

The Factors of Individuals and Course on Students' Motivation within Hybrid Learning Process

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The use of online learning has become ubiquitous in the learning process. This study investigated the impact of different factors on students' motivation within synchronized and asynchronized learning. A quantitative research design was applied, and data was gathered using a survey method from the university students. A total of 254 dataset were analyzed and the results found that 51.9% of the students were reported to have moderate to high level of motivation, and 48.1% had low level of motivation to learning. Additionally, individual and course factors (attitudes, course difficulty and learning styles) play a beneficial effect in students' motivation within synchronized and asynchronized learning. This study concluded that individuals, course and other factors can undoubtedly influence students learning process. However, this study findings contributed to literature in educational contexts and are useful to the universities in Jordan to consider the use of hybrid learning practices to enhance the level of student's motivation .

Keywords: Individual; course; synchronized; asynchronized; learning.

The world witnessed the impact of Coronavirus (COVID-19) on life in general, as well as the world of education and learning processes (Prasetyo, Tamrin, & Estriyanto, 2022; Khalil, et al., 2021; Garcia-Garcia et al., 2020; Soliman et al., 2022; Rasheed et al., 2021). For instance, the COVID-19 has led to serious health, social and learning problems for many individuals, and seriously affected college students, as well as affected instructors and educational organization (Arslan, Yildirim, & Zangeneh, 2021; Teodorescu, Ajivas, & Amalfi, 2021; Mailizar et al., 2020; Toquero, 2020). Recently, all educational organizations including universities shifted to online and face to face activities in implementing synchronized and asynchronized learning process. It is critical that researchers study motivation prior and during the pandemic, since many students struggled in their learning (Teodorescu, Ajivas, & Amalfi, 2021; Fared, Jdaitawi, & Sheta, 2018; Jdaitawi et al., 2020). While technology and e-learning activities involve academics (teachers, tutors or lecturers) and learners (Jdaitawi, et al, 2022; Jdaitawi et al., 2022; Jdaitawi et al., 2022; Jdaitawi & Kan'an, 2022), much effort is required by the academics in the higher education setting in terms of the students' characteristics, experiences, engagement, teacher-students interaction, learning content and assessment of the knowledge gained during the online learning

and learning processes (Maphalasa & Adigun, 2021; Jdaitawi et al., 2013; Al-Nabrawi, Jdaitawi, & Talafha, 2015; Jammeh & Ladage, 2022).

Prior literature from advanced countries links online learning experiences with instructional methods, greater support and interaction between students and instructors, accessibility of materials, course content and assessment criteria (Khalil et al, 2021; Aronoff, 2010). For instance, literature (Khalil et al, 2021; Aronoff, 2010) indicated that the online instructional methods are not sufficient enough as an efficient tool for learning. Additionally, (Michal et al., 2021) supported that course content and assessment criteria are from the factors affecting the success of e-learning. Literature (Rhema & Miliszewska, 2014) reported that several factors such as students attitudes, learning styles and course difficulty, design and its contents are important in students online learning and students success (Khan et al., 2021; Zhang et al., 2020; Diseth, 2013; Cimermanova, 2018; Debattista, 2018; Ashwin & McVitty, 2015; Khamparia & Pandey, 2017).

In literature very few studies are conducted on synchronized and asynchronized online learning and motivation are relative and scarce (Teodorescu, Ajivas, & Amalfi, 2021), and only a few have been conducted in eastern countries (Trout, 2020; Cahyani et al., 2020). Additionally, previous studies on attitudes towards using technology for learning remained few and inconclusive (Khan et al., 2021; Zhang et al, 2020). In the last few decades, there are some conflicting results on learning styles associated with online learning environments (Howie, 2011). The above results need attention from researchers and provide evidence to reconsider the study variables in online learning environment. Therefore, this study is aimed at examining factors associated with motivation during COVID-19. This study contributed to the literature in the motivation literature by comparing motivation and factors associated with motivation in the university online context, and aims to investigate the factors associated with students' motivation within synchronized and asynchronized online learning which has not yet been discovered.

Higher Education in Jordan in the Context of the COVID-19 Pandemic

The impact of COVID-19 had an overwhelming effect on global higher education, and Jordan was no exception and move to the online learning system. Online education benefited communication between people in the education settings regardless of the place and time of instructions and interactions (Akhdinirwanto, Ashari, Mafurkhin, & Fatmaryanti, 2022). Traditionally online learning comprised of synchronous learning environment where students are recipients of live lecturers with real-time communication and instant feedback between each other and their instructors; ,whereas asynchronous learning environments are not properly implemented, necessitating separate sourcing due to the distinct learning system and forums. Although, online teaching became a new routine, it posed serious challenges. However, some studies have examined the synchronized and asynchronized learning approaches in education context in Jordan and have found that these approaches have a number of benefits and challenges in terms of teaching methods, feedback, support social interaction and satisfaction in using technology and difficulty in communication with peers and instructors (Alsoud & Harsis, 2022; Al-Musili, Bataineh, & Al-Jamal, 2022).

Research Questions

The research questions formulated were:

- 1- What is the level of the students' motivation within both synchronized and asynchronized online learning environment during COVID-19 pandemic?

- 2- Are there any significant differences in the factors (students' attitudes, course difficulty and learning styles) between low and moderate-high levels of motivation?

Method

The study is a cross sectional study using a quantitative method with the survey as the main collection instrument to determine the respondents' characteristics, and expectations (Creswell, 2012; Jdaitawi, 2020; Jdaitawi, 2019).

Setting and Sample of the Study

The setting were universities founded in one of the large cities in Jordan, offering several education undergraduate and graduate programs. This setting has been chosen due to their familiarity with current technology and are involved in the activities of its usage. Moreover, the selection of the setting was also based on the geographical location of their university that caters to numerous students studying online courses. The population in this study consisted of 254 university respondents ranging from 18-22 years of age. The response rate was 80 percent, thus being suitable for further analysis (Bell, 2005). The respondents were randomly chosen, using stratified sampling, owing to the availability to the researchers that attended online learning sessions. The participants were from two university colleges: Social Science and Business. These were chosen because as the researchers expect that the students from those college would have similar technology skills. The data were collected in the academic year of 2022. Table 1 shows the breakdown of the participants, 100 (39.4%) were males, and 154 (60.6%) females, about 29.53% of the participants aged less than 20 years old, and 70.47% more than 20 years old.

Table 1

Students Characteristics

Variable	No.	Percentage
Gender	Male	100 39.4%
	Female	154 60.6%
Age	Less than 18 years	75 29.53%
	More than 20 Years	179 70.47%

Measurements

There were four variable scales adopted from relevant literature, namely students' attitudes (Ireson, 2016), course difficulty (Vadakalur et al., 2020), and learning styles VARK online questionnaire, learning motivation (Keller, 2009). Following a review of the initial study items, the scales were reviewed and feedback on further suggestions was provided to establish face validity. Several items were investigated using a 5-point Likert scale ranging from 1 denoting strongly disagree, to 5 denoting strongly agree. Several items were also negatively constructed, so these were replaced to be positive statements.

The first section of the instrument requested the respondents to provide demographic information including age and gender. This is followed by the scaled-response items to determine the opinions of the respondents on the factors that influence over their inclination towards learning success. Cronbach's Alpha, KMO, and Bartlett tests were applied to check the reliability and validity of the questionnaire as shown in table 2. The internal reliability was established using Cronbach's alpha which was found to be 0.77 for students' attitudes, 0.85 for course difficulty, 0.79 for learning styles, and finally, 0.75 for learning motivation. Data from the

questionnaire was encoded and entered into SPSS after which descriptive statistics was used for data analysis and provide the values of mean, standard deviation, Pearson correlation and regression analysis.

Table 2

Results of Mean and standard deviation on the motivation level

Variable	Total Items	Cronbach's Alpha	KMO	Bartlett's Test
Attitudes	11	0.77	.743	.000
Learning Style	15	0.79	.835	.000
Motivation	10	0.75	.733	.000
Course Difficulty	4	0.85	.803	.000

Data Analysis

The descriptive data analysis was performed between the study variables (learning motivation, student attitudes, course difficulty, and learning styles). To determine the participants motivation level, the mean and standard deviation were calculated as shown in table 3. Results showed that 51.9% were reported to have moderate to high level of motivation and 48.1% had low level of motivation to learning. Independent sample t-test and MANOVA were used to answer the research questions.

Table 3

Results of Mean and standard deviation on the motivation level

Variable	Level	Percentage
Motivation	Moderate-High	51.9%
	Low	48.1%

Results

The present research study conducted Levene's test, independent t-test and MANOVA on the independent samples in order to identify whether the groups are statistically significant as stated in question 2. Firstly, Levene's test was conducted between the two groups (moderate-high and low), and the results indicated that the assumption of variance equality was met, and no significant differences were noticed between the two groups on the study variables. Independent sample t-test was conducted to test the difference between the two groups (high vs low motivation) taking into consideration students' attitudes, course difficulty and learning styles. The result supported significant differences, for the high level of motivation group, and are given in in table 4 where t-test results for student attitude $t=6.714$, $p=.000<0.05$; course difficulty $t=4.302$, $p=.000<0.05$; Learning style $t=6.227$, $p=.000<0.05$.

Table 4
Results of independent sample t-test

Variable	t-value	P.
Student Attitude	6.714	.000
Course difficulty	4.302	.000
Learning Style	6.227	.000

The results in table 5 reported higher scores for the high motivation level group in the students' attitudes, course difficulty and learning styles when compared to the low motivation level group.

Table 5
Summary of the Mean and Standard Deviation Results

Variable	High Motivation	Low Motivation
Student Attitude	M=2.72 SD=.582	M=2.20 SD=.633
Course difficulty	M=2.51 SD=.961	M=1.92 SD=.499
Learning Style	M=2.31 SD=.491	M=2.03 SD=.793

The results from the investigation that compared students' attitudes, course difficulty and learning styles influence on the motivation level groups are shown in table 6. A significant difference is shown between the two gender groups ($MS=16.740$, $F=45.382$, $p=.000$; $MS=9.515$, $F=18.231$, $p=.000$) and ($MS=14.280$, $F=38.826$, $p=.000$) respectively.

Table 6
Results of MANOVA for between-subjects effect of the research variables

Source	Dependent Variable Post-test	Type III Sum of Squares	df	Mean of Square	F	P
Group	Students' attitudes	16.740	1	16.740	45.382	.000
	Course difficulty	14.280	1	14.280	38.826	.000
	Learning styles	9.515	1	9.515	18.231	.000

P=.05

Discussion

This study has investigated the influence of students' attitudes, course difficulty and learning styles on students' motivation within the hybrid learning process. The result showed significant differences in students' attitudes towards motivation based on students motivation levels. Students with positive views of online learning are more motivated in learning. Therefore, the result is in accordance with the studies results of (Lei & So, 2021; Xie, Debacker, & Ferguson, 2006) studies. Recent studies have shown that positive online attitudes positively influence students' preferences for online learning (I-Jan et al., 2013). It indicates that students with positive attitudes are highly believed to enjoy online learning more. This finding is supported by our finding in which students with positive online learning attitudes are likely to have enjoyable online learning experiences that increase their motivation.

Another interesting finding is that the result demonstrated that course difficulty affects online learning motivation. It should be noted that the majority of subjects from the colleges that participated in this study are not practical based, and that may lead to the result of significant association between course difficulty and the learning motivation of students. Therefore, this study result is in accordance with previous studies results (Andres, 2017; Bulic & Blazevic, 2020), which indicated that course difficulty influence students' performance and their motivation. Another result reported that learning styles are associated with students learning motivation.

The findings indicate that the availability of online material provides instant knowledge and interaction between students and instructors. This result is in accordance with the previous studies that showed a positive influence of learning styles on students' motivation. van Alten et al., (2020), students with high self-directed learning are predicted to achieve better learning outcomes and experiences as well. Students with good learning strategies are also likely to have a more pleasant and satisfying online learning experiences. The result of this study, in accordance with previous study conducted by Randi and Corno (2021) revealed that students' online learning experiences are influenced by students' leaning strategies. The results may also relate to the fact that different student have different abilities and prefer different learning styles. This illustrates that students with high level of motivation are aware of their appropriate learning styles in online classes when compared to students with low levels of motivation.

Implications and Conclusion

In conclusion, the findings of this research are a new contribution in displaying essential differences between successes of students in the online learning process. Although, some studies examined students learning outcomes (Arthur-Nyarko & Kariuki, 2019; Tholibon et al., 2022), but gaps still not filled about online learning motivation among students (Teodorescu, Ajivas, & Amalfi, 2021). This study revealed that students' attitudes, course difficulty and students learning styles proved to be the main significant factors influencing student motivation. The findings of this study suggested several practical implications that can be made to the education sector and other sectors which are implementing an online learning platform for their students. First, it offers a more accurate perspective on how individual, course and instructional factors influence students' motivation towards learning. This study has proven that both in class and online methods play a positive role in enhancing the learning activities and initiatives of students in learning and enhance their motivation towards learning. Hence, through proper teaching

practices, a high level of motivation can be achieved in the field of education in general and university education in particular. The results of this study also have practical implications by giving useful insights on the learning-teaching techniques used at the university level. This study has several contributions based on its literature search by examination of the success online predictors on students' success motivation which has largely remained insufficient in literature.

Limitations and recommendations

First, this study is limited to some factors included in this study, therefore, other factors not included, need to be investigated by researchers. To reach a more accurate conclusion, future studies must take into consideration other factors not included in this study. Another limitation is related to the study settings which was conducted in one city of Jordan; therefore, future studies should consider other universities to validate the findings.

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