education Department, Syiah Kuala University.

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