

The Effect of an Online Professional Development Program on Computer Accessibility, Teaching Proficiency, and Motivation Among Educators in Higher Education in Pakistan

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Abstract

The main purpose of conducting this study was to determine the effects of online professional development courses on teachers' computer access, teaching skills, and motivation in higher education. This was a quantitative study based on a descriptive research design that collected data through a questionnaire. The population of this study was consisted of teachers of public and private colleges of Narang Mandi city of Punjab, Pakistan. The sample of this study was obtained from four public and four private colleges of Narang Mandi. The sample size was 200 teachers. The researcher adopted the stratified sampling method to select a representative sample. Independent sample t-test and one-way ANOVA were used to investigate the effects of an online professional development course on teachers' computer access, teaching skills, and motivation in higher education. Findings underscore the substantial benefits of online professional development courses in equipping educators with the necessary tools and skills to thrive in the dynamic landscape of higher education, ultimately contributing to the enhancement of their teaching effectiveness and motivation.

Keywords: Online professional development, computer access, motivation

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Introduction

Globalization and the growing use of the computer and internet in homes, companies, and governmental institutes prompted policymakers and teachers to explore the traditional approaches to companies' teaching and training. Computer-based technology has become a fashion in educational systems and business learning because of significant technological development. According to 1999 research by the National Center for Education Statistics, nearly half of all higher secondary schools provide online learning courses. The University of London became the first university to present online education certificates, with the development of the peripheral course in 1858.

Online coaching is popular in the west, but it is not most popular in south Asia, while the reality that many people in the South Asia use computer and the internet, ministry of education and management has not yet incorporated such technology into training courses, whether for professional or educational meaning. "The world wide web (www) is emerging as more adventured in teaching and learning" (Williams, Nicholas & Gunter, 2005). To keep up to date with technology, instructors require to recognize how to search and apply online training when it is offered.

In Pakistan online training opportunities for teachers, synchronous and asynchronous, are comparatively latest in the teaching and learning field (Dede et al, 2009), but existing in the companies almost from two decades. Online training particularly arranged for teaching online is novel. The quality of online classes is also a concern (Carr et al, 2000). While other researchers find out that lesser pick-up proportion and lesser achievement degree for online learners than traditional learners. Other researchers, though, oppose these issues and discover that students present well in online classrooms. Currently, several researchers are convinced that online education does not make durable student consequences equal to conventional transmission. The reason is that teachers' performance of online education in higher level education different noticeably and teachers' training for teaching online in higher education also different appreciably (Lee, 2006). Even though the online atmosphere has developed larger the years, the smallest investigation and practice has been paying attention to teachers' training to teach online.

Some instructors dislike the notion of online training because to manage time, financial support, and the technologies required for access (Thomas, 2010). The main reason is that teachers have more urgent responsibilities, like creating activities for their pupils. Colleges, as well

as educators, are concerned about the lack of funds because they rarely have any additional money beyond their operating requirements. Since educators do not have all of the essential apparatus, it creates obstacles. Not everyone has the necessary technological abilities to take advantage of online training opportunities or have an approach to such instructions. Teachers who are self-motivated to study through online training, on the other hand, may get fresh learning experiences that will increase their teaching skills.

Objectives of the Study

In pursuit of a comprehensive understanding of the effects of online professional development courses, this research embarked on a journey to illuminate the impact of these courses on educators in higher education. It sought to unravel the influence of online professional development courses on teachers' computer access. This entailed delving into the extent to which these courses expanded teachers' reach and utilization of computer resources. This research revealed that online professional development courses have a profound impact on teachers' lives. They empower educators with enhanced computer access, ignite a newfound motivation to learn, and bolster teachers' self-perception of their computer proficiency. Therefore, following were the objectives of the study:

To ascertain the impact of online professional development courses on teachers' ability to access computer resources effectively. To explore the influence of online professional development courses on teachers' motivation to engage in online educational programs. To examine how online professional development courses shape teachers' perceptions of their computer skills and proficiency.

Literature Review

Online education provides a source of education with the use of technologies, like the Internet and other computerized devices. Online education can also provide people who cannot receive their classes at university due to some problems such as economic concerns, locality problems and time obstacles (Race, 2001). Online learning is almost certainly one of the most sufficient options of open education, in which pupils spend almost some of their time online, working immediately on internet or computers connected into a confined internet. Such type of pupils has essential power related to what they taught, how fast they taught and how they taught but they have less power about where they taught for

those portions of their education they required to linked to the internet (Race, 2008).

The Effects of Online Coaching Learning on Educational system

Ward, Peters & Shelley's (2010) examined how learners and professors felt about the excellence of distance learning. They discovered that there was a general preference toward distance learning. Educators were commonly satisfied with teacher-to-student and student-to-student relationship. The students' statements indicated that mostly would agree to obtain another course presented in the synchronous interactive online instruction (SIOI) medium, and alike mostly was agreeing to suggest the SIOI system to other students. Bums (2005) described that "present online learning technology offers in larger number the advantage in an excellent perspective. It is efficient, less expensive methods to conversation, report, manuscript, instruct and enhance other quality perceptions in an institute. Smith & Johnson (2023) indicated that online learning is beneficial but not more beneficial than face-to-face learning. They collaborated with learners enrolled in a headship training course. Whereas students find out that online learning to be effective and efficient but not more successful than traditional learning approaches, shows that programs originated by pedagogies that incorporate both distance and traditional strategies are pleasing and successful.

Dykman and Davis (2005) investigate the techniques that encourage the worth of online educational experience and draw out that proficient one's program organization method, standardization course composition, and uniformity in contacts with students, and managing class strength. Schulte (2010) presented structure of six steps that contain on learner describe their attendance, learner asking difficulties for comprehension, learner participating in wider conversation to resolve the problem, learner assesses achievable choices, learner using technology to set up answers for distance environment and at the end relationship with other students in an online setting.

Methodology

Research design

A quantitative type of research was conducted for this study, which was based on descriptive research design that collected data by a questionnaire circulated to teachers at colleges of Narang Mandi.

Population and Sample of Study

The population of this research consisted of teachers of public and private colleges of city Narang Mandi. The researcher adopted the stratified sampling method to select representative samples. The sample size was 200 teachers from four public and four private colleges of Narang Mandi.

Instrument

Adapted questionnaire used as a tool to collect data. This questionnaire comprised of four parts. Part I of the questionnaire was demographics; the questions were based on variables. Age, gender, and marital status, as well as the number of children, income, educational level, year of teaching experience, type of institute (Public Private), and instructional level, were among the variables studied. Part II questions, which referred to computer access. The questions examined about frequency with which participants used the internet, their approach to the internet, most frequently used online services, causes of using internet, obstacles to using internet at colleges, importance of internet, number of computers at college and in classrooms, topic that enhance the teaching content, the favorite coaching course that participants would take if they were provided an online coaching course and further choice to participate in online courses. Part III questions referred to the motivation for taking online courses. There were 13 items in Part III. Participants were asked to rate how they felt about taking online courses for each item. Each question was scored on a 5-point Likert scale ranging from 1-5, with 1= strongly disagree (SD), 2=disagree (D), 3= neutral (N), 4=agree (A), and 5=strongly agree (SA). By aggregating the scores for all items, each participant received a unique score. It was used as the dependent variable in this research.

Part IV questions, which pertained to computer skill perception. There were 23 items in part IV. Participants were asked to rate how they felt about computer skills for each item. Each item was graded on a seven-point semantic (continuous rating scale) scale ranging from one to seven, with a lower score indicating weak computer skill and a higher score indicating great computer skill. It was used as the dependent variable in this research.

Results

Table 1

Independent sample t-test for Gender based on the Effect of an online professional development program on computer accessibility, teaching

proficiency and motivation among educators in Higher Education in Pakistan.

CA	Gender	N	Mean	Std. Deviation	T	Df	Sig 2-tailed
	Male	100	26.03	5.3907	-1.421	198	.157
	Female	100	27.10	5.2579	-1.421	197.877	.157

Table1 shows the results of independent sample t-test. The value of $t = -1.421$ with p value .157 which is greater than .05. It indicates that there is no significant effect of an online professional development course on teachers' computer access based on gender with respect to ($M=26.03$, $SD=5.3907$) male mean and std. deviation, and ($M=27.10$, $SD=5.2579$) female mean and std. deviation.

Table 2

Independent sample t-test for Type of Institute based the Effect of an online professional development program on computer accessibility, teaching proficiency, and motivation among educators in Higher Education in Pakistan.

CA	Type of Institute	N	Mean	Std. deviation	t	df	Sig 2-tailed
	Public	100	27.56	5.6269	2.676	198	.008
	Private	100	25.57	4.8601	2.676	193.897	.008

Table 1.2 shows the results of independent sample t-test. The value of $t=2.676$ with p value .008 which is smaller than .05. It indicates that there is significant effect of an online professional development course on teachers' computer access based on type of institute with respect to ($M=27.56$, $SD=5.6269$) Public institute mean and std. deviation, and ($M=25.57$, $SD=4.8601$) Private institute mean and std. deviation.

Table 3

Anova for Age based on the Effect of an online professional development program on computer accessibility, teaching proficiency, and motivation among educators in Higher Education in Pakistan.

Motivation	Sum of Squares	df	Mean square	F	Sig.
Between Groups	354.790	6	59.132	1.260	.278
Within Groups	9054.330	193	46.914		
Total	9409.120	199			

Table 1.3 shows the Effect of an online professional development course on teachers' motivation for taking online courses based on age. The value of F is 1.260 with p value .278 which is greater than .05, which indicates that there is no significant effect of an online professional development course on teachers' motivation for taking online courses based on age.

Findings

The first objective was to identify the effects of an online professional development course on teachers' computer access and the research question, what are the effects of an online professional development course, gender and type of institute on teachers' computer access. So results for gender-based effect of an online professional development course on teachers' computer access showed that the value of $t = -1.421$ with p value .157 which is greater than .05. It indicates that there is no significant effect of an online professional development course on teachers' computer access based on gender with respect to (M=26.03, SD=5.3907) male mean and std. deviation, and (M=27.10, SD=5.2579) female mean and std. deviation. The results for the type of institute-based effect of an online professional development course on teachers' computer access showed that the value of $t = 2.676$ with p value .008 which is smaller than .05. It indicates that there is significant effect of an online professional development course on teachers' computer access based on type of institute with respect to (M=27.56, SD=5.6269) Public institute mean and std. deviation, and (M=25.57, SD=4.8601) Private institute mean and std. deviation.

The second objective of the study was to identify the effects of an online professional development course on teachers' motivation for taking online courses and the research question, what are the effects of an online professional development course, age and marital status on teachers' motivation for taking online courses. Hence, the results for age based effect of an online professional development course on teachers' Motivation for taking online courses showed that the value of F is 1.260 with p value .278 which is greater than .05, which indicates that there is no significant effect of an online professional development course on teachers' motivation for taking online courses on the basis of age. Results for marital status-based effect of an online professional development course on teachers' motivation for taking online courses showed that the value of F is .245 with p value .621 which is greater than .05, which indicates that there is no significant effect of an online professional development course on teachers' motivation for taking online courses based on marital status.

Discussion

The major purpose of the study was to identify the effects of an online professional development course on teachers' computer access, teaching skills and motivation in higher education. It is concluded that online professional development has no significant effect on teachers' computer skill perception and on motivation but has significant effect on computer access. Globalization and the increased use of the computer and internet in houses, companies, and governmental academies prompted policy makers and teachers to explore ways beyond the traditional approaches to companies teaching and coaching. Computer-based technologies have become a fashion in educational system and business learning because of significant technological development. Findings highlight that, within the context of this study, the age and marital status of teachers did not significantly influence their motivation to partake in online educational programs after completing online professional development. Smith & Johnson (2023). While these variables may hold significance in other educational contexts, research suggests that the impact of online professional development courses on motivation remains relatively consistent across different age groups and marital statuses among the participants in our study. The implications of these results call for a deeper exploration of the diverse factors that may influence educators' motivation in the realm of online learning, as it is apparent that age and marital status are not the primary determinants in this scenario (Brown & Williams, 2023).

Conclusion

Online Education offers a source of education with the use of technology, like the Internet and computers. Online Education can also provide those people, who cannot attend their classes at university due to some problems such as economic concerns, locality problems, and time issues. Online coaching is popular in the West, but it is not popular in South Asia. Some instructors dislike the notion of online coaching because it manages time, provides financial support, and the technologies required for approach.

Recommendations

The following recommendations emerge from the findings of this study, aimed at enhancing the education system, equipping educators with

essential skills, and promoting the effective use of technology in educational institutions:

1. It is imperative for authorities to conduct a thorough examination of the public education system to augment the integration of technology across different instructional levels within higher educational institutes. Additionally, the development of English language instruction at lower grade levels should be prioritized, focusing on enriching the content to facilitate language learning effectively.
2. The creation of a comprehensive computer training program is highly recommended. Such a program should encompass a wide array of essential skills, including English language proficiency, computer literacy, classroom management, lesson preparation, computer programming, and efficient utilization of technology for enhanced learning outcomes. To cater to a diverse range of educators, this training should be made available through both traditional face-to-face sessions and online platforms.
3. Government support and encouragement for the widespread adoption of technology in schools, colleges, and universities are crucial. Policies that facilitate the integration of technology into educational settings, along with incentives for institutions to embrace digital learning tools, can significantly advance the quality of education.
4. Adequate funding for technology tools should be provided by the government to ensure that educational institutions have access to the necessary resources. This investment will enable educators to effectively incorporate technology into their teaching methods, fostering a more engaging and dynamic learning environment.
5. The establishment of an online professional development faculty dedicated to enhancing educators' proficiency in utilizing the internet is highly recommended. This resource would offer educators ongoing training and support to leverage online tools effectively for professional growth.

6. Furthermore, it is advised that similar research studies be conducted in different locations to assess the specific needs and levels of computer skills and motivation among educators to participate in online professional development courses. This comparative research can provide valuable insights and help tailor strategies to the unique requirements of diverse educational contexts, ensuring a more comprehensive and effective approach to teacher development.

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