



Determinants of Online Platform Diffusion during COVID-19: Insights from EFL Teachers' Perspectives

Amir Reza Rahimi*

*English Department, Faculty of Humanities, Shahid Rajaei Teacher
Training University, Tehran, Iran
Rahinia891@gmail.com*

Samira Atefi Boroujeni

*English Department, Faculty of Foreign Languages, Sheikhbahae University,
Baharestan, Iran
Samiraatefi@gmail.com*

Abstract

The traditional face-to-face language school has been replaced with online schooling by virtue of the COVID-19 outbreak. However, recent studies have significantly covered teachers' emotional attitudes toward online education. What is not yet clear is their cognitive attitudes toward online language education, particularly during the recent pandemic. To fill the current gap, researchers selected Innovation diffusion theory (IDT) as the main theoretical framework and explored 11 Iranian EFL teachers' attitudes through semi-structured interviews. The findings of the deductive content analysis revealed that teachers had positive attitudes toward compatibility features of online education; however, they had negative attitudes toward complexity stemming from Computer Assisted Language Learning (CALL) (illiteracy, power cut, and low internet speed). Furthermore, teachers prioritize traditional language learning over online ones. Among many pedagogical implications, this study suggests that pedagogical experts should run some teacher training programs and workshops for English teachers to escalate their pedagogical and professional needs to teach both receptive and productive skills through online platforms. Additionally, English teachers should escalate their CALL literacy to efficiently manipulate their online classrooms, culminating in integrating more online tools in their language classes and placing a premium on online teaching rather than traditional ones.

Keywords: Online Language Teaching, Distance Education, Attitudes, Innovation Diffusion Theory (IDT), Emergency Remote Language Teaching

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* Corresponding Author

1. Introduction

The covid-19 outbreak has compelled all countries worldwide to take precautionary measures in all respects, especially in the area of education. They were urged to put an emergency end to face-to-face education and move toward an emergency online form of teaching. This form of abrupt online education, called Emergency Remote Teaching (ERT), is different from other forms of distance education in terms of design, assessment, and teaching strategies (Khlaif et al., 2021). ERT was welcomed among many educational institutes since it reduced physical contact between teachers and students and degraded the possible contagion risk (Al Shlowiy et al., 2021).

Some scholars argue that this radical demand for online teaching was so high before the pandemic that classroom interaction-based teaching models are already outdated (Palvia et al., 2018). However, the hallmark of the sudden transition to online education could be unpredictable challenges for students, teachers, families, stakeholders, and institutes. These problems substantially resulted from low levels of digital literacy (Watermeyer et al., 2020). Consequently, there is a growing need to analyze the role of ERT in educational settings in terms of the resulting challenges and opportunities (Ağçam et al., 2021; Oliveira et al., 2021). It could be very decisive to assess users' experiences and attitudes towards ERT so we can bring to light a well-planned future ERT design. For this sake, this study helps expand our current understanding of users' attitudes toward ERT by further focusing on online language platforms during emergency distance language teaching (ERLT). Therefore, based on the Innovation diffusion theory (Rogers, 2003), the present study intends to recognize teachers' cognitive attitudes toward online platforms.

2. Literature Review

2.1 Emergency remote language learning

In language learning, the effect of the pandemic was grievous, and there was no choice but to implement information communication technologies (ICTs) and transfer our face-to-face language classes to online ones. However, the successful implementation of any ICTs in language learning settings depends on learners' or teachers' attitudes toward it (Rahimi & Tafazoli., 2022b). For this sake, several studies have explored teachers' attitudes toward online education from a different context; as an illustration, Pham et al. (2021), in their quantitative study, investigated vietnam's teachers' satisfaction toward online teaching during the outbreak of the covid-19. Thus they developed their questionnaire and administrated it among 294 teachers. The result of the Structural Equation Modeling approach (SEM) presented that sudden changes in daily routines and anxiety had a negative impact on teachers' attitudes toward online teaching, while



perceived support from stakeholders and family members had no impact on their attitudes. Furthermore, ICT competence had a moderator effect on teachers' attitudes toward online teaching. Similarly, in their mixed-method study,

In another context, [Civelek et al. \(2021\)](#) explored Turkish EFL teachers' attitudes toward online language instruction during covid-19. Thus, they selected 75 Turkish EFL teachers and administered a questionnaire [Dashtestani \(2014\)](#) developed to explore their attitudes toward online language teaching. The result of a semi-structured interview and quantitative data revealed that Turkish EFL teachers' had no positive attitudes toward online language teaching during the outbreak of the covid-19 due to the lack of CALL literacy, learners' demotivation, the shortcoming of online applications, lack of interaction, and learners' inadequate access to online platforms.

In their qualitative study, [Nugroho and Haghegh \(2021\)](#) interviewed 27 Indonesian EFL teachers to explore their attitudes toward online language teaching during the outbreak of Covid-19. The result of the content analysis displayed that Indonesian teachers perceived some challenges, including learners' demotivation and engagement; also, they had unfamiliarity with digital platforms and perceived some difficulty in providing feedback.

As different from recent studies, this study explores teachers' attitudes toward online language teaching by applying IDT theory as the theoretical framework; since previous studies mainly focus on the emotional side of the users about the ERLT, this study sheds light on exploring the cognition, since IDT covering the users' cognition attitudes toward target system ([Waheed et al., 2015](#)), moreover, it analyzes the target innovation from dual perspectives to reduce the uncertainty about the target innovation; indeed. It analyzes the innovation "in terms of its software information, meaning information embodied in technology, and innovation-evaluation details on its expected outcomes" ([Al-Nuaimi & Al-Emran, 2021](#), P. 17).

2.2 Theoretical framework

Diffusion is the divergence and convergence of communication in that innovation are transferred via disparate channels between social members over time. According to [Rogers \(2003\)](#), innovation could be any idea, project, or approach a social member might diffuse. The main feature of IDT is that it mainly concentrates on the cognition side of the users' attitudes and neglects the emotional one ([Waheed et al., 2015](#)). For clarification, this framework identifies the target innovation by investigating through four components time, communication channels, innovation, and social system ([Chimpololo, 2021](#)). Moreover, this theory is not initially concentrated on educational purposes but has attracted recent scholars in educational areas (e.g., [Al-Rahmi et al., 2019](#);

Rusek et al., 2017) and has been applied to discover the cognitive sides of the users' attitudes (Waheed et al., 2015). This theory initially comprises five essential components, which are adopted by the researchers as follows:

1. Relative advantage: Relative advantage is in line with users' standpoint about the level of current innovation advantage. Therefore, this study alludes to the extent to which language teachers believe that online platforms are better than traditional types of learning.

2. Perceived- compatibility: The term compatibility refers to the individuals' views about particular innovations in conformity with existing values, opinions, and requirements (Rogers, 2003). In this study, perceived compatibility illustrates the degree to which teachers perceived online platforms to be compatible with their current needs, values, and requirements.

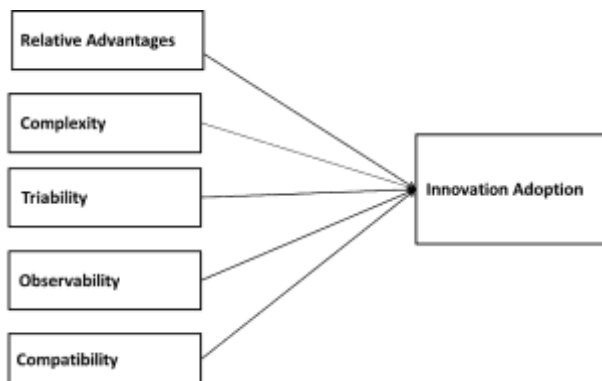
3. Perceived-complexity: The term complexity is the extent to which users dedicate their time and efforts to understand the usage of a particular innovation (Rogers, 2003). In this study, the term complexity implies how teachers perceived difficulty with online platforms would impact their teaching procedure.

4. Observability: Observability indicates the degree to which the innovation results are visible to others (Rogers, 2003). According to Duan et al. (2012), the Observability of a particular innovation stimulates individuals to talk about it with other teachers, co-workers, and friends, instilling positive attitudes toward it.

5. Trialability: Trialability is the extent to which users can work with particular innovation before using it (Al-Rahmi et al., 2019). As Chung (2013) pointed out, the higher the opportunity for trying particular innovation, the higher the attraction from the user. Figure 1 displays the essential components of IDT.

Figure 1

Innovation Diffusion Theory (Rogers, 2003)





3. Methodology

3.1 Design of the study

In line with the study objective, the researchers selected the qualitative design due to its flexibility in data collection, analysis, and discussion (Ritchie et al., 2013). Also, this design can investigate the target phenomenon from various aspects that quantitative statistical methods could not discover (Corbin & Strauss, 2014). The researchers selected the narrative inquiry in the form of descriptive design, which explores the status of the phenomenon in the target context (Edmonds & Kennedy, 2016).

3.2 Instrumentation

We collected the data for the study via a series of structured interviews based on the IDT framework. The first author developed the first draft of the interview protocol based on the IDT framework. To ensure the face and content validity (Bolarinwa, 2015), four experts checked the appropriateness of the questions in terms of concepts, and relevance in computational linguistics, psycholinguistics and, English language teaching, and some modifications were made. Moreover, the protocol was tested through a pilot study including three participants similar to the main participants of the study. Through the pilot study, the clarity and wording of the questions were checked.

3.3 Research context and participants

The data were collected in six public schools in Isfahan, Iran. The participants of the study were eleven Iranian EFL teachers who were selected through purposeful sampling (Patton, 2002), which “emphasizes the similarity and judgment-based representativity of the samples,” As cited in (Rahimi & Tafazoli, 2022a, p. 7). The selection criteria included: (1) the participants should teach English at high school, (2) they should implement online platforms in those classes during the outbreak of COVID-19, (3) all of them should have a postgraduate degree in applied linguistics, (4) they should have different years of experience in teaching English as well as online language teaching, (5) they were all MA or Ph.D. graduates of English teaching (MA=5 and PhD=6) 6. The participants had both synchronous and asynchronous types of language teaching. 7. During this time, they had online classes in all high school grades using various tools, such as WhatsApp, Adobe Connect, Shaad (an Iranian educational platform), Big Blue Button, and Skyroom. Table 1 displays participants’ demographic information.

Table 1

Participants’ Demographic Information

Name	Years of experience	Years of online experience	Gender	Age	Educational background	Platforms
Zahra	25	3	F	47	PhD	WhatsApp
Nafise	18	2	F	38	PhD	Adobe connect /WhatsApp
Asghar	14	2	M	36	M.A.	Adobe connect
Akbar	18	1.5	M	39	M.A.	Shaad
Kasra	29	2	M	55	M.A.	Adobe connect
Ramin	15	2	M	38	PhD	Adobe connect
Liana	18	1.5	F	40	PhD	WhatsApp
Diana	18	3	F	37	M.A.	Big blue button, Skyroom
Vida	12	2	F	42	PhD	Adobe connect,
Arsha	26	1.5	M	48	PhD	WhatsApp
Sonia	18	1.5	F	38	M.A.	Shad

3.4 Data collection and analysis

We took into account several ethical considerations prior to the process of data collection. Firstly, we gained access to the schools and obtained the necessary permissions. Before the interview, we provided a detailed description of the concept and objective of the study, along with the data collection process. The participants were assured of the confidentiality of the shared data and the anonymity of their identities. Hence, we specified a pseudonym for each of the participants. All the participants were asked to sign off the consent form, which described the whole procedure of data collection, the study objectives, and assuming why they were selected for the current study. The interviews were conducted via WhatsApp. The participants selected the modality (video or voice call) and language (Persian or English) of the interview. The interview sessions lasted about 60 minutes and were recorded by the interviewer.

Regarding the data analysis, the researchers adapted [Braun and Clarke's \(2006\)](#) stages for thematic content analysis as follows: (1) translating the data, (2) familiarizing with the data, (3) selecting theoretical content analysis, (4)



generating the codes based on the IDT framework, (5) searching for themes, (6) reviewing the themes, and (7) reporting.

After collecting the data from the second researcher, she translated it into English and sent it to the first researcher. He read and re-read the data, highlighted their essential aspects, and obtained whole sense. Then, he selected the deductive content analysis and generated the codes based on the IDT framework (e.g., relative advantage, compatibility, complexity). In the next stage, he explored and extracted various code-related themes with MAXQDA (20.0). In the reviewing stage, the second researcher and two other researchers re-read the entire data and final themes to ensure inter-coder reliability and validity (Creswell, 2007), and both researchers generate a thematic map of the study. In the last stage, we report our findings. Figures 2 and 3 display the data analysis process and thematic code map of the data.

Figure 2
Data Analysis Process

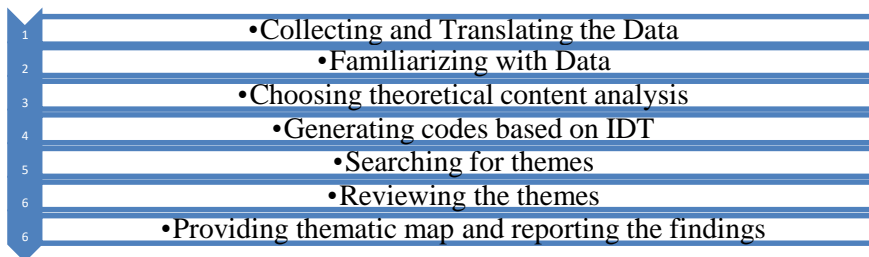
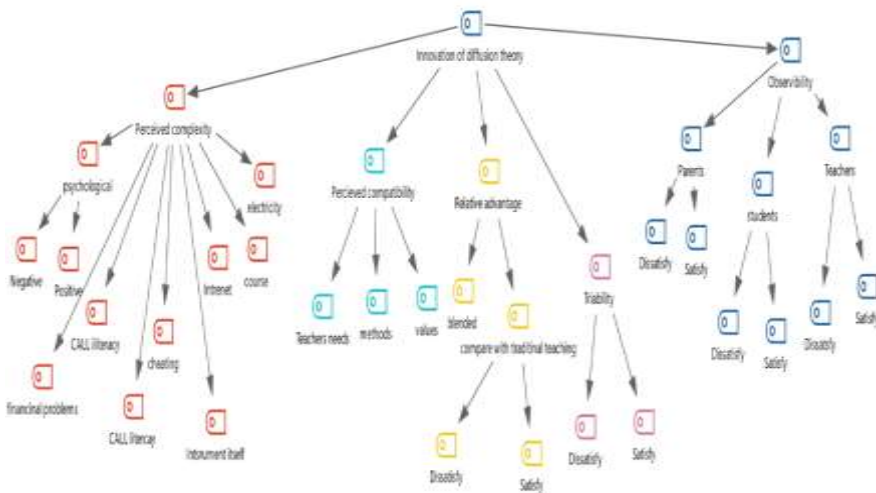


Figure 3
Map of the Thematic Content Analysis



3.5 The trustworthiness of the data

In order to ensure the quality of the study findings, we followed four criteria of credibility, transferability, dependability, and conformability to ensure the trustworthiness of our findings (Denzin & Lincoln, 2008). Regarding credibility, the second author collected the data over a long time to ensure data saturation (Fraenkel & Wallen, 2006). For transferability, we selected participants with various characteristics, including their educational level, language teaching experience, and online language experience (Ary et al., 2013). Regarding conformability, two other researchers checked the result and the study data (Mackey & Gass, 2013). Four participants also reviewed the result and patterns of the data and gave their comments to us on whether the findings of the study were in line with their arguments or not to ensure the dependability of our findings (Mackey & Gass, 2013).

4. Findings

After analyzing the data based on IDT theory and research context, the researchers reports their findings as follows:

4.1 Perceived Compatibility

The first component of the result alluded to the teachers' compatibility with online language teaching, including their needs, values, and teaching methods. The findings display that Iranian EFL teachers had positive attitudes toward online platforms regarding their needs. Indeed, it can be economical regarding time, space, and place for teaching, particularly at the asynchronous level. As Zahra claimed, "we had more space and time limitations in the case of face-to-face classes. We can prepare our materials in advance". Regarding their values, online platforms can escalate their methods, prestige, and strategies in their language teaching. As mentioned by Kasra, "definitely the teacher who is literate in technology is more prestigious, more efficient and more acceptable by new generation." Besides, it can assist teachers in escalating their quality of approaches. Accordingly, Kasra declared that "online teaching can give me the opportunity to present what I did in real classes and even more. We can send as much as documents, pictures, videos, textbook, voice, and exam samples both synchronously and asynchronously."

4.2 Trialability

The result of the thematic content analysis depicted that there were two sides to trialability; some had a chance to teach English online beforehand, while others did not have the opportunity to work with it in advance. As an instance, Arsha highlighted that "unfortunately, during the pandemic, we did not try any online



platforms, we did not have any pre or in-service courses to be prepared, and it was a kind of shock for most of us.” Conversely, Zahra claimed that “we learned about the online teaching platform before the classes. It was definitely effective”. Akbar stated, “before we used them, some meetings were held at school, and a technician taught us how to use them.”

4.3 Perceived complexity

The result of the thematic analysis showed that some teachers did not have positive attitudes toward online platforms stemming from (CALL) illiteracy, financial problems, psychological factors, platforms themselves, speed of the internet, electricity cuts, and cheating. First, the participants had difficulty with online platforms due to the lack of optimal CALL literacy. As Diana maintained, "it needs the teacher to update his teaching skills, digital literacy, and strategies to be creative in dealing with the situation."

Furthermore, they have negative attitudes toward online platforms due to financial support from students' parents. For instance, Sonia highlighted, "Many of the students did not have a mobile phone for their own." Equally important, participants mentioned that they struggled with electronic cuts while they were teaching. According to Ramin, "electricity cut and internet disconnection can put the class into an end." A further problem with online platforms is the psychological factors that teachers are facing with them. As Asghar declared, "for others who are more extrovert, it brings about adverse effects." Another factor that leads teachers to have negative attitudes toward online platforms is the platform itself. As mentioned by Akbar, "the limitations of the teaching platform, lack of synchronic feedback, and most importantly being always under the eyes of the school staff were the most bothering issues."

Moreover, one of the pressing matters for teachers is cheating by their students. Indeed, one of our participants, Kasra, asserted that "students answered the questions with the book open or took an exam by cheating in groups. So, the reliability of assessment was low". Others have some difficulty with the course itself. As Vida claimed, "it depends on the course and skill that I wanted to teach, the number of the students, and their proficiency level."

Regardless of these negative factors, providing a difficult situation for teachers to work with online platforms, some had positive attitudes toward the perceived- complexity aspects of these platforms. In this line, Liana expressed, "we are using Adobe Connect with a friendly environment, and it took a short time to become familiar with it." Moreover, Diana claimed that "as the internet speed is ok, we can download, upload, and share material and there are no particular problems, so the class goes very smoothly and platforms are straightforward to use."

4.4 Observability

Observability refers to the extent to which innovation can be visible to others. By analyzing the data, there were three main factors related to observability: teachers, parents, and students. The first factor which our participants have highlighted is the teacher. According to Zahra, “the attitude of young teachers is more favorable toward online teaching than the older one.” On the contrary, they had negative attitudes toward this, as Asghar asserted, “I could not feel free with my students. And the students were not satisfied either”.

Regarding the second factor, teachers claimed that students had positive attitudes toward online education, as Kasra maintained that “well, they were satisfied with being at home. They can save transportation or have more time studying and resting”. However, some participants claimed that their students had negative attitudes toward online education. As an illustration, Vida mentioned, “they have to pay attention to the teacher for 90 minutes, and they do not like it”. Concerning the last factor, relating to students’ parents, the result showed that parents struggle with online education. As highlighted by Diana: “families have to manage the platform for them, install, run, or login; at first, it was complicated, and families did not like it.”. Also, some families have positive attitudes toward online education. Accordingly, Zahra addressed that “some families are happy with online classes because they observe their children's progress and they can help them.

4.5 Relative advantage

The last item of IDT indicates the advantages of the current level of online platforms compared to traditional language learning. Surprisingly, the data analysis findings showed that teachers have positive attitudes toward online platforms as against traditional language learning. In this way, Diana emphasized that “it can add variety to our teaching method, and teachers can benefit much from multimedia properties.” However, others presented negative attitudes toward online platforms compared to face-to-face methods. For a case in point, Sonia held the view that “it is economical on money, time, and place, but the quality of learning will definitely decrease.” The last factor which our participants have highlighted is blended teaching. For instance, Zahra declared that “having both online and traditional classes together to complete each other is the best.” Also, Asghar highlighted that a “combination of both can be more satisfying and productive.” Table 2 and figure 4 display the findings and code clouds of the thematic content analysis.

Table 2

Result of the Thematic Content Analysis



Categories	Subcategorizes	Examples
Perceived Compatibility	Teachers' needs	No commuting, no traffic, no morning hurry & rush
	Teachers' values	It can enhance and improve our prestige when we can work with updated platforms and we can handle them easily. Online teaching can give me the opportunity to send as much as documents pictures, videos, textbook, voice, and exam samples both synchronously and asynchronously.
Perceived Compatibility	Teachers' methods	
Perceived complexity	CALL literacy	Those who are familiar with the technology like it. It needs the teacher to update his teaching skills, digital literacy, and strategies to be creative in dealing the situation.
	CALL illiteracy	
	Internet	Bad quality of the platforms, low speed of net, no face-to-face interaction, weird evaluation.
	Financial	Many of the students came from poor families and they couldn't buy laptops or smart phones.

	Psychological (positive)	They could help introvert students overcome their inhibitions, or at least, be on the safe side until they feel ready.
Perceived complexity	Psychological (negative)	There were no real emotional feelings between me and them, no warm atmosphere.
	Electricity	But electricity cut and internet disconnection can put the class into an end.
	Instrument itself	Many of them answers the questions with the book open or take an exam by cheating in groups. So, the reliability of assessment was low.
	Course itself	It is easy in many cases such as teaching listening, reading, because we can easily share files with students. But in some others aspects such as assessment and teaching speaking and pronunciation is not easy.
Trialability	Satisfy	Some meetings were held at school and a technician taught us how to use them.



Dissatisfy

No. With the outbreak of COVID-19, as it was the case, for most educational settings we had no option left and it was the first opportunity to experience online platform.

They were satisfied with being at homes. They can save the money of transportation or they had more time studying and resting.

Observability

Students (satisfy)

Students
(dissatisfy)

They have to pay attention to the teacher for 90 minutes and they don't like it.

Observability

Families (satisfy)

Some families are happy with online classes because they observe their children' progress and they can help them children as well.

Most parents believed that their students haven't improved in this year.

Families
(dissatisfy)

Teachers

I couldn't feel free with my students. And the

	(dissatisfy)	students were not satisfied either.
	Teachers (satisfy)	It seems that language teachers are experiencing the lowest level of challenge and stress
Relative advantage	Compare with traditional class (satisfy)	In terms of time also economical. You don't waste any time going to work.
	Compare with traditional class (dissatisfy)	Using online platforms is time consuming, because of the preparing of materials
		Having both online and traditional classes together to complete each other is the best.
	Blended teaching	

Figure 4
Code Clouds



5. Discussion

In alignment with the study framework and context, what stands out in the finding is that Iranian EFL teachers' have positive attitudes toward the compatibility of the online platforms, incorporating their needs regarding their place and time. The



study's findings illustrated that online platforms could be efficient for teachers to prepare their materials in advance; this result is in line with other studies highlighting this property (Rapanta et al., 2020). However, other recent studies have claimed that some teachers cannot effectively prepare online teaching materials (Boltz et al., 2021; Ottley et al., 2019).

Also, teachers can have efficient interaction with their students with these platforms. This finding is in accordance with the previous studies, emphasizing the role of online platforms in teaching in which teachers can build a rapport with their students strongly (e.g., Staudt Willet & Carpenter, 2020; Wang, 2021). Particularly in the Iranian EFL context (Rahimi, 2021a; Rahimi & Tafazoli, 2022a), this finding is contrary to that of Wut and Xu (2021), who found that both teachers' and students' lack enthusiasm about their interaction on online platforms during the outbreak of the Covid-19. Turning now to teachers' values, a wide range of our participants have positive attitudes toward online platforms as they can provide the opportunity for teachers to enhance their teaching prestige and methods. This finding corroborates the idea that adopting the new platform may escalate the user's status and provide a stronger sense of power and prestige (Shonfeld & Greenstein, 2020), accelerating teachers' skills in the 21st-century era (Rahimi & Tafazoli., 2022b).

Furthermore, having had access to recorded movies and materials, learners have more opportunities to engage with their online courses, particularly at the asynchronous level. This finding is already addressed by Rahimi (2021b; 2022) and Rahimi and Cheraghi (2022), in which online platforms govern the time flexibility for language learners. Likewise, Boltz et al. (2021) declared that online platforms enhance the capability of remote teaching with various communities and materials, fostering engagement. The third component relating to compatibility is teachers' methods that were improved by the online platforms. This finding is in line with previous studies, declaring that online platforms provide context for teachers to use various materials and methods (Bahari, 2020; Darius et al., 2021). Also, they can comfortably evaluate their students on these platforms. In this line, Rolim and Isaías (2018) found that online evaluation can inspire students' motivation and escalate their concentration and interaction with teachers and students.

The second factor presented the opportunity level of the online platforms where teachers might work with them beforehand. The result illustrated that teachers have positive attitudes toward online platforms as they can work with them in advance. This result is in line with previous findings, underlying the availability features of the online platforms (Samaie et al., 2016; Stöhr et al., 2018). Also, findings presented that some teachers previously had no opportunity to work with online platforms. This seems to be a lack of digital literacy as teachers did not know them well (Hedayati & Marandi, 2014) or an inadequate

teacher training program (Hedayati & Marandi, 2014). Another critical factor of IDT is its perceived complexity. According to the result, Iranian EFL teachers' cannot cope with online platforms due to the lack of CALL literacy. Hedayati and Marandi (2014) state that Iranian EFL teachers have difficulty with CALL materials due to CALL illiteracy and incompetency. This finding has already been reported by Civelek et al. (2021) in the Turkish EFL context. Also, a preponderant number of recent inquiries have highlighted the critical role of literacy in incorporating digital, methodological, and pedagogical ones during online teaching (e.g., Rubach & Lazarides, 2021; Rahimi & Tafazoli, 2022b; Schmid et al., 2021).

Another source of negative attitudes toward complexity is the platform itself, as some teachers have difficulty giving feedback, giving exams, controlling their classes, and uploading some materials. This result is in accordance with Shi and Fan (2021), who have found that the design of such online platforms is only utilizable for limited constructive feedback, which can have irreparable repercussions for learners with a low level of critical thinking in English literacy. This finding agrees with another Iranian study that addressed the restricted and informal context of mobile-assisted language learning (MALL) for language teaching (Samaie et al., 2016). More importantly, online platforms provide some opportunities for pupils to cheat. This corroborates the idea of cognitive dissonance developed by Stephens (2017) and moral disengagement by Bandura (2015), where learners believed that some forms of cheating are unethical. According to Shonfeld and Greenstein (2020), classroom management relies on the teachers' interaction and course activities; however, Al Shlowiy et al. (2021) declared that this issue might stem from pupils since learners have not taken online courses seriously.

Another factor relating to the complexity that teachers have struggled with is the financial aspect that low-income households cannot buy technology gadgets for their children. This issue has also been underlined in another study by Ohemeng Asare et al. (2021) declared that both teachers and students have negative attitudes toward online education due to the lack of financial backing from their states. Our participants also have been counter-fronted with another pressing matter known as the internet's low speed, which hinders teachers from teaching effectively and makes it difficult to teach online. A similar issue has been discovered in recent Iranian studies, discovering that the low speed of the internet is one of the inhibiting factors for using technological gadgets (Rahimi & Tafazoli, 2022a). Furthermore, the results depicted that electricity was cut off by the government, acting as a deterrent for online schooling. As Kaur (2021) has recently declared, some pupils cannot access their online classrooms because they lack reliable internet and electricity.



Teachers also have negative attitudes toward online teaching the course itself. According to the findings, some Iranian EFL teachers found having an online class with low-level students challenging. This finding is in accordance with [Yan et al. \(2021\)](#) findings in which learners' experiences and attitudes vary with their ages and level; in fact, the lower the level of the students, the more preference for real-time and face-to-face interaction with their teachers. Likewise, the findings illustrated that Iranian EFL teachers also have difficulty with the immense size of online classes. Indeed, the lower the number of language learners, the easier the process of language teaching was. According to [Pham et al. \(2021\)](#), one of the challenges of distance education is the number of students as a teacher cannot engage all of the pupils in classroom activities; however, this result cannot cope with [Boltz et al. \(2021\)](#) findings', declaring that Chinese students have higher collaboration in MOOC platforms.

Another factor of our findings is observability. Unexpectedly, the findings showed that Iranian EFL teachers have positive and negative attitudes toward remote education regarding their observability level. Teachers are satisfied with online education as they are accessible to their students at every time and place. These findings support previous findings, highlighting the flexible aspects of online education in Iran ([Mellati & Khademi, 2018](#); [Rahimi, 2021a](#)) and other contexts ([Houlden, & Veletsianos, 2019](#); [Luik et al., 2017](#)). In the same way, teachers and students are away from a debilitating affective filter and have a higher confidence level in online education. Furthermore, teachers reported the observable effect of online education on their students as they have a high level of self-confidence and access to their materials without any restrictions regarding their place and time. Their students also have witnessed peer effects as they collaboratively learn English in online education. This finding similarly has been found in [Filius et al. \(2019\)](#), emphasizing the role of group learning in online education. However, some claim that their language learners have negative attitudes toward online education. This finding contradicts [Bahari \(2020\)](#), who discovered that Iranian EFL learners have positive attitudes toward language learning.

Besides, families have two sides to the visibility of online education. On one side, some family members are satisfied with online education since their learners can access school without going to school in the pandemic era. This finding further supports the previous finding, discovering the motivating effect of online schooling on students' health as they stay in their homes safe and sound ([Loch et al., 2020](#); [Oliveira et al., 2021](#)). On the other hand, some families perceive that online education hinders their children's improvement. These somewhat contradictory results may be due to the lack of adequate resources consistent with learners' interests, as they are inclined to have more self-paced learning rather than control one ([Martenev & Bernadowski, 2016](#)). Also, [Rahimi \(2021a\)](#) has

found that some Iranian EFL learners with kinesthetic styles cannot cope with remote education.

The last factor reflects the teachers' attitudes toward relative advantage. Surprisingly teachers have two different perceptions of online education than traditional language learning. On the one hand, some teachers had negative attitudes toward online education as they did not have eye-to-eye contact with their students since, through this, they can be sure about the understanding of their pupils. As [Veletsianos et al. \(2015\)](#) and [Rahimi and Tafazoli \(2022a\)](#) determined, one of the biggest challenges in online education is the lack of eye-to-eye contact and immediate corrective feedback.

Moreover, some of the language skills cannot be well covered in online education. Similar findings have been discovered in Jordan that language teachers are more successful in teaching receptive skills online ([Canals & Al-Rawashdeh, 2018](#)). At the same time, others have positive attitudes toward online education as it was flexible for them concerning their place and time for teaching and preparing their materials beforehand, especially at the asynchronous level. Moreover, they can utilize many strategies in their online classrooms. This finding aligns with previous Iranian findings, highlighting the practical context of online platforms for implementing various teaching strategies ([Bahari, 2020](#); [Mellati & Khademi, 2018](#); [Rahimi, 2021b](#)). More importantly, they have desirable attitudes toward integrating both online and traditional language teaching. These results were highlighted in the previous Iranian and other studies in which teachers tend to positively perceive implementing traditional methods and integrating online education in their classroom ([Mellati & Khademi, 2018](#); [Seoane & Jiménez, 2021](#)).

6. Conclusion

Previous studies significantly explored users' emotional attitudes toward online education during the pandemic of COVID-19, and this study aimed to understand better teachers' attitudes toward online schooling concerning their cognitive sides. We found that teachers have positive attitudes toward the compatibility of online education as it can improve their way of teaching, value, and prestige; however, they had negative attitudes toward complexity aspects, stemming from the financial problem, evaluation, corrective feedback, electricity power out, CALL illiteracy, the platform itself, and type of course. Moreover, some of them had the opportunity to try these online platforms in advance, while others did not try them before. Also, teachers had negative and positive attitudes toward the visibility of online education among their co-workers and pupils. Conversely, teachers claimed that some students and parents were satisfied with online education while others have not seen any improvements in their children.



Regarding the relative advantage of online education, teachers have three views. First of all, some of the teachers had negative attitudes toward online education compared to the traditional way of language teaching; while; there are those taking priority of online teaching over face-to-face one. The third group wanted to integrate synchronously and asynchronously in the shape of a blended or flipped approach. The findings of this study have several implications for both theoretical and practical aspects of online education as follows:

(1). The new framework used in this study can be implemented as a theoretical framework for future studies.

(2). The states should provide the opportunity for online education, including the quality of the internet and electricity power, and subsidize online education for teachers and students.

(3). The pedagogical experts and stakeholders should run more workshops and training courses to improve teachers' methodological and technical knowledge.

(4). Parents should collaborate with teachers and support their children to have better remote education.

Our main limitation rests with the sample size, approach, and measurement. This study is one of the first studies covering teachers' cognitive attitudes toward online education. Therefore, it might be significant if future studies cover students' cognitive attitudes toward CALL, MALL, Massive open online courses (MOOC), or Open Educational Resources (OER) in both EFL and ESL contexts, particularly Iranian ones. Moreover, it can be exhilarating if future studies establish the relationship between emotional and cognitive attitudes or other variables such as users' digital literacy, achievements, or psychological factors such as online motivational-self system, online self-regulation, or self-efficacy.

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