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Online Lectures for Sports and Non-Sports Study Program Students: Interrelation of Attitudes, Involvement, Satisfaction, Happiness, and Learning Achievement

Clases en línea para estudiantes de programas de estudios deportivos y no deportivos: interrelación de actitudes, participación, satisfacción, felicidad y logros de aprendizaje

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Abstract. This research aims to explore the relationship between attitudes, satisfaction, happiness, and involvement and student learning outcomes based on gender and the undertaken study program (sport and non-sport) after the covid-19 pandemic. This research is a cross-sectional study. A total of 380 students in Indonesia participated in this study. The research results show that online learning on campus was perceived positively by students of both sports and non-sports study programs. There are no significant differences in the variables of student satisfaction, happiness, involvement, and learning achievements based on gender and study program. There is a significant relationship between satisfaction with online learning, life happiness, and involvement in lectures with learning outcomes. In addition, the satisfaction variable in online learning has a direct and indirect impact on student learning outcomes through the involvement variable. The happiness of life variable has a direct impact only on the involvement variable but not on the learning achievement variable.
Keywords: attitude, satisfaction, life happiness, involvement, learning achievement, online lectures

Resumen. Esta investigación tiene como objetivo explorar la relación entre las actitudes, la satisfacción, la felicidad y la implicación y los resultados de aprendizaje de los estudiantes en función del género y el programa de estudios realizado (deportivo y no deportivo) tras la pandemia de covid-19. Esta investigación es un estudio transversal. En este estudio participaron un total de 380 estudiantes de Indonesia. Los resultados de la investigación muestran que el aprendizaje en línea en el campus fue percibido positivamente por los estudiantes de programas de estudio tanto deportivos como no deportivos. No existen diferencias significativas en las variables satisfacción, felicidad, implicación y logros de aprendizaje de los estudiantes en función del género y programa de estudio. Existe una relación significativa entre la satisfacción con el aprendizaje en línea, la felicidad con la vida y la participación en clases con los resultados del aprendizaje. Además, la variable satisfacción en el aprendizaje en línea tiene un impacto directo e indirecto en los resultados de aprendizaje de los estudiantes a través de la variable participación. La variable felicidad de vida tiene un impacto directo sólo en la variable participación, pero no en la variable logro de aprendizaje.
Palabras clave: actitud, satisfacción, bienestar, implicación, logros de aprendizaje, clases en línea.

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Introduction

Along with the increase in online teaching carried out by teachers, discussions about online teaching are also carried out by scientists. In general, conceptual and theoretical foundations are often discussed and debated by scholars. Concepts such as blended learning (Garrison & Vaughan, 2008), hybrid learning (Ranganathan, Negash, & Wilcox, 2007), e-learning (Clark & Mayer, 2008), digital learning, technology-based learning, distance learning (Langford & Damsa, 2020) from a learning technology perspective does not suggest 100% online learning. However, there is a weighting between offline learning or face-to-face learning and online learning.

Apart from the conceptual issues above, the results of online learning research in Indonesia have experienced many obstacles and problems, at elementary school (Prawanti & Sumarni, 2020; Utami, 2020), junior high school (Rahayu & Wirza, 2020), and senior high school (Wahyuningsih, 2021). The question then is: What about online learning at the tertiary level? The results of research related to online learning in Indonesia at the tertiary level show that online learning has a positive impact and as many as 86.3% support the implementation of online learning, and 77% of students stated that they were satisfied with the implementation of online learning (Saifuddin, 2018). A similar finding was reported by Ulinuha & Novitaningtyas (2021) that students felt quite satisfied with online learning. However, different things were found by Cahyawati & Gunarto (2020) who showed that only 15% of students said they agreed with online learning. Napitupulu (2020) also reported a similar thing that students were not satisfied with online learning. The existence of contradictory research results above is a problem. Even though there are many

issues in online learning, researchers will focus on five basic issues, namely attitudes, involvement, satisfaction, life happiness, and student learning achievements. With the increasing implementation of online learning, it is important to reveal students' attitudes towards learning in online settings (Irwanto, 2023). Moreover, student attitudes are seen as a fundamental dimension concerning learning outcomes (Çevik & Bakioğlu, 2022). There is empirical evidence showing that there is a close relationship between learning attitudes and learning performance (Elfaki, Abdulreheem, & Abdulrahim, 2019). Students' negative attitudes toward online learning can contribute to their low learning achievement (Mushtaque, Rizwan, Dasti, Ahmad, & Mushtaq, 2021). Therefore, investigating the attitudes of sports and non-sports study program students toward online lectures is interesting considering that there are not many studies that focus on this.

One of the issues that arises in online learning is student involvement. Student involvement in online learning activities is important to indicate that the learning activities delivered by the teacher are running effectively and students are getting meaningful learning experiences (Paulsen & McCormick, 2020). Involvement is a reflection of motivation seen through student behavior, cognition, and emotions as well as directed actions and persistence in achieving student academic goals (Handelsman, Briggs, Sullivan, & Towler, 2005). The results of research related to online learning show that the majority of students consider online lectures to be ineffective and one of the causes of the low effectiveness of online learning is low student involvement (Lee, Pate, College, & Cozart, 2015; Angelino, Keels Williams, & Natvig, 2007). Banna, Lin, Stewart, & Fialkowski (2015) emphasize that student involvement is the main solution to the issues that exist in online learning.

According to Prasetya & Harjanto (2020), one of the benchmarks for the quality of online learning is student satisfaction. Student satisfaction can be used as evaluation material to improve the quality of online learning (Ulinuha & Novitaningtyas, 2021). Therefore, student satisfaction is seen as an important factor in online learning (Andilala & Marhalim, 2019). Well-known world marketing figures, Kotler & Amstrong (2012), state that satisfaction is a person's perception which is based on the results between expectations and what is obtained. In the context of satisfaction in higher education, student satisfaction is a comparison between the level of expectations and what is obtained in educational services (Darmawan, 2015). In line with that, Wibisono (2012) states that satisfaction is the gap between expectations and the results obtained (performance). When expectations match what is obtained, a perception of satisfaction or happiness will emerge within the person. There are three dimensions in the aspect of satisfaction, namely as expected, getting what you want, and overall satisfaction (Darmadi, 2000).

The construct of happiness, which is often understood as a positive emotional condition (feeling), has been the object of discussion by philosophers, writers, and religionists for centuries (Layard, 2005). Life satisfaction might be defined as a feeling of happiness and becoming satisfied with life (Maddux, 2018). There are two keywords in the definition of life satisfaction, namely, 'happiness' and 'well-being'. Individuals who are considered satisfied with life feel happiness and a sense of well-being. Correspondingly, Sholihin et al. (2022) state that individual life satisfaction can be described as the feeling of happiness possessed by individuals when they achieve the desired level of well-being. Maksum & Indahwati (2021) mention that the variable 'life satisfaction' refers to the extent to which individuals feel happy and free from the pressures of life that cannot be controlled. In general, Huebner (2004) states that life satisfaction has two models: unidimensional and multidimensional. The unidimensional model reveals the satisfaction of a person's life is more general. In unidimensional measurements, the items used are free of context so that the measure of satisfaction is more global. In contrast, in the multidimensional model, the assessment of the satisfaction of life is carried out on several dimensions such as the dimensions of family, friends, and living environment.

Learning outcomes are abilities obtained through the internalization of knowledge, attitudes, skills, competencies, and accumulated work experience. The term learning outcomes is often used interchangeably with competencies, even though they have different meanings in terms of the scope of the approach. Butcher, Davies, & Highton, (2006) explain that many terms are used to explain educational intent, including learning outcomes, teaching objectives, competencies, behavioral objectives, goals, and aims. According to Butcher et al. (2006) the term "aims" is an expression of broad and general educational objectives, which explains information to students about the objectives of a lesson, program, or module and is generally written for teachers, not students. On the other hand, learning outcomes are more focused on what students are expected to do during or at the end of a learning process. Meanwhile, "objectives" cover learning and teaching, and are often used in the assessment process.

Based on the description above, the question arises: What are the attitudes, involvement, satisfaction, life happiness, and achievements of sports and non-sports students in online learning? There is no research and knowledge regarding this matter and, generally, research has been carried out partially. Based on this, this research aims to explore the relationship between attitudes, satisfaction, happiness, and involvement and student learning outcomes based on gender and the undertaken study program (sport and non-sport) after the covid-19 pandemic.

Material and methods

Participants

A total of 380 students from various campuses in Indonesia participated in this study. The number of male

students was 226 (59.01%) while the number of female students was 157 (40.99%). The average age of the respondent students was 19.99 years with SD = 3.02. Based on the study program the students undertook, 254 (66.84%) students are students of sports study programs (e.g., department of sport sciences, department of sport education, department of sports coaching education), while 126 (33.16%) students are students of non-sports study programs. All students who took part in this study have provided informed consent.

Instruments

There were five instruments used in collecting data for this study. To reveal student attitudes in online learning, a questionnaire on students' attitudes toward schooling during the COVID-19 pandemic was used (Baloran, 2020). We modified this instrument so that it consists of three questions in the form of a closed interview (for example: Do you agree with online lectures? What are your reasons for agreeing to online lectures?). Student involvement in online lectures was measured by the Online Student Involvement Scale (OSE; Dixson, 2015). OSE scale consists of 19 statements with alternative answers in the form of a Likert scale, ranging from strongly disagree (1) to strongly agree (5). The OSE scale has been adapted and tested in the Indonesian version and found validity values ranging from 0.453-0.949 (Rahmania & Royanto, 2021). To reveal satisfaction in online lectures, the General Satisfaction Scale (GSS) was developed by Strachota (2003) and has been adapted for language and tested in the Indonesian context by Putra (2022). The validation results in the Indonesian context show that the correlation coefficient value of the Indonesian version of the GSS is 0.582-0.625, while the factor loading value is 0.55-0.88. The GSS reliability is 0.706. The student's life happiness level variable was measured using the Satisfaction-with-Life Scale (SWLS; Diener, Emmons, & Griffin, 1985). We have used SWLS to reveal the level of life happiness of sports students and athletes (Guntoro & Putra, 2022; Wandik, Guntoro, & Putra, 2021). The learning achievement variable was seen based on the Cumulative Achievement Index (GPA) obtained by students.

Procedure

This research is a cross-sectional study conducted after the Covid-19 pandemic. Data collection was carried out online and offline from students studying in sports and non-sports study programs. This means that, apart from duplicating the research instrument (paper test), this study also administered the research instrument in Google form. The research Google form link was then distributed to lecturer colleagues and several relevant WhatsApp groups to ask for assistance to be provided to students. The first sheet of the Google form contains the researcher's biodata and an explanation of the purpose of the research. The second sheet contains informed consent with two alternative answer choices, namely "willing to participate" or "not willing to participate". If students are willing to participate in the study, they can click "agree" and will be directed to their personal biodata sheet and research instruments, whereas if they are not willing to participate, they can choose "not willing to participate", and the filling out session will end. This means all students who participated in this study had agreed to their involvement in the research.

Statistical analysis

To find out the description of each research variable, descriptive analysis (mean, SD, and percentage) was used. To find out the relationship between variables, correlation analysis was used, while to find out differences between variables based on gender and the study program, variance analysis was used (Putra, 2021; Putra, 2023). The significance level used in this study is 0.05 or 5%. To determine the direct and indirect effects of satisfaction, happiness, and involvement on learning outcomes, path analysis was used. The accuracy of the model was tested with several parameters, including CFI, TLI, GFI, SRMR, and RMSEA. The following are the cut-off values used to assess model fit: CFI and TLI values > .90 (Browne & Cudeck, 1992), GFI values ≥ .93 (Cho, Hwang, Sarstedt, & Ringle, 2020), SRMR values ≤ .07 (Bagozzi, 2010), and RMSEA scores ≤ .08 (Browne & Cudeck, 1992). The analysis was carried out with the help of the IBM SPSS version 26 and IBM Amos version 22 programs.

Results

Students' attitudes towards the implementation of online lectures tend to be positive (Table 1). A total of 218 (57.37%) students answered "agree", while 90 (23.68%) students said they disagreed, and 72 (18.95%) answered they did not know. If analyzed based on study program, 142 (55.91%) students from sports study programs answered that they agreed with online lectures, while 63 (24.80%) students said they did not agree, and 49 (19.29) answered that they did not know. For students of non-sports study programs, 76 (60.23%) answered "agree", while 27 (21.43%) said they disagreed, and 23 (18.25%) did not know (Table 1).

Table 1.
Students' attitudes towards the implementation of online lectures

Answers	Sports Study Program	Percentage (%)	Non-Sports Study Program	Percentage (%)	Total	Percentage (%)
Agree	142	55.91	76	60.32	218	57.37
Don't know	49	19.29	23	18.25	72	18.95
Disagree	63	24.80	27	21.43	90	23.68
Total	254	100	126	100	380	100

Concerning the reasons for agreeing to carry out online lectures, the reasons put forward are quite varied. As many as 30.11% of students stated: "It is time to use online lectures", 27.69% of students stated: "I want to finish my

degree", 16.94% of students stated: "Studying at home will be safer than studying on campus", 12.63% of students stated: "Studying online (including through online modules) is more comfortable and practical than studying offline", 9.14% of students stated: "I don't want to drop out of college", and 3.49% of students stated: "I am bored at home and miss academic work."

The reason why students do not support online lectures is that they consider face-to-face lectures to be more fun and effective. As many as 21.49% of students stated: "I still prefer studying on campus", 20.18% stated: "I cannot study well in online lectures", and 15.79% stated: "I cannot communicate directly with my lecturers and classmates", 15.35% stated: "I think online lectures are boring", 12.28% stated: "I don't have Internet data plan", 10.09% stated: "I am worried about online coursework", 3.51% stated: "I don't have a computer/laptop/smartphone", and only 1.32% stated: "I don't have the money for online lectures, let alone submitting assignments."

The results of the analysis of differences based on gender show that there are no differences in all variables investigated (Table 2). The same thing was found based on the study program, namely that there were no significant differences found in the four variables studied (Table 2). This indicates that online learning does not have a different effect when viewed from the student's study program and gender.

Table 2.
Results of analysis of differences based on gender and study program (n=380)

Variable	Gender		*F*	Study Program		*F*
	Male (n=224)	Female (n=156)		Sports (n=254)	Non-Sports (n=126)	
Involvement	70.67±13.3	71.78±11.7	.712	70.64±13.2	72.10±11.7	1.106
Satisfaction	14.67±4.27	14.71±3.57	.009	14.58±4.01	14.89±3.97	.507
Happiness	13.42±3.59	13.22±2.82	.329	13.52±3.39	12.95±3.07	2.544
Learning achievement	3.09±0.41	3.15±0.38	1.905	3.12±0.4	3.1±0.38	.165

The results of the correlation analysis among variables show that there is a significant relationship between student learning outcomes and involvement, satisfaction, and life happiness (Table 3). The variable of involvement in lectures appears to have a correlation coefficient value that is greater than the other variables do, while the variable of life happiness has a relatively small correlation coefficient value. This indicates that online learning outcomes are closely related to the three other variables investigated.

Table 3.
Correlation results among variables

Variable	Min	Max	Mean	SD	Correlation coefficient (*r*)			
					1	2	3	4
Involvement	39	95	71.12	12.69	-	.427**	.361**	.448**
Satisfaction	6	24	14.68	3.99		-	.325**	.267**
Happiness	5	20	13.33	3.29			-	.104*
Learning achievement	2.00	3.90	3.12	0.39				-

*$p \leq .05$; **$p \leq .01$

The results of the path analysis in this study show that the variable of satisfaction in learning has a direct effect on student learning outcomes and also has an indirect effect through involvement (Figure 1). The happiness of life variable has a direct effect on the involvement variable and does not have a significant effect on learning achievement. Testing the model shows that the model fits the data. Several parameters show values above .90, and this indicates that the resulting model fits the data (CFI = .991, TLI = .945, GFI = .996). For other parameters, such as RMSEA and SRMR, the values obtained are .075 and .023 respectively. These results indicate that satisfaction with online learning plays an important role in student learning outcomes.

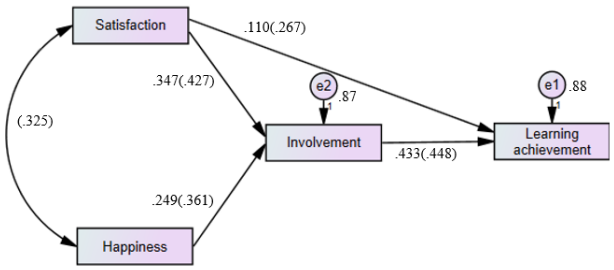

Figure 1. Path analysis results show that there is a correction in the coefficient values between variables. The figure in the bracket is the correlation coefficient value.

Discussion

This research aims to explore the relationship between attitudes, satisfaction, happiness, and involvement and student learning outcomes based on gender and the undertaken study program (sport and non-sport) after the COVID-19 pandemic.The first result shows that students' attitudes towards online lectures tend to be positive and the majority of students support the implementation of online lectures. This was found in students of both sports and non-sports study programs. Students see that it is time for online lectures (30.11%) and students want to complete their studies (27.69%). The students who do not agree with online lectures tend to prefer studying on campus face-to-face (21.49%), and students feel they cannot study well in online lectures (20.18%). These results are in line with research conducted by previous researchers who studied online learning. Mushtaque et al. (2021) in their research found that students were very enthusiastic about online learning and they were happy with the learning system. In line with this, research by Autila, Syafar, & Yulmiati (2023) found that students had a positive attitude towards online

lectures. The results of subsequent research showed that there were no differences in all the variables investigated, based on both the student's study program and gender. This indicates that there is a tendency for the same results in each variable investigated. For example, in the variable of involvement in online learning, it appears that the average score for male students is 70.67 ± 13.3 while for female students it is 71.78 ± 11.7. Things that are not much different are found based on the study program. Students doing the sports study program had an average score of 70.64 ± 13.2, while those doing the non-sports study program had an average score of 72.10 ± 11.7. Similar things were also found in other variables. The next result is that there is a significant relationship between learning outcomes and satisfaction in online learning, life happiness, and involvement in lectures. This is reinforced by the results of path analysis which found that the satisfaction variable in online learning had a direct and indirect impact on student learning outcomes through the involvement variable. For the happiness variable, the results of this study show that it has a direct impact on the involvement variable in learning, but the learning achievement variable does not have a direct impact. In this study, it appears that the involvement variable has a correlation coefficient and path coefficient that are greater than other variables.

The involvement variable is an important dimension in student learning achievement. Previous research results show that the main factor in low student learning achievement in online learning is low student involvement (Lee, Pate, College, & Cozart, 2015; Angelino, Keels Williams, & Natvig, 2007). Theoretically, student involvement in online learning is a manifestation of their desire to participate and play an active role in the lecture process (Handelsman et al., 2005). When the level of student involvement in lectures is not high, the drive or desire to understand the lecture material may be also not high. That is why, this variable is an important predisposition, whether lectures are meaningful or not for students (Paulsen & McCormick, 2020). When students try to involve themselves cognitively and effectively in online lectures, this becomes valuable capital in efforts to achieve students' academic goals. On that basis, it is not surprising that this variable is very important and determined in relation to online learning outcomes.

Concerning student satisfaction in online learning, the results of this study show that this variable has a direct and indirect impact on learning outcomes. Concerning online learning, student satisfaction is considered one of the important parameters of the lecture process (Prasetya & Harjanto, 2020). This is based on the opinion that the satisfaction variable is the main indicator in providing services on campus (Darmawan, 2015; Andilala & Marhalim, 2019). That is why, one of the evaluations related to lectures in higher education is related to how satisfied students are with learning (Ulinuha & Novitaningtyas, 2021). The results of this study show us evidence that the satisfaction variable in online learning is one of the keys that affect the variables of student involvement and learning achievement.

For the life happiness variable, the results of this study show that there is a positive relationship with the satisfaction variable and this variable has an effect on the involvement variable. This happens because both the life happiness variable and the satisfaction variable are positive emotional conditions (Layard, 2005). Conceptually, students who have a high level of life happiness relatively do not have excessive burdens in their lives so they will tend to live happily (Maksum & Indahwati, 2021). However, unlike the involvement variable, the life happiness variable does not have a direct effect on student learning outcomes. This happens because the life happiness variable measured in this research is global (unidimensional) life happiness.

Overall, the results of this research are in line with other studies conducted in Indonesia regarding online learning in higher education. Saifuddin (2018) in his research showed that online learning had a positive impact and as many as 86.3% of respondents supported the implementation of online learning, and 77% of students stated that they were satisfied with the implementation of online learning. A similar thing was reported by Ulinuha & Novitaningtyas (2021) who stated that students felt quite satisfied with online learning. Although there is evidence that positive results have been found concerning online learning in higher education, there are also different research findings. Cahyawati & Gunarto (2020) revealed that only 15% of students agreed with online learning. Napitupulu (2020) also reported a similar thing that students were not satisfied with online learning. Although there are differences in results, we see more empirical evidence showing that online learning has a positive impact on students. However, we also see that this does not mean there are no issues in online learning. Network and Internet package data are some of the issues complained about by students regarding the implementation of online lectures.

Even though we have tried to reveal things related to online learning comprehensively, we think there are two limitations to this study. Firstly, this study only used a questionnaire as the main data collection instrument so that respondents' perspectives regarding online lectures could not be explored in more depth. Secondly, other psychological variables that are closely related to learning achievement, for example, mental toughness (Putra, Kurdi, et al., 2024; Sutoro, Guntoro, & Putra, 2023; Wandik et al., 2024; Putra et al., 2024), anxiety (Putra et al., 2021; Putra & Guntoro, 2022), religiosity (Guntoro & Putra, 2022), learning motivation, self-concept, intelligence, and fitness were not investigated (Guntoro et al., 2023). Likewise, variables related to computer and Internet mastery such as computer anxiety, attitudes toward the Internet, and computer self-efficacy (Durndell & Haag, 2002) were not measured. The variables above are closely related to online learning and learning outcomes.

With these limitations, suggestions can be made for future research. Firstly, future studies need to integrate or

combine two approaches into a mixed method (Tashakkori & Creswell, 2007; Putra, 2017). By combining quantitative and qualitative approaches, more information can be explored more deeply so that the research results will be more comprehensive. Secondly, further research needs to consider several other variables that are relevant concerning online learning and learning outcomes. By investigating other variables more comprehensively, other variables that are thought to affect the research will be identified and researched in more depth so that the research results will be broader.

Conclusions

After the Covid-19 pandemic, the implementation of online learning on campus is perceived positively by students, both students or sports and non-sports study programs. This research shows that there are no significant differences in the variables of student satisfaction, happiness, involvement, and learning achievements based on gender and study program (sport and non-sport). Apart from that, this research also found that there was a significant relationship between satisfaction with online learning, life happiness, and involvement in lectures with learning outcomes. This is reinforced by the results of path analysis which shows that the satisfaction variable in online learning has a direct and indirect impact on student learning outcomes through the involvement variable. For the happiness variable, the results of this study show that it has a direct impact on the involvement variable in learning, but the learning achievement variable does not have a direct impact.

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