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PROSPECTIVE TEACHERS' ACCEPTABILITY AND INTENTION TO USE MOODLE: A FOLLOW UP STUDY OF AN EXPERIMENTAL INVESTIGATION DURING COVID-19 PANDEMIC

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Abstract

In a new normal, learning management system can be a better platform to track students' engagement and their performance in studies. This study aimed to examine the perception of prospective teachers to use MOODLE as an LMS during COVID-19 in their online classes and their acceptability and intentions to use MOODLE. The original Technology Acceptance Model (TAM) with five factors was adapted to gather information for the acceptance and intentions of prospective teachers to use MOODLE. This study was a follow up study of an experimental investigation in which 42 prospective teachers were engaged in technology supported collaborative learning. After the intervention was completed, online questionnaires were sent to the prospective teachers to have their responses on the use of MOODLE in. The findings highlighted the positive attitude of prospective teachers to use MOODLE and their intentions to use MOODLE in their studies and practices. A strong positive and significant relationship was found in all factors of TAM.

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Keywords

LMS, MOODLE, TAM, E-learning, Information and communication Technology (ICT)

1. Introduction

The fast expansion of information and communication technology (ICT) has entirely changed teaching practices of general education across the globe (Aristovnik, 2012; Zarafshani *et al*., 2020). Educational institutions are moved forward to use web 2.0 technologies as a core part of classroom practices .Web 2.0 technologies which include the web based learning environments or E-leaning environments have become the part and parcel of every student's academic life (McBride, 2009; Bower *et al*., 2010; Churchill, 2011; Moore 2013). Research literature on web based learning

environments in education has cited significant contributions (Curtis & Lawson,2001; Al-Busaidi & Al-Shihi ,2010 ; Chung *et al*., 2013 ; Goh *et al*., 2013; Al-Kindi & Al-Khanjari, 2019; Harususilo, 2020) Web mediated learning environments not only reduce the cost of academic courses but also increases their revenues (*Saadé* and *Bahli*, *2005*). Web 2.0 technologies have reflective results not only in general education but for the informal and lifelong education as well (Franklin & Harmelen, 2007). Research literature on use of technology in teaching and learning affirms that students have developed better collaboration and interaction with their peers and teachers, as well as they contribute more to their course contents, critically reflect on their leaning events and share their thoughts without any barrier of time and space(Heafner & Friedman, 2008); helping students not only in just reading and writing course contents but to productively interact with others and express their reflections on different learning activities (McBride, 2009) .Technology has a positive effect on achievement of students (Teeroovengadum *et al*., 2017);students have more user-friendly accessibility and flexibility; have better engagement and performance in studies (Lee *et al*., 2019). The new normal after COVID-19 has also shifted the concerns of teachers to take benefits of online learning and to find out new ways to work from home and online teaching to meet the challenges of content delivery and its accessibility (Nurkhin *et al*., 2021). Almost every educational institution working hard to provide the best educational experiences and services to their students in the new normal and try to use new digital platforms and different LMS for their students (Harususilo, 2020). Learning management systems (LMS) are considered one of the best web based learning platforms where teachers not only share the course materials online to the students but keep the tracking system of students' progress as well (Martín-Blas & *Serrano-Fernández ,2009*). The most famous LMS are Blackboard and MOODLE, Canvas, Edmodo, Docebo etc. Furthermore LMS are considered always available platform (24/7) to support and manage their course materials and monitor and record student's performance on course activities (Goh *et al*., 2013). Before introducing any new technology to the educational institution, the user's acceptability to use that technology is very important concern of an institution. Literature on competency of using computers and web technologies also revealed that the acceptance of technology adopted for teaching and learning is a principal standard (Brown, 2002; Miller *et al*., 2003; Hayashi *et al*., 2004; Grandon, *et al*., 2005). To examine technology acceptance in educational context, TAM is an excellent model to provide an insight to examine the students' intentions either acceptance or rejection the technology. Current study was conducted to examine the perceptions of prospective teachers to use MOODLE and to measure the factors contributing to their acceptance and intentions to use MOODLE.

2. Literature Review

Higher education institutions have a diverse population with diverse needs. The rapid development of ICT has also brought a revolutionary transformation in teaching and learning process. Now instructors have access to use new tools and technologies in their classrooms to better cater the needs of the young generation. The use of technology is a key factor to provide essential and related variations for the transformation and upgradation of higher

educational institutions (Bates & Sangra, 2011). As a result higher educational institutions are investing more on new digital platforms and getting more information for the adoption of new educational technologies in their institutions (Kaminski, Switzer & Gloeckner, 2009). To cater the needs of 21st century learning environment, institutions have to provide tailored learning environments in their classes with some customized learning contents (Al-Kindi & Al-Khanjari, 2019). According to Chung *et al*., (2013) almost all digital or e-learning platforms are based on some soft wares called learning management systems (LMSs) , virtual learning environments(VIEs) , or course management system. Al-Busaidi and Al-Shihi (2010) reported that many academic institutions are adopting LMS either through open access sources like MOODLE or through commercial sources like Blackboard and WebCT. Moreover research data showed that about 90% of the United States of American (USA) educational institutions provide their courses through LMS to their students (Jones, Morales & Knezek, 2005). Some other countries like United Kingdom and Australia have adopted LMS for their academic operations for university students (Curtis & Lawson, 2001). All LMSs are especially designed soft wares used for the course management in academic practices. These LMSs can easily be used in traditional classroom setting (Simonson, 2007); and for distance education (Mtebe & Kissaka, 2015) and available in commercial and open access forms. Commercial LMSs are mostly very expensive in terms of high license fees as these are very powerful systems with full system assistance and provide full support (Melton, 2006).In contrast, free open source LMSs are also available free of cost which can be run on institutional servers with IT experts and MOODLE is considered the best used and secured LMS to be used in colleges and universities for academic activities (Ivanc *et al*., 2012; MOODLE, 2018) and it can facilitate even 50,000 faculty members of any university (Kumar, 2019). According to Onacan and Erturk, (2016) LMSs not only help to improve the effectiveness of higher education courses but also increase the efficiency of the higher education institutions.

2.1 Conceptual Framework

This study is based on the original Technology Acceptance Model (TAM) of Davis *et al*., (1989). According to Fathema *et al*., (2015) TAM was originated from theory of reasoned action (TRA) presented by Azien Fishbein in 1980. The original TAM framework has five different variables; perceived usefulness (PU); perceived ease of use (PEU); attitude towards technology (ATT); behavioural intentions (BI), and the actual use of technology (AU). Perceived usefulness of any new technology may be defined as the degree to which a person believes that use of technology adopted will be useful for the performance, while perceived ease of use is defines as "the degree to which an individual believes that use of new technology will be easy to use". Moreover, Davis, (1989) explained that the two variables: PU and PEU are the main psychological factors that are the determinants of students' attitude and their behavioural intention and confirm accepting any new technology to use in an educational context. Further, this model also explained the variables ATT and PU affect the BI of the students to accept and use a technology.

2.2 TAM Application in Educational Research

Research literature on TAM studies shows that it is emerged as scientific model to use and adopt new learning technologies by the teachers for their students. Research findings of Scherer *et al*.,

(2019); Abdullah and Ward (2016) found the popularity of TAM in education along with the knowledge gap present in educational context and with a special focus of adoption of technology acceptance in educational e- learning practices. Teo (2009, 2010, 2011a, 2011b), have published many articles on technology acceptance model in context of higher education. Al-Adwan *et al*., (2013) find out the students willingness to use e- learning systems. Some studies used validation of TAM for some LMS or other specific soft wares used in tertiary education. Some researchers used TAM to explain the acceptance or readiness of business administrative university students to used MOODLE platform in their studies (Escobar-Rodriguez & Monge-Lozano, 2012). In a study, Toe (2011a) also used TAM to find out the factors influencing the intentions of teachers to use technology. Similarly, Shin and Kang (2015) investigated the two variables, system accessibility and subject's norms in mobile learning platform for LMS use. Many researcher used original TAM in education (Gong, Xu & Yu, 2004.,Zhang, Zhao & Tan,2008) while some used extended TAM with other different relevant constructs (Cheung & Vogel 2013.,Waheed & Jam, 2010). In a study Nurkhin s *et al*., (2021) tried experience, computer knowledge, computer anxiety, normative pressures and management support to extended TAM. Different acceptability studies have explored the applicability of TAM with respect to different modern technologies, such as mobile learning, LMS, MOODLE, and personal learning environments also, but according to Granić and Marangunić (2019) application of TAM in education still needs many areas of technology adoption to be explored. Several academic researches summarized empirical researches especially Meta -analysis and literature reviews on TAM with special focus on education related topics. AL-Emran, *et al*.,(2 018) made a systematic literature review of TAM in his study on mobile learning environment; Abdullah and Ward, (2016) conducted a meta-analysis of adoption of e-learning ; Scherer *et al*., (2019) on prediction of adoption of technology by teachers; Al-Emran *et al*., (2018) a systematic review on m-learning of the students ; Weerasinghe and Hindagolla (2017) reviewed TAM studies and their application in Library and information science and education. In the light of such considerations, it is cleared that the application of TAM in education is not new. But still many areas are left to do research such as type of new technologies and type of users and the development of infrastructures to attract teachers to have maximum use of technologies in their classroom practices.

2.3 MOODLE

MOODLE is a very famous and excessively used open access learning management system (LMS). It is an abbreviation of "Modular object oriented dynamic learning environment" that help teachers to develop active and dynamic online learning students' site for their courses and actively involved students in learning(Hsu, 2012). Educationists used MOODLE as a tool for online learning to help teachers for increasing the quality of their teaching and enhancing students' abilities and knowledge (Martin-Blas & Serrano-Fernandez, 2009). MOODLE as an LMS provides the opportunities to teachers to organize their course contents, course announcements, assignment schedules, quizzes and exams news and their administration, to create grade books, to have students tracking systems, having surveys and polls (Sumak *et al*., 2017).In a study Hsu (2012)

concluded that MOODLE provides all such features to its users due to its user friendly interface. It helps and encourages students to collaborate with their group fellows and with their instructors. The use of MOODLE has been proved successful and it is used in many countries with more than 213 million users. It is a multilingual open source available in 120 different languages so that every user can easily localise his/her own MOODLE site along with a lot of MOODLE support, resources and community discussions (MOODLE official Website, 2022). Due to easy and user friendly interface, MOODLE has been the most popular LMS in North American and European universities (Itmazi & Megias, nd). It's a best LMS considered by the course instructors for course content management and its fastest and easy delivery.

3. Method

This segment of the study is a quantitative follow up of an experimental investigation, employing survey method in itself. While the effect of technology supported intervention was measured on certain other variables; this follow up study reflected on how the prospective teachers perceived about the use of technology. These prospective teachers were given exposure to 16 weeks of class lectures, assignments, videos, quizzes, reading materials, presentations, surveys, online discussion forums and other online learning activities through MOODLE (https://moodle.pcsm.edu.pk/). All students had a mandatory use of MOODLE for course contents and assignments access. They had to log in weekly on MOODLE for course news, announcements, and assignment related deadlines. In this study all the quantitative data was collected through survey method. A through literature was reviewed for the construction and development of the questionnaire items to assess the understanding of respondents to use MOODLE.

The questionnaire was consisted of 62 items based on five factors; PU, PEU, ATT, BI and AU. This study was conducted on 42 prospective teachers enrolled in an undergraduate course "school community and teacher" at Institute of Education and Research, Punjab University, Lahore. The course contents were disseminated through technology supported collaborative techniques. MOODLE was used as a LMS. All of the respondents were thoroughly briefed about study; researcher collected their consent to use this information for a research purpose. Data collected through questionnaires was analysed by using statistical packages and write up was done by comparing and contrasting of the data gathered. The following sub section will explain the data collection procedures of the study.

3.1 Data Collection

The data of the study was collected by prospective teachers enrolled in 5th semester of undergraduate course in academic session 2019/2020. It ran from October 2019 to Feb 2020.The course has 16 week technology supported collaborative learning interactions through MOODLE.

All the respondents were sent the questionnaire at the end of the semester to fill and to provide information as received. Total 42 questionnaires were sent and 41 questionnaires were returned to the instructor.

3.2 Characteristics of the Respondents

About 41 prospective teachers of third year students of semester 5 were the respondents of this research article. These students were enrolled in *"School Community and Teacher"* course of Teacher education. Out of this number 95.2 % were females and 4.8 % were males. In terms of student's majors,

41.5% of prospective teachers have Math/ Physics, 34.2 % have Bio/Chem, while 24.3 % have Zool/Chem as majors. About 85% of the prospective teachers are unemployed and 90.3% have the first experience to use MOODLE.

3.3 Delimitations of the Study

This study was delimited to the undergraduate prospective teachers enrolled at Institute of Education and Research, Punjab University, Lahore. As MOODLE was not used in any of the course or programme, therefore only one class was taken as a sample of the study which was taught through MOODLE in the experimental investigation.

3.4 Limitation of sample size

As prospective teachers were not taught through MOODLE in any course and in any program in Institute of Education and Research (IER), University of Punjab, Lahore. It was first ever used by the prospective teachers in their studies. Therefore author of this paper had no control over the sample size. For this follow up study, 41 prospective teachers who were taught through MOODLE participated in the data collection, which is adequate sample size to get a deep insight to know the prospective teachers acceptance and intentions to use MOODLE.

3.5 Research Design

In this quantitative follow up study, survey method was used to collect the required information from prospective teachers. All the prospective teachers of the study go through 16 weeks of class lectures, assignments, videos, quizzes, reading materials, presentations, surveys, online discussion forums and other online learning activities through MOODLE. All students have a mandatory use of MOODLE for course contents and assignments access as all course material was accessible through MOODLE. They have to log in weekly on MOODLE for course news, announcements, and assignment related deadlines. They were further encouraged and guided to get familiar not only with the MOODLE but with the new ways of technology and learning.

4. Results

The descriptive analysis of the study is described in this section in tabular form and will elaborate the significance of the variables of the study aligned with objectives and findings of the study.

4.1 Reliability Analysis

The Table 1 shows the reliability analysis results of the study. The values of Cronbach's alpha of all five variables is between 0.882 to 0.954 which in an acceptable range of internal consistency. The reliability values of all five factors shows that all items in the scale are consistent with each other.

Table 1: Reliability Analysis of Variables

Variables	M	S.D	Kurtosis	Cronbach's Alpha
PU	79.61	10.684	-0.724	0.954
PEU	48.02	6.133	.080	0.843
ATT	36.68	5.25	.425	0.886
BI	31.31	5.33	1.073	0.888
AU	57.87	1.089	-.426	0.882

4.2 Descriptive Statistics

This section presents the descriptive data related to the parts of the questionnaire. The questionnaire has six parts. Part A is related to the MOODLE interface experience; part B, C, D, E and F are related to the opinions of the respondents on technology acceptance and their behaviours and

attitudes. These parts are consisted of Five point Likert scale items.

Table 2: Descriptive Statistics for MOODLE Interface Experience (Part A)

MOODLE Interface	Scale	Freq	%
User Friendly	Yes	41	100
	No	0	0
	Maybe	0	0
Mobile Friendly	Yes	38	92.6
	No	01	2.4
	Maybe	02	05
MOODLE Knowledge	First Experience	37	90.3
	Used Before	04	9.7
Time Taken to get familiar with MOODLE	Less than 1 week	25	61%
	2 weeks	12	29.3%
	3 weeks	04	9.7%
	More than 3 weeks	0	-

Table 3: Descriptive Statistics for PU

Perceived Usefulness of MOODLE	N	Mean	SD
MOODLE is very informative	41	4.32	.789
It improved my performance in learning	41	4.20	.813
It increased my output in my learning	41	4.32	.722
It helped me to access and learn my course contents quickly	41	4.17	.771
It made me more conscious to meet my assigned targets	41	4.44	.673
It makes no difference either I learn through MOODLE or the Traditional way	41	3.63	.994
It helped me to shape and control my learning	41	4.12	.714
Learning through MOODLE made my learning systematic	41	4.10	.800
It helped me to think out of the box during my learning	41	4.10	.831
I got familiar with new formats of course tasks	41	4.29	.716
MOODLE had no effect on my learning of course contents	41	3.66	1.063
It helped me to collaborate with my class fellows in a better way	41	4.29	.716
Using MOODLE kept me active and motivated towards my learning	41	4.24	.767
It made me more punctual to submit my assignments or task well in time	41	4.24	.663
It enhanced the quality of my learning	41	4.49	.675
Learning experience through MOODLE will help me a lot in my learning career	41	4.17	.667
Learning through MOODLE is free from time and space	41	4.17	.738
MOODLE helped me to collaborate with my instructor	41	4.37	.536
Overall, I feel that using MOODLE is valuable for my future performance	41	4.29	.602

Table 4: Descriptive Statistics for PEU (Part C)

Perceived Ease of Use of MOODLE	N	Mean	S.D
Using MOODLE is easy	41	4.00	.894
Its functions are clear and understandable	41	4.20	.679
It provides a flexible way to interact with others.	41	3.98	.790
I feel using MOODLE, made me skilful at it.	41	4.12	.781
After learning how to operate, it becomes a routine task to me.	41	4.12	.781
It is easy to access all course contents through MOODLE.	41	4.27	.742

I think MOODLE is easy to use ONLY for those students who already have good computing skills.	41	3.54	1.075
I couldn't have command to use MOODLE even by the end of the coursework.	41	3.80	1.030
It' easy for me to do all types of tasks on MOODLE.	41	4.15	.691
I remembered how to perform on all MOODLE forums.	41	4.07	.721
I did not find it awkward to use.	41	4.22	.690
It did not require any mental effort to operate	41	3.56	1.097

Table 5: Descriptive Statistics for ATTT (Part D)

Attitude to Use MOODLE	N	Mean	S.D
Use of MOODLE in learning is a wonderful idea.	41	4.27	.775
I feel using MOODLE in study is an interesting experience.	41	4.27	.633
It is desirable for us to learn through MOODLE.	41	4.12	.872
MOODLE is unpleasant experience for me.	41	3.61	.945
I learnt a lot through MOODLE.	41	4.20	.679
Learning through MOODLE was a fun.	41	3.98	.758
MOODLE itself is an attractive way to learn.	41	4.17	.803
I never enjoyed learning through MOODLE.	41	3.76	1.067
Overall, I liked using MOODLE in my learning	41	4.32	.610

Table 6: Descriptive Statistics for BI (Part E)

Behavioural Intentions to Use MOODLE	N	Mean	S.D
I plan to use MOODLE as often as possible.	41	3.71	.981
I use MOODLE to supplement my learning.	41	3.78	.791
I plan to use MOODLE for my students after my degree completion.	41	4.00	.894
I wish I will use MOODLE in my next semesters	41	3.95	.893
I prefer MOODLE if given a chance to choose any other alternative.	41	3.98	.908
I intend to use MOODLE as it's a recent trend of 21st century.	41	4.20	.679
I intend to use MOODLE as early as possible.	41	3.66	.938
I intend to use MOODLE frequently in my learning as it helped me to become a techno person.	41	4.05	.999

Table 7: Descriptive Statistics for Actual Use (Part F)

Actual Use of MOODLE	N	Mean	S.D
I frequently used the MOODLE	41	3.68	1.083
I used MOODLE to see the announcements related to the course	41	4.17	.834
I used MOODLE to view my course tasks and resource material uploaded weekly	41	4.32	.521
I frequently participated in all discussion and chat forums generated on MOODLE	41	4.10	.800
I used MOODLE forums to share my thoughts and ideas to my classmates	41	4.12	.781
I shared my educational Blog posts with my instructor and class fellows on MOODLE	41	4.05	1.024
I often use MOODLE to get familiar with its different modules	41	3.85	1.085
I used MOODLE to upload my assignments	41	4.29	.680
I used MOODLE to share my published digital content links to my class to get their reflections	41	4.00	.975
I used MOODLE to view different course content videos to complete my course tasks	41	4.07	.818
I used MOODLE for online quizzes and exams	41	4.44	.502
I used MOODLE to fill choices or surveys	41	4.41	.547
I used MOODLE chat Forum to communicate with my instructor or class fellows	41	4.20	.715
I used MOODLE to collaborate with my group fellows through group chat	41	4.17	.587

4.3 Hypothesis Testing

Pearson correlation was calculated for different variables to explore the relationship between five factors of TAM. Table 8 shows the hypothesises developed for this paper. Pearson correlation was run through statistical tool SPSS version 28 to explore the relationship between the five factors of TAM questionnaire.

Table 8: Hypotheses and Data Analysis

Hypotheses	SPSS Analysis
H_1: Perceived usefulness has a significant relationship with attitude towards using MOODLE	Pearson Correlation
H_2: Perceived use of ease has a significant relationship with attitude towards using MOODLE	
H_3: Attitude to use MOODLE has a significant relationship with behavioural intentions of the prospective teachers.	
H_4: Behavioural intentions has a significant relationship with actual use of MOODLE.	

Table 9: Pearson Correlation Results

	PU	PEU	ATT	BI	AU
PU	1	.826	.870	.720	.665
PEU		1	.885	.663	.650
ATT			1	.752	.623
BI				1	.702
AU					1

**Correlation is significant at 0.01 levels (2-tailed)

**Correlation is significant at 0.05 levels (2-tailed)

N= 41 (No. of respondents who used MOODLE)

4.4 MOODLE Logs

MOOLDE not only help to manage the course but it also provides the tracking records of students' activity and their performance on course tasks. In this study MOODLE logs are used to extract the details of actual pattern of usage of MOODLE by each prospective teacher participated in the course. The range of MOODLE logs is 211-135700, which means minimally 211 times and maximumly 13570 time's system was viewed or accessed by the prospective teachers.

5. Discussion and Conclusions

The data of this study was collected through an online TAM questionnaire prepared on Google forms. Questionnaire was administered at the end of the semester and posted on the course site (https://MOODLE.pcsm.edu.pk/). About 41 prospective teachers participated in this study, out of which 95.2 % were females. The anonymity of the students was not entertained as their MOODLE logs were used to get an insight to the actual use of the MOODLE by the prospective teachers. The results of the study showed that prospective teacher has shown a positive attitude towards the use of MOODLE in their course and 100 % of the prospective teachers found MOODLE a user friendly and 92.6% found MOODLE a mobile friendly system (Table 2).These findings of the study are aligned with the findings of Hsu (2012) that MOODLE has a user friendly interface to help students to use it easily and in minimum time. Therefore, it confirms that one major factor to adopt a new technology is its ease of use which is the prime concern of this study. In this course all

news, announcements, handouts, tutorials, assignments, discussions, chat, videos, resource material, course books quizzes, exams and surveys are made available only through MOODLE. The course has two sessions per weeks through Google met (1.5 hours per session). As 90 % of the prospective teachers were not familiar with the MOODLE and have a first experience to use MOODLE (Table 2).Therefore it was made mandatory for each prospective teacher to log in to the MOODLE site minimally 2-4 times a week to unfold the course related individual or group tasks and fulfill the submission. In first 2-3 weeks course tasks were made individual so that prospective teachers take the pain and get serious to learn how to interact with the new technology used. This strategy was adopted so that students feel the importance and use of new technology in their course. In first week, an orientation session was made to brief about the new mode of online learning and its effective use. Video tutorials and written manuals were shared along with the discussion forum, chat module for groups, and for instructor to get the maximum guidance and help to use MOODLE. Results of the study showed that almost all students (100%) logged in to the MOODLE course weekly and mostly accessed their course. This finding of the study affirms that prospective teachers accepted the MOODLE as a new mode of learning in their studies and MOODLE integration in studies is effective and students easily adopted the new technology. To examine the relationship between five factors of TAM questionnaire, Pearson correlation was calculated by using SPSS version 28 .Correlation results showed a positive relationship between all five factors of the questionnaire as all the values are in the range of 0.72- 0.887 (Table 1). A very strong and positive significant relationship was found (0.885) between PEU and ATT. It implies that if the technology used in classroom teaching practice is found easy to use by the students, they may have higher attitude towards that technology. This finding is consistent with the findings of Downes (2008) that individuals only like to use those tools which look and feel same as they use in their daily life and have intentions to adopt only those technological tools which have either productive benefits or financial. Here author suggests using such technologies in educational practices which seemed easy to use by the students. Similarly, a strong positive and significant relationship (0.826) was also found between PU and ATT to use MOODLE... It clearly shows that if the respondent found new technology useful, their attitude will be also being positive to use that new technology. These two findings of the study are aligned with the findings of the Davis (1989) and Cigdem & Ozturk (2016) that PEU has a direct influence on PU of technology adopted and both PEU and PU greatly influence the attitude (ATT) to use MOODLE which in turn influence the behavioural intentions of prospective teachers and the actual use of MOODLE in their leaning. Another finding of the study revealed that majority of the prospective teachers (61%) took less than 1 week to get familiar with the MOODLE while just 21.3% of the respondents took 2 weeks to learn MOODLE (Table 1). This finding affirms that the use of MOODLE in studies is easy to use and take less time to adopt by the students. This finding is also in line with the study findings of Itmazi & Megias, (nd) that user friendly interface of MOODLE make it the most used LMS in the universities of North American and Europe. This finding is also consistent with the finding of Chen *et al*., (2011)

that MOODLE is an easy to use e-platform and provides interactive workplace and makes learning experience interesting. In this study, respondents further showed their acceptance to use MOODLE because of its usefulness and ease of use as mean scores on all Questionnaire statements on PU and PEU are ranges from 3.56- 4.49 (Table 3 &4). Further prospective teachers felt that learning through MOODLE not only enhanced their quality of learning (mean score 4.49) but it improved their learning performance (mean score 4.32) which is consistent with the findings of Lee *et al*.,(2019) that LMS use in academics enhance the performance of the students. They considered MOODLE valuable for their future performance (mean score 4.29).Similarly, prospective teachers felt easy to access course contents on MOODLE (mean score 4.27), and opined that all MOODLE functions are clear and understandable (mean score 4.20) and they found easy to do all tasks on MOODLE (4.15). With respect to attitude to use MOODLE, prospective teachers found MOODLE experience as an interesting and wonderful idea (mean score 4.27) and using MOODLE in study is an attractive way to learn (mean score 4.17). These all findings of the study are very much aligned with the findings of Davis, (1989) which explains that PU and PEU are the two major factors which help students to develop their attitudes to accept or reject the new technology. A positive and strong statistically significant relationship (0.752) was reported between ATT and BI, while a significant relationship (0.702) was reported between ATT and BI. It means attitude to use technology has a direct relation with behavioural intentions and its actual use. Mean scores values on ATT, BI, and AU questionnaire items ranges from 3.61- 4.44 which also shows their acceptance of technology through their attitudes, behavioural intention, and actual use on all of the statements. Further, behavioural intention of prospective teachers' are cleared through their opinions to use MOODLE as 21st century trend (mean score 4.20) and they intended to use MOODLE to become technology oriented persons (mean score 4.05).These findings of the study are also parallel with the findings of the Davis (1989).He found that how attitude to use technology effects the student's behavioural intentions and finally behavioural intentions effect the actual use of that technology. The usage pattern of prospective teacher to confirm the actual use (AU) of MOODLE was extracted from the System logs facility in MOODLE. This facility provides the activity tracking of the students to course instructor. Findings of the study revealed that on average 1445.34 times MOODLE system was used by the prospective teachers under the course. School, Community and Teacher. The minimum view of the system was 210 times and maximum view of system was 13570 times. It further confirm that prospective teachers accepted the new technology adopted and made a productive used of that technology because they found it easy to use and useful for their current academic performance and future excellence in 21st century workplace and society.

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