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The Demographic Variables as the Predictors of the Teaching Competencies of Online Instructors in the Universities of Pakistan

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Abstract: In Pakistan, higher education institutions are focus to increase the integration of information and communication technologies into teaching the curriculum and programs. The demographic variables of the instructors influence the teaching competencies of the instructors. The main aim of this research is to identify the influences of the demographic variables on the teaching competencies of the instructors in a virtual setting. The improvement and utilization of technological tools influence to improve online education. The 'online teaching competencies (OTCs) matrix was applied as the theoretical framework for the current research. An exploratory study was conducted in the three universities of Pakistan those who are offering online programs and courses to their students. The sample of the study was consist of 250 online instructors. Data was collected through a standardized Five-point Likert scale questionnaire developed by (Bigatel, Ragan, Kennan, May, &; Redmond, 2012). Multiple regression analysis was applied to analyze the data. The finding shows that the demographic variables 'experience' and 'qualification' influence as compare to the 'number of professional training events' and their 'age' on the teaching competencies of the instructors. The finding suggested that the quality of the professional training events for the instructors should be conducted and improved.

Keywords: Demographic variables, teaching competencies, online education.

INTRODUCTION

Online Teaching

Now-a-days, online teaching has become an important mode of teaching to the wider population in various educational institutions around the world. Due to technology development, online teaching emerged like the substituted teaching mode of traditional teaching (Tallent-Runnels, Thomas, Lan, Cooper, Ahern, Shaw, & Liu, 2006). To teach in an online mode of education, instructors need technology and personal motivation (Bonk, 2006). Furthermore, online teaching is adaptive and flexible mode provides the opportunities for teachers to teach at any space and time (Schifter, 2000). It helps to increase the quality of the course, to enhance the access of the students' towards course content, and also to teach a large number of the audience (Bonk, 2006; Schifter, 2000)

Teaching in an online setting requires adapting the new pedagogical practices at a higher level (Bailey & Card, 2009). The online instructors need to think about their teaching regarding how to manage, develop, and create programs and courses in terms of teaching the students without their physical presence and interaction (Albrahim, 2020). Teaching in an online mode of education demands from the instructor to develop an understanding of the implementation of the pedagogical skills to facilitate the students. Successful online instructors try their best to facilitate the students through collaboration, active communication, engagement, and interaction in an online course (Palloff & Pratt, 2011).

Moreover, teaching in this mode of education required some specific teaching competencies in terms to teach effectively. These competencies are the core of online teaching. The instructors' can better teach with the help of these teaching competencies. Therefore, instructors need to improve their teaching competencies and knowledge (Hew & Brush, 2007). It is the essential need of the time to follow and apply the teaching competencies of the instructors in online education and engage to develop the latest pedagogical inquiries which have a deep relationship among pedagogies, content, and technologies aspects into the context of teaching (Koehler & Mishra, 2005). With the passage of the time, the internet and its related tools such as tablets, LMS, Moodle, video conference, discussion board, are helping tools (Namli, & Demir, 2020). Smith (2008) argued that online instructors' knowledge, skills, and dispositions are necessary for effective teaching in an online

environment. The pioneers' studies about the teaching competencies of the instructors were conducted based on the interviews from the experts (Thach & Murphy, 1995).

Williams (2003) stated that the instructors had thirty teaching competencies along with other their roles to perform their collaboration, communication between the instructors and the students, and add furthermore twenty-three teaching competencies, suggesting the role of the instructor as a facilitator and their tasks. The instructors need to possess characteristics like active, supportive flexible, and respectful is helpful for the teaching (Koehler, Mishra, & Cain, 2013).

Dubins and Graham (2009) highlighted the eight key teaching competencies such as instructional design, management assessment, the orientation of the students, social presence and process, andragogy and pedagogy, institutional knowledge, managing assessment, and information about software such as content management software. Abdous (2011) conducted research, in which he highlighted the instructors in online education are practicing their teaching competencies in an online setting.

For the online instructors, it is the requirement to get adequate knowledge about to overcome the technical issues and problems (Alman & Tomer, 2012). Technological Pedagogical Content Knowledge (TPACK) developed by Koehler, Mishra, & Cain, (2013) highlighted that the technology helps for effective teaching of the instructors needs the knowledge of the instructors about the knowledge of pedagogy, content, and technology.

Furthermore, the instructors teaching competencies depends upon their involvement in their work in the light of the aims in an online mode of education. Based on all these works, human development is emphasized in their competencies development. Professional competencies are required for the instructors to operate effectively the educational system. Instructors need teaching competencies to teach different courses and programs to improve the learning of students (Bennett & Lockyer, 2004).

According to Rana, (2019), there is a relationship between the demographic variables and teaching competencies. Moreover, Sengottuvel, & Aktharsha, (2015) argued that the demographic variables have a significant influence on the teaching competencies of the instructor. There are no single research studies conducted in Pakistan which highlighted this aspect.

The demographic variables of the instructor; age, qualification, year of experience, and the number of professional training events attended' play a vital role in the success of online teaching. These bring change in the online teaching of the instructor. Sa'adatu, (2014) argued that the demographic variables are the motivational tools that had the effects on the teaching competencies and improve their performance to make their teaching successful.

With the passage of the time, and with the help of their subject qualification, the instructors can improve their teaching competencies to make their teaching more effective and useful. Furthermore, Akiri & Ugborugbo, 2009; and Sogillo, Guimba, & Alico, (2016) conducted research and stated that the instructors' qualification (level of education) and their teaching competencies are positively correlated with each other. The 'qualification' is considered the first independent variable in the study. It refers to the subject matter knowledge of the instructors that they receive. Darling-Hammond (1998) argue that the qualified instructor is certified and become able to teach to their relevant field. Instructors' qualifications, teaching experience, and age are the important factors that can assist or restrain the teaching competencies of the instructor (Dong, Chai, Sang, Koh, & Tsai, 2015).

Additionally, Prensky (2001) highlighted that the demographic variable 'age' has a relationship with the teaching competencies in terms of the utilization of advanced technology in their teaching practices. The 'instructors' age' is considered the second independent variable in the study. It refers that how much age which the instructors have now. Sala (2002) argued the demographic variable 'age' brings improvement and development in the teaching competencies of the instructor such as the emotional competencies of the instructor to create balance in their emotions while teaching.

The 'years of teaching experience' is considered the third independent variable in the study. It refers that how many years the instructors spend to teach online. The experienced instructors' practices about the pedagogical content knowledge can change and modify with the help of the quality professional development training programs that bring changes in their teaching. Jimoyiannis & Komis, (2007) conducted research and found that there is a strong relationship between teaching experience and technology-related teaching competencies. Experienced instructors get more insight from their richer backgrounds and contributed innovative ideas into the course of teaching (Kosgei, Mise, Odera, and Ayogi, 2013). The less experienced instructors are motivated to improve their teaching competencies as compared to the more experienced instructors in terms of the utilization of the advanced technology in their teaching (Teo, & Zhou, 2017). Moreover, Tsai (2002) argued that instructors with less teaching experience mostly participated and attends the teaching seminars and workshops to improve their teaching competencies. Due to the limited teaching experiences, they participate in various activities and adopt constructive pedagogy to improve their teaching (Teo, & Zhou, 2017). The variables 'age' and 'teaching experiences' of the online instructors bring positive change in their teaching competencies (Patrick and Yick, 2005; Kopp, Matteucci, & Tomasetto, 2012).

The 'number of professional training events attended' is considered the last independent variable in the study. It refers that how much the instructors' Professional training events attended to improve their teaching competencies. The pre-service and in-service professional training events play a significant role in the teaching competencies of the instructors. It helps to polish the hidden skills and talent of the instructors in terms of improving their teaching competencies. Walter, Wilkinson, and Yarrow (1996) argued that the professional development of the instructors helps to improve the quality of the teaching.

Kakkar (1996) stated without teacher training events such as continuous professional development, the instructors cannot do justice with their job in terms of the up-gradation of their knowledge and constructive pedagogies. These events influence the instructors for the improvement of their quality teaching (Cruickshank, Jenkins, and Metcalf, 2003). Palloff & Pratt (2013) argued that some online instructors have inadequate professional training to teach in an online setting (Palloff & Pratt, 2013). Aziz (2014) conducted research and reported that trained instructors had better teaching competencies as compared to their counterparts. Palloff and Pratt (2011) argue that the professional development of the instructors is an inclusive procedure that has three different dimensions includes self-development, faculty development, and the support of the institution.

Wang, Wang, Stein, Liu., & Chen (2019) argued that beginning online instructors' 'age' did not influence their significant effect on their online teaching competencies, but the instructors' teaching experience, and their educational qualification, had the positive effect on the teaching competencies of the instructor'. In this research paper, the influence of the demographic variables on the teaching competencies' of the online instructors was investigated.

Aims of the Study

This study aimed to identify the influence of the demographic variables (qualification, age, year of teaching experiences, and the number of professional training events attended') on the teaching competencies of the instructor in a virtual mode of education.

Research Question

The following research question was to address the current research study.

RQ How do online Instructors' qualifications, age, years of experience, and the number of professional training events attended' influence their teaching competencies?

Theoretical Framework of the research

For the current research, theoretical framework given by Farmer and Ramsdale (2016) was applied. The purpose to use this framework was that it is more appropriate, latest, and based on the previous research studies conducted from 1970 to 2012. The online Teaching Competencies (OTC) matrix consists of five components includes: a) Community &; Netiquette, b) Active Teaching, c) Instructional Design, d) Tools and Technology, and e) Leadership and Instruction. The data were analyzed in light of the Online Teaching Competencies (OTC) matrix.

Significance of the Study

Online teaching is still the field of emerging and also in progress. Based on the finding of this research, the educational institution can plan the workshop to improve the teaching competencies of their instructors. Various professional training institutions' are keeping their efforts about how to improve the instructor competencies and qualifications to teach in the virtual setting. The tool used in this research study can help instructors to assess the level of their teaching competencies that will help them to teach online.

Methodology

The research study was quantitative in nature.

Sample

The sample of this research consists of 250 online instructors of the three universities of Pakistan; one is a virtual university, and the other two offer online programs and courses.

Data Collection Tool

An adapted standardized questionnaire developed by Bigetal et al., (2012) was used to collect the data about the competencies of teachers, teaching in the online mode of education. These competencies are community and netiquette, active teaching, instructional design, tools and technology, leadership, and instructions. The first section of the questionnaire consists of items about the information of demographic variables such as instructor qualification, age, year of experience, and numbers of professional training attended. The questionnaire consisted of 54 Likert scale type items scored on five-point options a) Not important b) Slightly important c) Fairly important d) important e) Most important. This questionnaire was used first time in Pakistan, therefore, it

was mandatory to find out its suitability in the Pakistani context. For this purpose, the reliability analysis of the scale was conducted through Cronbach's alpha, which is usually stated as the alpha coefficient of reliability (Cohen, Manion, & Morrison 2007). The questionnaire was administered to 50 instructors involved in online teaching. Cronbach's alpha coefficient value 0.80, indicated the suitability of the questionnaire to use in Pakistan.

Data Analysis

As mentioned previously, the instructors' responses to their teaching competencies were obtained on a Likert scale type questionnaire. It was distributed to the 250 instructors based on their willingness to participate in this research, however, two hundred instructors responded. The data were analyzed through multiple linear regression to find out the influence of the demographic variable with the teaching competencies of the instructors. Table 1-5 shows the results of the instructors' responses to the questionnaire. The overall response rate of the instructors was 61%. It means that 61% of instructors filled out the questionnaire. The online teaching competencies (OTCs) matrix was applied as a lens for the analysis of the quantitative data. Teaching competency wise results are presented below.

Community and Netiquette

According to Community and Netiquette competency, the instructors in an online environment try their best to build a relationship with the students for the improvements of their professional, academic, and personal growth as well as development. In this component, we intended to identify the influence of the instructors' qualifications, age, years of experiences, and numbers of professional training attended on the 'community and netiquette' component of the online teaching competencies matrix.

Table 1:Community and Netiquette

Variables	Coefficient	Beta	Sig.	R^2	Adjusted R square		
Constant	1.569		0.000				
Qualification	0.176	0.170	0.012				
Age	0.14	0.024	0.800	0.135	0.117		
Years of Experience	0.301	0.333	0.000				
the number of Professional training events attended'	-0.161	-0.172	0.068				

Table 1 showed the results of multiple linear regression analysis. Here the values of adjusted R^2 are 0.117 and with the $R^2 = 0.135$. It means that the multiple linear regression based on four variables qualification, age, years of experience, and the number of professional training events attended', overall explains 13.5% about the variance in the 'community and netiquette' component of teaching competencies. Multiple linear regression was calculated for all variables, the results showed and explain that 'years of experience' with sig value = 0.000 and 'qualification' with sig. value = 0.012 are significant predictors of the component 'community and netiquette'. Results indicated that the independent variables 'experience' has a higher influence as compared to the independent variable 'qualification' by comparing the standardized coefficients (beta = 0.333 versus beta = 0.170). Results showed that the rest of the two independent variables 'Age' and 'the number of Professional training events attended' are non-significant predictors' of Community and Netiquette teaching competencies.

Active Teaching

The online instructors work hard and put efforts to establish a participatory and active learning environment for the learners in an online mode of education. In this component, we intended to identify the influence of the instructors' qualifications, age, years of experiences, and 'number of the professional training attended events' on the 'Active Teaching' component of the 'Online teaching competencies matrix.

Table 2:Active Teaching

Variables	Coefficient	Beta	Sig.	R^2	Adjusted R square		
Constant	2.188		0.000				
Qualification	0.119	0.138	0.050				
Age	0.026	0.056	0.574	0.060	0.040		
Years of	0.120	0.160	0.044				

Experience							
the number of Professional training events attended'	-1.014	-0.018	0.857				

Table 2 showed the results of multiple linear regression analysis. Here the values of adjusted R^2 are 0.040 with the value of $R^2 = 0.060$. It means that the multiple linear regression based on four variables 'qualification, age, years of experience, and the number of professional training events attended'' generally explains the variance 6% in the 'active teaching' component of teaching competencies. The multiple linear regression' results showed that only "years of experience" with sig value = 0.044 and "qualification" with sig value = 0.050 are significant predictors of the 'Active Teaching' component of Teaching Competencies. Results showed that the independent variables 'years of experience' influence the independent variable 'qualification' by comparing the standardized coefficients (beta = .138 versus beta = 0.160). Results showed that the rest of the two independent variables 'Age' and 'the number of Professional training events attended' are non-significant predictors of the 'Active Teaching' component of teaching competencies.

Instructional Design

The online instructors plan students learning activities and course curriculum in a way that not only helps to enhance the learning of the courses as well as for the program. The instructors apply various methodologies and strategies for the teaching of the content, the learning activities, and also for the assessment. In this component, we intended to identify the influence of the instructors' qualifications, age, years of experiences, and numbers of the training event on the 'Instructional Design' component of the Online teaching competencies matrix.

Table 3: Instructional Design

Variables	**Coefficient**	**Beta**	**Sig.**	**R^2**	**Adjusted R square**		
Constant	3.131		.000				
Qualification	.072	.073	.306				
Age	.028	.053	.605	.034	.015		
Years of Experience	.012	.014	.864				
the number of Professional training events attended'	-0.189	-.212	.034				

Results in Table 3, presented multiple linear regression analysis. Here the value of adjusted R^2 is .015 and with the $R^2 = .034$. It means that the multiple linear regression based on the four variables 'qualification, age, years of experience, and numbers of Professional training events attended overall explains and shows 3.4% of the variance in the "Instructional Design" component of teaching competency. Multiple linear regression was calculated for all variables, the results showed and explain that the independent variables 'Number of Professional Training events attended' with sig. value =.034 is the significant predictors of the "Instructional Design" component of teaching competencies. Results indicated that the rest of the three independent variables 'Qualification, Age, and years of Experience' are non-significant predictors of the 'Instructional Design' component of teaching competencies.

Tools and Technology

Online instructor organizes and selects the tools and technology for the students learning. It selects the technology that is productive, manageable, and helpful for the learning of the students. In this component, we intended to identify the influence of the instructors' qualifications, age, years of experiences, and numbers of the training event on the 'Tools and Technology' component of the Online teaching competencies matrix.

Table 4 :Tools & Technology

Variables	**Coefficient**	**Beta**	**Sig.**	**R^2**	**Adjusted R square**		
Constant	2.373		.000				
Qualification	-.034	-.037	.596				
Age	-.100	-.199	.047	0.73	.054		

Years of Experience	.119	.149	.059				
The number of Professional training events attended	.238	.287	.004				

Table 4 showed the results of multiple linear regression. Here the values of adjusted R^2 are .054 and with the $R^2 = 0.73$. It means that the linear regression based on four variables 'qualification, age, years of experience, and numbers of professional training events attended', overall explains 7.3 % of the variance in the "Tools & Technology" component of teaching competencies. Multiple linear regression was calculated for all variables, the results showed and explain that explains that 'Age' with sig value = 0.000, 'years of experience' with sig value = 0.000, and 'number of professional training events attended' with sig. value = .059 are significant predictors of the component 'tools and technology'. Results indicated that the independent variables "Number of Training events attended" have a higher influence than the independent variable age by comparing the standardized coefficients (beta = .287 versus beta = -.199). Results showed that the independent variables 'Qualification' are non-significant predictors of the 'Tools & Technology' component of teaching competencies.

Leadership & Instruction

In an online setting, Instructors act as a leader and the facilitator. Their important role is to give proper guidance to the students, focus on the discussions, give them the proper examples, model behavior, and demonstrate skills, principals, and critical concepts. In this component, we intended to identify the influence of the instructors' qualifications, age, years of experiences, and numbers of the training event on the 'Leadership and Instruction' component of the online teaching competencies matrix.

Table 4.5:Leadership & Instruction

Variables	**Coefficient**	**Beta**	**Sig.**	**R^2**	**Adjusted R square**			
Constant	2.899		.000					
Qualification	-.043	-.046	.523					
Age	-.068	-.132	.198	.019	-.001			
Experience	-.054	-.166	.415					
the number of Professional training events attended'	0.87	.102	.307					

Table 4.5 result showed multiple linear regression. Here the values of the adjusted R^2 are -.001 and with the $R^2 = .019$. It means that the linear regression based on four variables "qualification, age, years of experience and the number of professional training events attended'", overall explains describe 1.9 % of the variance in the "Leadership & Instruction" component of teaching competency. Multiple linear regression was calculated for all variables, the results showed that all the independent variables 'qualification, age, years of experience, and the number of professional training attended events' are non-significant predictors' of 'Leadership & Instruction' component of the online teaching competencies.

DISCUSSION

This study was intended to identify the influence on the teaching competencies of the instructors' teaching in the online mode of education. Three main research questions were formulated. One major research question addressed to explore the demographic variables; 'qualification, age, years of experience, and the number of professional training attended events' on the teaching competencies of the instructors, teaching in the online mode of education.

The demographic variable plays a significant role in the instructors' teaching (Aramide, Ladipo, & Adebayo, (2015). In the current research study, multiple linear regression analysis showed that some of the demographic had a strong influence on the teaching competencies as compared to the other demographic variables.

The results of the current research study show that the independent variables 'years of Experience', and the 'number of Professional training events attended' influences on the 'community and Netiquettes' component of the online teaching competencies. Therefore, these two variables help instructors in terms to improve their teaching competencies. The rest of the two independent variables 'age' and 'qualification' did not influence on the 'community and Netiquettes' component of the teaching competencies. Thus, the demographic variables

played a vital role to improve the teaching competencies of the instructors. Experienced and professionally trained teachers have more quality in their teaching.

Moreover, the results indicated that the independent variables 'years of experience' and qualification" significant predictors of the 'Active Teaching' component of Teaching Competencies. Experiences and qualified instructors bring quality in their teaching. Aslam, Rehman, Imran, and Muqadas (2016) stated that the demographic variable 'qualification' has the relationship with the instructors teaching competencies to improve their teaching competencies as compared to the experience of the instructors in terms of the effective learning of the students. On the other hand, Ahmad, and Khan (2016) conducted research and found that qualification does not affect the teaching competencies of the teacher. Qualification of the instructor, their age, and teaching experience are the demographic variables that play an important role in the teaching competencies of the instructor at the university level (Robbins, 2008). Aslam, Rehman, Imran & Muqadas (2016) argued that that instructor's qualification improves their teaching.

But the rest of the two variables 'number of Professional training events attended' and 'age' did not influence on the 'Active Teaching' component of the teaching competencies. Furthermore, the findings show that the independent variable 'Number of Professional Training events attended' influence on the 'Instructional Design' component of the online teaching competencies. Therefore, these two variables help instructors in terms to improve their teaching competencies. Therefore, 'Number of Professional Training events help instructors to improve their teaching competencies. The rest of the three independent variables years of Experience, age, and qualification are not the influencing variables to improve the 'Instructional Design' component of the online teaching competencies.

Additionally, the results of the study revealed that the independent variables 'age', 'years of experience' and 'number of professional training events attended' are significant predictors of the 'tools and technology' component of Teaching Competencies. Therefore, these three independent variables help instructors to improve their teaching competencies in an online mode of education. But, the independent variables 'Qualification' did not influence of the 'Tools & Technology' component of online teaching competencies.

Moreover, the result of the study showed that the independent variables all the four independent variables ' qualifications, age, years of experience, and the number of professional training events attended the event' did not influence the 'Leadership & Instruction' component of the online teaching competencies.

They argued that those instructors who have more experience can better solve the issues relevant to technology that creates problems for them in their teaching. Teaching in this mode is demanding from the instructors to work hard to achieve the learning aims of the course as well as programs. The teaching competencies of the instructors have got a lot of importance in terms to develop professional development programs and training events for the instructors. Various training institutions work to improve the teaching competencies of the instructors by conducting effective professional development training programs. The instructors required teaching competencies in an online mode of education (Alvarez, Guasch, & Espasa, 2009).

Research also demonstrates that to improve the teaching competencies of the instructors, the demographic variables play an important role. This study revealed that the instructors' 'age' and 'number of professional training attended events' have the least influence on the instructors teaching competencies as compared to the variables 'qualifications' and 'years of teaching experience' on their teaching competencies. The two demographic variables 'qualifications' and 'years of the experience' that have a positive influence on the 'community and netiquette' of the component of the online Teaching Competencies (OTC) matrix. The rest of the two variables age and the number of professional training attended events do not influence this competency. Qualification of the instructors' helpful to enhance the teaching competencies of the instructors. The independent variable 'years of experience' also helps to improve the teaching competencies of the instructors because due to the experience they become more competent to teach in an online mode of education effectively.

In various disciplines, the researcher identified that the more experienced teachers have traditional thoughts and ideas as compare to the less experienced instructors (Bautista, Echeverria, & Pozo, 2010; Castejón & Martı´nez, 2001). There is only one demographic variable 'number of professional training attended' influences the 'instructional Design' of the component of OTC. Tsai (2002) highlighted that the less experienced instructors' are active to participate in the training events such as in teacher training workshops and seminars. Badia, Garcia & Meneses (2017) argued that the demographic variable 'age' is playing an important role in the teaching of the instructors in an online mode of education.

Teaching competencies might serve to make sure the instructors' qualifications and readiness for teaching purpose in a virtual setting. This research also demonstrates that the 'qualification', 'years of teaching experience', and 'number of teacher training', of the instructors helps to improve their teaching competencies to teach in a virtual setting. Islam (2011) conducted research and concluded that the teachers' qualification and their age has a significant impact on e-learning effectiveness (Islam, 2011). All demographic variables qualification, years of teaching experience, and numbers of training events expect 'Instructor age' influence on the teaching competencies of the instructors need to add more arguments in the discussion.

CONCLUSION

In the twenty-first century, online education is the demand of the time for the provision of quality education for all the students especially in an online mode of education because it is an emerging trend in our context. To teach quality education in a virtual setting the instructors need to improve their teaching competencies. Based on the findings, it is concluded that the demographic variables have played a significant role to improve the teaching competencies of the instructors. The demographic variables 'years of experience' has the most effects on the teaching competencies of the instructors as compared to the rest of the variables. The demographic variables 'age' has the least influence on the teaching competencies of the instructors. The only 'qualification' of the instructors' influence on the 'community and netiquette' component of the online teaching competencies matrix. The merely 'age' of the instructors' influence on the 'tools and technology component of the online teaching competencies matrix.

This research concluded that the demographic variables' 'qualification' and 'years of teaching experience' have an influence on the teaching competencies of the instructor but their age, and the number of the 'professional training events attended ' did not affect the teaching competencies of the instructors. The study revealed that the demographic variables bring changes in their teaching competencies. Albrahim (2020) found that the competencies and the skills of online teaching help them to plan and design professional development programs for instructors. Demographic variables can play an important role to improve the teaching competencies of the instructors.

To conclude this, the professional development institutions and administration of the university should develop effective professional development training events and work hard to improve the qualification of the instructors for the online environment of teaching. These professional training workshops not only train instructors' but also create awareness of the importance of the other related demographic variables in the teaching competencies of the instructors. Future research might be conducted on the impact of the demographic variables and instructors' teaching competencies to improve the students' learning and also to improve the quality of the teaching in a virtual setting.

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