

Network Learning vs. E-Learning: EFL Teachers and Learners' Views

Mohammad Yarianfar^{1*}

¹ University of Tehran, Iran

Correspondence e-mail * : Yarianfar.m2023@ut.ac.ir

Abstract: Recent years, the reputation and approval of online classes have paved the way to growing number of online course presented by institutions and colleges. The study aims at investigating the views of teachers and students about Network Learning vs. E-Learning and compare them. The analysis was carried out using the data collected through two separate structured questionnaires in a Likert scale for students and teachers at a university. Data were recorded in SPSS and analysed by using descriptive and inferential statistics. The results were presented in the forms of means and standard deviations. The finding showed the both teachers and students gave positive views about online classes in the forms of e-learning and network learning yet with a different percent. The study reveals that students are comfortable with online classes and are getting enough support from teachers but they do not believe that online classes will replace traditional classroom teaching. However, some teachers are facing problems in doing online classes due to a lack of proper training and development for doing online classes. There were some technical issues as a major problem for the effectiveness of these kinds of classes. Finally, Mann-Whitney U test is applied to explore any significant difference between the views of the two groups. It showed that both teachers and students views' are more positive towards network learning. The study has some pedagogical implications and has some suggestions for further studies.

Keyword : Collaboration, E-Learning, Online learning, Learner-centered approach, Network Learning.

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INTRODUCTION

Change is constant and unavoidable; all in the world become obsolete in the course of time with new advancement, and intelligence remains in the ability to adjust to change (Economic Times, 2020). E-learning is one such fastest increasing trend in the educational applications of technology (Means, Toyama, Murphy & Baki., 2013). Papanis (2005) (in Tittasiri (2003) believes that e-learning yields rapid learning at shortened cost, augmented access to learning, and clear accountability for all individuals in the learning process". However, E-learning, especially 'Online learning' has always been an uncooperative term since it can abstruse the physically situated feature of learning (Fawns, 2019). One purpose of this type of initiatives is to enhance access to college-level courses (Lewin, 2013; Scott, 2013). The other one is to develop

the nature and quality of learning by empowering learners to involve in the construction of knowledge and the formation of multimodal artifacts (Dohn, 2009; Ornellas & Muñoz Carril, 2014).

Network learning as a procedure of expanding and keeping connections with people and information, considers procedures of collaborative, co-operative and collective research (van Leeuwen, 2018). This kind of flexible approach encourages and equips learners with the capacity to work creatively to determine and construct problems to work on, search the resources to solve the problems and improve workable solutions (Jones, 2015). Creating and developing network learning involves re-planning, rethinking and re-evaluating a few of the principal procedures usually considered in on-site learning (Trentin, 2010).

Most significantly, only a few research showed unimportant differences between teacher and student perception, but on the whole, generally moderate to strong influence size differences are determined and these tend to be positively skewed by the teacher (Wubbels & Brekelmans, 2005).

On the other hand, learners' outcomes are normally regarded as criteria for evaluating the quality of instruction. At the official level, instructional policy determines what achievement objectives should be met under the influence of political and social analysis. (Creemers, 1996; Van Houtte, 2007).

Questions concerning the gap between online learning research and network learning have been raised recently (Biesta, 2007). This gap has given rise to ponder between researchers and teachers (Whitty, 2006; Broekkamp & Van Hout-Wolters, 2007). On the other hand, obtaining real learning context taking place in a 'mere face-to-face' or 'totally online' situations is not usual (Carvalho & Yeoman 2018; Ryberg, Davidsen & Hodgson 2018).

Whereas potent and impressive language learning entails meaningful communicative experiences, like real involvement with intercultural interaction (e. g. Belz & Thorne, 2006; Canale & Swain, 1980; Kramsch & McConnell-Ginet, 1992) , language learners often have challenges with context-less educational circles that are not merely vital to second language pragmatic development, but also to online learning in general. Therefore, just the lasting of tools is not ample for language learning; cooperation, interaction and proactive human mediation and involvement are needed so as to consider the socialization needs of learners (Lamy 2013a; Kan and McCormick 2014; Delahunty et al. 2014). Moreover, learners need valuable resource so as to be represented opportunities for connections among them and teacher. One form of meeting motivational, cooperative and interactive needs and support and providing good rapports with learners is using network learning (Hurd, 2005)

Many teachers and language learners have mixed views about online class. Therefore, studies should be conducted in order to analyse their different views and opinions about e-learning and network learning and which one is the better way to

present the subject and maintain the class to complete understanding of the course (Agustina & Cahyono, 2017; Dja'far et al., 2016). Considering these perceptions and views, we infer that there is a need for the study in the area of perception of teachers and students in online classes. Also, after the outbreak of COVID 19 in the entire world, the online classes became compulsory for instruction.

The purpose of the present study is to find teachers' and learners' perceptions and views about the network learning and e-learning through their instruction at university. To provide insight into the aforementioned problems, this study aims at answering the following questions:

1. Is there any statistically significant difference between network learning and e-learning in Iranian EFL teachers' views?
2. Is there any statistically significant difference between network learning and e-learning in Iranian EFL learners' views?

Literature Review

The origin of the term e-learning term comes back to the mid-1990s (Garrison, 2011) and its use and dedication encompass both a computer-based learning and web-based learning. Ultimately, we can deliver and transmit its learning contents and instructions through various multimedia (Mohanna, 2015). Papanis (2005) as cited in Tittasiri (2003: 69) maintained that this type of learning offers improved learning at lower expense, widened access to learning, and determine accountability for all who involved in the learning process. In addition, Rosenberg (2001) regarded it as a flexible learning because it facilitates and improves learning though net.

Moreover, Bencheva (2010) contended that it is a personalized approach which emphasizes on the individual learner and it consists of self-paced education, guiding, reproduction, collaboration, evaluation; it also entails some of the various constituents that are very common in the traditional learning for delivering the information. On the other hand, Rose-Krasnor (1997) believed that understanding of self and others function a crucial role in the usefulness of social interactions. Furthermore, Nagy (2005) described e-learning as rapid, dynamic, self-paced, comprehensive learning through which learners can learn at the pace they adopt. It enhances learners' motivation for language learning since it influences on all essential components of foreign language learning, i.e., input. He further added that the most remarkable benefits of most kind of e-learning are adaptability, appropriateness and the ability to work at learner rate of learning. In other word, via using technology and personalizing information we can improve language learning.

The origin of network learning (NL) came back 1990s, as a critical reaction to prominent debates of the day. In a way, it emerged from practices in open and distance learning, co-operative and collaborative learning lasting learning, computer-mediated communication, and critical and emancipatory pedagogy (Goodyear, 2014;

Hodgson & McConnell 2019; Jones & Dirckinck-Holmfeld 2009; McConnell, Hodgson, & Dirckinck-Holmfeld 2012).

The connection of network learning to co-operative and collaborative learning is elaborated in McConnell's early coinage. Other researchers advanced the underlying principles of network learning (e.g., Ponti & Hodgson (2006); Hodgson & McConnell (2019) in which the emphasis is on learning that improves a perceived value to the learners, all participants have a shared responsibility for the learning, learning is contextual and situational with critical reflexivity. Moreover, Beaty, Hodgson, Mann, and McConnell (2002) declared that this kind of learning emerged so as to start a developing understandings of relationships between humans and technologies and consider the critical pedagogy movement in different ways. The founding members of the NL described it in a way that firmly affected theoretical perspectives of NL; likewise, they considered networked collaboration (Goodyear, Banks, Hodgson, & McConnell, 2004).

Based on Bakhtin's speculation on language and learning and Latour's (1994) theory on social relations, NL explores collaborative learning in which a network is the relation and interaction of different actants to one another (Cressman, 2009). In other words, the belief or view of network is determined when action is reconsidered in order to clarify the way action occurs' this view takes in account educational settings identifying how learning outcomes are derived (Kumar & Rangaswamy, 2001). Moreover, learners' involvement is usually conceived as a meta-construct that includes academic, emotional, psychological, behavioral and cognitive aspects in the scope of education (Anderson, Christenson, Sinclair, & Lehr, 2004; Fredricks, Blumenfeld, & Paris, 2004). Baumann et al. (2008) and Murphy et al. (2010) also maintained that the success of learning languages in on-line learning relies on how well we can support the participants, considering the problems involved in on-line education (Hurd, 2005; Murphy et al. 2010).

Arguably, some scholars (e.g., Miyake & Kirschner, 2014; Palloff & Pratt, 2013; Sugilar, 2017) mention about the defects and disadvantages e-learning. They argue that e-learning doesn't much consider the social relations among learners. Meanwhile, it decreases amount of face-to-face and social interaction and teacher's supervision in the course of learning. Moreover, it entails self-motivation and suitable time management skills. Therefore, they consider network learning as an online-based teaching which is interactive and build an environment in which learners actively engage with the material and a basically social procedure of knowledge building in it is collaboration.

On the other hand, recent studies show that some learners and teachers are the positive side of an online instruction, but other participants of this kind of instruction have mixed perceptions and views. (Agustina & Cahyono, 2017; Dja'far et al., 2016). However, some researchers (e.g., Allen & Seaman, 2010; Bejerano, 2008; Cheung &

Kan, 2002; Kebritchi et al., 2017; Tucker, 2001) assert that online learning has many limitations compared to face-to-face learning and learners are successful in the traditional classroom and degrees achieved via online instructions are not valid as much as a traditional method of instruction. Yet, a crucial hurdle is the 'challenges of innovation' (White, 2014, p.548) in on-line educational settings, which Hampel (2014) also considered it as cognitive challenge through using digital media. These predicaments decrease the rate of participation and interaction (Fayram et al. 2018). Therefore, more studies are required for awareness programs concerning the significance of online learning (Allen & Seaman, 2010; Bejerano, 2008).

METHOD

Participants and Context

The participants in this study composed of two general groups of teachers and learners. First, they participant in e-learning class and then, they took part in a class based on network learning. In each phase, there were two groups of responders first, teachers and then learners considering their perceptions and views about e-learning and network learning. Furthermore, all the participants were selected in a random sampling at Payam-e-Noor University in Tehran, Iran.

Females were major in respondents, i.e. teachers = 12(30.4%) and in students = 88(69.6%). Majority of the teachers (59.2%) were conducting online classes, and 69.9% of students are taking online courses.

Materials and Instruments

One instrument was used in the survey which is a questionnaire in a four-point Likert scale, and the answers of the respondents ranged from "poor" to "excellent". At first, the reliability of the scale was calculated using Cronbach's alpha coefficient estimate.

For the purpose of the present study, the validity of the instrument was checked by five experts in the filed in the context of Iran. The items in this check list were prepared based on the result of analysis in the questionnaire. Next, participants, who voluntarily accepted to participate in the study were ensured that the data they provide to the researchers were kept confidential and anonymous.

Procedure

After constructing a questionnaire, to know the feasibility of the questionnaire, a pilot study conducted and reviewed the questionnaire. A survey instrument with demographic questions for students, demographic questions for instructors, questions for students regarding perceptions of "Impact," "Comfortability" and "Support from the teacher" and for instructors related to perceptions of "Teaching Practice," "efficacy" and "Training and Development" was available. Questionnaires were

distributed to participants by using Google form, and participants were informed that all opinions provided by them were kept confidential. The data were collected and recorded in a systematic way.

Data Analysis

Due to having two independent variables and two dependent variables, the researcher uses chi-square design, each with two levels in the form of a frequency count. The purpose of the test was to determine whether or not the two variables in the design are independent of one another. The Chi-square test gives us a useful way of dealing with frequency data in a systematic way. It allows us to talk about frequencies not just in terms of per-cent, proportion, or ratio, but in terms of whether or not the frequencies reflect a relationship between variables.

The data obtained from the scale resulting from the correlation between variables were analysed using SPSS 22 and the results were presented in the form of descriptive, such as means and standard deviations. Finally, as for inferential statistics, Mann-Whitney U test is used in order to find out any significant difference between the views of the two groups, that is, it is used to compare whether there is a difference in the dependent variable for two independent groups; it compares whether the distribution of the dependent variable is the same for the two groups and therefore from the same population.

RESULTS AND DISCUSSION

Results

For offering online classes, computer knowledge or Internet knowledge is necessary. Thus, the researcher asked the students about the level of expertise in computer handling. The result showed that the majority of them (72.8%) had a high level of computer knowledge.

1. Students' views of online classes (E-learning and Network learning)

It is learners whose views are most important in the instructional system. Online classes may get a part of the future instructional system. Yet, it cannot be conducted for the future if the learners don't accept it. Thus, the questionnaires asked them about comfortability, support from instructors and the influence of online class on their studies. To see the selected components, a questionnaire was constructed by asking statements on a five-point Likert scale, ranging from 1 (strongly disagree) to 5 (strongly agree). Exploratory factor analysis (EFA) was done to assess the survey instrument. The researcher did EFA separately for "Impact," "Comfortability," and "Support." Using eigenvalues more important than one as the criterion (Hayton *et al.*, 2004), each of the components clarifies a one-factor solution. Then, items with factor

loadings below 0.50 were removed. Table 1 shows the percent of variance determined by each item and communality value.

Table 1.
Exploratory Factor Analysis

Factor	Statements retained	% Of variance explained	Communality
Impact	I have a positive impact on my studies due to online class	69.539	0.745
	Online classes have increased my technological literacy	8.251	0.712
	I feel online classes help me to gain more knowledge	6.822	0.629
Comfortability	I feel comfortable using online learning tools	37.380	0.573
	I feel learning is same in class and at home on the Internet	22.564	0.521

Then, based on the final items kept internal reliability tests were done for each component (2). EFA explains what items represent selected factors, and it suggests the removal of non-representation items for the factor.

Table 2.
Reliability Analysis

Items	Initial number of items	Number of items retained	Cronbach's alpha
Impact of e-learning	6	3	0.647
	7	4	0.794
Impact of NL Comfortability of online class	5	3	0.746
	6	3	0.928
Support from teacher			

Table 3 elaborates on students' views of the influence of e-learning and N-learning, comfortability and support from instructor for these online classes. Eastmond (1995) believed that students' understanding, mindset and view toward online classes are necessary component for the success of online instruction. It is important to provide a chance for outside communication between teachers and students (Levine, 2005) to enhance the motivation of students to learn. To this end, the researcher determined the views of students on three key questions like influence of

online class on students, is online class comfortable to students and whether students get enough support from instructors.

Table 3.
Descriptive Statistics of Students' Views

	N	Minimum	Maximum	Mean	Std. Deviation
Impact	88	1.00	5.00	4.7639	0.77322
Comfortability	88	1.00	5.00	3.3720	0.85145
Support from teacher	88	1.00	5.00	4.2376	0.72231
Valid N (listwise)	88				

Table 3 shows that students believed that an online class has an important influence on their learning style ($M = 4.76$), and they also agreed that they get support from the instructor in online class like getting good reading material and also clarifying their doubt through online tools ($M = 4.23$). But students do not believe that an online class substitute the traditional face-to-face classroom instruction, and they feel that online courses are not comfortable when compared to the conventional method of teaching ($M = 3.72$). This is due to the fact that online classes are in its infancy in an instructional institution. When analyzing each item of the students' view, it is seen that it can be divided into two component, i.e. (1) positive view and (2) negative view. A positive view is based on all positive perception of learners towards online class, and negative view is term of all negative feelings or disadvantages of an online course. These categories are described below.

Positive view:

The positive statements like "I have a positive impact on my studies due to online classes, "I feel comfortable using online learning tools" and "I receive enough support and resources from my teacher" make one aspect, i.e. positive perception. Here we considered all positive statements in one group and calculated combined mean for that group and result showed in Table 4. which says that online classes increase technological literacy ($M = 4.76$). Teachers encourage students to complete their homework ($M = 3.37$).

Table 4
Combined Mean of Positive and Negative Perception

Descriptive statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
Positive view	88	1.36	5.84	3.4376	0.72366
Negative view	88	1.48	4.50	2.4357	0.58593
Valid N (listwise)	88				

Negative view:

Negative statements like, "I cannot concentrate longer time for online classes" ($M = 2.43$), "I feel puzzled and frustrated with the content delivered in online classes" ($M = 3.43$) and "Teachers are facing difficulty in the retention of students" ($M = 3.52$) make negative perception. A combined mean of positive perception and negative perception (Table 4) tells us students perceived online classes as positive with a mean value of 3.4376, which is higher than negative view mean value ($M = 2.4357$). Therefore, overall, students have definite views about online classes. And, when we regard individually, students have a great precise idea about "Impact" and "Support from the teacher" than "Comfortability" (See Table 3).

After collecting data, the researcher did an internal reliability test that was conducted for seven items of "Teaching Practice," 5 items of "Efficacy," and six items of "Training and Support" variables, and elements of each variable showed Cronbach's value more than 0.6. As this questionnaire was well-constructed and verified in the previous research, Lin and Zheng (2015), the researcher directly did the descriptive analysis. The result of the descriptive study is depicted in Table 5.

Table 5.
Descriptive Statistics for Teaching Practice, Efficacy and Training and Support

Descriptive statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
Teaching practice	30	3.17	4.33	3.4585	0.27708
Efficacy	30	1.80	5.00	3.5045	0.54312
Training and support	30	1.00	4.17	2.8605	0.49181
Valid N (listwise)	30				

2. Teachers' Views of Online Classes (E-Learning and Network Learning)

From the results of the descriptive statistics, it appeared to us that teachers agree with the teaching practices they follow with a mean score of 3.6085, and they also believed that they have very much confidence in the effectiveness of online classes they conducted ($M = 3.5045$). But they are not satisfied with the training and support given by the institution. This result shows that teachers attended online classes without training or less training, and they are satisfied with their performance.

Teachers communicating with their students regularly to engage them ($M = 3.60$) is the frequently used teaching practice along with “*I help students make connections between content and their lives,*” which has a mean score of 3.45 ($N = 30$).

For the effectiveness of an online class, most of the teachers set guidelines for communication and interaction ($M = 4.07$) so that no student misuse the online platform. Teachers rated average for professional development on organizing and structuring instructional content ($M = 2.79$) and professional development on online classroom management. By considering all statements for analysis, it was found that it can divide into positive perception and negative perception. The result of the combined mean of positive perception and negative perception are shown in Table 6.

Table 6.
Combined Mean of Positive and Negative View (Teachers' Perception)

Descriptive statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
Positive view	30	2.67	4.10	3.2767	0.35234
Negative view	30	2.07	4.25	3.3953	0.37571
Valid N (listwise)	30				

As for inferential statistics, Mann-Whitney U test was used in order to find out any significant difference between the views of the two groups about E-learning and N-learning (Table 7).

Table7.
Descriptive Statistics and Mann-Whitney U Test Results the Views of The Teachers and Students About E-Learning and N-Learning For Speaking

I.	General attributes	Poor	Adequate	Good	Excellent	Mean	Z	Asymp. sig
A.	Speaking	%	%	%	%			
1	student	2.6	25.9	62.1	9.5	2.7	-	.05
	teacher	0	0	80	20	3.2	1.92	
2	student	4.3	20.7	64.7	10.3	2.7	-	.02
	teacher	10	0	50	40	3.3	2.20	
3	student	9.4	20.5	53.0	17.1	2.8	-	.06
	teacher	10	0	50	40	3.3	1.91	
4	student	2.6	19.8	49.1	28.4	2.7	-.63	.52
	teacher	0	20	40	40	3.2		
5	student	5.2	24.1	43.1	27.6	3	-	.03
	teacher	10	0	30	60	3.5	2.08	

As it can be observed, most of the students participants tended to rate the speaking items as 'good'. Although most of the teachers participants, like their counterparts, tended to choose 'good' for some items such as item one, four, and six, their views were somehow different towards items 2, 3, and 5. Most of them decided to choose 'excellent' as their responds for items 2 and 3. In item 5, the number of participants opting 'good' and 'excellent' were similar. Comparison of the means depicts that item 1 with a mean of 3.21 was the most satisfactory one from the students' views while item 2 with a mean of 3.6 was the most satisfactory item from the teachers' views. Performing Mann-Whitney U test showed that there were significant differences in the responses of both groups.

The results of descriptive Statistics and Mann-Whitney U Test views of the teachers and students about listening skill are shown in Table 8.

Table 8.
Descriptive Statistics and Mann-Whitney U Test Results views of the teachers and students about E-learning and N-learning for Listening

II. General attribute		Poor	Adequate	Good	Excellent	Mean	Z	Asymp. sig
H. Listening		%	%	%	%			
1	student	5.1	23.1	55.6	16.2	2.82	-	.25
	teacher	22.2	11.1	66.7	0	2.44	1.13	
2	student	9.4	30.8	47	12.8	2.63	-.86	.38
	teacher	22.2	22.2	55.6	0	2.33		
3	student	4.3	29.9	52.1	13.7	2.75	-.39	.69
	teacher	22.2	11.1	55.6	11.1	2.55		
4	student	8.5	20.5	58.1	12.8	2.75	-.19	.84
	teacher	11.1	11.1	66.7	11.1	2.77		
5	student	7.7	37.6	37.6	17.1	2.64	-.92	.35
	teacher	22.2	33.3	33.3	11.1	2.33		
6	student	9.4	25.6	46.2	18.8	2.74	-.83	.40
	teacher	0	11.1	77.8	11.1	3		

According to Table, most of the participants of the both groups viewed this skill as 'good' for all items except for item 5. As the table shows, 37.6 percent of the students perceived this aspect as 'adequate' while the same percent perceived it as 'good'. Also, in case of the teachers, this item was regarded as 'adequate' by 33.3 percent and as 'good' by the same percent of the teachers. Comparison of the means showed that item 1 with the mean of 2.82 was the most satisfactory aspect from the students' views, while item 6 with the mean of three was the most satisfactory aspect from the teachers' views. The results of the Mann-Whitney U test also showed a significant difference between the views of both groups toward the listening.

Discussion

Learners' participation is a key component of the successful implementation of online classes in the recent instructional settings. Many learners believe that an online class has great transformation for these contexts, and they prefer due to its time and location flexibility and broad knowledge base. The advancement of technological instruments and learners' needs in online classes (Bennett & Lockyer, 2004) have influenced schools and universities to use online classes along with the common course.

Besides, dealing with learners' emotions has a profound influence on their learning and as such, the rise of the online instruction encourages many methods of language learning. This finding is supported by Morgan (2020). Yet, a bit of confusion arises when we want to choose the various technological tools of learning to unravel instructional and learning issues and improve educational outcome that are related to current real life situation which is in line with the findings of Bencheva (2010).

In learning networks, knowledge is distributed and decentralized. As learners produce and consume knowledge, they create networks that are living systems, that is, ecologies of learning. In these spaces, the individual or collective interactions we engage in while experiencing learning can involve living and non-living entities, a process that requires embracing post-humanist views. Considering that we are social beings and that these networks are shaped through our decisions, these networks are beyond simple digital binary structures, but rather, dynamic living organic spaces. In these living spaces, learners can form digital identities, build online communities, and grow their social capital.

In the present study learners believed that both e-learning and N-learning class are effective methods as classroom learning. However, both students and teachers confirmed that network learning outperformed e-learning (82.4% students and 90/ teachers), and they also have the opinion that it is complicated for them to grasp the online learning system. These findings are supported by the studies of some scholars (e.g., Dohn, 2009; Ornellas & Muñoz Carril, 2014)

Moreover, it observed from both teacher and students' views that lack of infrastructure for an online class like availability of smartphone or laptop and network issues are the major problem or reasons for the insignificance of online class among respondents.

CONCLUSION AND IMPLICATIONS

As a form of application of information technology in education in order to supply a learning experience, E-learning has been used by different institutions and universities. It has many advantages such as preparing the suitable environment and task-based learning tools, easy access to resources without having limited knowledge of distance, space and time. Moreover, in E-learning we can manage our schedule,

time and take courses at our most appropriate time. More importantly, we can take our learning way and study at your own rate, and become more motivated in the course.

On the other hand, network learning is differentiated as a scope of research and practice by its importunate consideration to some important facts and to their intertwinement in practice. This type of learning provides inter-personal rapports using technology, and especially collaborative involvement and in valued activity; collaboration in language learning can bring about possibilities and chances for practicing language skills and raising new knowledge and engagements inside and outside the classroom (Kirschner, 2014).

In addition, network learning supply a learner-centered learning circle which is essential in language learning, especially during the pandemic of Covid. One crucial advantage of learner-centered approach is encourage teachers and learners to share opinions, work with peers, and help each other in learning improvement (Morgan, 2020). Likewise, Billings and Kowalski, (2008), and Conrad and Donaldson (2004) emphasized the significance of building a sense of community in online teaching from teachers' perspective through network learning. There were some limitations in this study. These limitations were those characteristics of design or methodology that impacted the interpretation of the findings from this research. Therefore, this study was constrained by a number of limitations, which preclude the researcher from making strong conclusions.

The study also proved that e-learning has a more significant role to play in the future, but N-learning outperformed e-learning in terms of students and teachers' views. As such, there is a need to understand the obstacles that come in the way of accepting online learning and take corrective measures to overcome it. Further research into the benefits of e-learning and N-learning and their comparisons for students' outcomes and achievements would be fruitful. Moreover, future studies can them through both quantitative and qualitative approaches to achieve more solid findings due to the fact that these approaches have many pedagogical implications.

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