

## Assessment of E-Learning Motivation for Maternity Nursing Student at Faculty of Nursing Ain Shams University

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### Abstract

**Background:** Motivation refers to the process of the formation of an intention toward the selection between action alternatives. **Aim:** The study aimed to assess learning motivation for Maternity Nursing Student at Faculty of Nursing Ain Shams University. **Research design:** descriptive approach was used in this study. **Setting:** The study was conducted at the Faculty of Nursing, Ain Shams University. **Sample:** A systematic random sampling of 129 students in the academic year 2021/2022 first term was included in the study **Tools:** Three tools were utilized: the first was a computer skills assessment sheet, the second was a Motivation with E-learning assessment sheet, and the third was an auditing checklist used to assess student learning achievements **Result:** around 62% of students displayed positive motivation in all items related to total motivation with e-learning. As well as 30.2% of the study sample achieved very good learning outcomes, but 8.5% of them had poor learning achievement. **Conclusion:** More than half of students displayed positive motivation in all items related to total motivation with e-learning. A strong positive correlation is evident between the total learning achievement and their total motivation with E-learning among studied sample. **Recommendation:** Launching an awareness program for students to develop their motivation with e-learning. This initiative is designed to enhance students' learning achievements and boost their self-confidence with e-learning. **Further studies** are needed to identify and investigate the barriers faced by both students and teachers in e-learning.

**Key words:** E-Learning, Motivation, Nursing students.

### Introduction:

E-learning is one of the evolving patterns of distance learning in general, and computer-based education in particular. E-learning mainly relies on computers and networks for transferring knowledge and skills. Its applications include online learning, computer learning, virtual classrooms, and digital collaboration. Online tutorial content, audio tapes, videos, and discs are offered (Al-Atabi, & Al-Noor, 2020).

The importance of e-learning: Students need to be engaged with what they are doing to improve their learning. They need not rely solely on teachers; they can be independent. Learning can happen anywhere, anytime, and in any way. E-learning inspires students to seek more from school, reduces learning time by providing training in small, digestible chunks accessible at the learner's fingertips. Additionally, it ensures consistent delivery across all locations and times; ultimately reducing overall costs (Chitra and Raj, 2018).

Motivation is a complex aspect of human psychology and behavior that influences various aspects of individuals' engagement. It affects how people choose to invest their time, the level of energy they exert in tasks, their thoughts and emotions about the tasks, and their perseverance in completing them. Additionally, motivation is evident in students' choices of learning tasks, the amount of time and effort they dedicate to them, their persistence in tackling learning tasks, and their ability to overcome obstacles in the learning process. Ultimately, motivation is the key to success in the teaching-learning process (Gibbens, 2019).

Due to the unprecedented situation generated by the Coronavirus pandemic, the impact of the pandemic on education, universities, teachers, and students became a subject of great interest for researchers. Investigating students' perception about online learning during the Coronavirus showed that students had a positive attitude towards E-learning, considering it helpful and useful in the

time of the crisis created by the pandemic (Suresh et al., 2018).

Online teachers have various roles in managing social interaction, instructional design, guiding technology use, assessing learning, and providing support. They need to guide students through one or more online learning experiences, considering that different online learners have different preferences in learning styles and modes. Online teachers should adapt their teaching methods accordingly to provide personalized education. This approach allows teachers to devote more time to guiding students and less time to lesson preparation. The teacher ensures that learners' focus is directed towards key concepts and ideas (Badia, Garcia, & Meneses, 2017).

E-learning motivation usually affects student learning achievement, students are born with the natural ability to learn, much is dependent on the teachers' involvement. Sometimes, students' energy, drive, and enthusiasm for a subject or task may wane and therefore require continued reinforcement through external support. Teachers, who are responsible for creating a supportive environment that facilitates and increases students' learning, often provide this external support. The teachers' role in facilitating students' motivation is perceived through their support for developing students' autonomy, relevance, relatedness, competence, teachers' interests, and teachers' self-efficacy about teaching their subject (Johnson, 2017).

#### **Justification of the problem:**

Learning is the process of acquiring knowledge or skills through study, experience, or being taught. Any unexpected event that occurs worldwide always leaves its impact on education. The COVID-19 pandemic is one such event that has significantly affected education. The outbreak of this dangerous virus across the globe has led to the closure of educational institutions to control its spread. This situation has prompted teaching professionals to consider alternative teaching methods during this lockdown period (Radha et al., 2020).

Although As a lot of students in Egypt rely mainly on online learning since the outbreak of the pandemic, Internet access has reached 57.3%. Moreover, at the end of July–September 2020, the usage of Mobile devices has reached 94.09% and increased to 95.37% by November 2020. This dependency on Internet networks and digital systems urges the Egyptian government to make crucial decisions regarding the improvement of the ICT infrastructure. Due to the rapid change in technological progress and the globalization trend in higher education and the elimination of boundaries among students, new methods and perspectives have opened to educational practice such as E-learning (El-Sayad, Saad, & Thurasamy, 2021).

Motivation is important in getting students to engage in learning activities. It is also important in determining how much learners will learn from the activities they perform or the information to which they will be exposed to. Learners who are motivated to learn something use higher cognitive processes in learning about it. Motivation to do something can come about in many ways. It can be a personality characteristic or a stable long-lasting interest in doing something. It is pertinent to note that achieving a high level of motivation in the lecture leads to higher levels of understanding, creativity, productivity, and achievement. Together these positive outcomes make motivation one of the most important elements of the learning process (Gibbens, 2019).

#### **Aim of the Study:**

This study aimed to assess E-learning motivation for Maternity Nursing Student at Faculty of Nursing Ain Shams University.

#### **Research question:**

- What is the level of learning motivation among maternity nursing students?
- Is there a relation between learning motivation and students learning achievement?

#### **Methods**

##### **➤ Research Design:**

In this study, descriptive approach was used.

#### ➤ **Setting:**

The study was conducted at the Faculty of Nursing, Ain Shams University, located in Cairo, Egypt. The Faculty of Nursing was established in the early '80s and received accreditation in 2013. It offers various degrees, including Bachelor of Science (BSc), Master's, diploma, and Ph.D. degrees in nursing.

#### ➤ **Subjects:**

##### **Sample Type:**

A systematic random sampling technique was employed to assign third-year registered students: consisted of students listed in the first term.

##### **Sample Size:**

In the academic year 2021/2022, all student nurses undergoing the maternity and gynecological course in the first term were enrolled in the study (129 students).

##### **Total for data collection:**

• The following tools were used for Data collection:

##### **The tool I: computer skills assessment sheet:**

This tool was adopted from Ail (2017) as it was deemed suitable for the aim of the current study. However, the researcher made certain modifications to enhance clarity, such as changing the tool's design and removing certain items like academic semester, gender, and previous experience with e-courses. The tool consisted of two parts, each containing multiple-choice and closed-ended questions. The following sections outline the details of the tool.

**Part I: assess students' General characteristics of the studied maternity nursing students as:** student Name, age, academic semester, and academic year (Q1 - Q5).

##### **Part II: Question 6 -11 to assess:**

- Computer skill.
- Previous experience with e- learning.

##### **Tool II: Motivation with E-learning assessment sheet:**

This tool was adopted from **Fowler, (2018)** as it matched the aim of the study, and the researcher made modifications to align it with the present study objectives. The modifications included changes in design, removal of certain items (such as task value), and adjustments to statements for clarity, such as "I'm confident I can understand the most complex material."

The tool consists of 32 questions divided into six subscales, each designed to assess a different facet of motivation in E-learning. Each question in the section includes an item statement that corresponds to the following subscales:

1. Intrinsic Goal Orientation (Q1-Q4)
2. Extrinsic Goal Orientation (Q5-Q8)
3. Control of Learning Beliefs (Q9- Q12)
4. Self-efficacy (Q13-Q20)
5. Social Engagement (Q 21-Q25)
6. Instructor Support (Q26-Q32)

##### **Scoring system for: Motivation with E-learning assessment sheet:**

This tool consists of a total of 32 questions. The scoring for each question ranges from 0 to 2:

2	1	0
Always	Sometimes	Never

**Total scores** were calculated as the following: A score from (0-32) indicates a negative response and scores (33-64) indicates a positive response.

##### **III Tool: Auditing checklist:**

The checklist used to assess student learning achievement was adopted from **Ail (2017)** and modified by the researcher. The checklist includes different levels based on the

scoring system of the faculty curriculum, which are as follows:

Equivalent degree	Percentage	Scores
Excellent	85- 100%	5
Very good	75 – <85%	4
Good	65 – <75%	3
Pass	60– < 65%	2
Fail	< 60 %	1

#### **Validity and reliability of the tools:**

##### **For first Tool validity**

Content validity is defined as the degree to which an instrument measures what it is intended to measure. The identification of the content must be accurately addressed by the test items. A jury committee of experts, consisting of three professors specialized in maternity and neonatal nursing at Ain Shams University, typically evaluated the content. No modification was required for the tool itself, but recommendations regarding the supportive materials were taken into consideration.

##### **Reliability test:**

The internal consistency and reliability of the independent variable were tested using the Cronbach alpha coefficient. The internal consistency, assessed using Cronbach alpha, yielded a value of 0.83 for the computer skill assessment.

##### **For the second tool:**

Comprehensive analyses were conducted to establish the reliability and validity of the instrument, and both have been confirmed by other researchers who have adapted the questionnaire for their own purposes. In the MSLQ (Motivated Strategies for Learning Questionnaire), the internal consistency of items within the scales was determined by calculating coefficient alphas for each scale. The number of questions that make up the six relevant MSLQ subscales ranges from four to eight, and the internal consistency values range from 0.62 to 0.93, indicating homogeneity within the scales.

#### **Ethical consideration:**

The research approval was obtained from the Scientific Research Ethical Committee was approved Ethical code : 24.05.315 in the Faculty of Nursing at Ain Shams University before starting the study. The aim of the study was explained to each student before applying the tools to gain their confidence and trust. consent was obtained from each student before participating in the study. The data was kept confidential, and a coding system will be used for it. The study does not cause any harmful effects on participating students. Each student has the right to withdraw from the study at any time.

#### **Procedures**

##### **Operational design:**

The study was passed through the following phases: The preparatory phase, the pilot study, and the fieldwork phase.

##### **➤ Preparatory phase:**

Reviewing of the current local and international related literature using books, articles, and scientific magazines was done by the researcher to design the study tools.

##### **➤ Pilot study:**

A pilot study was conducted on a sample of 10% of the total students enrolled in the study. These students were excluded from the main study sample. The purpose of the pilot study was to evaluate the simplicity and clarity of the tools used in the study. Additionally, it helped estimate the time required to complete the questionnaire and test the study process. Based on the results of the pilot study, modifications have been made to the study to improve its design and implementation.

##### **➤ Fieldwork:**

- Data were collected at the beginning of the first semester from the students in the academic year 2021/2022. Initially, the researcher obtained approval after explaining the aim of the study to the participants.

- Then The students were assured that their information would be kept confidential

and used solely for research purposes, with no connection to their course grades. The researcher also provided instructions on how to complete the assessment tools to the students.

- All students, underwent assessments for personal data, computer skills, and experience with technological methods using the computer skill assessment sheet.

- Subsequently, the researcher evaluated students' knowledge using the motivation with e-learning assessment sheet. The completion of these assessments took approximately 20 minutes.

- Motivation for e-leaning was evaluated for studied sample using the second tool of data collection, namely the "Motivation with E-learning Assessment sheet.

- Students learning achievement was evaluated using the third tool of data collection, this evaluation took place after collecting the students' grades from the midterm nursing exam.

### Results:

**Table (1)** reveals that the majority of the students in the study sample were between 21-

23 years old, with a mean of  $20.4 \pm 1.23$ . Additionally, majority of the students in the study sample held a secondary education degree.

**Table (2)** reveals that 63.1 % of the participants at study sample had previous computer skills. Almost all participants in the study sample had an E-mail address. Regarding having a personal computer at home, 60.5% of the study sample owned a personal computer. Additionally, 84.5% of the study sample had an internet connection at home.

**Figure (1)** reveals that 62% of study sample had positive motivation.

**Figure (2)** presents the distribution of learning achievements in the study sample. It shows that, 30.2% of the study sample achieved very good learning outcomes, but 8.5% of them had poor learning achievement.

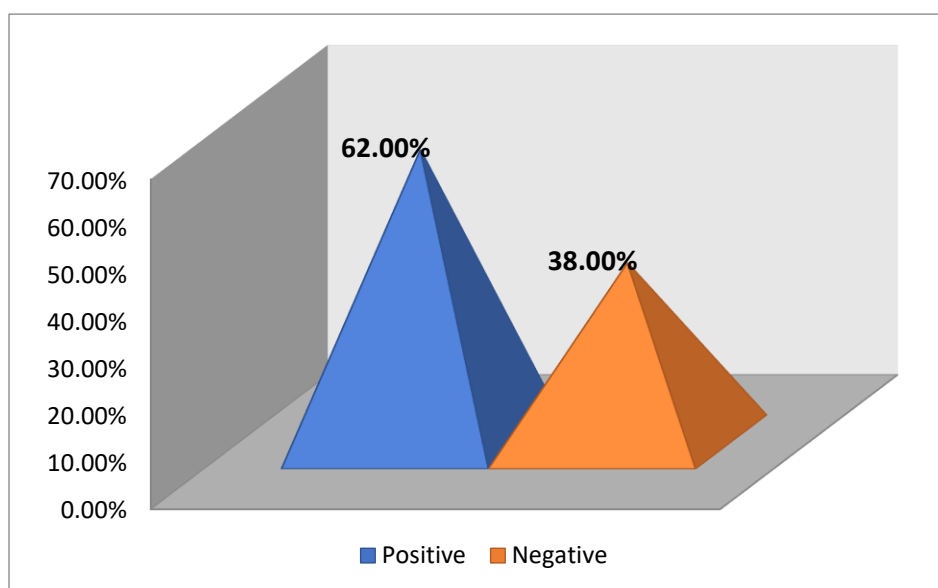
**Table (3)** presents the correlation between students' motivation with E-learning and their learning achievement in the study sample. It shows a high statistically significant positive correlation between the study sample total learning achievement and their total motivation with E-learning. ( $r = 0.693$ ) p-value of 0.001.

**Table (1):** Number and percentage distribution for the study sample according to General characteristics

Items	Study sample N=129	
	N	%
Age		
< 21-23	125	96.8
<24-26	2	1.6
<27-29	2	1.6
<b>Mean SD</b>	20.4±1.23	
Technical nursing institute	12	9.3
General secondary degree	117	90.7

**Table (2):** Distribution for the Study sample answers regarding their experience in computer skills and technological methods used in learning.

Question	Study sample N=129	
	N	%
<b>have previous experience in computer skills</b>		
Yes	84	63.1
No	45	34.9
<b>have E-mail address</b>		
Yes	127	98.4
No	2	1.6
<b>have previous difficulties to access online learning</b>		
Yes	53	41.1
No	76	58.9
<b>If yes select example of this difficulties?</b>		
Technical issues	18	34.0
Distractions and time management	5	9.4
Lack of in-person interaction	5	9.4
All the above	25	47.2
<b>have a personal computer at home</b>		
Yes	78	60.5
No	51	39.5
<b>have an internet connection at home</b>		
Yes	109	84.5
No	20	15.5

**Figure (1):** Representation of the study sample regarding to their total motivation with E-learning.

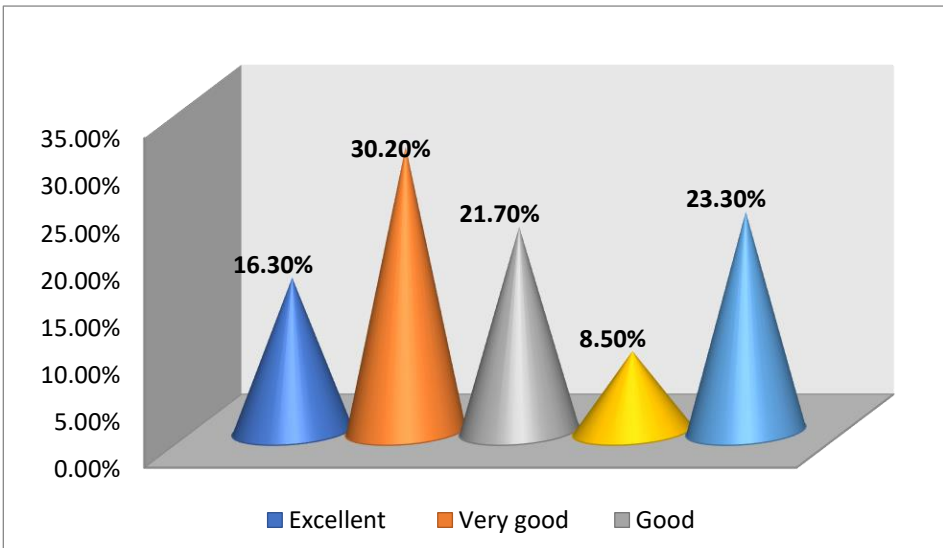


Figure (2): Representation of the study sample regarding to their learning achievement.

Table (3): Correlation between students' motivation with E-learning and their learning achievement in the study sample (n=129)

	Total Learning achievement
Total Motivational E-learning	R .693 P .001**

(\*\*) Statistically significant at  $p<0.01$ .  $r$  Pearson correlation may be attributed to differences in the academic year of the study samples.

Discussion:

In terms of the general characteristics of the studied nursing students, the current study revealed that the majority of students in the study sample within the age range of 21-23 years old, with a mean age  $20.4\pm1.23$ . Additionally, most students in study sample held a secondary education degree. This finding same line with a study conducted by **Elfaki et al., (2019)**, which reported that the largest proportion of the studied students were aged 21-24 years old.

Similarly, a study by **Oducado & Soriano (2021)** stated that the mean age of nursing students was 20.17 years. Additionally, in line with these results, a study carried out by **Diab & Elgahsh (2020)** demonstrated that the majority of studied nursing students had a general secondary degree of education. However, in contrast, a study performed by **Koirala et al., (2020)**, reported that nursing students' mean age  $\pm$  SD in years was  $22.3 \pm 2.9$ . This contradiction between the two studies

Concerning nursing students' experience in computer skills and technological methods used in learning, the present study revealed that more than three-fifths in the study sample had prior computer skills. Additionally, almost all participants in study sample reported having an email address. This finding may be attributed to the impact of the coronavirus pandemic, which prompted changes in the teaching-learning process in higher education institutions. The necessity for an official email address arose due to the adoption of online learning by many universities worldwide to prevent the spread of the virus and ensure the continuity of the educational process.

The findings of the present study same line with those of **Bdair (2021)**, who reported that the largest proportion of his studied students possessed previous experience with computer skills. Similarly, a study conducted by **Kim et al., (2022)** indicated that the majority of their participants had the ability to use computers and maintained an email address.

Furthermore, the results of the current study revealed that the majority of the study sample owned a personal computer, and a significant number of participants in study sample had an internet connection at home. These findings are consistent with a study conducted by **Agung et al., (2020)**, which reported that most participants had internet access at home. In contrast, **Oducado & Estoque (2021)** found that smart or mobile phones and laptops were commonly used for internet connectivity in online learning, rather than traditional computers, among the largest proportion of the studied students. This discrepancy may be attributed to differences in the countries represented by the two study samples.

Concerning total motivation with E-learning, the present study revealed that more than half of the students in the study sample displayed positive motivation in all items related to total motivation with E-learning. In the researcher's opinion, this improvement in motivation can be attributed to various learning strategies employed, such as critical thinking, task value, and peer learning, as mentioned in the literature review (**Elshareif & Mohamed, 2021**).

This result is supported by **Park & Yun, (2018)**, whose study stated that more than half of the students in the study sample exhibited positive motivation. Similarly, a study carried out by **Kew et al., (2018)** reported that most of the students in the study sample had an upper-medium level of motivation in e-learning. These consistent findings across different studies suggest the positive impact of motivational strategies on enhancing students' motivation in various learning environments.

Concerning Maternity Nursing Students' Learning Achievement, the current study revealed that less than one-fifth and less than one-third achieved excellent and very good scores. while nearly one-quarter of the study sample obtained a failing score. The observed disparities may be attributed to the effectiveness of the motivational strategies likely contributed to the improved learning achievement observed in the study group.

Similarly, **Fernandez et al., (2022)** conducted a study emphasizing the positive effects of the e-learning environment, digital readiness, and academic engagement. Their results underscored the role of academic engagement in e-learning, positively influencing students' learning achievement. Institutions that adapt to a changing environment by aligning students' and instructors' goals to develop a positive and supportive e-learning environment are likely to promote students' learning achievement.

According to the correlation between students' motivation with E-learning and their learning achievement in the study sample, the present study illustrated a highly statistically significant positive correlation between the study sample total learning achievement and their total motivation with E-learning. This result is consistent with a study by **Alkış & Temizel, (2018)**, which reported a significant correlation between students' motivation with E-learning and their academic achievement. Additionally, a study by **Fernandez et al., (2022)**, found that students' motivation positively affected their academic achievement in online learning environments.

In the same line, this result is in agreement with a study carried out by **Hoerunnisa et al., (2019)**, which reported that motivation, one of the components of self-regulation, has a significant effect on students' learning experiences, such as achievement, satisfaction, and passing or failing the course.

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### Conclusion:

**In the light of the previous study, it was concluded that:**

- More than half of students displayed positive motivation in all items related to total motivation with e-learning.
- A strong positive correlation is evident between the total learning achievement and their total motivation with E-learning among studied sample.

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### Recommendations:

In the light of findings of this study, the following recommendations are suggested:

1. Implementing an educational program for first-year students involved in the faculty policies to enhance their online skills as online presentation and case study which includes workshops and booklets on computer skills, direct and indirect communication, as well as strategies for effectively engaging with online lectures.

2. Launching an awareness program for students to develop their motivation with e learning. This initiative is designed to enhance students' learning achievements and boost their self-confidence with e learning.

3. **Further studies** are needed to identify and investigate the barriers faced by both students and teachers in e-learning.

## References

- Agung, A. S. N., Surtikanti, M. W., & Quinones, C. A. (2020).** Students' perception of online learning during COVID-19 pandemic: A case study on the English students of STKIP Pamane Talino. *SOSHUM: Jurnal Sosial Dan Humaniora*, 10(2), 225-235.
- Ail, S. (2017).** The Effect of using An Electronic course on satisfaction and academia achievement of the undergraduate nursing student (doctorate thesis) pp. 134, 140, 52,53.
- Al-Atabi A.J., & Al-Noor, B.S.M. (2020).** E-Learning In Teaching, Research Gate, 1-22. Retrieved from <https://www.researchgate.net/publication/341684491>
- Alkış, N., & Temizel, T. T. (2018).** The impact of motivation and personality on academic performance in online and blended learning environments. *Journal of Educational Technology & Society*, 21(3), 35–47.
- Badia, A., Garcia, C. & Meneses, J. (2017).** Approaches to teaching online: Exploring factors influencing teachers in a fully online university. *British Journal of Educational Technology*, vol (6): 1193-1207.
- Bdair, I.A. (2021).** Nursing students' and faculty members' perspectives about online learning during COVID-19 pandemic: A qualitative study. *Teaching and Learning in Nursing*, 16(3), 220-226.
- Chitra, S.P. & Raj, M.A. (2018):** E-Learning. *Journal of Applied and Advanced Research*, 3(1): 11–13.
- Diab, G.M.A.E.H., & Elgahsh, N.F. (2020).** E-learning during COVID-19 pandemic: Obstacles faced nursing students and its effect on their attitudes while applying it. *American Journal of Nursing*, 9(4), 300-314.
- Elfaki, N.K., Abdulraheem, I., & Abdulrahim, R. (2019).** Impact of e-learning vs traditional learning on student's performance and attitude. *International Medical Journal*, 24(03), 225-33.
- El-Sayad, G., Md Saad, N.H., & Thurasamy, R. (2021).** How higher education students in Egypt perceived online learning engagement and satisfaction during the COVID-19 pandemic: *J. Comput. Educ.* 8(4): 527-550.
- Elshareif, E., & Mohamed, E. A. (2021).** The Effects of E-Learning on Students' Motivation to Learn in Higher Education. *Online Learning*, 25(3), 128-143.
- Fernandez, A.I., Al Radaideh, A., Singh Sisodia, G., Mathew, A., & Jimber del Río, J.A. (2022).** Managing university e-learning environments and academic achievement in the United Arab Emirates: An instructor and student perspective. *PloS one*, 17(5), e0268338.
- Fowler, S. (2018).** The motivation to learn online questionnaire (doctorate thesis), 35 & 67-69.
- Gibbens, B., (2019).** Measuring student motivation in an introductory biology class. *The American Biology Teacher*, 1: 20– 26.
- Hoerunnisa, A., Suryani, N., & Efendi, A. (2019).** The effectiveness of the use of e-learning in multimedia classes to improve vocational students' learning achievement and motivation. *Journal Teknologi Pendidikan*, 7(2), 123-137.
- Johnson, D. (2017).** The Role of Teachers in Motivating Students To Learn. *BU Journal*

of Graduate Studies in Education, 9( 1), 46-49.

**Kew, S.N., Petsangsri, S., Ratanaolarn, T., & Tasir, Z. (2018).** Examining the motivation level of students in e-learning in higher education institution in Thailand: A case study. *Education and Information Technologies*, 23, 2947-2967.

**Koirala, D., Silwal, M., Gurung, S., Bhattarai, M., & KC, V.K. (2020).** Perception towards online classes during COVID-19 among nursing students of a medical college of Kaski District, Nepal. *Journal of Biomedical Research & Environmental Sciences*, 1(6), 249-255.

**Oducado, R.M., & Estoque, H. (2021).** Online learning in nursing education during the COVID-19 pandemic: Stress, satisfaction, and academic performance. *Journal of Nursing Practice*, 4(2), 143-153.

**Oducado, R.M.F., & Soriano, G.P. (2021).** Shifting the education paradigm amid the COVID 19 pandemic: Nursing students' attitude to E learning. *Africa Journal of Nursing and Midwifery*, 23(1), 1-14.

**Park, S., & Yun, H. (2018).** The influence of motivational regulation strategies on online students' behavioral, emotional, and cognitive engagement. *American Journal of Distance Education*, 32(1), 43-56.

**Radha, R., Mahalakshmi, K., Kumar, V.S., & Saravanakumar, A.R. (2020).** E-Learning during lockdown of Covid-19 pandemic: A global perspective. *International journal of control and automation*, 13(4), 1088-1099.

**Suresh, M., Vishnu Priya, V., & Gayathri, R. (2018).** Effect of e-learning on academic performance of undergraduate students. *Drug Invent*, 10(9), 1797–1800.