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# A Case Study of EFL Teachers' and Students' Experience of Video-Based Online Learning: Beliefs, Challenges and Needs

A thesis submitted in

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Master of Arts in Teaching English as a Foreign Language

By

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# ABSTRACT

Rapid development of technology has transformed human practice in education and has led to the appearance of Distance Education (DE). However, Armenia was introduced to online learning only in times of COVID19 and its switch to online learning was forced, unprepared and intuitive at the same time. Thus, this study investigates teachers' and students' experience of online learning, their beliefs about online learning and technology use in language learning, their current challenge sand needs within the context of an afterschool English program The program has been delivering online classes in the capital and regions since March 2020 and is planning to offer online classes on a regular basis further on. For this Mixed Methods Research study quantitative and qualitative data was collected from 20 teachers, 234 students and 9 parents through surveys, semi-structured interviews and class observations. The findings have important pedagogical value for the stakeholders to make the right improvements in order to improve online learning experience and learning achievements. Also, pedagogical implications are suggested in a form of a guideline to design a needs based teachers' professional development and students' workshop.

Keywords: Distance Education, online language learning, technology integration, techno-competence

# CHAPTER ONE: INTRODUCTION

Technology has penetrated into all the fields of our life and education is not an exception. The concept of Distance Education is no longer a brand new phenomenon in most of the developed countries and is widely practiced in parallel with the traditional mode of teaching and learning. This evolution in education is not surprising and is explained by the rapid development of technology and the belief that today's generation, which is called Generation Z, is born with technology. Therefore, there has been a significant need to transform traditional teaching and learning methods and create a technologically enhanced learning environment by effective information and computer technology (ICT) integration (Kurt, Gunuc and Ersoy, 2013cited in Gunuc and Babacan 2019).

The focus of this paper is the target teachers' and students' online language learning experience and the ICT impact on it. Researchers of the field have been studying teachers' and students' perceptions of ICT integration (Woodbridge, 2003; Bransford et al., 2000; Brooks, 2016; Bullen & Morgan, 2015, cited in Karamifar et al., 2019), as well as the challenges they face, the best practices they come up with, their beliefs about online learning and its effectiveness (Felix, 2005; Gunuc, 2016, cited in Gunuc and Babacan, 2018; Kessler, 2018; Barron et al, 2011 cited in Bensalem, 2018) and the role of technology training and their practicality (Gunuc, 2016, cited Gunuc and Babacan 2018, chapter 1; Kessler, 2018; Anderson, 2016). A number of researchers bring forward the importance of consistent technology training for a successful integration of technology in language learning(Kessler, 2018). Yet, this important step is skipped in most of the institutions by lack of awareness, financial opportunities, or because of unanticipated changes of circumstances (Kessler, 2018).

In 2020, imposed by the measures taken to reduce the spread of COVID 19, Distance Education (DE), particularly online learning, has been introduced worldwide, including in

Armenia where teaching and learning remotely had not been implemented nor studied properly before. Thus, Armenia is among the countries with very little experience and practice of technology integration in language learning and teaching. This forced, unprepared and abrupt shift from traditional face-to-face mode to the remote mode led to on-the-spot experiments by educators and students which may affect their overall understanding of what online language learning and teaching is like.

The scope of this action research is one of the after-school English programs in Armenia, which works not only in the capital but has also reached the regions. The program has been delivering online classes since March 2020 forced by the lockdown due to COVID19. Research instruments such as surveys, semi-structured interviews and class observations with a checklist will be implemented. The collected data will be analyzed quantitatively and qualitatively.

Despite the switch of the program to the online mode, no research has been done to examine the teachers' and students' techno-competence, perception of online learning and technology integration, current education- and technology-related challenges which might affect learning achievements as well as, teachers' and students' current needs for technology-training. The existing literature mentions there is no one-size-fits-all ICT suggestion for all ESF/EFL contexts and purposes, and therefore, shows the gap between the existing studies and educators' actual challenges in practice (Hew and Brush, 2007).

The aim of the study is to investigate teachers' and students' current beliefs about online learning, beliefs about the impact of technology in language learning, satisfaction with their online teaching and learning experience, current barriers in successful online learning and ICT use, their self-efficacy in terms of ICT use, and their needs for training related to technology and educational issues in order to acknowledge the stakeholders with important

findings of what needs to be improved for better online learning experience and achievements and what is worth keeping doing.

The findings of the study are very beneficial for all the stakeholders, especially, the teachers who are planning to continue teaching online and students who will prefer taking online language classes over face-to-face classes. Also, the study primarily benefits teacher educators since our findings will serve as a practical guideline for the further training, which will be an important contribution to the excellence of online learning experience for regular online classes planned at EEC**.**

**Research Questions**

1. What is the teachers' perception of video-based online teaching experience and educational technology integration?

2. What are the teachers' current challenges in video-based teaching and needs for a technology training?

3 What are the students' perception of video-based online learning and educational technology integration?

4. What are the students' current challenges in video-based and needs?

# CHAPTER TWO: LITERATURE REVIEW

## 2.1. Description of Distance Education and its Development

The evolutionary development of technology imposed extensive changes in almost all the spheres of human life, including the way we teach and learn. Due to technology-driven progress, education has become far more available and accessible regardless of geographical and time boundaries. This means that people who were not able or were not willing to be physically present at traditional classrooms either to teach or to learn gained a new opportunity for education.

Today, this concept is recognized under the term Distance Education. The latter suggested balancing the inequality in access to education, regardless of the age group and regional conditions, provided with the opportunity for training, expanded the target of educational institutions and widened their experience at an international level (Garrison, 2000; Holmberg, 2005; Moore and Kearsley, 2011). Wedemeyer (1971, cited in Keegan, 2005) referred to this as a "democratic social ideal" denoting that no one was deprived of the opportunity to learn. On the one hand this offer arose interest, among those who wanted to keep work-life-study balance. This is why many people were willing to experiment despite any tangible approval of its effectiveness. On the other hand, educational administration could significantly cut the expenses and the technology manufacturers could gain large profit (Feenberg, 1999; Hanover Research, 2011).Apart from this, practice validated the productiveness of DE, which is the main reason why it has remained its popularity among educators, learners and researchers.

Up to now there is no commonly accepted definition of DE and its characteristics. The field is multidimensional and the term is used in a wide range of contexts to refer to individual self-paced lessons, one-to-one lessons with the teacher without pre-designed curriculum, as well as one-to-one or group lessons with the pre-designed materials, consistent

teacher monitoring, regular meditation and communication through institutional organizations or communication technologies (Holmberg 2005; Moore and Kearsley, 2011)

What should be noted about distance education is that it shouldn't be similar to "spoon-feeding" with ready-made knowledge transferred from one person to another. Instead, it should familiarize learners with the problems and possible solutions, and enable them to judge things on their own (William Perry, 1970, cited in Holmberg 2005). So, the aim of DE is not simply transferring knowledge but emotional and cognitive development, including the development of professional knowledge through training.

Prior to the immersion of the term distance education there was the concept of correspondence education in the early 19th century, which referred to self-paced courses mostly designed for adults, who would receive all the necessary materials through mail and would work at their own pace, and then would return the materials via post mail. Correspondence education did not assume teacher-student or student-teacher interaction but occasional feedback on the assignments (Weitzel, 2020).

Later, at the end of the 20th century, the terms **home-study** and **independent study** appeared. Alongside with this, the term distance education was suggested, which later was globally used in varied discussions and studies. The term DE was officially accepted when the *International Council of Correspondence Education* was renamed into the *International Council of Distance Education* in 1982 (Holmberg, 2005) . Since then researchers touched upon different aspects of distance learning such as its application, effectiveness and methods. Back then, one of the main issues discussed was student-teacher interaction. This has significantly improved with the advancement of communication technology, which minimized the obstacles of physical distance and made communication much closer to real-life communication. Borje Holmberg (2005) refers to this rapid development of distance education as "*evolution rather than revolution*", from which we can infer that DE is not

perceived as a completely new discipline which is going to substitute traditional education; instead, it is viewed as an anticipated progress in education alongside with technology development.

The next era of distance education was radio broadcasting. Starting from the early 1920s radio broadcasting took distance education to a new level (Buckland & Dye, 1991, cited in Kentnor, 2015). For example, the changes in the content could be done much quicker, more people could be reached out, was safer than postal means in many areas (Kentnor, 2015). However, these two modes still offered asynchronous communication between the teacher and the learner.

Lately, other terms such as **e-learning** and **online learning** are widely used when referring to teaching and learning through the Internet (Allen & Seaman, 2008; Moore and Kearsley 2011; Shelton &Saltsman, 2005, cited in Kentnor 2015,). The main technology tools used were E-mail, online collaboration tools, and Web-based learning (Hanover Research, 2011). Importantly, learning does not take place accidentally while surfing the internet but is a deliberate process for both teachers and learners.

The starting point of online learning is the Computer Age, which is marked from 1980 to 1989. Already in 1984, there was a fully online course in Toronto University, Canada (Sarkar, 2020).

The rate of engagement in online learning is dramatically increasing hand-in-hand with the rapid increase in internet accessibility and availability of the Internet. Apart from low cost and availability, other reasons for high demand is flexibility in terms of time, wide range of free resources and worldwide networking and standardized quality. Statistics shows that 3.6 million college students were taking at least one online course already in 2006 (Allen & Seaman, 2007). Furthermore, the market size of online learning has gone up by 400% from 2013 to 2019 (Sarkar, 2020).

The two modes of fully online learning are asynchronous and synchronous**,** the main difference between which is *when* the communication happens. Asynchronous mode suggests that there is a non-simultaneous communication and interaction between the teacher and the learner through discussion boards, online platforms, e-mail, a chat box or any other online tool (Hranstinsky, 2008; Keegan 2005; Moore and Kearsley 2011, Perveen, 2016; Sheidere, 2021;). It's advantageous that there is no time bound in terms that students can work on the tasks at their own pace within the given time. Thus, there is no need for immediate response or feedback. This leads to the next major advantage that the students take time to think critically, to reason and construct their responses, while the teacher has enough time to give feedback (Hrastinski, 2008; Perveen, 2016). Consequently, the asynchronous mode is recommended for tasks requiring higher order thinking. For example, Perveen's study (2016) advises doing reading and writing tasks asynchronously. As the main disadvantage of the mode, Hrastinski (2008) highlighted the sense of isolation caused by very little non-content communication.

In contrast, synchronous mode aims at live or real-time communication and interaction between the teacher and learner (Hranstinsky, 2008; Keegan 2005; Moore and Kearsley 2011, Perveen, 2016; Sheidere, 2021). Initially, this mode was limited to synchronous texting or audio-conversation, while today synchronous video-based learning or video-conferencing has been practiced worldwide, especially, as a result of COVID 19 and forced closure of traditional classrooms (Rapanta et al., 2020).This mode provides both oral language and body language, which can be accompanied by written text, visuals, videos, audio recordings and other media (Hannover Research 2011). This maximizes communication and interaction opportunities; thus, creating a setting more similar to an ESL/EFL classroom. Research states that synchronous classes raise motivation to be engaged in discussions and enhances the sense of belonging to the community (Hranstinsky, 2008;

Vaezi& Marandi, 2014, cited in Perveen, 2016). As for the implication of the mode in language learning, Perveen (2016) highlights its effectiveness especially for listening and speaking practice.

Finally, the combination of asynchronous and synchronous modes ends up in hybrid online learning, which assumes that part of the tasks and discussions are done asynchronously, while the other part is done through synchronous lessons. Depending on the course and subject matter the divisions are designed. In instance, language learning opportunities are believed to be maximized with hybrid online learning rather than with the use of a single mode (Ge, 2011, cited in Perveen, 2016).

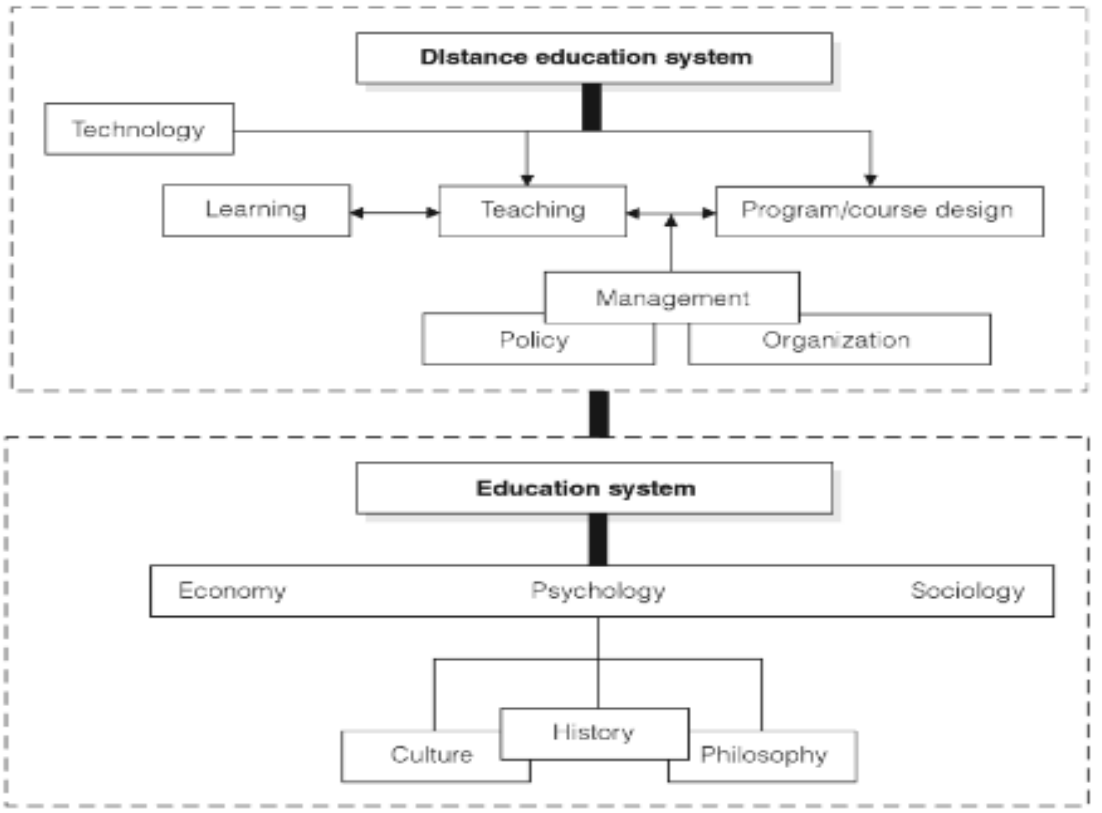
As mentioned earlier, COVID 19 contributed to massive use of **videoconferencing**. Research has been done (Sarkar, 2020) which discusses the possible development of online learning in the future. The study suggests that by 2030 enrollment rate in blended learning (combination of face-to-face with online) will surpass that of fully online learning by 45%.

In sum, distance learning is not a new trend now but a current mainstream, which is at its peak of development justified by the rapid advancement of technology, research done to develop a better understanding of DE and circumstances.

**2.2. Moore's Systems View:**

The Systems View suggested by Moore points out what a complex system distance education is in general, which is often perceived as only a broader opportunity for education. Instead, the figure below illustrates what DE systems should be like. Ideally, there should be policy makers and institutional organizations who design content for the course, taking into account educational Psychology, Philosophy, Sociology, Economy of education, which then is delivered by the teacher through media and technology use to the learner from a different environment. Finally, there should be a management system to analyze needs and outcomes, as well as coordinate the other systems (Moore and Kreasley, 2011).

**FIGURE 1.1** A Conceptual Model of Distance Education




By Moore and Kearsley, 2011, Model of Distance Learning

**2.3. Theoretical frameworks:**

Best scholars of distance education proposed different theoretical frameworks about distance education, which vary in some fundamental concepts but also share overlaps in several points.

One of those scholars is Otto Peter (1967, cited in Keegan, 2005) who referred to DE as "*a product of industrial society*". Among the overlaps that Peter sees between these two concepts are the division of work, mass production and standardization. The scholar finds that DE is successful because it is in line with the needs of industrial society. Moreover, Peter mentions the changes in DE characteristics caused by the shift from industrial to post-industrial society, which are the use of individualized technology, greater importance

given to the quality of life and self-realization, as well as greater appreciation of interdependence over dependence.

The next scholar, who has had an enormous contribution to the development of the theoretical framework of DE is Moore (1991, cited in Moore & Kearsley, 2011), who described the essence of DE through the concept of **transaction** which is the physical separation of the teacher and learner, which is not limited to geographical separations, but is what leads to psychological and communications gap that in its turn brings about room for misunderstanding. Therefore, depending on the level of the transactional distance, decisions can be made on how much to rely on the theory and practice of conventional education and how much to deviate from it. Moore points out two more variables which influence DE: dialogue (the teacher-learner-program communication and interaction) and structure (organization and discipline of the course). These interdependent variables affect the nature of DE. For example, the greater the communication is, the lower the transaction distance is, thus, the more frequent is the two-way interaction and the less autonomous the learner is. Similarly, the greater the transactional distance, the more self-directed, self-determined and autonomous the learners are because of the low communication rate. This is what two scholars, Moore and Kearsley (2012), idealize in DE. However, Willen (1981, cited in Keegan, 2005) criticized describing learner motivation level through autonomy finding it too general to justify the differences in learner motivation and learning approaches.

Holmberg (1989) also contributed to the theory development. The main focus of Holmberg's theory is the **interpersonalization** of the DE, which is building personal relationships between the teacher and learner through printed text to kindle motivation and raise learning outcomes, to enhance emotional involvement by creating a sense of community and belonging and encourage self-study as a demonstration of autonomy. Like Moore, Holmberg finds autonomy as a major goal of distance education.

In contrast, Keegan (2005) does not share Holmberg's views over interpersonal communications and claims that the main principle of distance education around which the theory should be built is that **the teaching act** is separated from **the learning act** in time and place. So, Keegan (2005) distinguished the nature of communication as the main characteristic of DE. This idea is built on Moore's theory of transaction. At the same time, he claims that an important prerequisite for successful distance education is creating the link between teaching and learning (not learner) through interpersonal communication. Keegan believes that by reintegrating the teaching and learning acts better learning achievements can be, which is supported by research (Amundsen 1988, cited in Keegan, 2005)

As mentioned earlier, some scholars are for autonomy, while others are for two-way communication. Garrison (2000) belongs to the second school of thought and considers that two-way interaction is the crucial point of the learning process in DE. If Moore and Holmberg (2012) agreed on autonomy being the ultimate goal of distance education, then Garrison (2000) gives the same importance to teacher-student two-way communication. He also highlighted the role of technology in two-way communication.

As for the latest theories, one of them is **connectivism**, proposed by George Siemens (2004, cited in Anderson, 2008; Bates, 2015). The theory suggests that there has been a change from individualistic learning to building connections between the new knowledge and the prior knowledge, as well as between the ideas and fields (Siemens, 2004 cited in Bates, 2015). In other words, seeing and building connections is the major skill required for continual learning, which was not touched upon by previous theories. Within this theory, the role of the teacher is to facilitate learners with relevant activities and needed resources(Siemens, 2004, cited in Bates, 2015).

Finally, **Online Collaborative Learning** theory (OCL) was suggested by Harasim (2012, cited in Bates, 2015), who describes OCL as a learning model in which students work

together to construct knowledge. According to OCL, students first generate ideas (brainstorming/ input), then those ideas are organized through group analysis, finally, "intellectual consensus" is reached together. Here, the teacher's role is, first of all, to create such a collaborative community and to monitor discussions so that they do not become too personal/sensitive or off the topic, to encourage engagement and to give feedback. If OCL is organized appropriately, then such discussions develop critical and analytical thinking, as well as enable learners to evaluate concepts accurately.

To summarize, the theoretical framework still needs to be developed to refer to the current notion of distance learning, which is far different from what it was earlier due to the technological inventions. One thing that is certain from the existing theories is that there has been a shift from individualized learning to two-way communication, which is also suppressed by collaborative learning.

**2.4. Technology Integration:**

Technology is now widely integrated into language learning experience. This is not surprising since today's generation, which is called Generation Z, is believed to be born with technology. Therefore, there has been a significant need to transform traditional teaching/learning methods and create a technologically enhanced learning environment by effective integration of technology (Kurt, Gunuc & Ersoy, 2013, cited in Gunuc & Babacan, 2018).A number of researchers share similar views on this and claim that today's students find technology as an inseparable and essential part of their learning process (Abdu, 2018; Brooks, 2016; Bullen & Morgan, 2015, cited in Karamifar et. al, 2019; Nomass, 2013)

Despite the fact that the importance of technology use in education is commonly supported by various stakeholders, there are still misconceptions about what exactly technology integration is and what makes it effective. For example, Woodbridge (2003) defines technology integration as "**a teaching strategy**", while Gunuc (2016, cited in Gunuc

and Babacan, 2018) claims that effective technology integration is more than a strategy or the use of technology, instead, it is  a merge of these two to meet a specific purpose. This fundamental requires purposeful and meaningful integration of technology (Abonowara, 2016, cited in Pazilah, 2019; Gunuc, 2016, cited in Gunuc and Babacan 2018; ISTE, 2021; TESOL, 2008). In other words, "*unplanned*", "*temporary*" and "*spontaneous*" use of ICT does not ensure effective technology integration and leads to unsatisfactory results (Gunuc, 2016, cited in Gunuc & Babacan, 2018).

What is also important to take into consideration is the so-called *"wow-effect"* of the technology left on students and educators. Kamstrupp (2016) describes the wow-effect as the feeling of great excitement and interest. When technology is integrated into class it either interests learners or bores them, and in order to increase the level of wow-effect technology should be relatively new for the audience and should engage them in learning (Kamstrupp, 2016). Therefore, the newer and more active the ICT is, the higher the wow-effect is.

In brief, ICT integration is a much needed part of today's teaching and learning process.

**2.5. Guide to Successful Technology Integration:**

Successful technology integration practices have been studied to seek for common features and guide teachers to efficient ICT integration. The main overlaps outlined by Lewis and Abdul-Hamid (2006, cited in Brinthauptet al. 2011) are as follows: clearly set expectations from learners, enhanced teacher presence, providing constructive feedback to students, and most importantly, fostering student interaction and engagement in learning.

Another fundamental view over successful technology is that "*teachers should go beyond technology*" and focus on the learning objectives rather than the technology choice itself (Brinthauptet al. 2011). Further elaboration highlights that teachers choose a tool and try to see how they can include it in the instruction, overlooking the idea whether the tool will

lead to learning objectives or not, whether it will contribute to students engagement and educational development or not. In other words, *"pedagogy-driven*" approach should be implemented instead of a *"technology-driven"* approach (Fish & Wickersham, 2009 cited Brinthauptet al. 2011).

To help e-teachers have effective online classes, Brinthaupt (et al. 2011) pointed out three broad categories of what needs to be done: a) **fostering student engagement**, b)**stimulating intellectual development**, c)**building rapport with students**. These categories include crucial requirements of online teaching such as fostering student-student interaction and collaborative learning, use of multimedia and authentic content, provide controversial questions for discussions, use self-disclosing resources and provide individual feedback. Importantly, all these guidelines should be followed systematically.

Gunuc (2016,cited in Gunuc and Babacan, 2018) also shared fundamentals of successful ICT integration which are as follows:

- ICT should facilitate language learning
- ICT integration should make language learning interactive
- Teachers should work on their techno-competence to develop it
- Teachers should be consistent in technology use
- ICT integration should be planned and serve a specific goal.

Great contribution to successful technology integration is the introduction of **ISTE** standards (2021), which has huge overlaps with the **TESOL** (2008) standards. The core concepts of ISTE for educators are:

- Improve techno-competence by studying proven efficient practices of ICT integration
- Empower learning through technology
- Educate digital citizens with high sense of netiquette and digital literacy
- Collaborate with colleagues and students

- Design activities that are authentic and learner-driven
- Facilitate the achievement of ISTE standards created for student
- Infuse technology with the learning context and goals

Similar standards exist for students as well designed by TESOL (2008) and ISTE (2021), both of which highlight the importance that students need to demonstrate basic knowledge and skills in technology such as surfing the internet; creating, saving and editing files; know safety rules and netiquette, critically evaluate online tools for language learning, can use technology individually and collaboratively to practice language skills, recognize the role of technology in autonomous learning.

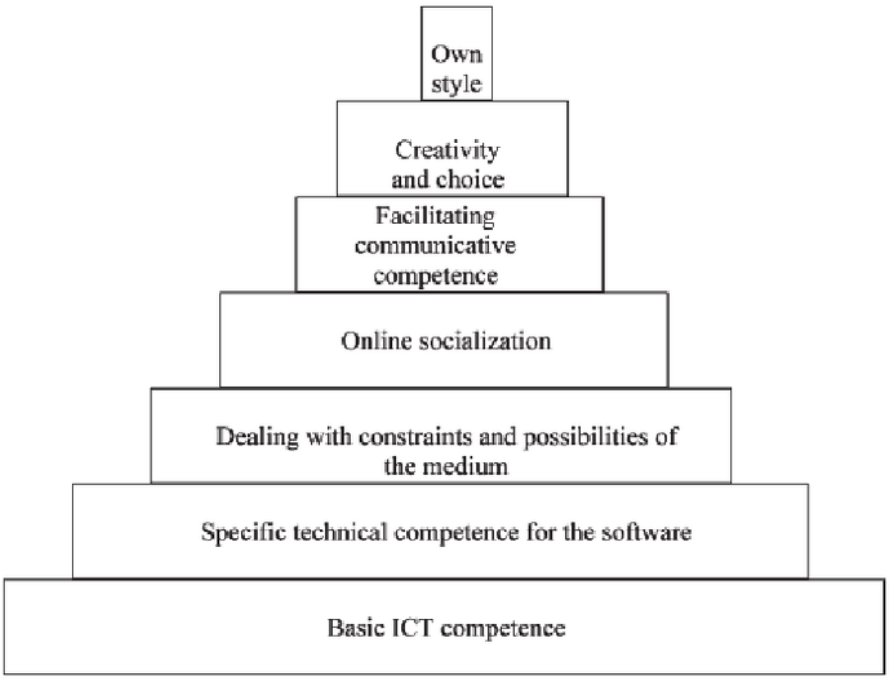
The significant role of "*techno-pedagogical competence*", the ability to adapt tools to pedagogical purposes in language teachers' professional competence is highlighted not once (Egbert et al., 2011; Hampel & Stickler, 2005 cited in Anderson, 2016; ISTE, 2021; TESOL, 2008;). However, Tochon & Black (2007, cited in Karamifar, 2019) indicate that the results of their study show that language teachers do not consider techno-pedagogical competencies as one of the major skills in ESL/EFL context.

All the highlights, recommendations and requirements mentioned above leaves room for rethinking over the right means of ICT integration.

**2.6. Skills Pyramid by Hampel & Stickler:**

The skills pyramid suggested by Hampel & Stickler (2005) illustrates what skills an online teacher needs to conduct effective online classes. The skills build on each other from bottom to top. As depicted in figure 1, all online teachers should be skilled at very basic technology use such as the mouse, speakers, the Internet browsers or use of Word documents. In the next level the teacher should be able to use educational software such as online dictionaries and libraries, online calendars and whiteboards, online messengers and games, Skype, Moodle, Zoom, Edmodo in their instruction. In level 3, the teacher should be able to evaluate the

strengths and weaknesses of the tools and be able to adapt materials and to reach objectives. as well as dealing with the students reaction to a certain tool. Level 4 focuses on the teacher's ability to create a sense of community and belonging by introducing how to connect to others, how to stay safe online, to be respectful to others in online platforms. In level 5, the teacher should facilitate communicative learning and collaboration to foster active engagement in tasks. Level 6 suggests that online teachers should know how to make a choice of the right tool to meet the objectives and demonstrate creativity in materials design. Finally, level 7 illustrates that each teacher should find and develop her own online teaching style.




Retrieved from https://www.tandfonline.com/doi/full/10.1080/09588220802613831).

What should be noted is that the skills pyramid was designed for online language teachers specifically, whose required skills are different from face-to-face language teachers, as well as from online teachers of other subjects (Hampel, 2005).

**2.7. Impact of ICT Integration on Language Learning**

Technology has been extensively integrated in language learning. The potential effective technology integration in language teaching is supported by the findings of the existing

literature, which show positive effect on students'independent learning and teachers' and learners' resources (Chapelle & Voss, 2016; Kern, 2006; Vurdien&Puranen, 2018; Watson, 2001; Whittaker, 2014; Zhao, Byers, Puge & Sheldon, 2002, cited in Abdu,2018). Moreover, a meta-analysis of 54 studies on the effects of ICT in language learning achievements shows, overall, a positive effect, especially, on vocabulary acquisition, reading and writing skills (Felix, 2005).

Another researcher, Nomass (2013), investigated the impact of ICT on the acquisition of listening, speaking, reading and writing skills. Nomass (2013) suggests that reading skill is enhanced when students surf the internet to find text-related information or use web-sites created aimed at reading activities, because of their active interaction with the text. For the practice of writing, Nomass (2013) suggests using graphic-based programs to make the process more appealing. AI programs are recommended to encourage speaking and improve pronunciation and videos are advised for listening comprehension (Nomass, 2013). Apart from the focus on language skills, Nomass (2013) also mentioned that language learning is faster through the mediation of technology rather than conventional teaching methods.

Next, ICT integration in an EFL/ESL context is a supply for multimedia such as images, audios, videos and animations, which create an authentic environment, make classes student-centered and increased students' engagements and motivation (Azmi, 2017; Cakici, 2016 cited in Pazilah et al, 2019; Gunuc, 2016, cited in Gunuc & Babacan, 2018; Flanagan, 2008; Kessler, 2018;Karamifar et al, 2019; Nomass, 2013; Roy, 2019)

Finally, student-teacher, teacher-student, student-student interaction increased due to Facebook, Twitter, E-mail, Blog platform (Khan, 2015, cited in Pazilah, 2019; Barron et al, 2011cited in Bensalem, 2018). Other than that, advanced communication skills are listed as advantages of ICT integration in language teaching (Barron et al, 2011, cited in Bensalem, 2018). In addition, ICT in ESL contributes to enhanced critical thinking when, for example,

students have online discussions, share ideas and give feedback in online communities they rethink and reshape their thoughts (Barron et al, 2011cited in Bensalem, 2018; Roy, 2019). ICT is also believed to foster learner autonomy (Azmi, 2017), fit varied learning styles and help to cut costs (Gunuc and Babacan 2018). George Couros summarizes this argument saying, *"Technology is not going to replace great teachers but technology in the hands of great teachers can be transformational."*

**2.8. Professional Development:**

With the increase in integration of technology in education, the need for technology-related professional development is also rising. **Computer Assisted Language Learning** courses (CALL) have become part of teacher-education courses especially in the field of language teaching. CALL courses have now become a compulsory part of master's programs in applied linguistics, SLA, language pedagogy (Chapelle, 2006). Today's language teachers need to be able to filter the wide range of options and choose the tools appropriate to their students and the learning objectives, as well as use it efficiently (Chapelle, 2006). This can be achieved with the guidance of Computer Assisted Language Learning (CALL) expertise followed by self-learning (Anas and Musdaria, 2018; Chapelle, 2006

Conducting or receiving technology training, however, is not enough. This is because affordance, learning goals, existing barriers and needs differ from one teacher to another. In fact, there is no ICT tool which suits all contexts and works equally well for all purposes and learning environments (Hew and Brush, 2007).This leads to the gap in research between the knowledge teachers receive in technology training and its practicality (Egbert et al, 2002). The results of the study done by Egbert (et al, 2002) showed that those teachers who did not implement what they learnt at the technology training reasoned it by the lack of time and resources, as well as administrative restrictions. Thus, the study suggests having more contextualized teacher-education, which is directly linked with their teaching environments.

Hubbard and Levy (2006) support this view and state that technology-related professional development should not be designed for "ideal conditions" but should reflect the reality and its restrictions. Similarly, Bensalem (2019)suggests designing specific trainings targeting specific academic contexts. The authors of the book *Developing Online Language Learning* also highlight throughout the book how important it is to **meet teachers' and students' needsduring training** (Book review by Anderson, 2016).

Major contribution to the field of technology-related professional development has had Kessler (2018), who investigated how training meets the needs that teachers have in reality. The findings showed that technology training is "*either inappropriate or out-dated*" in training for language teachers. More importantly, Kessler (2006, cited in Karamifar et al., 2019 ) argued that institutions have neglected techno-competence and did not equip their graduates with the technology needed for modern classrooms.

To conclude, professional development courses should be designed in such a way that they tackle immediate needs of the participants, their learners and learning environments. Also, professional development should be systematic and be followed by self-development. Finally, not only teachers but students also need technology assistance and guidance.

**2.9. Beliefs, Challenges and Needs:**

An important step to successful online learning experience is the understanding teachers' and students' beliefs about technology integration and online learning which shape their attitude. Moreover, it is a must to identify teachers' and students' challenges and identify their needs to provide right solutions and support. These factors are interconnected and interdependent. Therefore, to have a change in technology integration, there should be a positive change in teachers' beliefs about technology use and understanding of it (Fullan 1992, cited in Vatanartiran and Karadeniz, 2015; Hew and Brush, 2006)

Many research studies have been conducted to find out the obstacles teachers face when dealing with technology. In a broad sense, Anas and Musdariah (2018) refer to the main barrier that prevents teachers from technology as "*technophobia*". In fact, instructors who view online learning as challenging expect their students to have major challenges and are less likely to gain the potential of technology integration (Bailey and Lee, 2020).

Dashtestani (2014) studied teachers' attitude to switching to online learning. Overall, teachers had a positive attitude towards online learning and are open to the idea of online teaching and learning, as well as are suggesting conducting technology related training for both teachers and students. However, most teachers shared a negative attitude towards the potential of online courses to be interactive. The researchers linked such beliefs with teachers' lack of knowledge about the online instruction and are recommended to learn more about online tools for interactive instructions. Students' attitude was also examined and the findings showed that students with better digital literacy have more positive attitudes towards online learning Dashtestani (2014).

Challenges that teachers and students face in online learning have been widely investigated. Specific challenges pointed out in the existing literature are as follows: teachers find it difficult to have students' attention and engagement (Bailey and Lee, 2020); receiving loads of emails is rather stressful for teacher, students educators and faculty members (Adedoyin & Soykan, 2020); time management (Gunuc & Babacan, 2018), appropriate teaching instructions and content related issues such as what strategies to use in material development and how to integrate multimedia in context (Kebritchi, Lipschuetz, and Santiague, 2017).

Two categories of barriers were suggested by Ertmer (1999, cited in Karamifar et al 2019) that influence teachers' technology use, which are **external** and **internal**. The former refers to institutional barriers or lack of techno-competence, while the latter refers to

teachers' attitude and beliefs about technology integration, as well as their pedagogical philosophy and experience. This classification is close to the one suggested by Back in 1995 Brickner (cited in Vatanartiran and Karadeniz, 2015) identified two categories of the issues in technology integration: **extrinsic** and **intrinsic**. The former refers to infrastructure, while the latter is related to teachers' beliefs and attitudes towards technology in education.

A more meta-analysis of previous research done by Hew and Brush (2007) resulted in taking out 123 barriers and classifying them into 6 categories, based on the frequency rate. The obstacles are presented below:

a. Lack of Resources (40%) : technology and access to it, time, technical support,
b. Knowledge and skills (23%) : lack of technology-supported-pedagogy
c. Institution: not supportive leadership, not flexible timetable, unplanned integration
d. Attitudes and beliefs: beliefs about education and technology
e. Assessment: high-stake tests
f. Subject area: nuances of different subjects areas

A solution for the issues of assessment is using assessment techniques such as constructed-responses and performance-based assessment (Osterlind, 2002, cited in Adedoyin & Soykan, 2020). Modifications in the grading system is recommended for online learning (Flaherty 2020, cited in Adedoyin &Soykan,2020).

In 2015 Vanatartiran and Karadeniz studied teachers' challenges and needs related to technology integration. Their results reinforce the previous findings and are summarized into 3 main categories of challenges:

1. **Executive**: lack of managerial and financial support; lack of information
2. **Infrastructural**: technological issues and inappropriate physical conditions

3. **Instructional**: lack of time and material, students' inner motivation and technological literacy, teachers' techno-competence and insufficient professional development

As for the students' common obstacles, the case study done in the US showed that there were four main barriers that hindered successful ICT integration, among which was student's lack of computer skills (Hsu, 2016). Other studies indicated the following challenges: self-regulated learning; technical difficulties to attend online classes and lack of resources (Bailey and Lee, 2020; Kebritchi, Lipschuetz, & Santiague,2017; Bailey and Lee, 2020), and being unfocused because other online content distracts them as an anticipated challenge (Bailey and Lee, 2020); adapting to the new learning environment and methods after being used to traditional face-to-face classes, time management, finally, lack of self motivation (Kumar, 2015).

Challenges can often be overcome but not always at a very high speed. As Bailey and Lee's study (2020) suggests that less than 2 years of experience in online teaching is not enough to decrease the number of more complex challenges and integrate more activities. So, teachers with a greater experience are more likely to be competent in responding to challenges and activity choices. Similarly, students who use technology on a daily basis are more digitally literate and can handle technology problems easier (Peytcheva-Forsyth, Yovkova and Aleksieva, 2018).

As for the technology **needs** that teachers pointed out in previous studies, they are as follows: teachers need more assistance with educational platforms like Moodle (Kessler, 2018), with the use of ICT for authentic materials and collaboration (Anderson, 2016), as well as, help how to create tests online and assess them, how to insure students safety and ethical issues when assigning homework and how to avoid plagiarism (Mei-Hui Liu & Robert C, 2015), how to design materials with the use of technology, how to manage time,

knowledge about distance learning, teacher-centered and practical training, which will be on a regular basis (Vanatartiran & Karadeniz, 2015).

In conclusion, successful online classes require an accurate study of teachers and students beliefs and attitudes towards technology and online learning and, if needed, changes should be made in these two factors. Also, it is crucial to be aware of teachers and challenges and do the needs analysis in order to provide them with an appropriate guidance. Finally, all this should be done in a systematic way for better progress.

# CHAPTER THREE: METHODOLOGY

This chapter is devoted to the research methodology and includes in-depth description of the chosen research design and methodological approach, the context and participants, sample size and sampling procedure, ethical considerations, as well as instruments, data collection and data analysis, limitations and delimitations.

## 3.1. Research Questions:

The research questions of the study address both teachers' and students' online learning experience and will help to investigate their current technology related challenges and needs so as to make the right improvements. The questions are open-ended, which is explained by the complex nature of the issues touched upon.

1. What is the teachers' perception of video-based online teaching experience and educational technology integration?
2. What are the teachers' current challenges in video-based teaching and needs for a technology training?
3 What are the students' perception of video-based online learning and educational technology integration?
4. What are the students' current challenges in video-based and needs?

### 3.2. Research Design:

The Action Research model has been implemented throughout this study. The justifiable reason for the choice is that Action Research is designed to bring change as a result of its problem-finding and problem-solving nature (Burns, 2015; Sagor, 2000). This systematic approach is exceptionally efficient to address challenges in any discipline, field and organization since it provides a profound examination of the problem. The results of such a study are used to implement short-term or long-term changes but much needed changes in order to reflect on practice and improve performance at different (Burns, 2015; Sagor, 2000). Moreover, the focus group of the Action research always benefits from the results since the study is directly linked with them. Considering that this study is based on the practical aspect of teachers' and students' e-learning experience with an emphasis on their current beliefs, challenges and needs, Action Research is a reasonable choice to make use of its results as a feasible guide for future training and workshops.

### 3.3. Methodological Approach:

Mixed Methods Research (MMR) methodological approach has been used for this study. This means that both quantitative and qualitative data has been collected. On the one hand, quantitative data enables researchers to be objective in measurement and analysis of concepts, as well as helps to make generalizations. On the other hand, qualitative data discloses much more details which better reflect on the research questions and are better interpreted (Ivankova & Greer, 2015). So, the use of MMR is explained by the profoundness and depth of the final findings, which will show a bigger picture of the problem it provides.

Alongside with this, a case study approach is implemented. This suggests that the researcher is interested in unique rather and not general. Hence, the objects of the study are delimited and are investigated in their natural environment (Pearson, 2015). As mentioned earlier, educational and technological beliefs, challenges and needs differ from one context to

another, and therefore, to have an insightful picture of the target after school English program a case study approach should be taken to seek for particular and not general. Lastly, Simons (2009 cites in Pearson, 2015) highlights that that main benefit of a case study is that it enables to evaluate policies.

**3.4. The context:**

There is a non-governmental after school English program in Yerevan, Armenia, where General English classes are conducted. The levels range from True Beginners to Advanced. Recently, the program reached regions as well, and now more than 5 towns in Armenia are engaged in it. The principal methodology is Communicative Language Learning. Before COVID19, all the classes were conducted face-to-face. However, the program has been delivering online classes since March, 2020 and is planning to have online classes on a regular basis from now on.

**3.5. Participants:**

The participants were 20 Armenian EFL teachers of the target afterschool English program, 234 Armenian students aged twelve and above who study English as a second language and are now taking a General English course within the target after school program. All the students have been taking the classes in an online synchronous mode at least for two months up to a year and a half. Finally, nine parents of very young learners aged 6-11 took part in the study, because the students belonging to this category would not be able to complete the survey. So, parents were interviewed instead. Importantly, all the participants are not only from Yerevan but also from other cities and towns in Armenia.

**3.6. Sampling Methods:**

Non-probability sampling method was used throughout the three stages of data collection, which means there was non-random selection (Ben-Shlomo, Brookes & Hickman, 2013).

Purposive sampling (non-probability) was used for class observations, which means that the researchers chose representatives who met their needs and/or had specific characteristics the researcher is interested in (Mccombes, 2021). In this study, classes for observation were chosen based on the levels and age groups. Also, purposive sampling was used for semi-structured interviews to have two teachers from Yerevan and two teachers from the regions interviewed, as well as two students from Yerevan and two from the regions. The same technique was implemented for the choice of parent participants, specifically, five parents were contacted from Yerevan and four parents from regions.

### 3.7. Ethical Considerations:

Specific ethical considerations underlie this study. First, all the participants were informed about the aim of the study and what the findings will be used for. Second, none of the participants was made to contribute to the study against their will. Third, the participants were requested to fill in the questionnaires or be interviewed but on a voluntary basis only. Moreover, interview participants gave permission for audio-recording. Next, the survey was anonymous for both teachers and students. In addition, data collected from interviews and observations is confidential. Finally, the researcher possesses an IBR (Institutional Review Board) certificate.

### 3.8. Instrumentation:

As mentioned earlier, both quantitative and qualitative data were collected with the following instruments:

An online survey was created for the teachers in English (see Appendix A) and a different online survey was created in Armenian for the students (see Appendix B). In both the surveys some of the questions were adapted from existing questionnaires, while others are

created by the researcher. Also, both the surveys were anonymous, which would have a positive effect on the degree of honesty in responses and would reduce stress.

The survey is made up of constructed and non-constructed questions. Specifically, the survey included single answer multiple choices, multiple answer multiple questions, open ended questions and likert scale. The advantage of multiple choice questions is its ease for the participants to answer and the researcher to analyze the results, while the main drawback is that there is a predetermined limited number of choices from which the participants have to choose. These ready-made options may lead to biased outcomes. Considering that, the survey includes open-ended questions as well, to enable the participants to suggest ideas and raise issues that the researcher might not have thought about. As for the likert scale questions, these are often used to find out the participants attitude, opinion or feeling over a certain notion (Jovancic, 2018). So, this question type greatly fits the current study since it aims to reveal teachers and students attitudes towards online learning and beliefs about technology integration

Next, observation checklist was used during class observation (see Appendix C), which was adapted from the existing observation forms designed for online synchronous lessons (CET Synchronous Online Teaching Observation Checklist and Synchronous Online Teaching Observation Checklist for P-12 Instruction, 2020) Additionally, the researcher added specific points that meet the interests of the study. The implication of observation is justified by the fact that the researcher gets a better understanding of the context, how the participants behave and interact (Sauro, 2015). Specifically, observations would help the researcher to go deep into in-class interaction and register challenges noticed at classes. In other words, it is a first-hand experience for the researcher in the context of the conducted study.

Finally, semi-structured interviews were conducted with four students (see Appendix D), four teachers (see Appendix E) and nine parents of very young learners (see Appendix F). Such interviews can be described as guided discussions between the researcher and participants. On the one hand, there are pre-designed questions to ask; on the other hand, it provides the researcher with much flexibility to discuss the questions that arise spontaneously throughout the interview so as to dig deep into participants' thoughts (Stuckey, 2013). The pre-designed questions were derived from the survey results in a way that the researcher gains more in-depth knowledge of important concepts and has more room for interpretation. Also, the audio recordings of the teachers' interviews were saved so that the researcher revises notes. Semi-structured interview questions were also created for the parents' of very young learners aged 6-11. This age group did not complete the survey since they would not be able to reason and judge over the notions the researcher is interested in. Instead, 9 parents were asked questions to have a general understanding of online learning experience for this age group. The questions were created by the researcher.

**3.9. Data Collection Procedure:**

The collection of quantitative and qualitative data was organized in four stages:

First, the teachers' online survey was distributed to the teachers via E-mail. The teachers had two weeks to answer it. Similarly, the second online survey was distributed via E-mails and Messengers to students, who also had two weeks to complete it.

Second, 10 class observations were conducted with the use of an observation checklist. The observations were organized in a way that the researcher has first-hand experience of learning experiences in different age groups, proficiency levels and regions.

Third, the researcher studied teachers' survey results and created interview questions. All in all, four teachers were interviewed: two from Yerevan (one teaching students form

6-12, the other teaching learners above two from Yerevan and two from regions, were invited for an individual online interview via Zoom. On average, the interviews lasted for 20 minutes. The researcher notes of the key words and also audio recorded for late revision.

Finally, 9 parents (5 from Yerevan and 4 from regions) were interviewed via individual phone calls. On average, each call lasted for 5 minutes. The researcher took notes of the key words for later analysis.

### 3.10. Data analysis:

The researcher collected data in three different stages and from three different sources to ensure validity and reliability. Also, the study is based on quantitative (survey) and qualitative data (observation, interview, survey), the combination of which provides insightful results.

First, the researcher goes over the completed questionnaires in Google Forms, to make sure there are no technical problems, no skipped questions or errors. So, data analysis starts with checking and editing. Then, quantitative data gained from the teachers' survey and students' survey in Google Forms is converted to an Excel Sheet to analyze. For this purpose, descriptive statistical technique is used to analyze and interpret numerical data, specifically, to measure in percentage how often a certain response was given (Bhandari, 2021). In addition, the researcher tends to find out the relationship between several variables through correlation analysis (Bhandari, 2021).

As for the qualitative data, it was gathered from surveys though a few open ended questions, observations, and interviews. The data is analyzed in four steps as suggested by Holliday (2015): a) coding of the text and notes for key words and repeated patterns, b) grouping of frequently occurring codes into groups, c) seeking for specific extracts explaining or defining each theme, d) revising the initial data, redrafting codes and themes.

The last step is repeated as long as no new codes appear. Then the researcher builds arguments around the defined themes, which directly refer to research questions. The analysis of the qualitative data collected through open-ended questions will provide insightful details about teachers' and students' challenges in online learning, their needs for technology training, as well as perceptions and beliefs of technology integration and online learning in general. The four steps mentioned earlier will help to arrive at common practices.

**3.11. Delimitations:**

The limitations of this study are as follows:

- Students ages 6-11 were excluded from the survey completion since they wouldn't be able to accurately respond to it by reflecting on their learning experience and making reasoned judgments.
- Four teaches were excluded from the study since they did not complete the survey
- There was no co-observer and co-interviewer, which might affect the reliability of interpretation

**3.12. Limitations:**

Our findings might not be reflective of other after school English programs in terms of students' and teachers' beliefs, challenges and needs since these are personal and subjective factors which may greatly differ from one context to another.

# CHAPTER FOUR: RESULTS

This chapter summarizes the results of present study based on the qualitative and quantitative data collected from 20 teachers' and 234 students' responses to the survey with close-ended and open-ended questions, as well as from the researchers' personal observations of nine classes, semi-structured interviews with four teachers, four students and nine parents of learners aged 6-11. The results will be presented in themes built on the interests of the study.

## 4.1. Teachers' beliefs about online learning and ICT integration:

Figure 1 below illustrates what link the teachers see between ICT use and the achievement of learning goals and outcomes. Overall, 55% (11 of the 20 respondents) completely agree with the idea that technology helps them to achieve the learning goals set and brings them to the desired outcomes. However, 9 out of the 20 respondents (45% of the respondents) are not sure of the positive impact of ICT in terms of the learning goals and outcomes. None of the teachers disagreed with the statement.

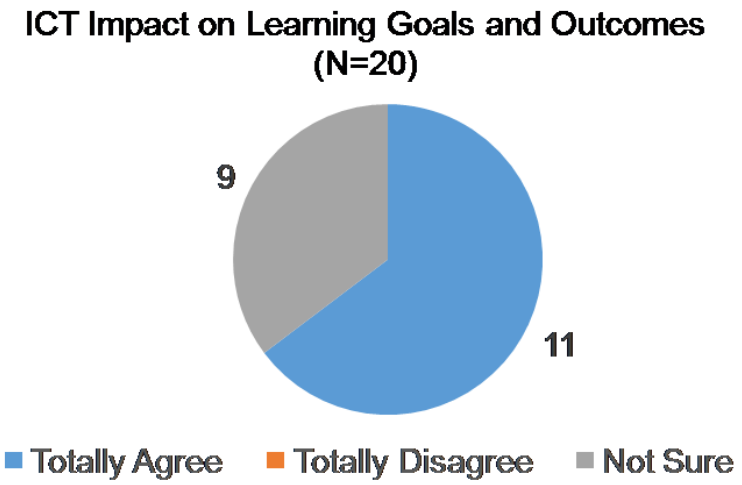



*Figure 1.* Teachers' agreement on the positive ICT impact on learning goals and outcomes

In addition, teachers have conflicting beliefs about the statement that technology use makes classes more dynamic: 50% of the teachers (10 out of 20) do not agree with that, while the other 50% agrees (see Figure 2).

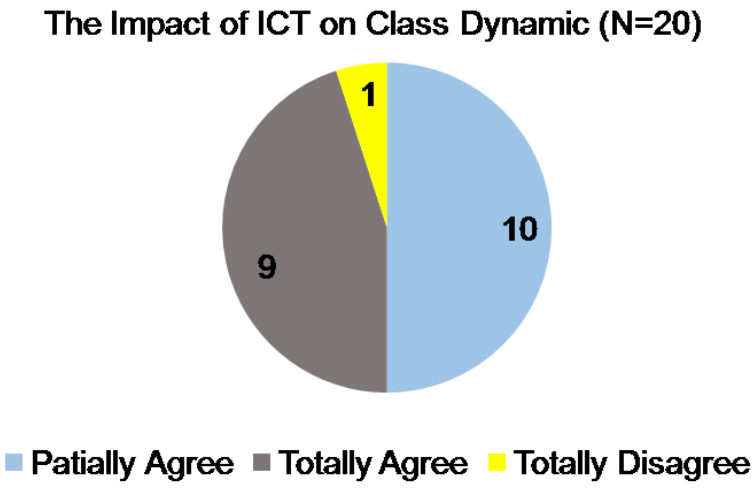



*Figure 2.* Teachers' perception of the link between ICT and class dynamic

Figure 3 below shows the teachers' perception of the ICT impact on the enhancement of language opportunities. The majority of the teachers (13 out of the 20 respondents, which is 65% of the respondents) agree that technology maximizes learning opportunities in an online classroom and only 35% (7 out of 20 respondents) are not sure of the statement. None of the teachers disagreed with the statement.

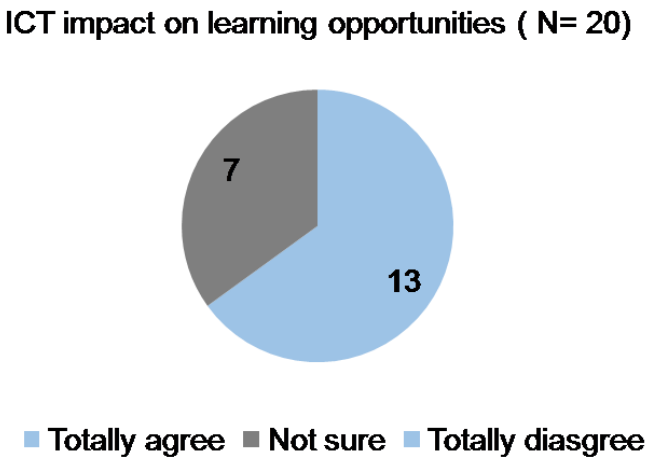


*Figure 3.*Teachers' perception of ICT impact on language learning opportunities

As for the teachers' productiveness, Figure 4 below depicts that the vast majority (17 out of the 20 respondents, which is 85% of the respondents) believe that they are more productive when they teach face-to-face, while 15% (3 of 20 respondents) mentioned that they are more productive when they teach online.

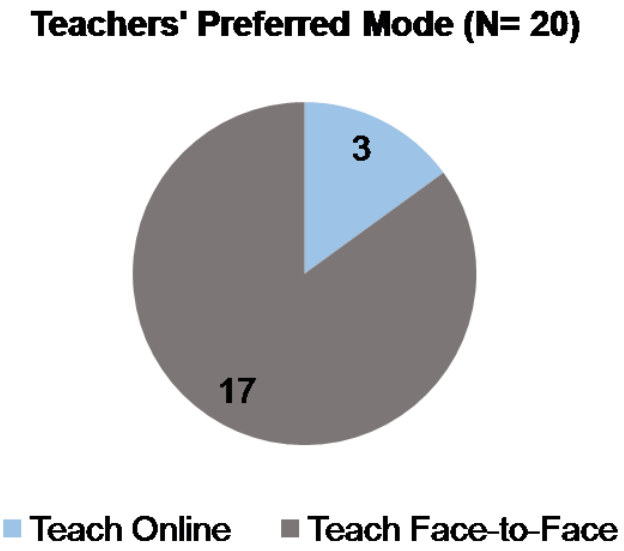



*Figure 4.* Teachers' perception of productive teaching mode

Next, the results show that 90% of the teachers (18 of the 20 respondents) believe that the use of online tools changed their teaching experience for the better (see Figure 5 below). In contrast, 5% (one of 20 respondents) mentioned that online tools had a negative impact on their teaching. Also, one participant indicated that he/she hardly every uses online tools.

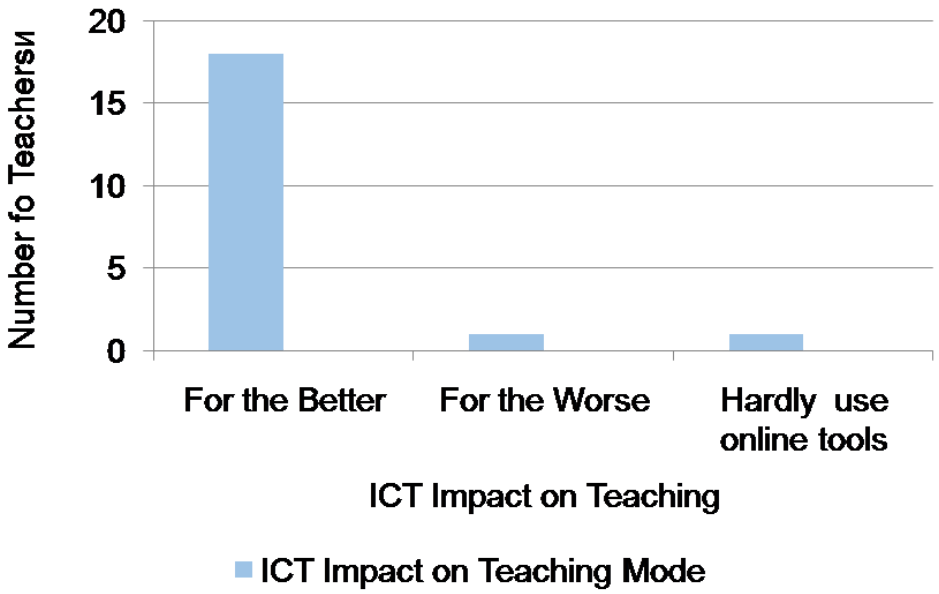



*Figure 5.* Teachers' perception of ICT impact on their teaching experience

The survey also investigated teachers' perception of which language skills are well practiced in an online mode and which ones are not (see Figure 6). The majority of the teachers, namely 90% (18 of 20 respondents) shared the same belief that reading practice is ineffective and 85% (17 of 20 respondents) consider writing practice as ineffective. In contrast, there are conflicting opinions in terms of the effectiveness of speaking and listening practice: 55% (11 out of 20 respondents) agree that listening skill is well developed online, while 45% (9 of 20 respondents) disagree with that. As for speaking practice, 40% (8 of 20 respondents) agree on its effective online practice, 60% (12 of 20 respondents) disagree.

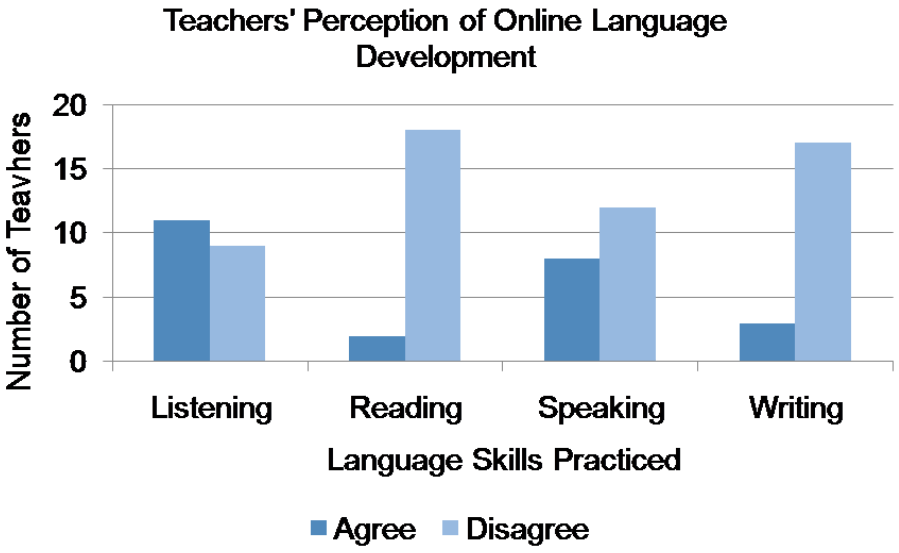



*Figure 6.* Teachers' agreement on effective language skills development in online mode

Apart from this, data about teachers' perception of students' motivation and participation at online classes was collected through the survey. Figure 7 shows that 85% of the teachers (17 of 20 respondents) find that students demonstrate greater participation during face-to-face classes, while 15% indicated high student participation during online classes. Furthermore, and 90% of the teachers (18 of 20 respondents) believe that students are more motivated during face-to-face classes and 10% of the respondents (2 teachers) believe that learners are motivated at online classes.

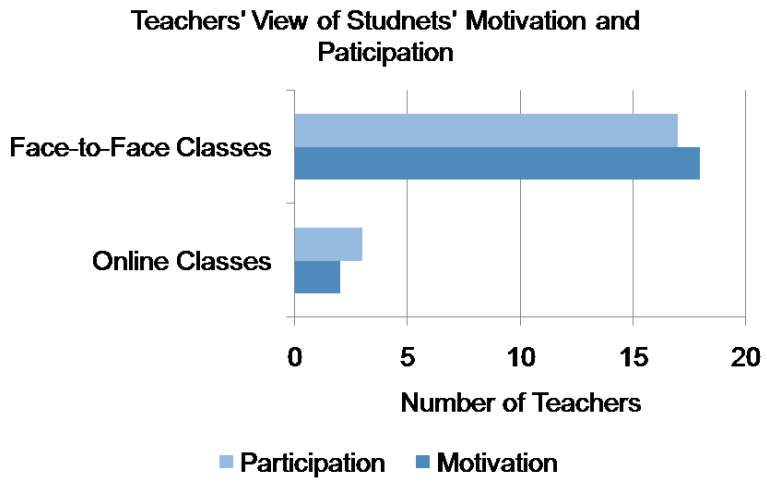


*Figure 7.* Teachers' perception of students' participation and motivation

The researcher examined not only the summaries of the studies but also went through the individual responses to find common patterns in teachers' responses to different questions. The findings will be discussed in detail below.

First, 10 of the 11 teachers who agreed that technology helps to achieve learning goals and brings to the desired outcomes also mentioned that they feel very comfortable using technology and can easily find and choose the right tool for their instruction. Also, 9 of those 11 teachers agreed that they can understand how online tools work on their own, without someone else's help. Next, 8 of the 11 teachers mentioned before, believe that technology maximizes learning opportunities. Finally, 6 of the 11 respondents agreed that technology makes classes more dynamic.

Second, 10% of the teachers (2 of 20 participants) who agreed that they get lost when technology fails also mentioned that they are not sure if technology helps them to achieve their learning goals or not. Similarly, these two participants mentioned that technology either changed the way they teach for the worst or they hardly ever use technology in their teaching.

Third, the researcher compared teachers experience in online teaching with their beliefs. Specifically, 100% of teachers who have more than 1 year of experience (10 of 10 teachers) unanimously agree that they can understand how to choose and use online tools on their own, while 50 % of the teachers having less than 1 year of online teaching experience (5 of 10 participants) partially agree with that statement. Moreover, all the 4 teachers who have more than 3 years of experience in online teaching agree that technology maximized learning opportunities.

The results show that 50% of the teachers who have less than a year of experience in online teaching sometimes need help to choose the right tool or understand how it works, while teachers with more than 1 year of experience unanimously claim that they do it on their

own. Teachers with 3 years of experience and more in online teaching believe that ICT enhances learning opportunities.

Next, only two teachers (10%) chose that their students are more motivated at online classes rather than at face-to-face. Both the teachers share the same belief in that their students also participate more actively during online classes and they themselves, as teachers, are more productive when they teach online and not face-to-face.

Teachers' perception of ICT impact on language learning differs from Yerevan to regions. Out of 13 teachers from Yerevan, 5 respondents believe that ICT enables them to achieve learning goals and desired outcomes, and 7 respondents agree that technology enhanced learning opportunities. In comparison, 7 participants from regions agree that technology helps in achieving learning goals and 6 of 7 respondents agree that technology maximizes learning opportunities.

Apart from close-ended questions, there was an open-ended question asking what the teachers like about online learning the most. Among the responses, overlaps have been noticed in term of transportation. Most of the teachers find it very advantageous that they can teach from anywhere as long as there is access to the internet. The respondents also mentioned the following ideas as their favorite features of online learning: the diversity of online tools, especially the tools that develop communicative skills, usage of videos and audio recordings, vocabulary and grammar games, power point presentations.

Besides the survey conducted, four teachers were invited to participate at individual interviews during which questions related to online learning were discussed. The interview responses suggested that writing is not well practiced since the teacher does not see students' notes. Next, reading skill is poorly practiced because of limited monitoring opportunities; the teacher is not sure if students actually read or simply stay silent. Also, giving two-way feedback was mentioned as a factor that is difficult to achieve in an online mode.

Next, The interview participants shared their best practices of online teaching, which included the following: Games and competitions (Who wants to become a millionaire, Bamboozle, Quizzes, Spinning Wheel), pair work and group work, riddles, Q&As, stress-free environment and polite language, teacher's modeling, debates, presentations, creating videos and stories, screen sharing, using Zoom chat and Padlet to share examples, videos related to grammar and vocabulary topics, using white board, turning cameras on, as well as meeting students' needs and interests.

Concerning the workload, two of the interviewees mentioned that checking homework and tests takes much more time which overloads them, while the class preparation is nearly the same. Finally, the interviewed teachers feel positive about formative assessment and can easily conduct it, while conducting tests is problematic since the students can cheat easily.

**4.2. Students beliefs about ICT integration and online learning:**

The results of the collected study reflect on the students' beliefs and perceptions of ICT and online lessons as well. Figure eight shows that 59% (140 of 234 respondents) highly enjoy online lessons, which is the majority of the participants, and 34% (80 of 234 respondents) do not enjoy online learning that much. The students who do not like online classes at all form 6% (14 of 234 respondents).

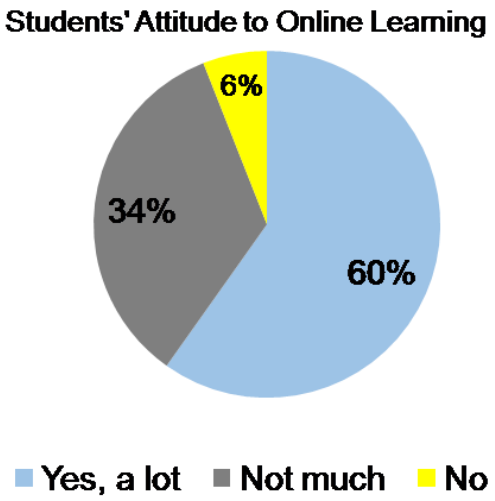



*Figure 8.* Students' attitude towards online classes

The survey asked for students' satisfaction with online learning experience. The results are quite contradicting. Figure 9 below demonstrates that the students' fall into two groups: those who are satisfied and believe they learn as much as during online classes (50% or 117 of 234 respondents), and those who are not sure about the productivity of classes and their learning achievements (50% 116 of 234 respondents). In fact, no student believes that online learning is not productive at all.

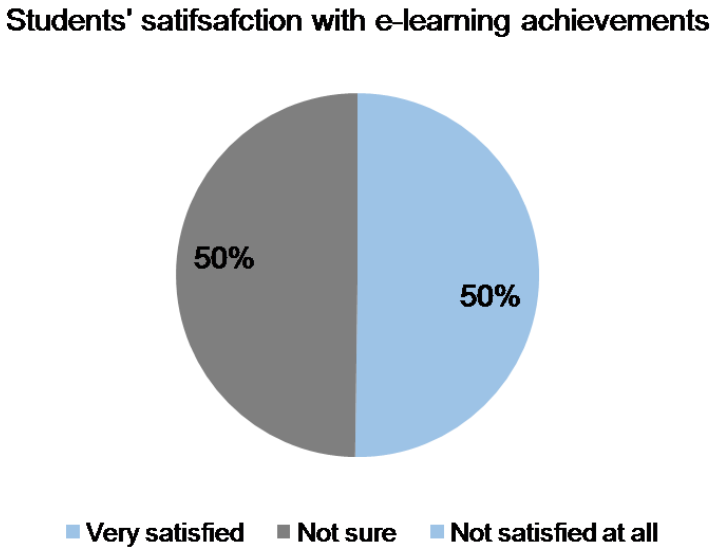



*Figure 9.* Students' satisfaction with online learning achievements

Figure 10 below illustrates that the huge majority, 80% of participants (188 of 234 respondents) understand teachers' explanations better in face-to-face mode in comparison with the online mode. Only 20% (46 of 234 respondents) mentioned that they grasp the new material better in an online environment.

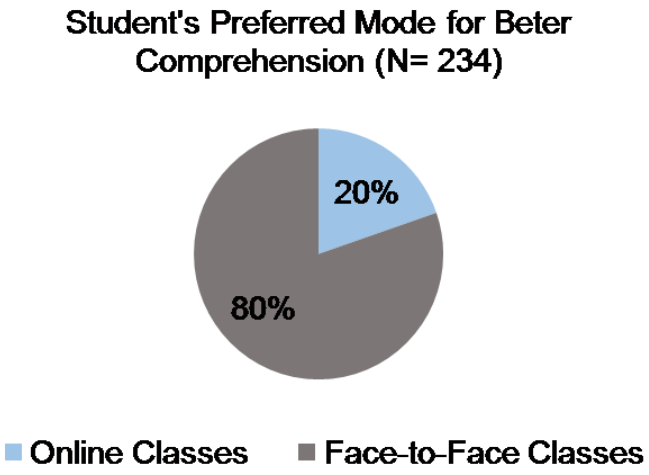



*Figure 10.* Students' preferred mode for teachers' explanations

Figure 11 below illustrates students' self-assessment of their participation. The summary of results shows that 70% (161 of 234 respondents) believe that they participate more during face-to-face classes, while 30% (70 of 234 respondents) think they participate more actively at online classes.

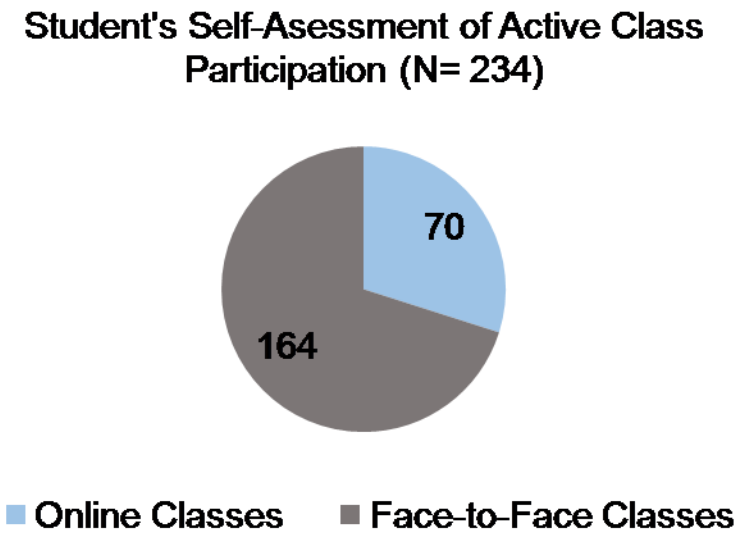



*Figure 11.*Students self-assessment of their participation at online classes

Additionally, the survey results showed students' perception of their teachers' use of ICT at online classes (see Figure 12). The great majority of participants responded that they have online games, quizzes, competitions, songs and videos almost at every class (89% or 209 of 234 respondents). In contrast, 11% (25 of 234 respondents) mentioned that they rarely have such components at classes.

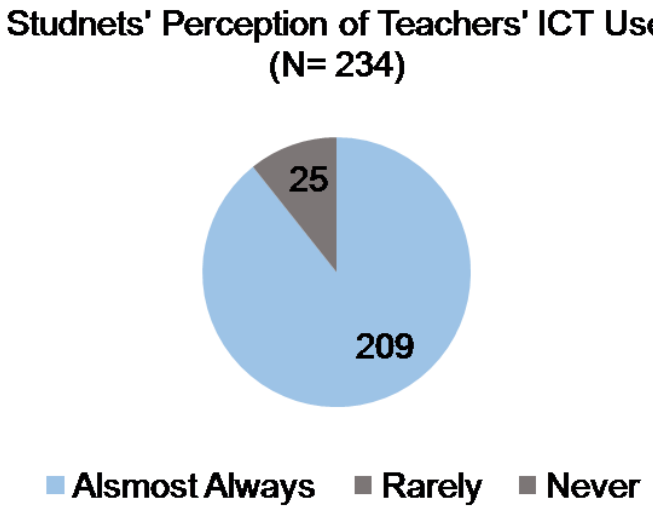



*Figure12.* Students' perception of teachers' ICT use frequency

Along with the summary results, the researchers examined students' individual responses to find connections and common patterns in them. The findings are listed below:

First, students' proficiency level determines their desired class duration. The majority of the students with the Beginner (1 of 1 respondent), Elementary (24 of 45 respondents) and High-elementary (25 of 45 respondents) English levels prefer to have a 1 hour class, while the majority of the Pre-intermediate (26 of 49 respondents), Intermediate (39 of 71 respondents) and Advanced (1 of 1 respondent) students prefer online classes to last longer than an hour.

Second, 70 students mentioned that they participate more during online classes rather than at face-to-face classes, out of which 60 participants also mentioned that online classes are productive and they learn as much as at traditional classes. Moreover, 40 of those 70 students indicated that they understand their teachers' explanations better in an online mode. Similarly, 164 students who mentioned that their participation is greater at face-to-face classes unanimously agreed that they understand better when their teacher explains face-to-face. Furthermore, 107 of those 164 students are not sure that they learn online as much as at a traditional classroom. The researcher found positive correlation with the value of 0,63 between the following two variables: the degree to which students understand teachers' explanation in an online mode and the students' participation rate. The calculated value shows that the better students understand what the teacher explains the more actively they participate at online classes.

The survey also included an open ended-question which asked the respondents what they like about online classes most of all. The most frequently given answer was convenience in terms of time and transportation. Other commonly shared responses included competitive games, screen sharing, group works and pair works in break-out rooms, use of slides and presentations given by students.

Besides, the interview results reinforced the survey results in that the online games, shared screen, online Zoom board and group works in break out rooms help learners to understand and practice new material in a better and easier way. Next, all the fours participants approved that pair work and group work are done efficiently in an online mode, as well as all the four participants mentioned Viber as an effective platform for communication with peers and teachers. In addition, the interviewed students mentioned that games, competitions, stress-free environment, as well as speaking and listening tasks motivate them to participate. Next, the interviewees suggested the following improvements improvement: including more education games, having more vocabulary related competitions, writing more essays and having more group works.

Lastly, the students were asked which language skills are practiced the best and the worst in an online mode. According to interviewees responses, speaking and listening are practiced the best, however, internet disruptions sometimes are problematic for listening tasks. In contrast, writing was mentioned as the worst practiced skill.

**4.3. Teachers' challenges in teaching online:**

The survey questions, observations and interviews touched upon the challenges that the teachers are currently facing in their online teaching experience. The results will be discussed below.

The results of the multiple choice question related to teachers' challenges are summarized in Figure 13 below, which illustrates that the three most commonly chosen challenges among 65-85% of respondents are internet disruption, electricity disruption and students' motivation and engagement. Other commonly shared obstacles are conducting tests and exams online (55% or 11 of 20 respondents), student-student collaboration(50% or 10 of 20 respondents), plagiarism(35% or 7 of 20 respondents), noisy environment(35% or 7 of 20 respondents), textbook adaptation (35% or 7 of 20 respondents) and teacher-student communication (30%

or 6 of 20 respondents). The rest of the provided options were chosen by 1-5 teachers only. This refers to classroom management (25% or 5 of 20 respondents), , giving feedback (20% or 4 of 20 respondents), checking the homework (15% or 3 of 20 respondents), assessing students' progress checking the homework (15% or 3 of 20 respondents), digital safety (10% or 2 of 20 respondents) and low battery of gadgets (10% or 2 of 20 respondents).


*Figure 13.* Teachers' current challenges in online teaching

Along with this there was an open-ended question related to teachers' challenges, so that they could raise issues that the researcher overlooked or did not think of. Generally, the most common patterns mentioned by the respondents refer to the bad quality of internet connection and technological issues (microphone, sound), background noise, students' motivation and participation. However, one of the teachers pointed out the challenge in rapid switch to online mode, "*The transition was too fast for both students and the teachers*" and adds the lack of an

opportunity for technology related professional development as another challenge. Another response referees to technology disruptions, "*Something may go wrong at any time and then you have to think of a plan B".* Other obstacles mentioned refer to pair organizing pair and group works, as well as their monitoring.

As for the teachers' dislikes, one of the teachers mentioned that teachers have to put much more additional efforts to catch students' attention and keep them motivated about the classes: "*There is a constant need for the teacher to prepare extra activities and add something new all the time not to be boring or demotivating".* Another teacher discussed the negative effect of physical passiveness as a drawback of online learning by saying *"I dislike sitting and looking at the screen all the time (physical passiveness)".* Finally, several teachers indicated that they dislike it "*when cameras are off and you do not see your students".*

The survey also investigated teachers' workload in online learning. Figure 14 below summarizes the results and shows that the huge majority (19 of 20 respondents or 95% of the respondents) either completely agrees or partially agrees with the idea that the use of ICT overloads them. In contrast, only 1 teacher disagreed with that and thinks that ICT helps to do things quicker and better.

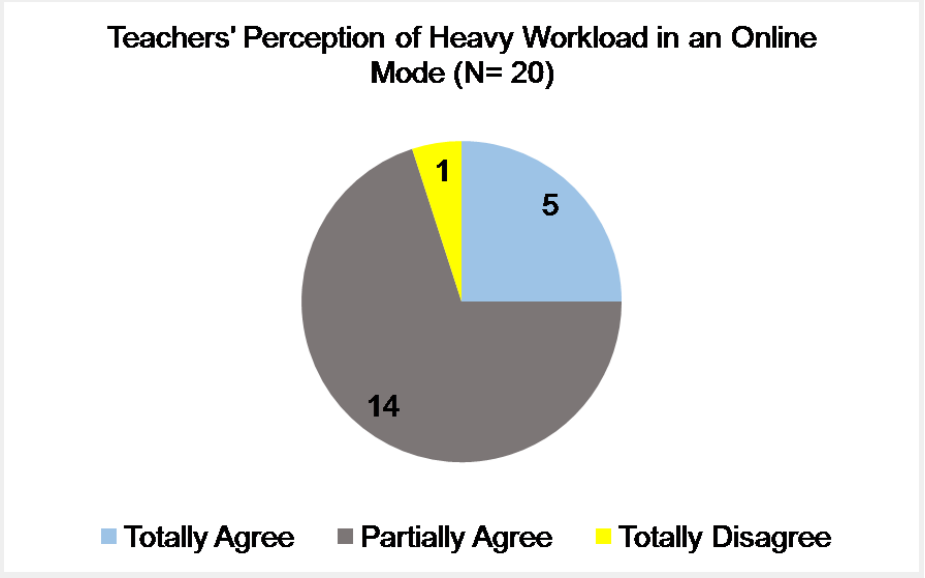



*Figure 14.* The effect of ICT on teachers' workload

**4.4. Students' challenges:**

A separate survey was created in Armenian for the students, which included close-ended and open-ended questions. Some of the questions directly referred to the challenges they are currently facing. Figure 1 shows that the vast majority of the students do not have technology related obstacles. Specifically, 74% (172 of 234 respondents) stated that they never have technology related problems since they have very good technology skills and 25% (58 of 234 respondents) mentioned that they sometimes have difficulties with technology and need some help from teachers. In contrast, only 2% (4 of 234 respondents) lack techno-competence and often have difficulties with online tools.

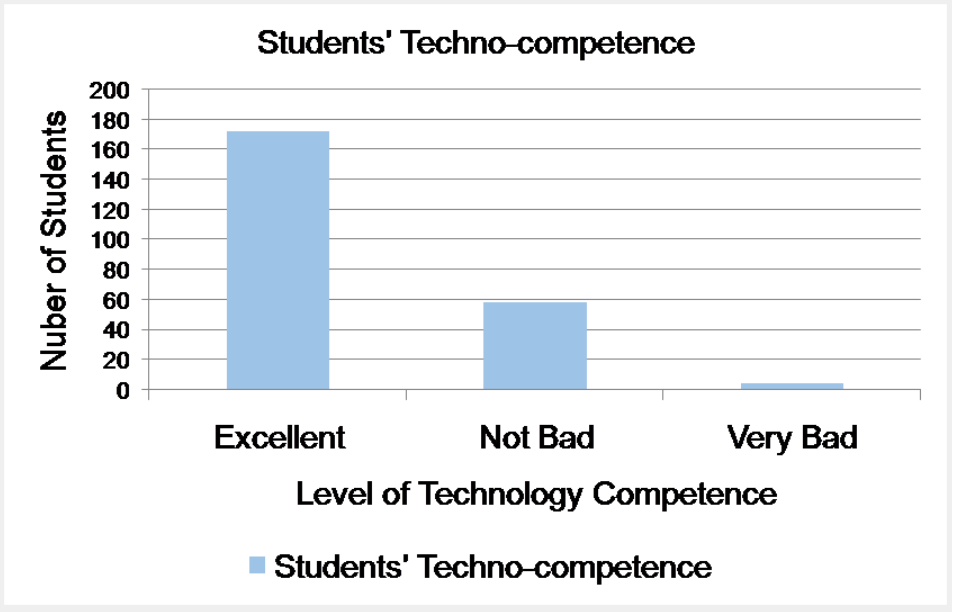



*Figure 15*. Students' self-assessment of technology competence

Another question from the survey provided the students with the options of possible challenges from which the students had to choose the most frequently faced one. Figure 2 illustrates the summarized results. According to the figure, the three most chosen options are internet disruption 56% (132 of 234 respondents), getting easily tired and lack of

concentration 12% (29 of 234 respondents), taking online tests and exams 8% (18 of 234 respondents). In contrast, the least chosen options included pair and group work (2% or 5 of 234 respondents), student-teacher communication (3% or 6 of 234 respondents), completing and checking homework (3% or 8 of 234 respondents).

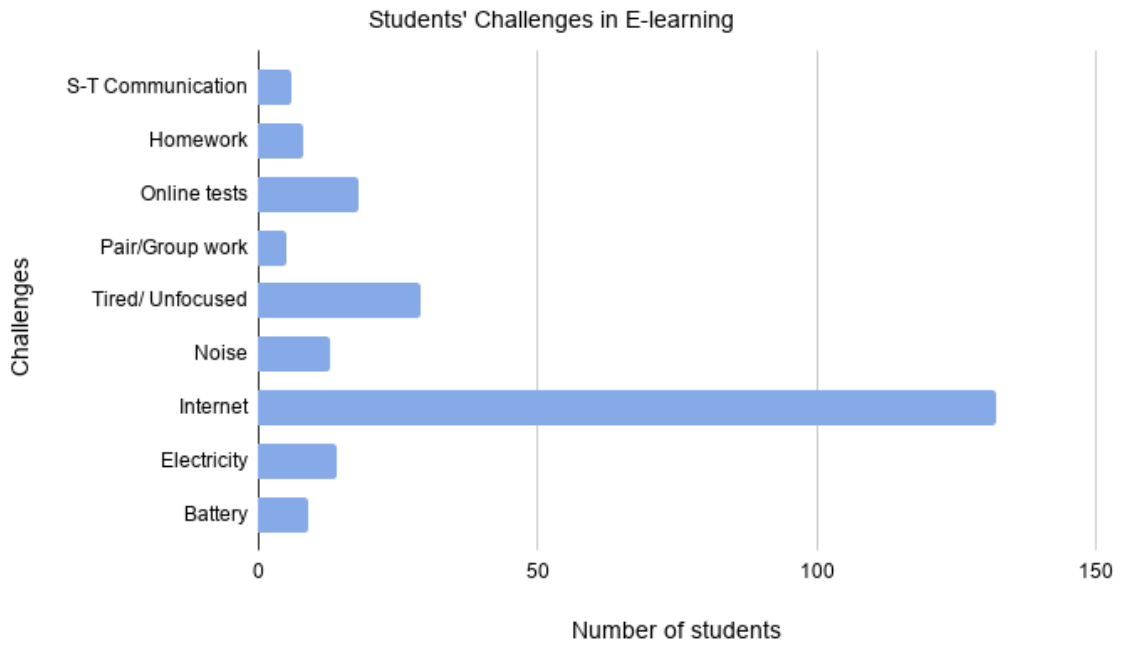



*Figure 15.* Students' challenges in online learning

Moreover, the students responded to an open-ended question which asked to suggest some improvements or changes in online learning. The point was to elicit responses which the researcher might not have thought of. Among the students' responses the following ideas were mentioned: to have longer classes, to organize meetings with peers, to implement more online tools, to add more educational games, to have an upgraded Zoom not to leave the meeting every 40 minutes.

The teachers were also asked to share their views on what might be the main challenges that their learners are facing currently. Figure 16 below illustrates the summary of responses. In the teachers' perception, their learners mostly struggle with internet and

electricity disruption (80% or 16 of the 20 respondents), noisy environment (50% or 10 of the 20 respondents) and lack of concentration (50% or 10 of the 20 respondents), inactive participation (35% or 7 of the 20 respondents) and after class student-student participation (35% or 7 of the 20 respondents).

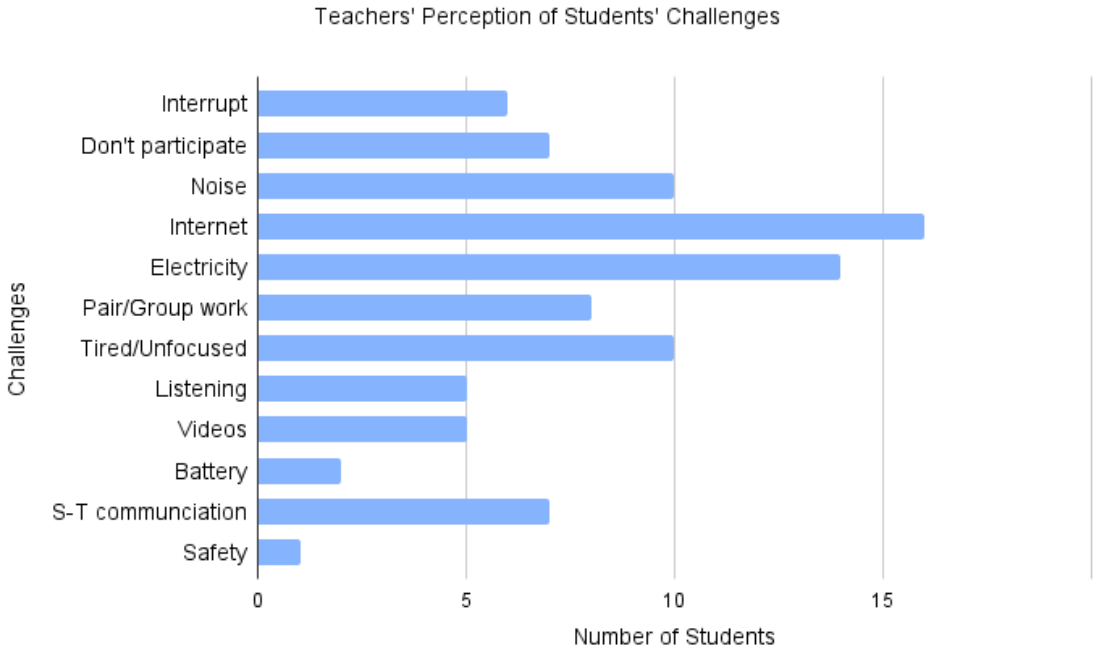



*Figure 16.* Teachers' beliefs about their students challenges

**4.5. Teachers' and students' needs perception and needs for technology training:**

The survey included a question which asked about teachers' the prior experience in technology related professional development. Figure 17 demonstrates that 80% of teachers (16 of 20 respondents) have not technology trainings so far. Only, 20% of participants (4 of 20 respondents) received such training wither organized by the American University of Armenia or the British Council.

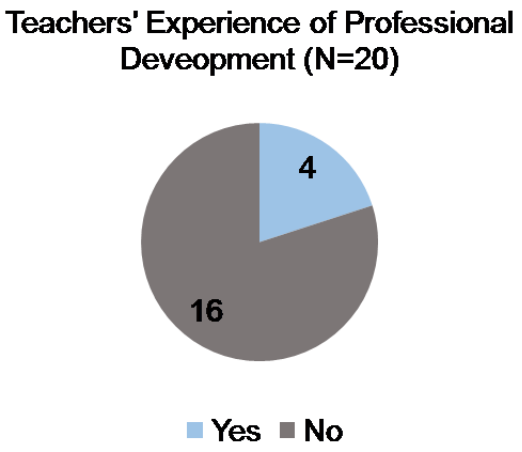



*Figure 17.* Teachers' experience in technology training

Figure 18 below shows that most of the teachers (70% or 14 of 20 respondents) would like to receive a technology related professional development, while 60% of students (140 of 234 participants) would not like to participate in technology related training and learn more about online tools. Students who would like to receive a training make up 40% (94 of 234 participants).Those who mentioned "yes" were asked to mentioned what they would like to learn about at the teraining. Teachers included the following ideas: more interactive online tools, educational websites, tools to foster group work, tools for recording videos, advanced options of Zoom, alternatives to Quizziz and platforms for blogs.

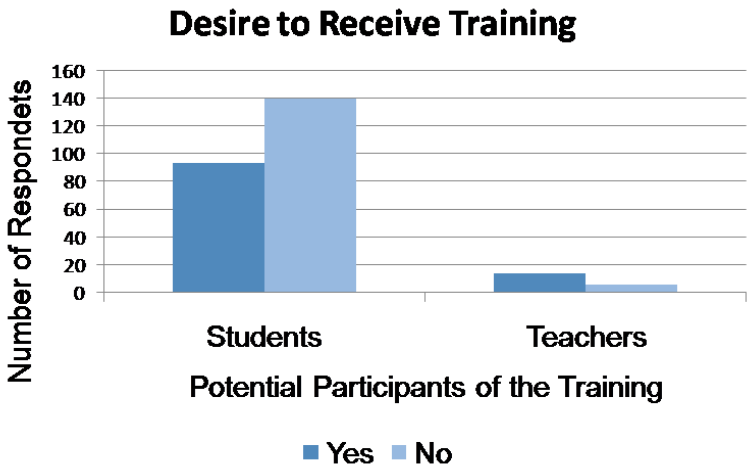



*Figure 18.* Teachers' and students' desire to receive training

**4.6. Online Class Observations:**

As mentioned earlier, the researcher observed 10 online classes conducted via ZOOM during which a checklist was used. The latter was adapted from two ready-made checklists (CET Synchronous Online Teaching Observation Checklist and Synchronous Online Teaching Observation Checklist for P-12 Instruction, 2020) designed specifically for online classes. The checklist also included two open-ended questions, which would enable the researcher to better reflect on what was happening at classes and would give more insights (see Question A and Question B below).

In fact, the researcher was very attentive towards the factors that influenced students' motivation and participation at classes because the survey results reported teachers' dissatisfaction in those terms. The data collected from class observations helped the researcher to classify the classes into two broad categories: a) dynamic classes where students were motivated and actively participated; b) less dynamic classes where students do not demonstrate desire to participate and seem to be unmotivated.

The classes which belong to the first category have the following commonly shared features: instructor prepared all the needed materials and relevant online tools before the start of class, instructor created a stress-free environment, instructor was responsive and engaging, instructor was constructive in tone and content of feedback, instructor uses active-learning activities at least twice (PowerPoint, flash cards, varied visual and text materials, kinesthetic and audio activities, instructor is quick at solving technical issues, instructor uses body language (nodes, shaking head, gestures such as thumbs up, mimics), instructor makes sure the tools and materials used are accessible to all the students, logical flow of the lesson, contextualized activities, good time management, creative presentation of new materials, instructor nominated passive students.

As for the things that did not went well at the observed classes or did not foster students' participation and motivation, the following concepts were noticed: absence of student-student interaction, instructor and students overused Armenian and used L1 even for daily needed expressions, instructor spent too much time on checking the homework, instructor used distracting speech patterns.

**4.7. Interviews with 6-11 years old students' parents:**

Considering the fact that students aged 6-11 did not complete the survey, 10 parents were called for an interview. The purpose was to ask the parents about their children's online learning experience, overall satisfaction and facing challenges. The interview was semi-structures; thus, it included pre-planned questions, as well as questions derived from the participants' responses. The researcher collected data from the interviews and categorized them into two broad groups: a) parents satisfied with their child's online learning experience; b) parents dissatisfied with their children's online learning experience. Parents belonging to the first category shared common ideas in their responses: noticed their child's progress in English, noticed their child's enthusiasm and motivation for the classes, their children keep in touch with the teacher after class and easily reach out if there are any questions or issues, the teachers' explanations are comprehensible for children, the teacher uses varied activities, tasks and techniques to engage students. In contrast, the parents who showed dissatisfaction mentioned the following concerns: the child's English is developed at a too slow pace, the child is shy and does not initiate to participate, while the teacher does not call their names, the child turns off the camera and gets distracts and the teachers cannot monitor what he/she is doing.

# CHAPTER FIVE: DISCUSSION

The purpose of this Mixed Methods Research was to profoundly investigate the after school English program's teachers' and students' beliefs towards online learning and ICT integration in language learning, as well as their current technology-related challenges and needs. This chapter includes the researchers' interpretations of the main findings following the order of the four research questions as well as the discussion of pedagogical implications. Importantly, the findings relate back to previous literature on relevant concepts. The researcher also included the discussion of the limitations of the study, as well as practical recommendations for future research.

## 5.1. Discussion of the research questions:

(R1). What is the teachers' perception of the video-based online teaching experience and educational technology integration in language learning?

As mentioned earlier, certain beliefs shape certain attitudes towards a particular concept. One of the main findings regarding the teachers' beliefs about ICT impact on language learning revealed that 50% of the teachers disagree with the idea that technology can make online classes more dynamic and 45% of the teachers are not sure ICT use helps them in achieving desired learning goals and outcomes. So, roughly half of the participants do not associate ICT use with successful language classes. This mistrust and underestimation of ICT impact might shape negative attitudes towards technology use in language learning among exactly half of the participants, which in its turn might hinder them from efficient ICT integration (Aguilera-Hermida, 2020; Hew and Brush, 2006)

Our findings on language skills development confirm the results of a previous study (Perveen,2016) in that reading and writing skills are less efficiently developed in an online synchronous mode. The conducted interviews revealed that one of the reasons for such a belief is that teachers are not able to see students' writings and notes and give appropriate

feedback or the turned off cameras do not enable teachers to monitor students reading. Contrary to the findings of Perveen (2016), which points out the potential of synchronous online classes for listening and speaking practice, the teachers' of our study have doubtful views over the potential of online synchronous classes for speaking and listening practice. Almost half of the teachers disagree that listening skill is well developed online and a large proportion disagrees that speaking can be effectively practiced online. This provides evidence that teachers' awareness of efficient language development practices should be raised, for instance, though a professional development with practical application.

Another promising finding was teachers' low estimation of their productivity in online teaching and uncertainty about their techno-competence. This may be one of the reasons for teachers' unenthusiastic attitude towards the value of ICT integration in language learning (Anas & Musdariah , 2018; Dashtestani , 2014; Ertmer 1999, cited in Karamifar et al 2019; Hew and Brush, 2007; Vatanartiran & Karadeniz, 2015). Our results demonstrated that only 15% of the teachers (3 of 20 participants) believe that they are productive when they teach online. Furthermore, two teachers who mentioned they are not competent at dealing with technology related disruptions and failures believe that ICT had a negative impact on teaching. This analysis shows a possible link between teachers' beliefs about their self-efficacy and their attitudes.

The following results give more support to the strong link between self-efficacy, beliefs and attitudes. The results confirm that confidence in finding and choosing the right tool on their own leads to teachers' positive attitude towards the idea that ICT helps to achieve learning goals and planned outcomes. We can assume that the teachers' choices of ICT were not pedagogy-driven if they do not assist in achieving desired learning goals and Hampel & Stickler's (2005) skills pyramid was not fully implemented. As Hampel (2005) claims, having knowledge of the basic tools is only the surface of successful technology

integration. These findings add more value to the importance of constant professional development and self-development in the field of online learning.

The comparison of teachers' experience in online teaching demonstrates two things. First, the more experience the teachers have the higher technology related self-efficacy they have. The results confirm this statement as 50% of the teachers who have less than a year of experience in online teaching sometimes need help to choose the right tool or understand how it works, while teachers with more than 1 year of experience unanimously claim that they do it on their own. From these results it is clear that, ideally, at least 1 year of experience is required from the teachers to gain confidence in ICT integration and have a positive attitude to the ICT impact. Second, 3 years of experience and more in online teaching shapes the belief that ICT enhances learning opportunities. This conclusion was made from the results showing that all the teachers who claim having 3 or more years of experience also indicated that ICT maximizes learning opportunities. All of this analyzed together leads to the idea that teachers may have relatively sceptical beliefs and negative attitude to ICT integration and online language online learning at the start of their online teaching due to lack of confidence in ICT use and competence in solving technology issues on their own. However, teachers' are very likely to become more comfortable with ICT use and more optimistic towards its impact on language learning as their experience rises over time and challenges become more easily fixed. Similar conclusion was drawn by Bailey and Lee (2020).

Another promising finding was the teachers' likes and dislikes about online learning which was revealed through quantitative and qualitative data analysis (see Table 1).

*Table 1*. Teachers' likes and dislikes about online teaching

| **Teachers' likes** | **Teachers' dislikes** |
|---|---|
| 1. No place bound<br>2. Diversity of online tools | 1. The constant need for new activities and tools<br>2. Overloaded workload |

| | |
|---|---|
| 3. Multimedia( images, audios, videos, texts)<br>4. Vocabulary and grammar games<br>5. PowerPoint presentations<br>6. Zoom chat<br>7. Padlet<br>8. Screen demonstration | 3. Turned off cameras<br>4. Physical passiveness<br>5. Technology failures |

It's important for the institution to be aware of these important findings and consider them for further improvements. The most predictable and commonly mentioned advantage was the opportunity to teach from anywhere as long as there is internet connection. Previous studies as well highlight this factor as one of the major advantages of online learning over face-to-face learning (Allen & Seaman, 2007; Perveen 2016).Other benefits the teachers listed include the use of multimedia resources such as visuals, videos, audios, Power Point presentations. In fact, hundreds of these resources are available for free in an online environment, which presumes that teachers are more equipped with the needed tools and resources and enabled to create more favourable learning opportunities (Azmi, 2017; Cakici, 2016 cited in Pazilah at al., 2019; Flanagan, 2008; Gunuc, 2016, cited in Gunuc and Babacan, 2018; Kessler, 2018; Karamifar et al, 2019; Nomass, 2013; Roy, 2019). As for the dislikes, several teachers claim that online classes require to put more efforts in class preparation since students lose interest in online tools in a rather short period of time. This finding leads to the conclusion that the *"wow-effect"* of online learning is not long lasting. This idea is consistent with the findings of Kamstrupp (2016). So, teachers need to add new elements to their class more often than at a traditional classroom, which may be one of the main reasons why mane teachers claimed having a heavier workload. In addition, turned off cameras hinder teachers from effective monitoring and classroom management, which may affect the learning outcomes.

(R2). What are the teachers' current challenges in video-based online teaching and needs for a technology training?

Our findings related to teachers' challenges mostly go in line with previous studies and can be grouped into the previously suggested categories. The most commonly reported obstacles are the technical issues such as internet and electricity disruption, or technical issues with the microphone or camera. These kinds of obstacles are categorized as *infrastructural issues* (Vanatartiran & Karadeniz, 2015). However, these factors are very predictable and purely technical; thus, they do not depend on pedagogical choices or require pedagogical solutions.

The commonly reported challenge which is related to language pedagogy is students' low motivation and engagement. Vanatartiran & Karadeniz (2015) listed this under the category of *Instructional* issues. A large proportion thinks that students are motivated at face-to-face classes and not online. This result hints that teachers' are currently facing difficulties in keeping students motivated and need to be assisted in this. One of the ways to learn more about the solution of such an obstacle is to read relevant literature. However, the solutions suggested might not fit our context or meet our students' needs. Therefore, we analyzed the qualitative data on our teachers' best practices regarding the increase of students' motivation and engagement. The key findings are that both teachers and students find online educational games and quizzes as the most motivating component (Who wants to become a millionaire, Bamboozle, Quizzes, Spinning Wheel). Other activities mentioned by teachers and students are group works, video discussion, debates and presentations. These findings have huge overlaps with Garder's (et al., 2011) suggested 3 categories of activties that an e-teacher should do: a) fostering student engagement; b) stimulating intellectual development; c) building rapport with students. Another result worth discussing is teachers' concerns about online assessment, specifically conducting tests. Several participants mentioned that plagiarism and cheating cannot be controlled on online testing. The previous studies referred to this issue as well (Mei-Hui Liu and Robert C, 2015). On the one hand,

complete monitoring is not possible. On the other hand, constructed-responses are suggested to be used to reduce the likelihood for cheating since the right answers cannot be found on the Internet (Osterlind, 2002, cited in Adedoyin & Soykan, 2020). So, this finding hints at revising and reconsidering the testing formats and assessment techniques.

Our findings also demonstrate that the significant proportion of the teachers has not receieved technology training which goes in line with Kessler (2018) statements. Also, the majority of the teachers would like to receive a technology related professional development. Those who have such a desire would like to learn more about interactive online tools and alternatives for the ones they have already used such as Quizziz or Kahoot, learn more about educational websites, tools to foster group work, tools for creating videos, get familiar with advanced options of Zoom and be introduced with platforms for blogs. This finding can serve a guideline for teacher educators who will conduct the training in the future.

(R3). What are the students' perception of online learning and educational technology integration?

Overall, the majority of students enjoy online lessons. However, almost half of the participants have uncertain views over the productivity of online lessons and their learning achievements. One of the explanations of such a finding may be the fact that a significant proportion of students (80%) understand teachers' explanations better face-to-face. This finding at least hints that the reason why students do not find online learning productive may be that they are not pleased with their learning achievements. Our results show that the reverse is also true. The majority of the students who find online classes productive and are satisfied with their learning achievements also understand teachers' explanations well. These findings go in line with the previous findings (Aguilera-Hermida, 2020).

Our results also provide evidence that there is a positive correlation between the degree to which students understand teachers' explanations in an online mode and the

students' participation rate. Considering that the vast majority of teachers and students reported a shared view that students participate more in a face-to-face mode, pedagogical improvements should be done to ensure significantly increase the rate of students' comprehension of materials which will result in higher rate of participation and engagement.

Another promising finding was the students likes and dislikes about online learning which was revealed through quantitative and qualitative data analysis. Table 1 below shows important findings from the stakeholders to take into account in order to better meet students' interests and raise their motivation.

| **Students' likes** | **Students' dislikes** |
|---|---|
| 1. Noplacebound<br>2. Vocabularyandgrammargames<br>3. Group work and pair work in Break-out rooms<br>4. PeerPowerpointpresentations<br>5. Screendemonstration<br>6. Zoomboard<br>7. Speaking and listening activities mediated by audio-visual media<br>8. Do not miss classes when they are sick<br>9. Are not late from classes | 1. Zoommeetingendin 40 minutes<br>2. Nophysicalinteraction<br>3. Difficultyinconcentrating |

*Table 1.* Students' likes and dislikes regarding online learning

(R4). What are the students' current challenges and needs related to online learning?

Our findings demonstrate that a significant proportion of students (73%) feel very comfortable using technology and usually do not face technology related problems. This explains the fact that a large number of students would not like to participate at online technology training.

Along with this, the interviews revealed that technical issues lead to ineffective practice of listening skills. The most frequently reported challenges are internet disruption which is highly predictable. Second, the students get easily tired and lose concentration at online classes. This finding leads to the idea that the use of fillers and coolers must be a lot

essential and useful at online classes. Next, taking online tests is viewed as an obstacle for students, which may affect their performance and washback effect (Hew and Brush, 2006; Osterlind, 2002, cited in Adedoyin & Soykan,2020). Also, the analysis of qualitative data from the interviews revealed that students experience a gap in practicing writing skills. It is also worth discussing that student-student communication is not a major issue for learners since only the small minority mentioned it as a challenge.

Planned comparison revealed teachers' perceptions go in line with their students' perceptions in that the internet disruption and low level of concentration. However, the teachers indicated a noisy environment and student-student after class communication as major issues for students, while students did not view those two factors as significant issues.

The results lead to the conclusion that students would like real time meetings to be organized from time to time, would like to have more online games at classes , having more group work, more practice of writing skills and would prefer the upgraded Zoom version not to leave the meeting every 40 minutes. These are promising findings for the stakeholders aiming at improving students' satisfaction with online learning experience.

**5.2. Implications:**

As mentioned earlier, our findings can serve as a helpful guideline for stakeholders, especially teacher educators, to design such a professional development program that will directly target the participants current challenges in online teaching and learning and will serve their needs. Existing research highlights that the usefulness and practicality of training depend on the degree to which they meet the participants' needs and fit the target context (Book review by Anderson, 2016). Table 1 below illustrates our vision of the themes for professional development programs based on the needs of teachers and students from the afterschool programs studied.

| **Category of Barriers** | **Teachers' challenges and needs** | **Themes and topics for a professional development** |
|---|---|---|
| 1. Emotional challenges | 1. Students' low motivation<br>2. Uncertain beliefs and negative attitude to ICT integration and online learning<br>3. Lack of social interaction<br>4. Stress caused by sudden switch to online learning | 1. Overcoming stress causedbypandemic<br>2. Coping with isolation and loneliness<br>3. Factors that affect learnermotivation<br>4. Practical tools/solutions to increase learner motivation. Review best practices in the field<br>5. Raising awareness of successful ICT integration and its benefits in language learning |
| 2. Educational Challenges | 1. Students' low engagement<br>2. Insufficient writing practice<br>3. Ineffective speaking practice<br>4. Increased workload | 1. Active learning: e-tivities for high engagement<br>2. Tools for online writing practice. Reviewofbestpractices<br>3. CLT in e-learning and communicative competence<br>4. Activitiesdesignedforspeakingpractice<br>5. Time management in the times of lockdown |
| 3. Techno-competence | 1. Interactive tools for language skills development<br>2. Platforms for blogging<br>3. Apps for video creating<br>4. Apps for audio-recording | 1. Education tools which serve ESL learning goals<br>2. ISTE standards for educators and learners<br>3. How to deal with technology failures |

| | | |
|---|---|---|
| | 5. Fixing technology failures | |
| 4. Assessment | 1. Checking homework<br>2. Giving two-way feedback<br>3. Conducting online tests | 1. Techniques for homework review<br>2. Techniques and tools for synchronous and asynchronous feedback<br>3. Platforms for test taking such as Moodle |
| 5. Classroom Management | 1. Monitoring pair work<br>2. Monitoring group work<br>3. Monitoring reading and writing activities<br>4. Managing passive students behind the turned off cameras | 1. How online classroom management is different and similar to face-to-face<br>2. Teachers' role<br>3. Students' role<br>4. Techniques for monitoring and managing e-classroom |
| 6. Environmental challenges | 1. Difficulty in concentrating at home<br>2. Noisy environment | 1. Tips on how to stay focused working or studying from home. |

*Table 1.* Needs based guideline for a professional development program

Considering that the vast majority of students have good techno-competence and did not demonstrate a desire to participate in training, we do not suggest conducting a 2 day workshop instead of a long-term training. Table 2 below illustrates a guideline for a workshop designed for students, which is based on our finding regarding students challenged and needs. It is important to mention that the topics are suitable for students aged 12 and above.

| **Category of challenges** | **Students' challenges and needs** | **Themes and topics for workshop** |
|---|---|---|
| 1. Environmental and emotionalchallenges | 1. Low concentration<br>2. Low motivation | 1. Tips on how to stay focused<br>2. How to increase inner motivation |
| 2. Educational challenges | 1. Low academic achievements | 1. Effective learning tips and techniques<br>2. Understanding one's own learning style |
| 1. Assessment | 1. Online testing | 1. Platforms for testing such as Moodle |

*Table 2*. Needs based workshop guideline designed for students

### 5.3. Recommendations

Further study needs to be done to evaluate how productive the training and workshop guidelines are and how closely they targeted the existing challenges. Besides, we recommend conducting a study which would investigate exactly what activities work well in an online mode for the development of reading, speaking, writing and listening skills.

### 5.4. Conclusion

- Teachers' awareness of the ICT benefits and the potential of online learning should be increased, especially, teachers with less than 1 year of experience in online teaching should be targeted. This is an important step towards the improvement of online learning experience since negative or uncertain beliefs about the impact of in language learning and online learning efficiency shape negative attitudes.
- Low-self efficacy regarding technology competence hinders teachers from successful technology integration. Thus, the institution should provide assistance and trainings to raise teachers' self-efficacy.

- ICT choice should be pedagogy-driven and not technology-driven to enable the teachers to achieve their learning goals and planned outcomes. Otherwise, technology use will be meaningless and will not have pedagogical value. This study showed that teachers who do not view ICT as advantageous usually overlook its role in pedagogical aspect.
- One of the major reasons why students prefer face-to-face classes over online classes is the difficulty in understanding what the teacher is explaining and dissatisfaction in learning achievements. Hence, attempts should be made to rethink how new materials should be best presented and practiced in an online mode. The teachers who use exactly the same methods and techniques as in traditional classrooms are not likely to succeed in an online mode and satisfy their students. So, there is a need for much pedagogical adaptation.
- Importantly, students who enjoy online classes have high self-efficacy related to technology and are satisfied with their learning achievements. The same way, interviewed parents of students aged 6-11 approved of online learning if they noticed their children actively participated in online classes and saw progress in their children's knowledge.
- The greatest advantages of online learning that both teachers and students share is that classes can be conducted and joined from anywhere, which add huge value to convenience and also enables eve sick students not to miss classes. In addition, the abundance of multimedia e-resources appeals to teachers and students, making their classes more interactive, interesting and engaging. For example, online games increase the competitive spirit and motivate students to participate, while the images and videos make new material more comprehensible.

- A huge number of students enjoy pair and group work in break-out rooms, which confirms that the theory of collaborativism applicable in the target context and fosters better learning.
- Besides the technical issues, the main challenge that students have now is motivation, which leads to low level of participation and affects learning achievements. The educators should encourage learners and help to increase motivation. Our findings revealed that collaborative tasks, online games and the use of multimedia motivate students.
- A professional development program related to ICT use and online learning is much recommended based on the study findings as well the teachers' own desire to receive training. It is worth mentioning that a significant number of teachers have never had technology related training and sudden shift to online learning did not give them an opportunity to fill the gap. However, this development should be consistent and accompanied by self-learning as well since the ICT field is developing rapidly.
- Teachers should apply new online tools over a certain period, since the wow-effect among students does not last long. The tool or activity that motivates and engages students soon starts to bore. It's important for the teachers to evaluate tools, their pedagogical value in order to choose the right tool and provide variety in its use.

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**Appendix A: (Teachers' survey)**

# Survey for teachers

Dear teachers, this survey investigates your beliefs and attitudes towards technology integration as well as your current challenges and needs for a technology training. You will have a great contribution by completing the survey and will be invited to participate in a FREE technology-training this summer. THANK YOU ALL!

1. I teach from (location) (e.g. Yerevan, Vanadzor, Gyumri e.t.c) *

Short answer text

2. How long have you been teaching English online? *

- less then 6 monts
- 6-12 months
- 1-2 years
- 3 years and more

3. What age group(s) do you teach? *

- 6-12
- 12-16
- 16+

4. Where are most of your students located? *

Short answer text

5. What level(s) do you teach at EEC? *

- [ ] Beginner
- [ ] Elementary
- [ ] Intermediate
- [ ] Upper-intermediate
- [ ] Advanced

6. What platform do you mainly use for online classes? (Zoom, Google Meet, e.t.c.)

Short answer text

7. What gadget do you mostly use for online classes?

- ( ) Personal computer
- ( ) Laptop
- ( ) Tablet
- ( ) Smartphone
- ( ) Other...

8. What gadget do most of your students use?

- ( ) Personal Computer
- ( ) Laptop
- ( ) Tablet
- ( ) Smartphone

9. Have you had technology trainings? *

- yes
- no

If yes, please mentions when and where

Long answer text

10. Technology helps me to achieve the learning goals and brings to the desired outcomes *

- Totally agree
- Not sure
- Totally disagree

11. How comfortable are you choosing technological tools for your instruction? *

- Very comfortable. I know how to find tools and can choose the right one for my instruction
- Not sure. I know how to find tools but can't choose which one fits my instruction
- Negative. It's difficult to find and choose the right tool for my instruction

12. I can easily understand how online tools work on my own. *

- Totally agree.
- Partially agree. I need someone to ask the questions I might have.
- Totally disagree. I need full guidance for new tools.

13. Online tools helps to maximize language learning opportunities in an online classroom. *

- Totally agree
- Not sure
- Totally disagree

14. If something goes wrong I will NOT know how to fix it *

- Agree. I mostly get lost when technology fails.
- Disagree. I quickly find a way out and adjust things

15. My students participate more at... *

- Online classes
- face-to-face classes

16. Students are more motivated at ... *

- Online classes
- Face-to-face classes

17. I am more productive and efficient when I *

- teach online
- teach face-to-face

18. My online teaching stratagies are... *

- Mostly the same as for face-to-face teaching
- Mostly different from face-to-face teaching

19. Online tools change the way I teach online *

- for the better
- for the worse
- I hardly ever use online tools

20. My students are good at technology use for language learning. *

- Agree. They are very good at technology
- Not sure. Sometimes I have to explain how to use tools
- Disagree. My students always need help in technology use

21. The use of technology for online classes overloads teachers *

- Agree. I am very ovearloaded
- Partially agree. I was overloaded in the begining but now I am more flexible in it
- Disagree. Technology help me to do things better and quicker

22. Reading is practiced more effectively in an online mode *

- Agree
- Disagree

23. Listening skills are practiced more effectively in an online mode *

- Agree
- Disagree

24. Speaking is practiced more effectively in an online mode *

- Agree
- Disagree

25. Writing skills are practiced more effectively in an online mode *

- Agree
- Disagree

26. Online lessons should last... *

- longer than regular face-to-face classes
- shorter than regular face-to-face classes
- as much as face-to-face classes

27. Using technology makes classes more dynamic *

- Totally agree
- Partially agree
- Totally disagree

28. What are the main challenges you have related to technology use? Mention as many issues as you are currently facing *

Long answer text

29. What are the main challenges you currently have during online classes? (can choose more than 1) *

- [ ] Communicating with students
- [ ] Communicating with parents
- [ ] Keeping all students motivated and engaged
- [ ] Giving feedback
- [ ] Assigning and checking homework
- [ ] Assessing student's progress
- [ ] Adapting the textbooks and materials to online teaching
- [ ] Creating my own content for online teaching
- [ ] Classroom management
- [ ] Plagearism
- [ ] Student-student collaboration
- [ ] Conducting tests/exams
- [ ] Internet disruption
- [ ] Electricity disruption
- [ ] Noisy environment
- [ ] Low battery
- [ ] Digital safety

30. What are the main challenages that your students have during online classes? *

- [ ] Interrupt each other
- [ ] Don't participate
- [ ] Noisy environment
- [ ] Internet disruptions
- [ ] Electricity problems
- [ ] Can't do pair/group works effectively
- [ ] Get tired easily and can't concentrate
- [ ] Can't catch up with  listening tasks
- [ ] Can't watch videos from the screen
- [ ] Low battery
- [ ] Peer communication after the class
- [ ] Reaching out the teacher
- [ ] Digital safety
- [ ] Other...

31. How do your students feel about online learning? *

- ( ) Positive
- ( ) Neutral
- ( ) Negative

32. What do you like about online teaching/learning most of all and would like to see continued? *

Long answer text

33. What do you completely dislike about online teachig/learning? *

Long answer text

34. Would you like to participate in a free online technology training? *

- ( ) Yes
- ( ) No

**Appendix B: Students' survey (Translated from Armenian into English)**

# Students' survey

Dear students,
This survey is related to your online language learning experience. Please, complete it by March 1. Thank you!

1. How old are you? *

- 11-16
- 17+
- Other...

2. Where do you live? *

- Yerevan
- Gyumri
- Vanadzor
- Dilijan
- Yeghegnadzor
- Goris
- Kapan
- Other...

3. What is your gender?

- male
- female

4. What level course are you currently taking? *

- beginner
- elementary
- high elementary
- pre-intermediate
- intermediate
- upper-intermdiate
- advanced

5. How long have you been taking online English classes? *

- less than 3 months
- 3-6 months
- 6-12 months
- 1- 2 years
- more than 2 years

6. Do you enjoy online English lessons? *

- Yes, a lot
- Not really
- Not at all

7. Do think online English lessons are productive and you learn enough? *

- Yes. I learn as much as earlier in the classroom
- Not sure. I learn more at face-t-fcae classes
- No. I learn nearly nothing

8. I understand what my teacher explains better *

- at online classes
- at face-to-face classes

9. What gadget do you mainly use for online classes? *

- personalcomputer
- laptop
- tablet
- smartphone
- Other...

What is the main challange you currently have? *

- [ ] internet distruption
- [ ] electricity disruption
- [ ] low battery
- [ ] noisy environment
- [ ] get easily tired and can't concentrate
- [ ] can't do pair/group work with my friends
- [ ] can't effectively communciate wth my teacher
- [ ] doing and checking homework
- [ ] assessment
- [ ] online tests/exams
- [ ] Other...

11. Do you have difficulties with online tools? *

- ( ) Yes,a lot. I am not good at technology and don't know how to use most of the online tools
- ( ) Sometimes I don't understand how technology works but can find it out on the internet on my own
- ( ) Sometimes I need my teacher to explain how to work with online tools
- ( ) Never. I am very good technology skills

12. Do your parents help you with online assingments or technical problems? *

- yes,always
- sometimes
- no, never

13. I participate actively during *

- face to face classes
- online classes
- both

14. What is the best thing about online lessons? *

Long answer text

15. What is the thing you want to improve or change about online classes? *

Long answer text

16. How good is you teacher at technology use for English classes? *

- Excellent. She always uses new tools that make our classes more interesting
- Good. She uses them often but the tools are the same
- Neutral. There are 1-2 tools that sometimes she uses
- Not that good. ONline tols are rarely used

https://forms.gle/SHhnZmzNYLPa3GGE7 5/5

**Appendix C: (Checklist for Zoom Class Observations)**

The checklist below is adapted from (CET Synchronous Online Teaching Observation Checklist and Synchronous Online Teaching Observation Checklist for P-12 Instruction, 2020).

| | | | |
|---|---|---|---|
| **Time Management** | There are technology issues, including software, sound, camera, lighting, and background, occur during class that could have been addressed before the start of class. | Little time is spent on technology issues. | Instructor maximizes in-class time and prepares relevant technology before the start of class. |
| **Environment** | Instructor raises students' stress or anxiety among the students | Instructor demonstrates respectful attitude to Ss puzzlement in most of the time | Instructor uses practices to create stress-free environment |
| **Presentation** | Instructor uses inappropriate or gestures and/or language | Incorporates effective body language and pace ,however, sometimes distracting speech patterns, such as filler words and nervous habits are noticed | Instructor is engaging, responsive, and constructive in both tone and content of their speech. Also, the teacher uses appropriate body language |
| **Feedback** | Instructor provides non-constructive and/or discouraging feedback. | Instructor provides feedback to some students only | Instructor provides students constructive and encouraging feedback on how to improve their comprehension or performance in class. |

| | | | |
|---|---|---|---|
| **Active Learning** | Instructor uses no active-learning exercises. | Class contains at least one active-learning exercise to apply course content. | Instructor uses active-learning exercises after no more than 15 consecutive minutes of lecture and engages Ss through choice projects, interactive games or apps |
| **Contextualization** | Only textual content is provided | Textual context is supported with 1-2 visuals | Session provides variety in visual, textual, kinesthetic and/or auditory activities to enhance student learning |
| **Technology Use** | Instructor does not use any technology tools | Instructor has prepared technology relevant to the lesson but did not model its use for the students | Instructor has prepared technology relevant to the lesson and made sure the students know how to use it |
| **Flexibility** | If technology fails, the lesson fail as well | In case the technology fails, little time is required to proceed with the lesson | Instructor able to troubleshoot typical software and hardware problems so as to not lose instructional time. |
| **S-S Interaction** | Instructor does not create opportunities for interaction between students (breakout rooms, use of chat, collaborative google docs). | Instructor creates little opportunities for interaction between students (breakout rooms, use of chat, collaborative google docs). | Instructor creates opportunities for interaction between students |
| **T-S interaction** | Instructor does not utilize and control webcam/audio features to optimize interactions. | Instructor partially utilizes and controls webcam/audio features to optimize interactions | Instructor utilizes and controls webcam/audio features to optimize interactions. |

| | | | |
|---|---|---|---|
| **Comprehension** | Instructor does not check for responsiveness(demonstrated through polls, body language, nods, simple checks or emojis, “thumbs up” to signal affirmation) | Instructor rarely checks for responsiveness(demonstrated through polls, body language, nods, simple checks or emojis, “thumbs up” to signal affirmation) | Instructor checks for responsiveness(demonstrated through polls, body language, nods, simple checks or emojis, “thumbs up” to signal affirmation) |
| **Motivation** | Instructor does not try to motivate students and catch their interest | Instructor uses minimum tools and materials to motivate students | Instructor utilizes appropriate tools and materials to motivate learners (interactive games, music, video) |
| **Students’ Techno-Competence** | The majority is not competent at basic and daily needed tools | Half the class is competent at basic ad daily needed tools | The majority of the class is competent at the basic and daily needed tools |
| **Relativeness of the Technology** | The teacher uses such tools and materials that the Ss cannot access with their gadgets | The teacher uses such tools and materials that limited number of students can access it | The teacher uses such tools and materials that the whole class can access and the instructor seeks feedback from students on lesson and on ease of online technology and accessibility of course. |
| **S-T Engagement** | Students are passive: do not respond to questions, do not ask questions | A few students respond and ask questions | All the students respond/ask at least 1-2 times during the class |

**A: Things that went well for the instructor/class**

**B: Challenges in this particular class: no major challenges; no S-S interaction**

**Appendix: D (Students' Interview Questions. Translated form Armenian into English)**

1. What are the specific games, quizzes e.tc that you really enjoy and think they help you to learn new things easier.
2. Pair work and group work is easier or more difficult in online learning? Why?
3. What helps you to effectively communicate with your teacher and peers?
4. What motivates you to participate in online classes?
5. What distracts you during online classes?
6. What skills are best/worst practiced
7. What could make the classes more effective?

**Appendix E: (Teachers' Interview Questions. Translated from Armenian into English).**

1. To what extent do you meet your learning goals and objectives during online classes?
    - Do learning achievements suffer from this?
2. In what ways do technology tools help to maximize learning opportunities?
3. What are some of your good practices that increase your students' participation during online classes?
    - What could be done to improve participation at online classes?
    - How do you make sure that everyone participates?
4. How could a teacher motivate students at an online environment?
    - What would you suggest to other teachers?
5. Most teachers state they are more productive when they teach face-to-face. What might be the reasons?
    - What factors might affect their productivity?
6. What has changed in your teaching strategies after the switch for online learning?
7. To what extent is your workload heavier then during F2F class? What are the main affecting factors?

- Do you use ready- made materials, share textbooks or prepare your own content?

8. What language skills are not practiced well during online classes? Why?
9. How effective is S-S communication and collaboration during online classes? Why?
10. Best practices for online assessment?
11. Any needs that should be addressed to raise awareness?

**Appendix F: (Parents' Interview Questions. Translated from Armenian into English)**

1. Does your child have basic technology needed for online classes?
2. Do you easily reach out the teacher?
3. Does your child often face major technology problems? If yes, clarify please.
4. The online curricular program allows my child to work independently with no or little help from parents. Do you agree with this? Whey yes/no?
5. Does your child miss going to school every day?
6. In which mode does your child learn mode: online or face-to face? What might be the reasons?
7. What challenges (except from technical) does your is your child currently facing?
8. How satisfied are you with your child's online learning experience: Very Satisfied/ Not Sure/ Not Satisfied at all?
9. What is the greatest benefit of online learning for you and your child?