Use of E-learning & Face to Face learning strategies for Nursing students in relation to Their some personal variables

Section A -Research paper

Use of E-learning & Face to Face learning strategies for Nursing students in relation to Their some personal variables

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Abstract:

For effective teaching learning process and to cover the divergent need and aspiration of the Nursing students a number of strategies are adopted by the teachers. Among them E-learning and Face to Face learning are the two strategies which are very relevant in the present changing situation. Hence it is a very burning current research area.

This study aims to investigate use of E-learning and Face to Face learning strategies for Nursing students in relation to their parental educational variation, occupation and income .

Convenient sampling method was used to select 300 nursing students studying in different nursing colleges of Kolkata. A 5 point likert scale questionnaire was used.

Result shows that obtained "t" value 0.92 < the tabular value at 0.05 levels so there exist no significant difference between the use of E-learning of nursing students in relation to parental educationvariation whereas there exist significant difference between the face-to-face learning of nursing students in relation to parental educationvariation as the obtained "t" value 2.92 > the tabular value at 0.05 levels so .

There exist significant difference betweenthe use of E-learning and face to face learning of nursing students in relation to parental occupationvariation as the obtained "t" value 3.00 & 2.99 respectively > the tabular value at 0.05 level .

There exist significant difference betweenthe use of E-learningand face to face learning of nursing students in relation to parental incomevariationas the obtained "t" value 3.82 & 3.18 respectively > the tabular value at 0.05 level .

Use of E-learning & Face to Face learning strategies for Nursing students in relation to Their some personal variables

Section A -Research paper

It is concluded that parental education have no relation with E-learning of nursing students but parental occupation and income have significance relation with E-learning and Face to Face learning strategies for Nursing students.

Keywords: E-learning, face-to-face learning, nursing, students, personal variables

1.0   INTRODUCTION

All of us have experienced traditional learning or face to face learning since the beginning of our education. Since ancient days this Face to Face learning is conducted by teachers gathering students in places such as classes, labs or seminars to study and learn about different subjects. This traditional method of learning has been practiced around the world in all levels of learning. In this type of Face to Face learning environment, teachers uses different teaching styles and techniques but the most conventional teaching style is teaching by speaking. With the evolution in information technology and Internet there is fast change in the way people started accessing the information.

 E-learning is defined as learning that makes use of Information and Communication Technologies (ICTs). The incorporation of technological resources and innovative education strategies has transformed the teaching and learning processes. Various studies have shown various e-learning and online learning tools that are effective for teaching and learning in the fields of health profession. The knowledge gain and performance of the students as a result of E-learning were shown to be equivalent to that of face to face methods.

Mpungose B.C.[1]Demarcated physical classrooms are not accessible in the case of challenges ranging from student protests to pandemic outbreaks. Face-to-face learning provides real-time contact with resources and others, takes place within a specified contact time, and provides prompt feedback to students (Waghid [2], 2018). That said, e-learning is education that takes place over the Internet is alternatively called online learning, and it is an umbrella term for any learning that takes place across distance and not in a face-to-face platform (Anderson[3], 2016; Mpungose[1], 2020a). Furthermore, Choudhury and Pattnaik[4] (2020) affirm that, e-learning definition evolves with the evolution of Web from Web 0 to 4.0. Khoza[5] (2019b) state that e-learning is capable of making course content available online, because of the widespread use of modern technologies such as hardware resources (computers, laptops, mobile phones and others), and software resources

4384

Eur. Chem. Bull. 2023, 12(Special Issue 4), 4383-4394

Use of E-learning & Face to Face learning strategies for Nursing students in relation to Their some personal variables

Section A -Research paper

(learning management system, software applications, social media sites and others). This suggests that students have freedom to access course information/content anytime and anywhere, irrespective of challenges such as the pandemic outbreak—provided they have access to hardware and software resources.

So, with the advent of the Internet and related tools for digital communication and global connectivity has changed the way information is stored, communicated, and shared, removing the barriers of time and location. This new development has created a new urge for the fraternity of academician to reconsider how courses could be taught, considering approaches that lessen barriers of time and energy and increase access for many potential students. E- learning allows a greater flexibility and convenience in timing and location for both the instructor and student. However, convenience and accessibility are only valuable if courses effectively facilitate student learning.

For effective teaching learning process and to cover the divergent need and aspiration of the Nursing students and to fulfil the demands of the changing situations; there are number of strategies which are used by the teachers due to teaching learning process of Nursing students. Among them E-learning and Face to Face learning are the two strategies which are very relevant for the Nursing students to fulfil their divergent need and aspiration during teaching learning process and also to fulfil their psychological and demand of the present changing situation. Hence it is a very burning current research areas.

1.1   SIGNIFICANCE OF THE STUDY

In the present day when digital world have become so popular and advance, information's are shared from one part of the world to another part within seconds, e-learning is a valuable stepping stone to be up-to-date on nursing technology. Still adopting E-learning approach to teaching and learning in nursing program, is of slight concern and has been given to the pre-requisite personal and technical qualities required for academic achievement and satisfaction.

On the other hand Face to Face learning is the most traditional type of learning instruction where the learners are benefitted to a greater extent from the interaction with their fellow students as well. Face-to-face learning ensures a better understanding and recollection of lesson content and gives class members a chance to bond with one another. And from the review of related literature it is observed

4385

Eur. Chem. Bull. 2023, 12(Special Issue 4), 4383-4394

Use of E-learning & Face to Face learning strategies for Nursing students in relation to Their some personal variables

Section A -Research paper

that in this region specially in our state of West Bengal not a single study conducted on the use of E-learning and Face to Face learning strategies for Nursing students in this pandemic situation as well as before that also. Thus the present study is unique and sincere steps for the investigator.

1.2   STATEMENT OF THE PROBLEM

In the context of present situation both E-learning & Face to Face learning played very important role considering the personal variable of the nursing student of Kolkata in the present context of parental educational qualification (literate/illiterate), employment of parents (service/nonservice) and income of family (below poverty line/above poverty line), hence the investigator stated her problem for study as mentioned below.

" Use of E-learning & Face to Face learning strategies for Nursing students in relation to their some personal variables"

1.3 OBJECTIVES OF THE STUDY

1.   To find out use of E-learning and Face to Face learning strategies for Nursing students in relation to their parental educational.

2.   To find out use of E-learning and Face to Face learning strategies for Nursing students in relation to their parental occupation.

3.   To find out use of E-learning and Face to Face learning strategies for Nursing students in relation to their parental income.

1.4   HYPOTHESIS OF THE STUDY

Ho_1 The scores of the E-learning and Face to Face strategy for Nursing students are not normally distributed in total and due to their intra variations/ intra variables wise.

Ho_2 There does not exist any significant difference of the mean scores of E-learning strategy of Nursing students due to their parental educational variations.

Ho_3 There does not exist any significant difference of the mean scores of E-learning strategy of Nursing students due to their parental occupation variations.

Ho_4 There does not exist any significant difference of the mean scores of E-learning strategy of Nursing students due to their parental income variations.

4386

Eur. Chem. Bull. 2023, 12(Special Issue 4), 4383-4394

Use of E-learning & Face to Face learning strategies for Nursing students in relation to Their some personal variables

Section A -Research paper

Ho₅There does not exist any significant difference of the mean scores of Face to Facelearning strategy of Nursing students due to their parental educational variations.

Ho₆There does not exist any significant difference of the mean scores of Face to Face learning strategy of Nursing students due to their parental occupation variations.

Ho₇There does not exist any significant difference of the mean scores of Face to Face learning strategy of Nursing students due to their parental incomevariations.

Operational Definition

Personal variables- It implies to Nursing students parental educational variation, occupational variation and income variation.

2.0   METHODOLOGY OF THE STUDY

2.1   THE DESIGN OF THE STUDY

The present research work is a mixed type of research work, where, Normativeand   correlational, survey type research design was used and it is a non experimental survey design adopted to accomplish the objectives of the study.

2.2THE POPULATION AND SAMPLE OF THE STUDY

The study Population comprises ofB.Sc. Nursing students, 300 students were taken by Non-probability convenience sampling technique from selected Nursing Institutes of Kolkata

2.3 THE TOOLS USED

Two self made questioner's (five points liker scale) were prepared and used after validation by experts and reliability test .

3.0 THE RESULTS AND DISCUSSION

This is done in accordance with the objectives and hypotheses formulated**.**

4.1 *Parental Education differences on E-Learning score of nursing students*

One of the objectives of the study was to be found out if there exist any parental education differences on use of E-learning of nursing students, therefore the null hypothesis was stated as "there is no significant difference in the use of E-learning of nursing students in relation to parental educationvariation".

In order to find out differences if any of the scores on use of E-Learning of above graduate and

4387

Eur. Chem. Bull. 2023, 12(Special Issue 4), 4383-4394

Use of E-learning & Face to Face learning strategies for Nursing students in relation to Their some personal variables

Section A -Research paper

below graduate parents, the test of significance of difference between the means of two sub samples was calculated and tested for significance. The result has been presented in the following table:

Table 1: Summary of test of significance of differences between parental education variation of nursing students on the use of E-Learning

n=300

Parental Education variation	n	Mean	S.D	SE$_D$	't'	Remarks
Above Graduate	103	98.67	6.92	0.53	0.92	Not-Significant
Below Graduate	197	99.16	5.7			

Critical value of 't' with df (98) at 0.01=2.63 and 0.05=1.98

The obtained value 0.92 is < tabular value at 0.05 levels 1.98 and at 0.01 level2.63 so it is non-significant and the null hypothesis that states there exist no significant difference between the use of E-learning of nursing students in relation to parental educationvariation will be accepted.

4.2. Parental Occupation differences on E-Learning score of nursing students

One of the objectives of the study was to be found out if there exist any parental occupation differences on the use of E-learning of nursing students, therefore the null hypothesis was stated as "there is no significant difference in the theuse of E-learning of nursing students in relation to parental occupationvariation ".

Table2: Summary of test of significance of differences between parental occupation variation of nursing students on the use of E-Learning.

n=300

Parental Occupation variation	n	Mean	S. D	SE$_D$	't'	Remarks
Service	96	100.53	6.25	0.54	3.00	Significant
Non-Service	204	102.15	6.84			

4388

Eur. Chem. Bull. 2023, 12(Special Issue 4), 4383-4394

Use of E-learning & Face to Face learning strategies for Nursing students in relation to Their some personal variables

Section A -Research paper

Critical value of 't' with df (98) at 0.01=2.63 and 0.05=1.98

The obtained value 3.00> tabular value at 0.01 level which is 2.63 and at 0.05 level which is 1.98 so it is significant thus the null hypothesis was stated as there exist no significant difference betweenthe use of E-learning of nursing students in relation to parental occupationvariation will be rejected.

4.3. Parental Income differences on E-Learning score of nursing students

One of the objectives of the study was to be found out if there exist any parental income differences on the use of E-learning of nursing students, therefore the null hypothesis was stated as "there is no significant difference in the theuse of E-learning of nursing students in relation to parental incomevariation ".

Table3 : Summary of test of significance of differences between parental income variation of nursing students on the use of E-Learning

n=300

Parental Income variation	n	Mean	S. D	SE_D	't'	Remarks
Above Poverty Line	203	100.19	6.95	0.54	3. 82	Significant
Below Poverty Line	97	96.37	6.67			

Critical value of 't' with df (98) at 0.01=2.63 and 0.05=1.98

The obtained value 3.82> tabular value at 0.01 level which is 2.63 and at 0.05 level which is 1.98 so it is significant thus the null hypothesis was stated as there exist no significant difference betweenthe use of E-learning of nursing students in relation to parental incomevariation will be rejected.

4.4. Parental Education differences on Face-to-Face Learning score of nursing students

One of the objectives of the study was to be found out if there exist any parental education differences on theface-to-face learning of nursing students, therefore the null hypothesis was stated as "there is no significant difference in theface-to-face learning of nursing students in relation to parental educationvariation".

Use of E-learning & Face to Face learning strategies for Nursing students in relation to Their some personal variables

Section A -Research paper

In order to find out differences if any of the scores on face-to-face learning of above graduate and below graduate parents, the test of significance of difference between the means of two sub samples was calculated and tested for significance. The result has been presented in the following table:

Table4: Summary of test of significance of differences between parental education variations of nursing students on the Face-to-Face Learning

n=300

Parental Education variation	n	Mean	S.D	SE$_D$	't'	Remarks
Above Graduate	103	96.56	5.81	1.42	2.92	Significant
Below Graduate	197	97.08	4.65			

Critical value of 't' with df (98) at 0.01=2.63 and 0.05=1.98

The obtained value 2.92> tabular value at 0.05 levels 1.98 and at 0.01 level2.63 so it is significant and the null hypothesis that states there exist no significant difference between the face-to-face learning of nursing students in relation to parental educationvariation will be rejected.

4.5. Parental Occupation differences on Face-to-Face Learning score of nursing students

One of the objectives of the study was to be found out if there exist any parental occupation differences on the face-to-face learning of nursing students, therefore the null hypothesis was stated as "there is no significant difference in the face-to-face learning of nursing students in relation to parental occupationvariation ".

4390

Use of E-learning & Face to Face learning strategies for Nursing students in relation to Their some personal variables

Section A -Research paper

Table 5: Summary of test of significance of differences between parental occupation variation of nursing students on Face-to-Face Learning

n=300

Occupation	n	Mean	S. D	SE$_D$	't'	Remarks
Service	96	96.42	6.34	1.34	2.99	Significant
Non-Service	204	98.10	7.12			

Critical value of 't' with df (98) at 0.01=2.63 and 0.05=1.98

The obtained value 2.99> tabular value at 0.05 levels 1.98 and at 0.01 level2.63 so it is significant and the null hypothesis that states there exist no significant difference between the face-to-face learning of nursing students in relation to parental occupationvariation will be rejected.

4.6. Parental Income differences on Face-to-Face Learning score of nursing students

One of the objectives of the study was to be found out if there exist any parental income differences on the face-to-face learning of nursing students, therefore the null hypothesis was stated as "there is no significant difference in the face-to-face learning of nursing students in relation to parental incomevariation ".

Table 6 : Summary of test of significance of differences between parental income variation of nursing students on Face-to-Face Learning

n=300

Income	n	Mean	S. D	S E$_D$	't'	Remarks
Above Poverty Line	203	98.18	7.15	1.35	3. 18	Significant
Below Poverty Line	97	94.26	6.18			

4391

Eur. Chem. Bull. 2023, 12(Special Issue 4), 4383-4394

Use of E-learning & Face to Face learning strategies for Nursing students in relation to Their some personal variables

Section A -Research paper

Critical value of 't' with df (98) at 0.01=2.63 and 0.05=1.98

The obtained value 3.18 > tabular value at 0.05 levels 1.98 and at 0.01 level2.63 so it is significant and the null hypothesis that states there exist no significant difference between the face-to-face learning of nursing students in relation to parental incomevariation will be rejected.

Discussion

The primary purpose of this study was to assess the role of E-learning & Face to Face learning strategies on the personal variable of the nursing student of Kolkata in the present context of parental educational qualification, employment of parents and income of family. There is a paucity of evidence from the literature documenting how students have responded to different learning strategies. However, we found three previous studies concerning this topic. Thapa P., Bhandari S.L., Pathak S.[6] investigated nursing students' attitude on the practice of e-learning: A cross-sectional survey amid COVID-19 in Nepal consistent with our study, their finding revealed that there was no significant association of overall attitude regarding e-learning with selected socio-demographic variables. Present study result showed that obtained "t" value 0.92 is < tabular value at 0.05 levels 1.98 and at 0.01 level2.63 so there exist no significant difference between the use of e-learning of nursing students in relation to parental educationvariation.

Mukasa.J., Otim M., Monaco B., etal[7]investigated in their study nursing students' perspectives and readiness to transition to e-learning during COVID-19 in the UAE: A cross-sectional study indicatesthat half of the participating students felt that E-learning was successful, and 66% reported that they were prepared for E-learning. This suggested that students were satisfied with their experiences of the new learning approach and the associated interactions. This could be because students were able to participate in their learning in a more flexible and convenient manner than in traditional face-to-face. Although around half of the participants had access to the Internet, they were not comfortable communicating online with each other or with their instructors. This may be related to cultural perspectives and other issues from the students' perspectives, such as lack of access to the Internet and infrastructure. This result is in consistence with the present study result where the obtained "t" value of E-learning and face to face learning is 3.82 and 3.18 respectively which is > tabular value at 0.01 level which is 2.63 and at 0.05 level which is 1.98 so there exist significant difference between the use of E-learning and face to face Learning of nursing students in relation to parental incomevariation.

4392

Eur. Chem. Bull. 2023, 12(Special Issue 4), 4383-4394

Use of E-learning & Face to Face learning strategies for Nursing students in relation to Their some personal variables

Section A -Research paper

Limitations

The key limitation of this study was that the findings are limited to only three nursing colleges in Kolkata, West Bengal. Therefore, the study findings may not be generalizable to other states of India. Another limitation was that as the study sample was not selected through probability sampling strategy, the representativeness of samples might be lacking in the current study.

Conclusion

The research study on the use of E-learning in nursing education in relation to parental status is relatively uncharted territory. This study therefore aimed to understand the experiences and challenges encountered by nursing students at Kolkata. The challenges of E-learning as reported by participants ncluded economical problem to purchase devices such as android phone, computer/laptop and data, connection problems and difficulties in communication with instruction. Most of the participants suffered from disturbances during online classes because of internet and electricity issues, and were compelled to use costly data packs for their online classes. The findings helped identify the significant challenges and adaptations necessary for future pedagogical approaches to teaching and learning and how students can best be supported.

Recommendation

The current topic provides great scope for further studies where comparative analysis can be made on a larger scale and covering actual performance evaluation and comparison over both the e-learning and face to face learning strategies.

4393

Eur. Chem. Bull. 2023, 12(Special Issue 4), 4383-4394

Use of E-learning & Face to Face learning strategies for Nursing students in relation to Their some personal variables

Section A -Research paper

References

1. Mpungose B.C.Emergent transition from face-to-face to online learning in a South African University in the context of the Coronavirus pandemic [serial online]2020 October(113) [9 screen] Available from URL; https://www.nature.com/articles/s41599-020-00603-x.pdf

2. Waghid. Y.African philosophies of education re-imagined: Looking beyond postmodernism. Educational Philosophy and Theory . 2018 .50 (14):1432-1433.

3. Anderson, T. (2016). Theories for Learning with Emerging Technologies (pp. 35-64). Canada: Athabasca University Press. Available from URL;
   https://www.scirp.org/(S(351jmbntvnsjt1aadkposzje))/reference/referencespapers.aspx?referenceid=2440795

4. Choudhury.S, Pattnaik.S Emerging themes in e-learning: A review from the stakeholders' perspective. Computers & Education**.**2020 January;144. Available from URL: https://www.sciencedirect.com/science/article/abs/pii/S0360131519302106

5. Khoza,S.B. Lecturers' reflections on curricular spider web concepts as transformation strategies. Transformation of Higher Education Institutions in Post-Apartheid South Africa, 2019, 1, 15-26. Available from URL:
   https://www.taylorfrancis.com/chapters/edit/10.4324/9781351014236-2/lecturers-reflections-curricular-spider-web-concepts-transformation-strategies-simon-bhekimuzi-khoza

6. Thapa P., Bhandari L.S., Pathak S. (2021) Nursing students' attitude on the practice of e-learning: A cross-sectional survey amid COVID-19 in Nepal, [serial online] June 24, 2021 Available from URL: https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0253651

7. Mukasa J., Otim M., Monaco B., etal. Nursing students' perspectives and readiness to transition to e-learning during COVID-19 in the UAE: A cross-sectional study, Advances in Medical Education and Practice open access 2021December 22; p1505–1512. Available from URL: Chrome-extension://efaidnbmnnnibpcajpcglclefindmkaj/https://www.dovepress.com/getfile.php?fileID=77020

4394

Eur. Chem. Bull. 2023, 12(Special Issue 4), 4383-4394