

Study of Student Teachers' Perceptions on the Use of Technology in Teaching English as a Foreign Language in Transcarpathia

(Leendő nyelvtanárok meggyőződéseinek tanulmányozása a technológia felhasználásáról az angol mint idegen nyelv oktatásában Kárpátalján)

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A technológia használata az angol nyelv oktatásában egyre inkább elterjedté válik mind a tanárok, mind a diákok körében. Ennek egyik oka, hogy a tanárok igyekeznek a legújabb oktatási módszerekkel segíteni tanulóik nyelvelsajátítását, a fiatal generáció pedig jobban élvezi az idegennyelv-tanulás folyamatát a digitális technológiák felhasználásával. A helyzetet azonban számos tényező nehezíti, többek között a nyelvtanárok nem megfelelő technológiai készségei, a nem elegendő számú digitális eszköz, valamint a tanintézmények pénzügyi támogatottságának hiánya. A technológiaközpontú nyelvoktatás különösen nagy népszerűsége miatt a COVID-19 világjárvány következtében, mivel 2020 tavaszán kötelező érvényűvé vált a távoktatásra való áttérés az oktatási rendszer minden területén.

Számos korábban nem tapasztalt problémával kellett szembenéznie az oktatóknak az online oktatás első hónapjaiban. A kárpátaljai közoktatási intézményekben a technológia oktatási célú felhasználása egyáltalán nem volt elterjedt az angol nyelvi órákon, mivel túl kevés volt az óraszám, hiány volt a digitális eszközökből, a pénzügyi támogatottságból, ezért a tanárok többsége inkább a hagyományos oktatási módszereket részesítette előnyben.

A technológia felhasználása az angol mint idegen nyelv oktatásában egyik napról a másikra vált elengedhetlenné minden tanár számára, mivel a jelenléti oktatást felváltotta a digitális távoktatás. Az újonnan kialakult oktatási helyzet korábban nem tapasztalt módszertani akadályokat támasztott az oktatók és a diákok elé, ezért szükségessé vált a digitális technológiák hatékony tantermi integrálásának módszertani vizsgálata.

Jelen kutatás célja az volt, hogy bemutassa az angol nyelvtanárok technológiaközpontú nyelvoktatással kapcsolatos meggyőződéseit és preferenciáit, valamint vizsgálja az információs és kommunikációs technológiák (IKT) felhasználásának hatékonyságát az angol nyelvi tanórák során. A fontosabb kutatási feladatok közé tartozott a digitális nyelvoktatással kapcsolatos szakirodalmi források elemzése, a leendő nyelvtanárok technológiaközpontú nyelvoktatáshoz fűződő meggyőződéseinek és tapasztalatainak felderítése, külön kitérve a technológiák használatának a gyakoriságára, előnyeire és hátrányaira. További kutatási feladatnak számított a technológiák oktatási célú felhasználását hátráltató tényezők meghatározása, valamint az innovatív és a tradicionális oktatási módszerek összehasonlítása a nyelvoktatás terén. Fontosnak bizonyult továbbá az online oktatásra való első áttérés nehézségeinek és a hozzájuk tartozó megoldási

javaslatoknak az összegzése, a jelenléti és a digitális oktatási formák összehasonlítása, és az online angol nyelvoktatás hatékonyságát növelő stratégiák meghatározása.

A diplomadolgozat az alábbi feltevéseken alapult:

- 1) A fiatalabb tanárgeneráció nagyobb gyakorisággal tervezi a technológia nyelvoktatásban történő felhasználását, mint idősebb társaik, mivel az internet és a digitális technológiák korában nőttek fel.
- 2) A leendő angol nyelvtanárok hatékonyabbnak tartják a technológiával támogatott nyelvoktatást, mint a tradicionális oktatási módszereket.
- 3) A digitális technológiák oktatási célú felhasználását számos pénzügyi és szervezési akadály nehezíti a kárpátaljai középiskolákban.
- 4) Az online oktatásra való első áttérést nagyban megnehezítette a jelenség korábban nem tapasztalt jellege.
- 5) A tanulók nyelvi készségeinek fejlesztése nem olyan hatékony digitális távoktatás során, mint a hagyományos osztálytermi közegben, a személyes kontaktus hiánya miatt.
- 6) Az online oktatásra való áttérés sokkal könnyebb lenne a jövőben a tanárok technológiával kapcsolatos új tapasztalatainak és tanítási módszereinek köszönhetően.

A kutatás négy fő részre tagolódik. Az első részben a technológiával támogatott nyelvtanítás főbb részterületei kerülnek bemutatásra elméleti szempontból: számítógépek és mobileszközök által segített nyelvoktatás, web 2.0 applikációk, online szótárak, videokonferenciás szolgáltatások, virtuális tantermek, és más információs technológiák. A második rész a technológia felhasználásának hatásait mutatja be az idegennyelvi tanteremben, beleértve a jelenség lehetséges előnyeit és hátrányait mind a tanárok, mind a diákok tekintetében.

A harmadik rész középpontjában leendő angol nyelvtanárok (főiskolai angol nyelv és irodalom szakos hallgatók) technológiával kapcsolatos véleményei és meggyőződései állnak, valamint a kvantitatív kérdőíves kutatási módszer bemutatása. A dolgozat negyedik része a kvalitatív interjúkutatás eredményeit összegzi, melyből megismerhetjük az angol nyelvtanárok online távoktatáshoz fűződő viszonyulásait, valamint a COVID-19 járvány okozta főbb nehézségeket és a távoktatásra való átállás akadályait.

A kérdőíves kutatás eredményeinek alapját 104 főiskolai hallgató által adott válaszok képezik. Az eredmények értelmében a leendő angol nyelvtanárok inkább szülőföldjükön szeretnének maradni, és egy kárpátaljai oktatási intézményben elhelyezkedni, mintsem Magyarországon tanítani angolt. Bár az iskolák jobban felszereltek külföldön és a fizetések is magasabbak, mégis fontosabb számukra a családjuk közelsége és a tanárhiány problémájának a megoldása a területen.

Ezen felül a megkérdezettek előszeretettel használnak technológiát az angol nyelv oktatása során legalább havi pár alkalommal, vagy esetleg minden angol órán. Hasznosság szempontjából a laptopok, projektorok és hangszórók bizonyultak a legfontosabbnak nyelvoktatás céljából. A web 2.0 eszközök közül a videomegosztó oldalak és az online szótárak tartoznak a leghatékonyabb oktatási eszközöknek.

A leendő nyelvtanárok emellett többségben hatékonyabbnak ítélik meg a technológiával támogatott nyelvoktatást, mint a hagyományos papír-tábla alapú tanítást, viszont a legelőnyösebb megoldást az innovatív és a tradicionális módszerek keveréke jelentené. Továbbá, a technológiaközpontú nyelvoktatás főbb előnyei közé tartozik a diákok nagyfokú motiváltsága, fokozott órai aktivitása, az autentikus audiovizuális tananyagok felhasználásnak lehetősége, valamint a rengeteg interneten fellelhető nyelvtanítási segédanyag és alkalmazás, amelyek érdekesebbé tehetik az angol nyelv tanulását.

Mindazonáltal nem szabad elfeledkezni a potenciális technológiai, szervezési, magatartásbéli és az időhiánnyal kapcsolatos problémákról sem a technológiaközpontú nyelvórák megtervezése során. A tanároknak akkor legcélszerűbb a technológia tanórai alkalmazása, ha az valamilyen hozzáadott értékkel bír a nyelvoktatás sikeressége terén. A kutatás következő eredménye arra világít rá, hogy az idősebb tanárgeneráció inkább a hagyományos oktatási módszereket részesíti előnyben, mivel nem rendelkeznek a digitális eszközök és az internet gondtalan használatához szükséges készségekkel. A technológiaközpontú nyelvoktatás kárpátaljai iskolákba történő integrálását hátráltató tényezők közül a limitált számú digitális eszköz, az alacsony óraszám, és a finanszírozási háttér korlátozottsága a legégetőbb problémák.

A dolgozat további részében strukturált interjúk formájában zajlott az információgyűjtés, amelyet 16 angol nyelvtanárral sikerült elkészíteni. A megkérdezettek különböző kárpátaljai középfokú és felsőfokú oktatási intézményekben végzik munkájukat. A válaszadók beszámoltak az angol nyelv online oktatásban történő tanításával kapcsolatos tapasztalataikról, ezzel betekintést engedve az idegennyelv-oktatás menetébe a koronavírus következtében bevezetett karanténhelyzet időszakában. A leggyakrabban használt online alkalmazások a nyelvtanárok körében: Google Tanterem, Zoom, Messenger, Gmail és Google Meet.

A jelenléti oktatásról az online oktatásra való első átállást számos probléma nehezítette meg 2020 tavaszán. A tanárokat felkészületlenül érte a hirtelen átállás, meg kellett tanulniuk az új alkalmazások használatát. Szükség lett volna felkészítő kurzusokra, amelyek segítik az új készségek elsajátítását a tanárok számára, ezért az online nyelvoktatás témaköre bevezetésre került a nyelvtanárok módszertani képzésébe 2020 őszétől.

Problémák léphetnek fel az internetkapcsolat minőségével, az áramellátással, valamint a limitált számú elektromos eszközzel kapcsolatban, főként a szociálisan hátrányos helyzetű

családok esetében. A tanulók figyelmét gyakran elterelheti az otthoni környezet. Az alsó tagozatos tanulók esetében a szülőkön keresztül kellett kapcsolatba lépnie az oktatóknak, amely rengeteg szervezést igényelt. Emellett a diákokat gyakran kellett figyelmeztetni a határidők betartására, és a sok írásbeli feladat teljesítése és értékelése nagyon időigényes volt.

Ezen problémák ellenére a digitális oktatás számos előnnyel rendelkezik: több lehetőség az órák színesebbé és interaktívabbá tételére; az autonóm tanulói készségek fejlesztése; kényelmi szempontok; a technológiai készségek fejlesztése; szinkron és aszinkron tanulási módszerek alkalmazhatósága. Ezzel párhuzamosan azonban a tanároknak sok negatív tapasztalata volt az angol nyelv online térben történő oktatásával: a tesztelés és objektív értékelés nehézsége; a személyes kontaktus hiánya; a fiatalabb tanulók különösen igényelték a tanár útmutatását; csökkent aktivitás a tanórákon; gondok az internetkapcsolattal.

A tanároknak gyakran személyreszabott feladatokat kellett létrehozniuk minden diák számára, vagy kézírott formában kérni a házi feladatokat, ezzel is csökkentve az egymástól való másolás veszélyét. Fontos megemlíteni, hogy nem minden nyelvi készség fejleszthető ugyanazon a szinten online oktatásban. A tanárok beszámolóí alapján az olvasás, írás és hallás utáni szövegértés viszonylag könnyen tanítható digitálisan, viszont a szókincsbővítés és a beszéd-készség fejlesztése már sokkal nehezebb. Szinte lehetetlen minden tanulót aktívan beszéltetni az online órák során, és a csoport- vagy pármunka sem használható kellő rugalmassággal.

A digitális angol nyelvoktatás sikeressége személyfüggő volt, mivel azon diákok, akik komolyan vették és teljesítették a feladatokat, sikeresen fejlődni tudtak. Viszont más tanulók sokkal lustábbá váltak, az online oktatást pihenésként fogták fel. A válaszadók véleménye szerint a digitális oktatás minősége nagyot javult 2020 őszére, amikor a tanárok eredményesen alkalmazkodtak az új online oktatási rendszerekhez, elsajátították a Google Tanterem és a videokonferenciás szoftverek helyes használatát, ezért az online oktatásra való áttérés feltehetőleg kevesebb problémával fog járni az elkövetkezendő alkalommal.

Az előzetesen megfogalmazott hipotézisek többsége beigazolódott a kutatási eredmények alapján. Kijelenthetjük, hogy a fiatalabb tanárgeneráció viszonylag gyakran tervez technológiát használni a tanórákon, legalább pár alkalommal egy hónapban. Továbbá, a leendő nyelv-tanárok szerint a technológiaközpontú nyelvoktatás hatékonyabb a tradicionális tanítási módszereknél, mivel jobban alkalmazkodik a 21. századi diákok megváltozott igényeihez.

Kiderült tovább az is, hogy a kárpátaljai iskolákban a technológiák tanórai alkalmazását ezen fő problémák nehezítik meg: hiányos számú digitális eszköz az oktatási intézményekben, limitált pénzügyi erőforrások, túlszűfolt tanterv, a tanárok technológiai készségeinek nem megfelelő fejlettségi szintje. Számptalan probléma nehezítette a digitális oktatásra való első átállás folyamatát

is, aminek eredményeként a tanároknak új készségeket kellett kialakítaniuk és új alkalmazások használatát kellett elsajátítaniuk rövid idő leforgása alatt.

A tanárok véleménye megoszlott az online oktatás sikerességét illetően. Egyesek szerint nem olyan hatékony, mint a jelenléti oktatás, mivel szükség van a személyes tanár-diák kontaktusra, főképp a beszédképesség fejlesztése céljából. Azzal az állítással azonban minden tanár egyetértett, hogy az online oktatásra való átállás sokkal gördülékenyebben fog zajlani a jövőben a 2020 tavaszán szerzett tapasztalatok eredményeként.

A kutatás hozzájárul a technológiával támogatott nyelvoktatás tanulmányozásához kárpátaljai viszonylatban, valamint az online oktatás előnyeinek és hátrányainak a megértéséhez az angol nyelv oktatása terén. További elemzést igényel a digitális technológiák diákokra gyakorolt hatásának vizsgálata, külön kitérve a diákok nyelvtanulási motivációjának és nyelvi készségeinek változásaira az online oktatás eredményeként.

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**СТАВЛЕННЯ МАЙБУТНІХ УЧИТЕЛІВ ДО ЗАСТОСУВАННЯ
ІНФОРМАЦІЙНИХ ТЕХНОЛОГІЙ У НАВЧАННІ АНГЛІЙСЬКОЇ
МОВИ ЯК ІНОЗЕМНОЇ В ЗАКАРПАТСЬКІЙ ОБЛАСТІ**

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**STUDY OF STUDENT TEACHERS' PERCEPTIONS ON THE USE OF
TECHNOLOGY IN TEACHING ENGLISH AS A FOREIGN LANGUAGE
IN TRANSCARPATHIA**

Master's Thesis

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LIST OF ABBREVIATIONS

AI	Artificial intelligence
CALL	Computer-assisted language learning
CMC	Computer-mediated communication
EFL	English as a foreign language
FLA	Foreign language acquisition
GPS	Global positioning system
ICT	Information and communication technology
IT	Information technology
MALL	Mobile-assisted language learning
PDA	Personal digital assistant
QR	Quick response (code)
SMS	Short message service
SNS	Social networking service
TELL	Technology-enhanced language learning
TELT	Technology-enhanced language teaching

INTRODUCTION

Recent developments in the field of technology-enhanced language teaching have led to an increased interest in the latest teaching methods of English as a foreign language (EFL). The key issue regarding the phenomenon is that teachers lack the necessary skills to use digital devices in their lessons, while schools are not provided with financial support to be able to modernise their teaching practices.

Recently, researchers have shown an increased interest in studying the effective use of technology in the educational field as a result of the COVID-19 pandemic. In the spring of 2020, the sudden transition to online education has completely changed the process of foreign language teaching. Both teachers and learners had to face previously unknown issues as new methods of teaching and learning became essential within a relatively short period of time. Taking into consideration the importance of teaching English to the young generation and the responsibility of teachers to provide their learners with the most appropriate means of developing their language skills, technology-centred language teaching and digital education should be examined in greater detail.

A growing body of literature has investigated the phenomena of computer-assisted language learning (Gündüz, 2005; Park & Son, 2009; Beatty, 2010), mobile-assisted language learning (Chinnery, 2006; Kukulska-Hulme & Shield, 2008; Stockwell, 2012) and Web 2.0 tools, including social networking sites (Eren, 2012), blogs (Campbell, 2003), wikis (Lund, 2008), and online video sharing sites (Kelsen, 2009). As a result of the quarantine situation and the obligatory use of digital education, numerous studies have been conducted in relation to teaching English in the digital space (Levy, 2020; Okmawati, 2020).

However, technology-enhanced language teaching was perceived only as an optional approach to teaching English, but nowadays it has become obligatory for all teachers to become familiar with the newest methods of language teaching and the possible advantages of using the Internet. In Transcarpathia, technology-based language lessons were not common in the past for the following reasons: overcrowded curriculum, technophobic teachers, lack of financial support from the state, not adequate number of digital devices, too much preference towards the use of traditional teaching methods. The investigation of the problem from the point of view of college students (or prospective teachers) is rather interesting because hopefully, they will provide the teacher supply in the region.

First of all, we might get a picture of how foreign language teaching methods will be changed in the near future in Transcarpathian secondary schools. Secondly, it is useful to collect information about students' knowledge regarding the methodological and technological skills to

integrate the new technologies into their teaching strategies. Furthermore, teachers have to continuously update their teaching methods in order to achieve the best results with their learners. The findings of a research on the above mentioned issues would supply useful information in connection with English language teaching in Transcarpathia.

The issue of using technology in foreign language teaching has grown in importance in light of the coronavirus pandemic and the transition from face-to-face education to digital distance education all around the world. The process of language acquisition in the online space has several advantages and disadvantages which should be investigated, and examining teachers' experiences with digital education can help their colleagues develop useful methods and strategies in online language teaching. However, these rapid changes are having a serious effect on the methodology of teaching EFL in which the effective use of technology and the Internet are becoming essential because of the quarantine situation, and this phenomenon should be studied from the point of view of prospective teachers and in-service teachers too, making language teaching as successful as possible in the future this way.

The object of the study is technology-enhanced language teaching as a current trend in foreign language education.

The subject of the research is prospective English teachers' perceptions on using technology in the lessons and its role in facilitation of language acquisition. Moreover, English teachers' experiences in relation to the transition from the traditional classroom education to the online space will be examined, as well as the effectiveness of language teaching in digital distance education. In addition, the connection between digital education and foreign language teaching is another important aspect of the study.

The aim of the research is to provide an insight into prospective English teachers' attitudes towards technology-enhanced language teaching and to examine the effectiveness of teaching EFL by means of information and communication technologies (ICT).

The main tasks of the research include:

- analysis of scientific database on the main types of digital technologies and web-based applications that can be used in language learning and teaching;
- exploring the perceptions of prospective teachers concerning technology-based language teaching, paying special attention to the most important advantages and disadvantages of the phenomenon;
- providing a brief summary of college students' future plans, thus investigating the possibilities of teacher supply in Transcarpathia;
- determining the extent to which prospective teachers would use technology in the English lessons;

- specifying the main barriers of integrating technology into the foreign language lessons in Transcarpathian secondary schools, based on the experiences of college students during their pedagogical practice;
- comparing technology-centred language teaching with traditional teaching methods in terms of efficiency;
- identifying teachers' attitudes towards teaching English in digital education;
- listing the main challenges and problems of the first transition to online education, together with their possible solutions;
- comparing the positive and negative features of digital and face-to-face education in terms of language teaching;
- presenting different methods and strategies that could make teaching English more effective during online education.

Based on previous studies and the theoretical literature, the hypotheses of the research were determined as the following:

1) The younger teacher generation plans to use technology much more often in their teaching strategies than their older counterparts, being brought up in the age of the Internet.

2) Prospective English teachers consider technology-facilitated language teaching more efficient than the traditional methods of teaching languages.

3) The integration of digital technologies into the foreign language lessons in Transcarpathia is hindered by a number of financial and organisational problems.

4) The first transition to digital education was difficult because of the lack of previous experience with online teaching.

5) In prospective and practicing teachers' opinion, learners' language skills cannot be as effectively developed in digital distance learning as in traditional classroom settings because of the lack of personal contact.

6) As a result of teachers' new experiences with technology and the newly developed teaching strategies, the transition to online education would be easier in the future.

Both theoretical and empirical methods are employed in the study, including the theoretical analysis, synthesis of academic literature, classification, generalisation. In the study, the survey research design was employed to analyse prospective English teachers' attitudes towards using technology in language teaching, including two questionnaires adopted to meet the aims of the study yielding quantitative data, and the qualitative method of collecting the experiences of in-service English teachers in connection with teaching English during digital education in the form of semi-structured interviews. In order to provide an effective presentation of research findings, figures and tables are consistently used throughout the study. The most

important results are summarised with the help of thematic analysis in the discussion and interpretation of research findings.

The novelty of the research lies in the investigation of the latest approaches to foreign language teaching and providing an overview of how English can be effectively and appropriately taught in the course of online education. By comparing the advantages and disadvantages of technology-facilitated and traditional lessons, a greater understanding of the challenges of English language teaching in the digital space can be achieved. Hopefully, the obtained strategies and solutions would help teachers in the future to cope with the hardships of online education.

The theoretical value of the thesis is based on the fact that it provides a comprehensive overview of the technology-enhanced language teaching continuum from computer-assisted language learning to the latest methods of digital language teaching with online video conferences through Zoom or Google Meet.

The practical value of the study consists in developing effective strategies and methods of language teaching which can facilitate the process of language acquisition of the 21st century learners. With the analysis of different types of web-based applications and digital devices that can be used in teaching EFL, teachers could be encouraged to integrate technology at a higher rate into their lessons. Furthermore, with the description of teachers' experiences with online education, useful means can be discovered that should help in making digital English teaching more entertaining and successful in the future.

The thesis has been divided into an introduction, four parts, conclusions, Ukrainian summary, references, and appendices. Part 1 presents a theoretical overview of the main aspects of technology-enhanced language teaching, including computer- and mobile-assisted language learning, Web 2.0 applications, online dictionaries, and other information technologies. Part 2 deals with the description of the effects of using technology in the foreign language classroom, together with the summary of its possible benefits and drawbacks both for the teachers and learners.

Part 3 focuses on prospective English teachers' opinions and perceptions of technology, while presenting a methodological description of the quantitative methods of collecting information from college students. Part 4 contains the results of the qualitative research about the process of the transition to digital education because of the COVID-19 pandemic, based on the experiences of English teachers. The main results and the pedagogical implications are given in the conclusions.

Our previous investigations (Váradi, 2021) had shown that using information technologies in the English lessons can facilitate deeper processing of the material by the

learners. In the age of the Internet, the expectations of pupils and students have changed as compared to the previous century; they require audio-visual stimuli and engaging classroom tasks. However, the integration of digital technologies into foreign language lessons is difficult in Transcarpathia because of the lack of experience on teachers' part, limited financial support from the state and inadequate number of digital devices in educational institutions.

Despite all these caveats, technology-based language instruction became prominent all around the world as a result of the quarantine situation and the obligatory introduction of online education. For these reasons, studying prospective teachers' perceptions of technology-enhanced language teaching can result in useful findings about the future state of English teaching in Transcarpathia. In addition, the investigation of the process of digital education in the territory is necessary in order to make it more effective and successful both for the teachers and the learners.

PART 1
TEACHING ENGLISH BY MEANS OF INFORMATION AND COMMUNICATION
TECHNOLOGIES

Technological progress in all aspects of our lives has had its influence on education too. From the numerous language teaching methods and approaches, the latest to emerge was technology-enhanced language teaching. This area of English language teaching focuses on the needs of today's learners because they are surrounded by digital gadgets everywhere and they have wireless Internet access anytime, so teachers must acknowledge these changes in their teaching strategies and try to make use of it for their own advantage.

Children can easily be motivated to learn English if we give them an opportunity to study the language interactively (Волкова, 2006). For instance, teachers can rely on computer-assisted language learning (CALL) or an even more convenient method, mobile-assisted language learning (MALL), which can take language acquisition outside the classroom and learners can develop their English language skills anywhere and anytime due to its wireless nature.

Web-based language learning also exists which means that we can use Web 2.0 tools to facilitate the language acquisition process. Such tools include wikis, video and picture sharing websites, blogs and social networking sites. Furthermore, some additional ways of online language learning and teaching are also going to be discussed in the first part of the study. For example, online dictionaries, podcasts, virtual classrooms, machine translation services like Google Translate and online video conference software like Zoom.

1.1 Language teaching in the digital age

Technology has always been an important aspect of language teaching. If we think about the last century, such pedagogical aids were used by teachers as the television or cassette players. Nowadays, with the advancement of technologies, portable devices became the basic tools in language teaching and learning. Smartphones, tablet computers, MP3 players and laptops enable users to learn English anywhere and anytime. Independent learning is the basic characteristic feature of mobile learning applications as learners can individualise the process of language acquisition. It is also important to mention that authentic learning materials (such as audio recordings of native speakers or educational videos) can further facilitate the improvement of language skills (Tayebinik & Puteh, 2012).

Traditions of language teaching have been altered since the introduction of technology. Teaching English as a foreign language is extremely important in every country nowadays, so

the need emerged for professionally qualified teachers whose aims are in accordance with the goals and interests of the new generation of language learners. There are a great number of possible ways to motivate children in the English lesson. One of the most important means of making lessons more stimulating is the use of multimedia materials or audio-visual teaching aids (Shyamlee & Phil, 2012).

Learners frequently use technology outside the classroom and this fact has led researchers to consider the use of technologies in language teaching as a highly beneficial approach. For this reason, blended learning environments became widespread across the world. Blended learning means the combination of face-to-face classroom interactions with online tasks and applications in teaching. It also facilitates collaborative learning as pupils or students are required to work together and share information with each other on the Internet (Gruba & Hinkelman, 2012).

With the help of the Internet, language learners can access an innumerable amount of authentic language input. They can communicate with native speakers, search for useful sources of information to understand the cultural background of their target language and improve all the four basic language skills (reading, writing, listening, speaking) online. Language teaching in the 21st century is based on the integration of technology-enhanced instruction into the foreign language classroom. Researchers consider technology-mediated language learning as an effective method of reducing learners' anxiety, developing communication abilities and enhancing learners' motivation towards learning a foreign language (Yang & Chen, 2007).

The innovative methods of using the Internet, computers, mobile devices, web services, multimedia and audio-visual materials provide teachers with a potential opportunity of improving the previously established traditional methods of language teaching. By applying these modern strategies, the process of foreign language acquisition (FLA) can become faster and easier for non-native learners. Independent learning has also begun to gain popularity as a result of the increased autonomy that technology offers, but the teacher still plays a defining role in guiding the learners on their way of becoming professional language users (Mofareh, 2019).

1.2 Using computers in teaching English

Computer-assisted language learning (CALL) is one of the basic components of technology-facilitated language teaching: it includes the use of computers for educational purposes. Such devices have been in use for education since more than half of a century, but e-learning has only begun to gain popularity in the last decade due to the ever-increasing use of information and communication technologies in learning and teaching. E-learning is generally defined as learning through the Internet which is very convenient because an endless source of learning materials

can be accessed without even leaving your home. Moreover, the focus of education can be shifted from the teacher to the learner: online courses are designed to fit the needs and differences of individual learners, paying attention to their interests, motivational patterns and background knowledge (Al-Mahrooqi & Troudi, 2014).

Computers are capable of accessing the Internet which means that enormous resources are available that can be used for learning languages independently. Learners can improve their language skills with audio-visual materials and online tasks while using their computer. Furthermore, a lot of literary works, books, plays and dictionaries can be read and used on the World Wide Web. Games are also effective educational tools that make the learning process much more entertaining and learners can feel at ease while they learn new vocabulary items or test their knowledge of grammar. Also, with word processing software, students can check their spelling or search for synonyms without having to use a dictionary (Beatty, 2010).

Another advantage of using computers in language teaching is that the teacher can play videos or audio files for the learners by which they can listen to the pronunciation and intonation patterns of native speakers. It is even better if the activity is in the form of a video because learners can contextualise the language input. Speaking and listening skills are greatly improved using this approach. In addition, teachers can find examples of reading comprehension tasks, multiple-choice activities and various texts which focus on vocabulary acquisition. Incidental reading is also fundamental as learners read various articles and books in English on the Internet, improving their language skills unconsciously (Gündüz, 2005).

Table 1.2 Examples and features of CALL activities (Gündüz, 2005)

Computer-Assisted Language Learning	
Characteristics	Description
Using different interaction patterns	Learners can work individually, in pairs, in groups or the whole class together.
Information-transfer activities	Learners transfer information from one source to another through the network of computers. For example, students can evaluate each other's texts.
Information-gap activities	Users need information from others that can be stored in the computer in order to complete a task.
The importance of accuracy and fluency	CALL programs can accept only the grammatically and phonetically correct answer, so learners have to focus to be very accurate in writing and speaking.
Problem solving activities	The process of finding the best solution for a problem in a computerised environment.

When CALL was first used in practice, it was functioning as a tool for tutoring the learners. Later, it developed into a collaborative virtual learning environment where learners are able to interact with each other and the language material itself. Students can perform various authentic activities while they are encouraged to use the target language. They are not only perceivers of information, but they can also create their own output. The computer gives immediate feedback most of the times by indicating learners' mistakes or by giving marks and points for the completed tasks. Learner autonomy is facilitated by computers because users can select the possible activities which best fit their language skills, they can repeat the exercises if they wish and determine the pace of learning (Khamkhien, 2012).

In a technology-enhanced language learning environment, the role of learners is to be active participants in the process of language acquisition. The teachers are responsible for keeping their learners motivated and creating a meaningful context for the use of the target language. What is also important from the teacher's point of view is that he/she must have a positive attitude towards integrating CALL into the classroom. It means that the teacher is ready to acquire new skills regarding the use of computers and is encouraged to use web-based online activities with his/her learners. It is crucial that the teacher is able to use the digital devices with confidence in order to improve learners' results (Park & Son, 2009).

1.3 Mobile-assisted language learning

Mobile-assisted language learning (MALL) can be defined as language learning with handheld devices which provide the users with an opportunity of learning anywhere and anytime. MALL is mainly centred around mobile phones but there are other types of devices which can be used in mobile learning and these will be discussed in the next section. Studies found that mobiles can be used in a number of ways to improve language skills. Text messaging is one of the basic features of such devices and it can contribute to the development of writing skills and vocabulary knowledge. Learners can also communicate with each other or with their teacher using mobile phones, so both learner-learner and learner-teacher interactions are possible. Moreover, learners can access multimedia materials on the Internet, where asynchronous communication can take place (Kukulaska-Hulme & Shield, 2008).

MALL has many advantages, but some areas require consideration before implementing mobile learning into our teaching strategies. Stockwell and Hubbard (2013) divided these possible issues into three categories:

1) Physical issues: the general nature of mobile devices is their portability, and for this reason, their screen size is relatively small in comparison to a computer. Other limitations include storage capacity, battery life and processor speed.

2) Pedagogical issues: tasks and activities have to be suited to the features of mobile devices. There are exercises which were designed for computers, but we should integrate these into mobile phones while making use of the opportunities that portable devices can offer. For example, QR (Quick Response) codes can be used to store links which contain tasks and learners can use their phones to read such codes.

3) Psycho-social issues: mobile phones were designed initially for social purposes as their main function is providing a way of communication between people who are geographically distant from each other. There are many applications in the devices which serve this purpose, just think about social networking and text messaging applications. For this reason, learners may not view their phones as learning tools (Stockwell & Hubbard, 2013).

The big advantage of MALL is that it can reduce time and place barriers for learners as they can carry these wireless devices anywhere and start learning a language anytime. Mobile technologies are rapidly evolving and becoming more and more popular in language learning. Mobile phones provide an opportunity for the teachers to combine the process of foreign language learning with convenience and engagement. Furthermore, these digital devices can be used to record audio, take pictures or write documents and messages, so learners can also create their own data in various formats. Students can become more creative by doing these tasks and they will feel more motivated towards language learning (Kalati, 2014).

1.3.1 Components of mobile-assisted language learning

Portable devices which can be used in MALL include mobile phones, PDAs (Personal Digital Assistants), tablet computers, MP3/MP4 players, electronic dictionaries, portable radios, DVD players and others. Their main distinctive features are mobility and the possibility of asynchronous communication on the Internet. However, most MALL tasks make use of text-based activities because the scheduling of communicative speaking and listening tasks is complicated and all the learners should be available at the same time (Kukulska-Hulme & Shield, 2008).

PDAs can be defined as pocket-sized or handheld computers. Such devices were used mainly as business tools and in the beginning of the 21st century. PDAs began to be introduced into education, too. Most importantly, they function as translation tools but these devices are also capable of Internet access, handwriting recognition and sharing files between users. They are

cheaper than mobile phones and laptops, but also less developed in terms of available functions and have a relatively small screen size, so PDAs were gradually replaced by other technologies in language learning (Beatty, 2010).

Tablet PCs or tablet computers are more beneficial in learning languages than PDAs. However, these tools are still not widespread among educators for two reasons: the lack of appropriate skills in using these devices and the lack of financial support which would be needed in schools to provide tablet computers for the classrooms. The main advantage of such devices is that teachers can edit the material on-the-spot using the touchscreen. Also, tablet PCs can be used to present the teaching material in a rather flexible and interesting way in the English classroom. Teachers can also develop new skills in using these devices in practice and with time, tablet computers will be a part of their everyday teaching routines (Savas, 2014).

In addition to the previously mentioned technologies, MP3 players can also be used in language learning. These are portable media players capable of playing digital audio files. It means that we can listen to music or instructional and translational exercises while on the move. The iPod also has features of voice recording and it can be used for podcasting which will be discussed later in the study. Also, there are language learning applications that we can download for iPod. Students often use different types of MP3 players but unfortunately they rarely use them for educational purposes (Chinnery, 2006). A summary of wireless devices used in MALL can be seen in Table 1.3.1.

Table 1.3.1 Main devices used in MALL (Beatty, 2010; Chinnery, 2006; Kukulska-Hulme & Shield, 2008; Savas, 2014)

Device	Advantages	Disadvantages
Mobile phone	Text messaging, voice recording and messaging, Internet access, educational games	Limited screen size, battery life and processor speed, mainly used as social and not educational tool
PDA	Business tools, handwriting recognition, file sharing, Internet access	Small screen size, limited functions, outdated technology
Tablet PC	Larger screen size, flexible presentations, Internet resources, games	Lack of technological skills among teachers and financial support in schools
MP3 player	Listening to educational materials on the move, voice recording, podcasting	Rarely used for educational purposes

Mobile learning activities have to be short and it is even better if the applications provide tasks that are divided into short segments. This would encourage learners to learn English even if

they only have a few minutes of free time. With the development of the latest types of smartphones, there are innumerable opportunities for the future of mobile-assisted language learning. New functions emerge which enable learners to interact with their surroundings. For instance, GPS (Global Positioning System) can be used to track our location and provide information about nearby places in message format or even we ourselves are able to write comments and rate places on the map. These opportunities can take language learning into the everyday life of learners (Stockwell, 2012).

1.3.2 Developing language skills using wireless devices

The basic step in learning a foreign language is vocabulary acquisition. There are a number of vocabulary learning applications available for mobile phones. These programmes not only offer a chance of practising words interactively, but also motivate learners to develop their vocabulary knowledge more effectively than traditional dictionaries. Flashcard games are just one example of how words can be learned with the help of mobile phones (Basoglu & Akdemir, 2010).

Short Message Service (SMS) facilitates learning outside the classroom by receiving text messages at given time periods. Another aspect of the educational benefits of mobile devices is game-based learning by which learners can interact with the material. There are different games that can be used to teach language skills including spelling, pronunciation, vocabulary, listening and reading comprehension. Other ways of vocabulary acquisition contain the use of pictures to represent words, the sending of e-mails at regular periods just like SMS messages and other practices connected to the classroom material (Miangah & Nezarat, 2012).

Furthermore, listening exercises are also available for mobile phones. A great amount of multimedia materials can be found on the Internet which help learners to improve their language skills in authentic environments. For example, videos of native speakers serve as an effective tool for observing their pronunciation and different quizzes can be used to check the understanding of the students. In addition, learners have access to English news articles on the Internet which provide them with authentic reading comprehension materials to learn new words and improve their reading skills. There are also various types of grammatical exercises and applications for mobile phones, including multiple-choice activities, true-or-false and fill-in-the-blanks types of tasks. Dictionaries are also available for wireless devices and these tools enable learners to not just read about the words and their meanings, but also listen to their correct pronunciation, in this way developing users' speaking skills (Miangah & Nezarat, 2012).

Learners can return to the previously read articles later and listen to voice recordings or watch videos as many times as they wish because digital data can be stored on mobile devices.

However, there are also some disadvantages of improving language skills through MALL. As it was mentioned before, mobile devices have a relatively small screen size, which can be a negative factor in reading books or watching videos for some learners. Also, when they complete different tasks connected to a text or do grammatical quizzes, they have to scroll up and down in order to answer questions. It is very important that the educational material is interesting and motivating for the learners so that they do not feel anxious about completing tasks on mobile devices (Wang & Smith, 2013).

A good example of learning grammar on mobile phones is an application called 'Grammar Clinic'. The task of the users is to identify and correct mistakes in sentences. The software also provides immediate feedback, indicating whether or not our answers were correct. Moreover, grammatical rules are explained in a handbook provided with the application. Such game-like tools enable learners to identify errors regarding punctuation, word order, spelling and the use of different parts of speech. The best thing is that learners' knowledge of grammar is not just improved, but also evaluated by ratings and feedback (Li & Hegelheimer, 2013).

1.4 Web 2.0 tools in language learning and teaching

Web 2.0 tools enable users to create content by themselves in a learner-centred environment. Learners can also interact with each other in the forms of online messages, comments and posts. The main parts of Web 2.0 are social networking sites, blogs, wikis, online dictionaries, photo and video sharing websites. These tools facilitate interaction and collaboration among learners without limitations in time and place. They are especially useful in blended learning environments where learners can access additional information using these tools (Jee, 2011).

The four main characteristics of Web 2.0 technology are the following:

- 1) Presence: using this type of technology, pupils will be encouraged to create an online identity or profile, through which they can publish regular updates and interact with others;
- 2) Modification: users can personalise their profiles with pictures, different applications and in other ways, according to their personal needs;
- 3) User-generated content: the content upon which Web 2.0 is based is generated by the community and other learners, like the videos on YouTube;
- 4) Social participation: users of Web 2.0 are both producers and consumers, they are also encouraged to participate actively by commenting, rating and giving feedback (Merchant, 2009).

The biggest change with the introduction of Web 2.0 was in the shift from a static viewpoint to a collaborative network of learners. Webpages are no longer functioning only as information publishing sources, but they also provide an opportunity for users to interact with

each other and create content either individually or collaboratively. Learners of the English language can have a sense of belonging to a community where they can share knowledge and edit content. Web 2.0 tools encourage learners to actively produce language output, develop skills in connection with creativity, collaboration, teamwork, autonomy and higher-order thinking (Karkoulia, 2016).

1.4.1 Social networking sites

Social networking sites (SNS) are services which enable people to establish relations and share ideas or opinions on different topics. Learners can communicate with each other on the Internet, thus developing their writing skills. They can also interact with foreigners to use English in practice. On Facebook, learning groups serve as online communities where presentations or other files connected to education are shared among the teacher and learners (Yunus, Salehi & Chenzi, 2012).

Facebook provides opportunities for learners to interact either synchronously or asynchronously. Authentic interactions with native speakers are also possible through social networks. Students can join language learning groups in which materials and useful links are shared on a regular basis. Language learners are able to start conversations to help each other develop their skills. They mainly communicate using the informal variant of English to discuss assignments, share their knowledge, answer questions or talk about ideas. Distance learners use Facebook to raise their motivation and to feel more connected and less isolated from their groupmates in higher education (AbuSa'aleek, 2015).

People share the things that interest them on their personal profiles using Facebook. Learners can see the posts made by other learners or even the teacher, react to them, in this way developing a positive teacher-student relationship. Social networking sites are capable of taking the process of language learning outside the classroom into an entertaining environment. Although the benefits are obvious, we cannot forget the possible drawbacks. For instance, not all learners may be equal in terms of digital literacy knowledge and access to technologies (Eren, 2012).

The main advantages of improving writing skills on SNS include the following:

- 1) Learners are digital natives which means that they can easily be engaged by online tasks and they are familiar with digital media;
- 2) A group of students can review each other's writings and react to them;
- 3) Multimedia is a useful segment of social networking sites as information can be posted not only in text format, but also by using videos, pictures, links, etc.;

4) Feedback is provided through interaction between learners and the teacher in the form of comments and messages (Yunus et al., 2012).

These sites are frequently used between people who know each other well to keep their social relations alive and communicate with others. Learners can perform problem solving activities on social networks as they interact in pairs or groups to exchange information. However, some people argue that online interactions are not as effective as real-life communication because of their computer-mediated nature (Harrison & Thomas, 2009).

1.4.2 Educational blogs

Blogs are basically online journals where individuals share their own opinions, ideas and experiences. Users can discuss various topics in the comment section just like in a forum. We distinguish between different types of educational blogs in connection with English language teaching. According to Campbell (2003), there are three types of weblogs that can be used in English language teaching:

1) Tutor blogs – the teacher gives daily tasks for the learners online, such as answering questions or searching for information on the Internet;

2) Learner blogs – a small group of learners can interact within a blog, especially if they are organised around a common topic or assignment;

3) Class blogs – entire classes consisting of learners and teachers from various countries can share their ideas or opinions working collaboratively on a task (Campbell, 2003).

With the help of wireless devices, learners can access their blogs anywhere and easily answer to other people's feedback. The previously mentioned types of blogs are text-based, but we also distinguish between audio and video blogs. In the first case, users can leave audio comments and the creator of the blog can post voice messages instead of writing down his/her ideas and thoughts. This is a good way of improving one's listening and speaking skills. In the second case, learners can stream live videos, while others can write comments to react to what they have heard. We can also mention synchronous blogging such as Twitter, where users compose short messages known as 'tweets' (Jee, 2011).

Using weblogs for language teaching means that learners are required to make frequent and dated entries in their digital diaries. These entries are listed usually in reverse chronological order. Blogs are generally beneficial in improving learners' writing skills or teachers can incorporate these Web 2.0 tools into blended learning environments to support traditional classroom practices. Learners can achieve skills in writing feedback, reading and analysing

discourses, expressing ideas, defending opinions in arguments and learn collaboratively a foreign language in a learner-friendly environment (Amir, Ismail & Hussin, 2011).

From an educational perspective, there are many possibilities of using blogs to support the learning process. Students can publish their own reflections and experiences about language learning, while teachers can share reviews of methodological resources or provide ideas for their colleagues in how they should use technology. Learners respond to each other in comments and make recommendations on how to improve one's language production. Teachers also use blogs to collect students' works and organise a portfolio that is used later for assessment and indication of language development over time (Duffy, 2008).

1.4.3 Wikis as collaborative tools

Wikis are the most important tools for collaborative writing because a group of individual learners can edit an article or website together. Learners share their knowledge in an organised format, in this way they are engaged to interact with each other and the material in the form of group authoring. Wikis function as information and knowledge sources that can be edited by anyone who visits the given website (Parker & Chao, 2007).

Wikis are especially beneficial during group projects as members can share their knowledge, ideas and opinions, thus learning from each other. Teachers can assess the final product as a written assignment. The goal of learners is to produce a complete piece of writing by taking into consideration everybody's ideas. In this way, the same phenomenon can be viewed from different perspectives with an identifiable flow of thoughts. Learners are more responsible for their own writings because others can see their ideas and provide feedback on their work (Jee, 2011).

A wiki is basically a database of interlinked websites mainly in text format but it also contains visual and auditory information. Wikis have discussion boards, recordings of the history of a page and notifications in case of revisions. First and foremost, wikis are not promoting individual learning, but rather collective knowledge gathering. These tools also focus on the process of collecting information and evolving the page in a longer period of time as we can check the previous versions of the database and how it has been developed by the users (Lund, 2008).

Peer-to-peer collaboration is an effective way of building a sense of community among learners, without the strong influence of the teacher. Wikis are capable of reducing learners' anxiety about using the language and they will be more motivated to actively participate in completing a collaborative task. The social aspects of collaborative writing are the main

advantages of wikis. Learners generally pay more attention to their spelling and the grammatical coherence of their sentences because their peers will evaluate their writings. The role of the teacher becomes less important when pupils are able to work with their peers and share responsibility for achieving a common goal. They are less dependent on the teacher as in a traditional classroom setting (Alshumaimeri, 2011).

The content of a wiki is created by a large group of people as a result of their shared efforts. Various fields of knowledge can be gathered in a single website, and it also facilitates learners' interactions with each other. With the help of hypertext, users can connect and combine several sources of information, thus deepening their understanding of concepts and given topics (Дацька, 2011).

1.4.4 YouTube videos in the classroom

YouTube is another Web 2.0 tool together with other online video sharing websites, where users can view or share educational and entertaining videos, but they can also upload their own content. Videos are very effective teaching aids due to their audio-visual nature as they present picture and audio at the same time with meaningful input. Learners are motivated to watch English videos, improving their vocabulary, pronunciation and communication skills during the process (Duffy, 2008).

There are numerous strategies of using videos effectively in the classroom. For instance, it is advised to play the video in short segments for the students so they will not lose their interest and we should also tell the learners to take notes of what they see. In addition, teachers can use various game-like activities in connection with videos: turn off the sound or the picture and learners have to guess what is happening on the screen based on the information they get; ask the students to look for specific information and tell them what they should focus on during the video; when they have finished watching it, ask about their opinions and understanding (Duffy, 2008).

A positive and learner-friendly environment can be created in the classroom by showing YouTube videos. For many learners, watching online videos functions as a creative activity which motivates them to learn English in order to be able to understand the content of the videos. Both self-directed and teacher-guided learning types are useful strategies in using YouTube videos inside and outside the classroom. In addition, learners can interact with other users in the comment section to express their ideas connected to the content or answer to others' remarks (Kelsen, 2009).

An innumerable amount of data is uploaded on video sharing websites like YouTube and many of the videos contain inappropriate material for children. Therefore, the teacher's role is very important in guiding learners what links they should use. It is also a good idea to collect videos for each topic that we wish to teach during the semester and send the links to the students. Then, ask them specific questions concerning what they have learned by listening to the video and what parts of the language were difficult to understand. The improvement of listening skills can be greatly facilitated with the help of YouTube videos (Erben, Ban & Castaneda, 2008).

Furthermore, specifically designed language learning videos can be found on YouTube. These videos function as separate language lessons which means that they provide a complete understanding of a given part of the language without the necessity of searching for additional materials. Of course, teachers have to evaluate and observe these language learning videos before using them. There are five things we have to take into consideration when assessing online videos:

- 1) Video characteristics: picture and sound quality, length and topic of videos;
- 2) Attractiveness: the material must be engaging and motivating for learners;
- 3) Clarity: the video-teacher's body language and voice speed are important aspects of learners' comprehension of the material;
- 4) Reaction: answer questions, clarify topics, show examples to pupils;
- 5) Content: the title, objectives and phases of the video (introduction, assessment, conclusion) should be clearly organised (Alhamami, 2013).

There are three levels of integrating video materials into language teaching. At the first level, learners are basically asked to watch and listen to authentic discussions which is very effective because the facial impressions, body language and discourse settings can all be seen and heard in videos as opposed to textbooks. At the second level, videos are used as assessment tools and are given to learners as assignments which can be completed by responding to the content of the video or completing exercises in relation to the topic. At the third level, students become content creators by recording their own videos or preparing scripts (McNulty & Lazarevic, 2012).

1.5 Other means of technology-enhanced language acquisition

The development of learners' digital skills is crucially important in the 21st century. As the younger generation is already using the Internet for an excessive amount of time, teachers are advised to integrate the online platform into the teaching and learning processes. Technology-facilitated language learning helps to transform learners from passive consumers of data to active

participants of language acquisition. Students have the opportunity to discover learning materials and applications on the Internet by themselves which results in self-directed learning most of the time (Liton, 2015).

With the rapid technological development, technology-enhanced language learning (TELL) is about to further improve in the future. As it was mentioned in the previous sections, the use of computers, mobile devices and Web 2.0 tools in educational settings facilitate collaborative learning in foreign language acquisition. Students have more autonomy in governing their learning process and they are becoming less dependent on teachers. This means that new possibilities of learning English as a foreign language will emerge in the future (Zou, Xie & Wang, 2018).

1.5.1 Online dictionaries

The student generation of the century is often called as digital natives because they grew up in the age of the Internet and digital technologies. These technological developments have changed the way of how languages can be learned. Dictionaries are fundamental tools in expanding one's vocabulary knowledge and improving the abilities of using a foreign language. At the turn of the century, new tools emerged in language learning, and among them were digital dictionaries. When compared to traditional paperback dictionaries, their main advantages are the convenience of usage, interactivity of the content, quick updates, a large amount of contextual examples, grammatical explanations, synonyms and audio files indicating the appropriate pronunciation of words (Jin & Deifell, 2013).

The three most frequently used types of dictionaries are printed dictionaries, pocket electronic dictionaries and online type-in dictionaries. The main advantages of printed dictionaries are the comfort of reading, lack of fear in regards with damage or loss of functionality, the ability to make physical annotations and there is no need to use a computer or any electronic device. In comparison, electronic dictionaries are easy to use, sometimes even provide offline access, users can find examples of audible pronunciation for words and search for vocabulary items with rapid speed. Online type-in dictionaries enable learners to type a word into a search bar in order to find information about the meaning, definition and pronunciation of the given word. These online dictionaries automatically update their material, provide links to other websites and these are usually available for free (Chiu & Liu, 2013).

In addition, the speed of finding words is one of the most important factors for learners. It is obvious that words are accessed with a much greater speed in electronic dictionaries than in printed ones, but this does not mean that online dictionaries are more effective in vocabulary

acquisition. As learners spend more time looking up words in paperback dictionaries, they also process the word in their working memory, continuously rehearsing the structure of the word which will end up in their long-term memory. In contrast, when they search for words in online dictionaries, their attention is attracted for a temporary period of time, but they cannot retain the meaning of words as effectively as with printed dictionaries (Chiu & Liu, 2013).

Moreover, online monolingual (English-English) dictionaries are also designed not only for native speakers, but also for learners of the language. According to the research of Nurmukhamedov (2012), the most important features of a learner-friendly online dictionary are the following:

- 1) Authentic examples of usage, so that learners can see the words in context;
- 2) Data about the frequency of the word to differentiate between high- and low-frequency words;
- 3) Topical vocabulary to show the semantic relations between words;
- 4) Indicating collocations and word formation possibilities to avoid mistakes;
- 5) Explanation of possible meanings with corpus-based wordlists focusing on the areas of real-world discourse where the given word is most frequently used (Nurmukhamedov, 2012).

1.5.2 Google Translate

Instant translation tools appeared and are continuously evolving due to advances in digital technologies. Google Translate offers a convenient and easily accessible way of performing quick and relatively accurate translation services between various languages. Teachers should pay attention to this tool particularly because it is very often used by language learners. Google developed its translation services based on a large amount of sources, documents, books, websites which have been translated by human beings. With the help of statistical machine translation, the significant language patterns were identified and used as a basis for the mechanism controlling Google Translate. The service has many advantages, including its instant and free translations into a great number of languages, while allowing voice recognition, and even website or whole document translations (Medvedev, 2016).

Lately, Google changed the phrase-based approach of machine translation into a method of analysing millions of examples with the help of artificial intelligence (AI). This choice resulted in much more accurate translations which is not only capable of translating sentences separately, but can treat whole documents and texts as complete units. However, the pedagogical usage of Google Translate is limited to the translation of words as paragraphs or even sentences translated by the tool require editing and improvement in terms of quality and accuracy. Users

should be aware of the potential mistakes when using machine translation (Kol, Scholnik & Spector-Cohen, 2018).

There are a number of strategies connected to the possible uses of Google Translate in the foreign language classroom. The teacher can give tasks to students where they are required to write short essays in English and then translate it into their mother tongue, so that they can spot grammatical errors and inappropriate words. Also, we can let them use Google Translate to transfer a text from their first language into their target language. In this case, they will be able to combine their own knowledge with the help provided by machine translation. Learners should also be careful with voice input because although the tool is capable of voice recognition, the mispronunciation of words could result in mistranslations (Medvedev, 2016).

1.5.3 Google Classroom

The description of technology-enhanced language learning would not be complete without mentioning online classrooms. These are virtual learning environments where participants can communicate, upload and view educational materials (videos, presentations and other documents) and interact in group activities. Google Classroom was launched in 2014 with the aim of promoting e-learning among educators. Teachers can keep their classes organised, communicate with their learners and save time in course planning. Learners are required to complete assignments for deadlines for which they receive grades (Iftakhar, 2016).

There are three separate sections within the Google Classroom:

1) Stream – it provides notifications for newly uploaded materials and assignments, as well as text messages and posts sent by the teacher. Students can communicate with instructors or with each other through the chat interface.

2) Classwork – it keeps track of the assignments uploaded by teachers as well as the materials, which can be in different formats (text, image, audio, video). Completion of assignments can also be tracked, as the system displays which tasks have been completed by students and which have not, and the teacher can comment on the homework submitted or rate learners' work with scores.

3) People – it contains a list of learners participating in the online classroom so that the teacher can see which members of the class are not involved in the educational process (Okmawati, 2020).

Table 1.5.3 The advantages of Google Classroom (Iftakhar, 2016; Syakur, Sugirin & Widiarni, 2020)

Advantages	Description
Free	The Classroom is freely accessible for anyone together with Google Drive, Docs, Slides and other services.
Flexible	It can be used both in blended and distance educational environments. The communication between learners and the teacher can be improved while the assignments are easier to collect and organise.
Mobile-friendly	All the materials and tasks can be easily accessed from mobile devices to facilitate learning outside the classroom.
Improve cooperation	Students are able to ask each other questions related to the assignments, the teacher can easily clarify ideas or organise online discussions and encourage learners to cooperate.
Easy to use	The virtual classroom provides a simplified way of learning with announcements and notifications about deadlines.
Save time	The processes of grading, distributing teaching materials, administering documents, and providing feedback are all really simple and designed to save time for the teacher.
Paperless	Everything is online, learners do not have to bother themselves with distributing printed documents.

In terms of learning English as a foreign language, the Google Classroom can be used for motivating learners in developing their writing skills with the help of peer assessment. In a virtual environment, learners feel more motivated to learn English grammar because they do not experience too much pressure as in traditional classrooms. Assignments can be given both individually and collaboratively to learners as they can work together with their virtual classmates to compose pieces of writing. Students feel less anxious when working with other learners and they can also support each other (Zafrin, 2018).

1.5.4 Podcasting and vodcasting

The development of listening skills has been revolutionised by the emergence of audio materials published online, known as ‘podcasting’. Learners are provided with an opportunity of receiving out-of-classroom listening exercises. The main advantages of podcasts include: exposure to new language; broadening of knowledge; authentic texts; practising pronunciation and intonation with the help of native speakers. Sometimes even transcripts are provided to learners in order to help them understand everything from the audio recordings (Kavaliauskienė, 2008).

Podcasts are instructional audio files created by professionals to aid learners in developing their listening skills and understanding classroom topics. The term was derived from the combination of iPod and broadcasting. MP3 players or any other digital devices including computers, mobile phones and tablet PCs can be used to listen to podcasts. As it was indicated previously, most learners use their audio players for listening to music, but they should be encouraged to listen to podcasts too for educational purposes (Stockwell, 2012).

Based on the findings of Chris Evans (2008), the phenomenon of podcasting has four benefits compared to the traditional revision of lecture materials:

- 1) It is easier for the learners to relate to the lecturer in a podcast;
- 2) Revision material in the form of a podcast is much more interesting for learners than a textbook or a collection of lecture documents;
- 3) Students believe that revising from podcasts is quicker and more effective than using lecture notes or reading textbooks;
- 4) Learners can revise lectures flexibly from podcasts as these audio files summarise the topic of the lesson effectively (Evans, 2008).

In addition to podcasting, we also distinguish vodcasting or video podcasting in language learning. Vodcasts provide audio-visual input for the learners and they are being published online at regular intervals just like audio podcasts. Studies examined that incidental vocabulary acquisition is really common in connection with video podcasts because learners receive multimodal representation of the information and they also pay more attention to lexical items in a meaningful context (Marefat & Hassanzadeh, 2014).

1.5.5 Zoom and Google Meet

Video conferencing enables synchronous communication between people who are geographically remote from each other, allowing communicating parties to share messages and information in textual, visual and auditory formats in a virtual learning environment. The use of online video conferencing software during the COVID-19 pandemic was initially hampered by the lack of digital skills and the fear of using new technologies. Instructors can choose from several applications, including Google Meet, Skype or Zoom. These applications are available on both computers and mobile phones, providing a well-established online environment for conducting lessons. An additional benefit of Google Meet is that the link for video chats does not have to be renewed with each call, so it can be reused for consultation with the teacher (Al-Marroof, Salloum, Hassanien & Shaalan, 2020).

It is important for the teacher to be aware of the features and functions offered by Zoom. For example, we can use different layouts for online classes: there is a camera setting that shows the maximum number of participants that can be displayed at one time in small windows ('Gallery View') depending on the screen size, while another view enlarges the image of the currently speaking participant ('Speaker View'). To conduct effective video lessons, it is essential to have the following devices: a computer or laptop, stable Internet connection, applications for taking notes or making illustrations, a microphone, a video camera, earphones and a lamp if necessary (Levy, 2020).

Video conferencing has an impact on our physical and mental condition, which most teachers experienced first-hand during the transition to digital education in the spring of 2020. For this reason, it is recommended to take short breaks during online lessons, thus reducing the risk of 'Zoom fatigue' occurring. Zoom fatigue stems from the fact that nonverbal cues (such as hand gestures or body language) almost completely disappear during online video conferences, as people attending online classes are only visible from their shoulders. The phenomenon can occur on any platform that enables video conferencing, as the lack of nonverbal communication signs during online classes puts a greater strain on our brains and makes it difficult to sustain our attention permanently (Sklar, 2020).

Table 1.5.5 Characteristics of online video lessons (Levy, 2020)

Online video lessons	
Advantages	Disadvantages
Easier collaboration between teacher and learners when creating documents	Learners' attention is greatly divided in the online space
Better communication opportunities between learners	Entertainment possibilities (using social networking sites during classes)
Sick learners can also attend the lessons	Lack of nonverbal cues
Guest teachers and other lecturers can join the sessions if necessary	Insufficient experiences with online education
Recording lessons allows for asynchronous learning for those students who could not attend the online lesson	The teacher's attention is divided as several things need to be handled at the same time through the monitor

Within Zoom, we can make the online education process more engaging with a number of useful features. Learners can click on the "Raise hand" button to indicate that they have something to say, so it is a good idea to ask questions and encourage participants to discuss. The instructor can also initiate a poll to ask learners for their opinions. In addition, the chat function

can be used within the programme, which allows participants to write text messages and comment on the course of online lessons without turning on their microphone. It is very beneficial to click on the “Breakout room” button to divide the learners participating in the video conference into smaller groups. Furthermore, it is essential to know the “Share screen” feature, which allows us to share our own screen so that we can deliver presentations, project videos, and pupils or students can also give a presentation to the whole class (Levy, 2020).

As a result of the COVID-19 pandemic, the switch to distance learning became obligatory in Ukraine too. Skype and Zoom were widely used by English teachers in online education to conduct voice and video calls with the learners. Zoom video calls are limited to 40 minutes in the free version of the software. The number of participants is relatively large because 100 users can connect at the same time, even in the free variant of the programme. In addition, learners can be divided into small groups, they can record lessons, share their screens and use virtual boards to take notes. For these reasons, Zoom proved to be more useful in teaching languages than Skype (Гончарова & Маслова, 2020).

In conclusion, the first part of the thesis gave a comprehensive summary of the various types of information and communication technologies that could be used in teaching and learning English. Computers, mobile devices, Web 2.0 tools, online dictionaries, video conferencing software and virtual classrooms are all very important aspects of technology-enhanced language teaching.

PART 2

THE EFFECTS OF USING TECHNOLOGY IN THE CLASSROOM

In the previous chapter, the components of technology-enhanced language teaching were described in detail. The field of language teaching has undergone various changes in the 21st century. As we can see, there are numerous ways of using different types of technologies in language education. In the second part of the thesis, their possible effects are going to be explained. First of all, the integration of such digital technologies into the classroom can have a number of barriers and these have to be taken into consideration by teachers of the English language before they try to change their teaching strategies for a more modern approach.

Then, the advantages and disadvantages of technology-based language learning and teaching will be listed in the following points both from the perspectives of the teacher and the learner. This section will hopefully give practical information and advice for teachers about the importance of the phenomenon in terms of efficiency and possible improvements in teaching practices.

2.1 Barriers of integrating technology into language teaching

In the course of history, teaching English as a foreign language has had a number of different approaches and different types of technologies were used in all of the methodologies to enhance the learning process. For example, during the audio-lingual method, teachers centred their lessons around audiotapes. With the development of technology, new types of teaching equipment became popular, including computers and projectors. Teachers nowadays are expected to use all possible means of enriching the language skills of their learners, therefore, introducing technology into the educational process cannot be eschewed (Warschauer & Meskill, 2000).

Although using technologies in the classroom is really beneficial both for the teachers and the learners, there are many barriers which can discourage teachers from using technology in their lessons. Most of the problems are connected to the never-ending process of technological development. New devices and tools appear frequently, so teachers always have to keep their skills up-to-date and adapt to the changes. This can frustrate educators because they are digital immigrants, and not digital natives as the learners. Most teachers did not grow up using these newest types of devices, thus a professional teacher training programme might be necessary to overcome this barrier (Borko, Whitcomb & Liston, 2009).

Table 2.1 Barriers of integrating technology (Hew & Brush, 2007)

Barrier	Explanation
Lack of resources	Technology is not available in sufficient numbers or teachers cannot access them in the right time. It can also mean the lack of technical support in schools and not enough classroom time.
Lack of adequate training	Teachers not always have the necessary skills to handle digital technologies and the Internet appropriately in the classroom. The teacher should be able to manage a technology-enhanced lesson.
Institutional barriers	The leadership of the school may oppose the integration of technology or the school's timetable and planning structures do not provide opportunities for using technologies in the lesson.
Teachers' attitudes	The success of integrating technologies into teaching largely depends on the teachers' beliefs and previous experiences with digital devices.
Pressure of assessment	Teachers have to cope with the pressure of covering a vast amount of material and achieving high scores on tests with their learners in a limited amount of time.
Subject culture	All the subjects have long-established norms of assessment, content and pedagogical applications. Teachers refuse to adopt technologies which are incompatible with the subject culture.

The above mentioned barriers pose a serious threat to technology-facilitated language teaching but it does not mean that there are no strategies to solve these problems. Teachers and the school where they are working should have a shared vision about the future of integrating technology into the classroom. In this way, schools can reorganise the timetabling schedules, giving more time for teachers to deal with units during the semester and have more opportunities of using the possible advantages that technology can offer. Teachers can also change their attitudes towards using technologies but in order to do that, a professional retraining programme should be developed for educators to improve their IT skills. However, all of these are useless if schools are not provided with financial resources to have the required number of digital devices in all classes (Hew & Brush, 2007).

We distinguish between the cognitive and socio-cognitive approaches of integrating technology into the foreign language classroom. On the one hand, the cognitive approach explains language learning as an individual psycholinguistic act. According to this definition, technologies have to offer learners maximum possibility of using the language in meaningful contexts. For instance, multimedia stimulation and text-reconstruction software can be used for this purpose. On the other hand, socio-cognitive approaches emphasise the necessity of social

interaction between learners when improving their language skills. The social networking sites provide good examples for tools which enable this (Warschauer & Meskill, 2000).

2.2 Technology from the teacher's point of view

There is growing awareness of the importance of using information and communication technologies (ICT) in education. Technology is viewed as an important teaching and instructional aid for educators in their aim to enhance learners' productivity and knowledge. Teachers can use technology to motivate students, to prepare them for a technology-driven world, to show authentic materials and to help learners filter out the huge amount of information they receive every day. The key factor of whether teachers will use technology in their lessons or not is their attitude towards computers and the Internet (Al-Zaidiyeen, Mei & Fook, 2010).

Teachers of English as a foreign language can have different types of personal beliefs in connection with technology. Some teachers are afraid to use technologies that they do not know well or they did not receive the necessary training to handle such devices without any problems. The main reasons why using ICT in language teaching can function as an inhibiting factor are insufficient classroom time, lack of computer skills or financial support, fear of the unknown and inflexible curriculum. However, even a teacher's positive attitude towards digital technology would not be equal to success and would not guarantee the use of computers or other devices in the lessons (Park & Son, 2009).

2.2.1 Advantages and benefits for the teacher

Despite the fact that traditional classroom environments are undergoing radical changes due to the shift from a teacher-centred approach to a learner-oriented one, the role of the teacher is still very important today. Teachers always look out for possible means of giving their learners an opportunity to improve their language skills through meaningful communication and authentic input. The Internet and web-based learning strategies provide learners with a great amount of possibilities to learn English outside the classroom and they can take responsibility for their own learning. The teacher in a technology-enhanced environment becomes a facilitator of the learning process rather than a person of authority who makes decisions alone. In addition, it is also the teachers' task to create a learner-friendly environment in the classroom which can reduce anxiety and facilitate collaboration among students (Park & Son, 2009).

Teachers have to learn what advantages technology can offer for them and their learners. As students use their mobile phones and the Internet more and more frequently, teachers should

acknowledge the fact that with technology-facilitated language teaching they can motivate and engage learners in the lessons and even out of the classroom. Authentic learning materials are easy to access on the web. For instance, even if the teacher is not a native speaker of English, he/she can play online audio recordings of proficient speakers so that learners can improve their English pronunciation and listening skills. Some researchers also believe that the traditional teaching methods are no longer enjoyable and motivating for young learners because they require interactivity and audio-visual input in the digital age (Altun, 2015).

Learners of the 21st century grew up in the age of the Internet. Technological devices are part of their lives and teachers have to take into account this information. Furthermore, the communication between the teacher and the learners or the parents can be facilitated with the help of social networking sites. With Web 2.0 tools, teachers can encourage learners to collaborate and cooperate in achieving a common goal as a result of project activities (Altun, 2015).

Educators are also provided with a vast amount of ideas on the Internet before planning a lesson. They can find tasks and exercises which are based on real-life situations and these motivate learners to pay attention in the classroom (Фоміних, 2010).

Game-like activities with educational purposes can bring the fun factor into the lesson. As learners are familiar with the new technologies, their self-confidence can be raised in the classroom if they have the opportunity to perform some tasks with the help of computers or the Internet. The teacher can also use collaborative tools (like wikis) to enable learners to assess each other's work. Students will learn the basic functions of peer assessment, consider feedback as more important and they will also take more responsibility for their own work. Self-evaluation can also take place in different forms. Moreover, learners can interact with multimedia materials which provide them with entertaining resources (Abukhattala, 2016).

2.2.2 Possible drawbacks and problems

Integrating technology-centred language teaching into our classroom strategies can have a number of drawbacks. To begin with, the cost of buying wireless devices and other equipment is relatively high. A great amount of money is needed to purchase laptops, projectors, speakers, different software and online language learning materials. Moreover, teachers should receive adequate training to use the Internet and other tools in their lessons flawlessly. This requires the development of a new teacher training programme and a large amount of time has to be invested in the process (Warschauer & Meskill, 2000).

Also, we cannot forget that teachers' prior experiences could affect technology integration in a negative way. If teachers have negative attitudes towards computers because they lack the necessary skills to handle them, the use of computer-assisted language learning or Web 2.0 tools in language teaching is doomed to failure. The quality of the school's technological infrastructure is another factor that can lead to problems. Slow Internet connection, limited number of computers and inadequate technical support may result in unforeseen issues during technology-enhanced lessons. Teachers sometimes do not possess enough confidence or motivation to use ICT in their teaching practices, or they are just unaware of the advantages that technologies can offer (Park & Son, 2009).

Furthermore, it could create inequity among learners if computers become obligatory in schools and at home. Not all students possess equal skills in digital literacy and there are school and families that cannot afford buying expensive devices. Another important drawback is that both teachers and learners should be well-educated in using computers and the Internet to achieve meaningful results in the improvement of language skills with technology. Teachers are also required to test educational software before using them in the classroom because some are not reliable or do not function appropriately. Computers are not developed enough to be able to provide help in every situation for the learners because unexpected questions can always emerge to which only teachers know the answer (Lai & Kritsonis, 2006).

It is also advised to carefully plan online activities and monitor students' progress because they may not take the tasks seriously when the Internet is introduced to the educational process. Sometimes they can also find inaccurate materials on the web or misinterpret something. Problems may arise in connection with classroom discipline as learners may be distracted from the topic of the lesson. These concerns further prove the fact that the teacher's guidance cannot be neglected in technology-enhanced learning environments (Yunus, Nordin, Salehi, Sun & Embi, 2013).

2.3 Technology from the learner's point of view

Advancements in technology not only affect teachers, but learners are also influenced by the use of computers and other devices in education. Technology-facilitated language learning enables learners to improve their language skills in their own pace independently. They can also communicate with their friends and native speakers around the world with the help of computer-mediated communication (CMC) and all of its various forms. All the four language skills of learners can be developed and their motivation can be directed towards language learning with the integration of technology (Karakas, 2011).

The process of language acquisition is facilitated by the collaboration among learners. They are provided with a lot of extra-linguistic information besides the written and spoken texts, including pictures, videos and audio recordings. These materials help learners to understand meanings in context and to get comprehensible input. Computers can record students' progress allowing them to trace back what errors occurred in their learning process. Their autonomy is further developed as they are able to learn whenever and wherever they wish (Beatty, 2010).

2.3.1 Advantages and benefits for the learner

From the learners' point of view, computers are really useful because they can learn the language at their own pace. There are also various technology-driven foreign language teaching methodologies (mobile-assisted language learning (MALL) and using Web 2.0 tools) that provide EFL learners with many opportunities of improving their language skills. Another advantage of these tools is that the students can easily see their mistakes and errors as computers provide feedback immediately. For instance, auto-correction or error-indication typing software can help the learners to improve their spelling and writing skills without having to worry about making any permanent mistakes (Karakas, 2011).

We should also acknowledge the fact that learners' anxiety is greatly reduced when they are able to learn a language outside the classroom with the help of technologies. Multimedia materials can also be used to make the learners more involved in the lesson and to motivate them to actively participate in classroom discussions. Even passive students may be turned into enthusiastic language learners with the help of vivid pictures, interesting videos or interactive tasks from the Internet (Huang & Hwang, 2013).

The opportunity of learning English outside the classroom results in more autonomous learners who are less dependent on the teacher. They can study language materials anywhere and anytime with mobile devices and Web 2.0 tools. Independent learning facilitates the development of critical thinking, creativity and self-awareness in students. Authentic materials motivate them to improve their language skills in order to understand foreign speakers. Teachers can pay more attention to the individual needs of learners when designing lessons, taking into consideration their interests and aims of language learning (Lai & Kritsonis, 2006).

The different types of communicative, collaborative and game-like activities reduce stress and anxiety levels in learners, while raising their self-confidence. Immediate feedback also helps them to learn from their mistakes and improve their language abilities. Interaction between peers and other groups of people is easier than ever before which can help shy students to practice the

use of language online. Audio-visual teaching aids and problem solving activities further facilitate language acquisition (Lai & Kritsonis, 2006).

We can use innovative technologies in education to develop learners' creativity, critical thinking and independence. With ICT and computer-based language teaching, pupils and students can perform project work, use educational software, create interesting presentations of the material based on Internet resources. Language learning applications give immediate feedback to learners, evaluating their language acquisition objectively. As the Internet is a worldwide network of users from different cultures and societies, learners can develop their worldview and interact with foreigners (Рождкова, 2014).

Web 2.0 tools like blogs offer learners convenient ways of providing feedback for each other in the form of comments. They can respond to their classmates' opinions, ideas in forums, encouraging them to express their thoughts. Positive connections can be established between learners if they frequently communicate and collaborate with their peers. They also broaden their knowledge and worldview by extensively reading on the Internet. Learners can easily find language materials which are appropriate for their levels and interests (Yunus et al., 2013).

Language learning applications on computers and mobile devices give individual feedback. Multimodal representation of the material is advantageous for the learners because they can receive much more information with the help of pictures and videos combined with voice recordings. The process of language learning can be individualised in terms of speed and learning styles, so every student will be able to learn English in accordance with his/her preferences (Gündüz, 2005).

2.3.2 Possible drawbacks and problems

Students can easily be distracted if they are enabled to use digital devices in the lesson. With the widespread availability of wireless Internet connection, learners who have smartphones or laptops with them in the classroom will start using their devices for entertainment purposes. The use of ICT in the classroom divides their attention and weakens their understanding sometimes. They can use their wireless devices for performing tasks which are not related to the lesson, including visiting websites, watching videos or sending messages. Multitasking is a great opportunity that modern technology can offer, but it can also be a drawback of using technology in the classroom because of distracting learners' attention (Goundar, 2014).

Another problem may arise if the teacher selects an inappropriate programme for learners' proficiency level. There are also students who do not like computers and they will always make some mistakes in using them. Digital literacy skills and the ability to use the

keyboard are required to be present in the learners or the lesson would not be successful. When students are working with computers, they may not get feedback for all their responses, especially in the case of open-ended answers. Learners may also feel more tired reading long texts from a screen instead of reading them in printed format (Gündüz, 2005).

Furthermore, when we are speaking about e-learning courses, the decrease of social interaction between learners can have negative effects. Virtual interactions are not equal to face-to-face communication. In terms of language learning, oral communication and the physical presence of the teacher are important factors in successfully developing language skills. Teachers' guidance is needed for the learners to be able to cope with the tasks and to use the online tools with the required level of confidence. Not all students have the necessary technological skills to operate computers and deal with e-learning tasks in the same way. Slow Internet connection and other technological problems may cause frustration in the learners which is another reason why online courses should be taken with care (Rahmawati, 2016).

In summary, integrating technology into foreign language teaching can have a number of benefits and drawbacks that should be taken into consideration by English teachers. Authentic materials, audio-visual teaching aids and collaborative tasks can create a learner-friendly and motivating environment in the classroom. However, teachers should be aware of the possible problems connected to the required skills of using modern technologies, behavioural and organisational issues during the lesson, and the divided attention of learners.

PART 3

PROSPECTIVE TEACHERS' PERCEPTIONS ON THE ROLE OF TECHNOLOGY IN LANGUAGE TEACHING

In the third part of the thesis, the quantitative research will be discussed together with the methods, participants and the interpretation of the results. As it was mentioned previously, the aim of the research was to investigate prospective teachers' opinions, ideas and perceptions about using technology in English language teaching. Prospective teachers in this case are equal to college students majoring in English language and literature, as they will make up the next teacher generation hopefully.

The empirical study was conducted with the help of a questionnaire. The methodology and the participants will be characterised in the subsequent parts in detail. Also, the analysis and interpretation of the obtained results will be discussed with the help of descriptive statistics and diagrams.

3.1 Methodology of the research

In accordance with the aims and hypotheses of the research, the study was conducted with the participation of English majors of the Ferenc Rákóczi II Transcarpathian Hungarian College of Higher Education. The research paradigm is an empirical one, namely questionnaires were compiled to collect information from prospective teachers. Two different questionnaires were designed in accordance with the main characteristics of the sample (see Appendices A & B).

The empirical research can be divided into two parts. On the one hand, students of years I and II had not completed their pedagogical practicum yet, so they do not have any teaching experience and only their prejudices or opinions were asked in relation to technology. On the other hand, students studying on years III, IV and V had already completed at least one pedagogical practice, and some of them are even working as teachers of English right now, so their own experiences and thoughts were stated in the answers.

In the case of inexperienced students, the questions were mainly focusing on their future plans about working as teachers, the reasons why they would like to obtain their diploma, what technologies they would use in the lessons, what they think about the biggest problems in Transcarpathian secondary schools, how efficient technology-based language teaching is according to them and what advantages or disadvantages they could mention related to the phenomenon.

The questionnaire which was designed for students of the upper years was different in a number of ways. First of all, they had to state where and when they completed their pedagogical practice, whether or not they work as teachers or private tutors of the English language, what devices they used in their lessons, what problems they observed in schools and what difficulties they had to face related to the availability of technology and its usage. In conclusion, it can be said that their own experiences were asked instead of their presuppositions, as in the case of students from the first two years.

3.2 Participants of the study

Altogether the research was conducted with 104 college students majoring in English language and literature at the Ferenc Rákóczi II Transcarpathian Hungarian College of Higher Education. As the college is one of the largest teacher training institutions in Transcarpathia, the English language undergraduates are expected to form the supply of foreign language teachers in the local secondary schools.

The English language and literature department of the institution currently offers education on four years for students participating in a Bachelor of Arts course, and two additional years for students who wish to obtain their Master of Arts diploma. At the time when the study was completed, there were only five years of students learning at the English department. Year I-II students had not yet participated in any pedagogical practice, so in their case, the research mainly presents their own judgments and high school experience. Year III-V students had already completed at least one pedagogical practice, and some of them are currently working as teachers in addition to their college studies, or engaging in part-time activities so they have appropriate teaching experience.

A total of 104 students participated in the research. In terms of gender distribution, 25% of the respondents were male (26 students) and 75% were female (78 students). In terms of age, respondents are in the 17-23 age group. Their distribution by years of study and course type is summarised in Table 3.2.

Table 3.2 Distribution of participants (years of study and course type)

	Year I	Year II	Year III	Year IV	Year V
Full-time	25	22	17	21	4
Correspondent	4	5	1	0	5
Altogether	56		48		

In terms of language teaching experience, Year I-II students do not have formal teaching experience, but some had already taught English to their siblings or friends. 21,4% of the respondents (12 students out of 56) had already taught English as a private tutor, although most of them had only one or two learners.

In recent years, college students of years III-V had already completed their pedagogical practicum in various Transcarpathian schools in the following places: Beregdéda, Beregszász, Csonkapapi, Izsnyéte, Nagyszőlős, Tiszaásvány, Tizakeresztúr, Tiszaújlak, Verbóc. A total of four students currently work as English teachers in secondary schools and lyceums in Beregszász, Munkács and Tizakeresztúr. 64,6% of the respondents (31 students out of 48) work as private tutors of English, most of them had already taught at least four students.

3.3 Data analysis

In this section, the obtained data will be described in detail in terms of the perceptions and experiences of prospective teachers of English. The data from the two questionnaires will be analysed in two separate sections because some of the questions that the respondents had to answer were different too. Answers for the most important questions are shown in diagrams or tables for better understanding of the findings.

3.3.1 Questionnaire I

As it was mentioned before, respondents of the first questionnaire were those students who had not completed their pedagogical practice yet. They were asked to state the name of the school where they would like to teach next year during their teaching practicum. Most respondents stated that they would like to complete it in Beregszász (Schools №1, №4 and №5), or in the secondary school where they had studied previously (in Aknaszlatina, Bányú, Csap, Forgolány, Makkosjánosi, Kisdobrony, Nagydobrony, Tiszapéterfalva or Visk). It is a very important factor for the students to have some previous knowledge about the school, the pupils and the teachers. For this reason, they chose mainly those schools for their future practicum where they had studied during their high school years.

Out of the 56 respondents, only 12 students held private lessons in English before. Most of them taught one learner only (their sibling or neighbour); the others do not have any experience of teaching English. According to the answer of the respondents who had already worked as private tutors, learners study English mainly in order to perform better during English

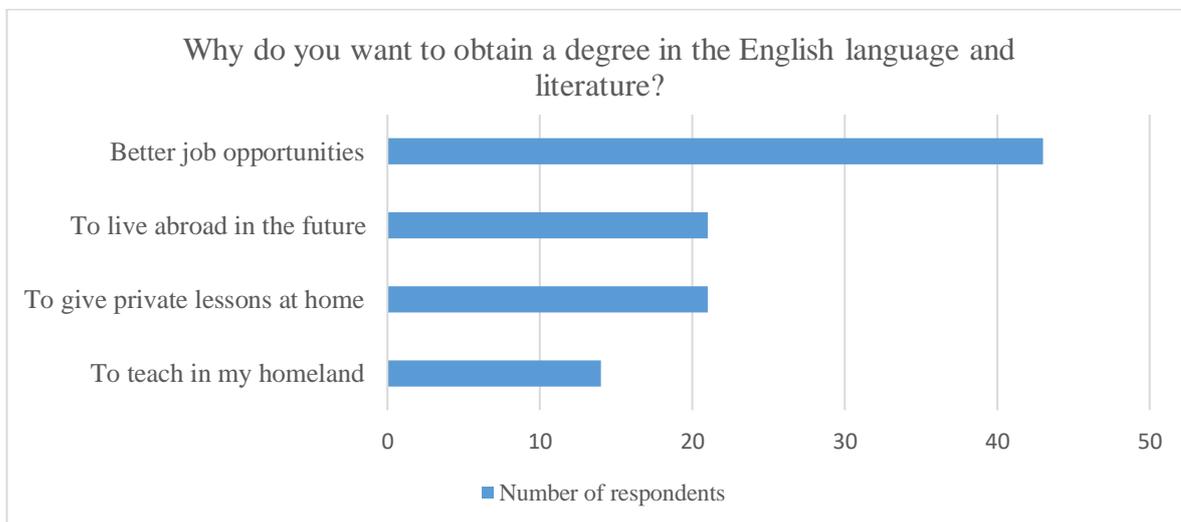
lessons in the school, to have easier life in the future or to prepare for school leaving examinations.

The next two questions were focusing on prospective teachers' plans for the future. Firstly, they were asked whether or not they would like to work as English teachers in a Transcarpathian school. 34 respondents (60,7%) gave a positive answer for starting their career, getting experience, staying in their homeland or simply because they would like to deal with the English language in the future. 16 respondents (28,6%) stated that they do not want to be teachers in Transcarpathia because they would not like to take up teaching at all or would like to work in another sphere (translation or interpretation). The remaining 6 students (10,7%) have not decided it yet.

These answers can be compared with the number of students willing to take up teaching posts in secondary schools of Hungary. The results are the following: 28 students (50%) are willing to teach in Hungary because of the more positive prospects related to schooling conditions, higher remuneration for teachers or because they want to gain experience there. Meanwhile, some students said that they would like to teach both in Transcarpathia and Hungary. 21 respondents (37,5%) would rather not teach English in Hungary, simply because they do not want to be teachers at all, or they do not want to live in a foreign country. In addition, two of the respondents have another reason: they cannot speak Hungarian. The remaining 7 students (12,5%) are considering the possibility of working as English teachers in Hungary, but they are not sure about it at the moment.

In the next question, respondents had to state the reason why they are studying English in the college and what they plan to do in the future with their diploma. Surprisingly, not many of the students wish to become teachers of English, preferring instead better job opportunities offered by the ability to speak a foreign language or live abroad in the future.

Diagram 3.3.1 Reasons for obtaining a language teaching degree



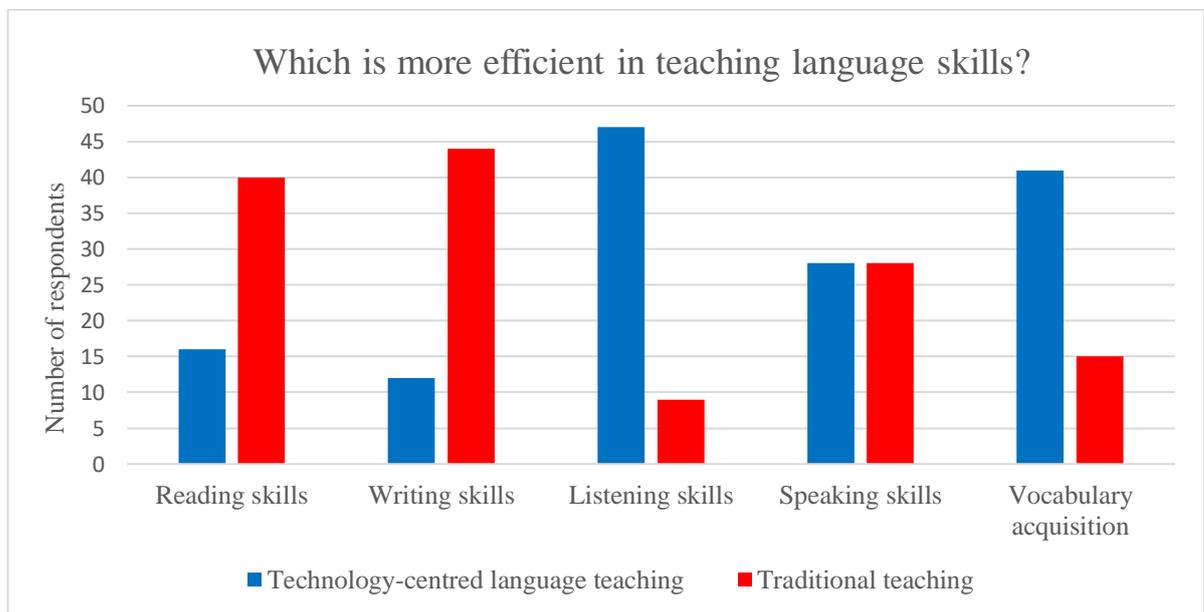
As it can be seen in the previous diagram, only 14 of the respondents (25%) would like to take up teaching as a career in their homeland, while 21 students (37,5%) would also like to give private lessons at home. Moreover, some students stated that they would like to travel and speak with native speakers, and that is why they feel it important to study English right now.

Next, students had to name technologies which can be used in teaching English. The collected answers will be discussed in thematic groups:

- Language learning applications: Duolingo, LinguaLeo, Eshko, Xeropan, FluentU, italki, Skyeng, Grammarly, Kahoot, Quizlet;
- Online materials: English YouTube channels, films with subtitles, presentations, online dictionaries, multimedia, social media;
- Activities: brainstorming in discussion groups and forums, playing games, listening to audio recordings, translating texts, Zoom conferences;
- Digital devices: smartphone, laptop, PC, projector, speakers.

In the next question, technology-centred language teaching was compared to the traditional teaching methods in terms of their efficiency. Respondents had to choose between the two depending on which is more efficient in teaching different language skills.

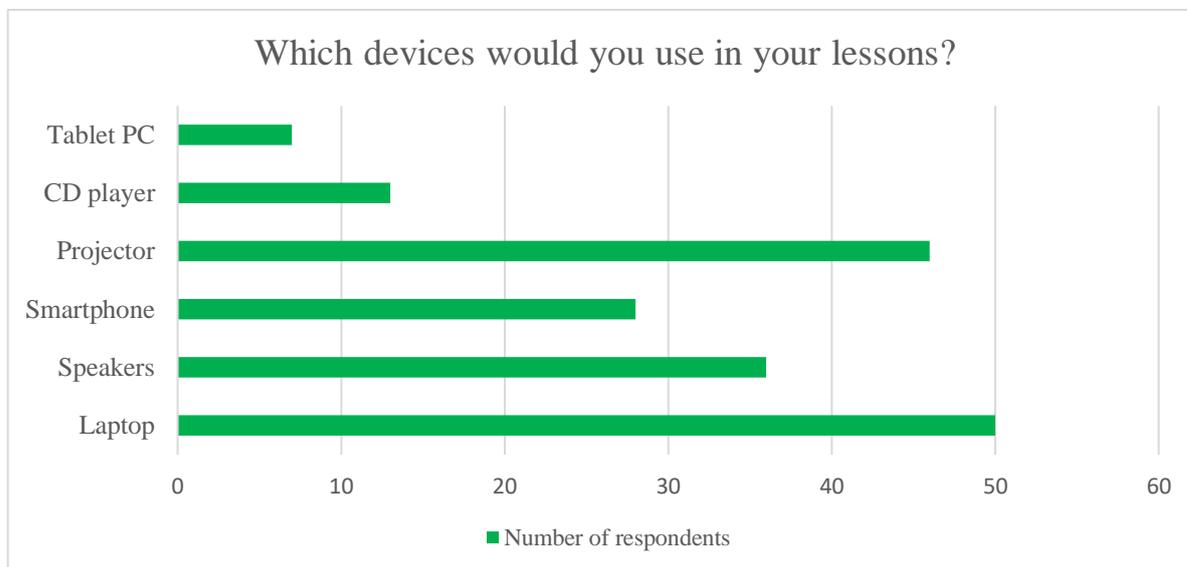
Diagram 3.3.1 The efficiency of teaching language skills



Based on the research data, listening skills (47 respondents) and vocabulary acquisition (41 respondents) are taught much more efficiently with the help of technology-centred language teaching. However, reading and writing skills are developed better by means of traditional teaching, according to the respondent students. Speaking skills can be equally well taught both with the help of technology-centred language and the traditional teaching (28-28 respondents).

Students of the first two academic years are yet to complete their pedagogical practice, so they were asked hypothetically what devices they would rather use in their lessons. Generally, laptops and projectors are likely to be used by nearly all prospective teachers, while CD players and tablet PCs would rarely be used.

Diagram 3.3.1 Devices students contemplate using in their lessons



Respondents were asked to indicate the most serious problems of the Transcarpathian educational institutions that impede teachers' work. The most serious problems seem to be the following:

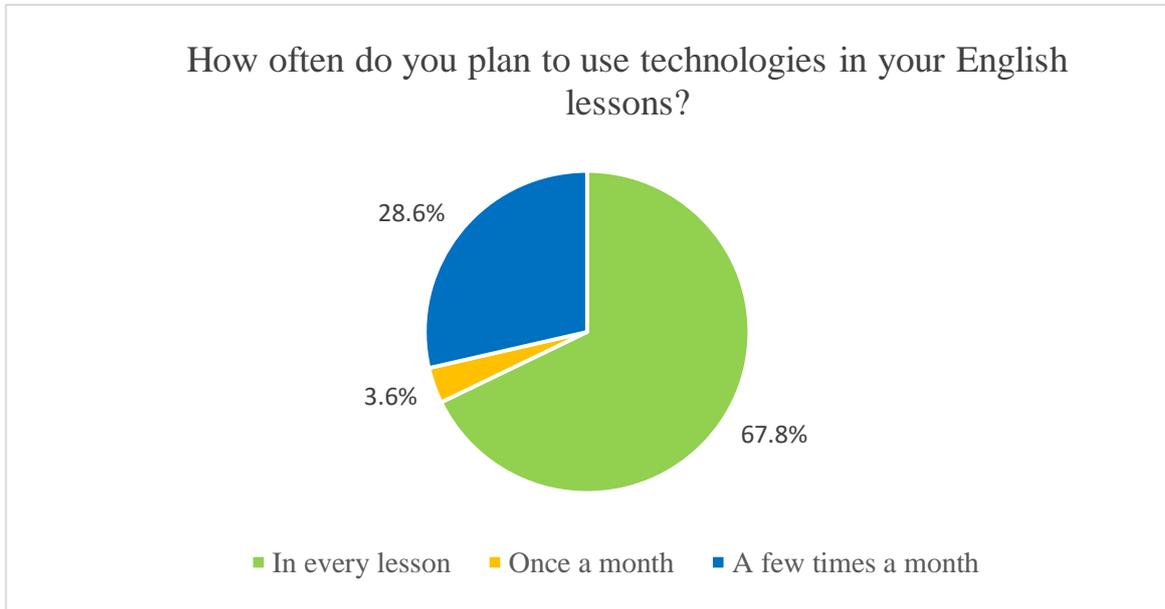
- overcrowded curriculum (33 respondents, 58,9%);
- limited financial resources (30 respondents, 53,6%);
- limited availability of digital devices (28 respondents, 50%);
- insufficient number of lessons (25 respondents, 44,6%)
- lack of skills in using the newest technologies (21 respondents, 37,5%);
- poor command of the Ukrainian language (13 respondents, 23,2%).

Furthermore, participants had to express their opinion about the differences between the younger and older generation of teachers in terms of using technologies in teaching. Most students stated that older teachers do not like to use technologies because they did not receive proper training (38 respondents, 67,9%) or they do not have enough digital devices in schools (16 respondents, 28,6%). In addition, 14 respondents (25%) answered that older teachers are afraid of the unknown, therefore, they do not like to use technologies in their lessons. According to 11 students (19,6%), older teachers use digital devices as frequently as younger ones.

The next question focused on future teaching plans of student teachers. They had to indicate the frequency of using technologies in their lessons as English teachers. It can be said

that 38 respondents (67,9%) plan using some kind of technology in every lesson, while the others plan using technology either a few times (16 students, 28,5%) or once a month (2 students, 3,6%). None of the respondents selected the option that they would never use technologies at English lessons.

Diagram 3.3.1 Frequency of using technologies in English lessons



Respondents also had to say whether or not they consider technology-enhanced language teaching more efficient than the traditional teaching and for what reasons. Only two students indicated that it is not more effective, the others responded positively. The reasons were the following:

- learners perceive information better through visual representation of the material with the help of pictures, videos and PowerPoint presentations;
- technology motivates learners, keeps their attention focused on the teacher;
- children use technology more and more often nowadays, so it would be advisable to integrate it into the educational process too;
- a set of technological tools can be used to teach English more effectively;
- it is more comfortable, interesting and useful for 21st century learners;
- authentic learning materials are available on the Internet (e.g. voice recordings of native speakers or movies with subtitles);
- a lot of language learning applications for mobile phones are available for learning new words and phrases in a game-like environment;
- a mixed approach would be the best between technology-based and traditional teaching methods because some language skills are better taught with technologies, while others should be kept strictly to the traditional classroom interactions;

- traditional classroom teaching is somewhat old-fashioned, so teachers should make use of the opportunities offered to them by digital technologies and the Internet.

The advantages of using technologies in the English lessons were also to be mentioned by students. Technology motivates learners, it is comfortable and interesting for them because they use their devices every day at home. Learners can translate texts, watch films or presentations that help them perceive information with examples and pictures. Teachers do not have to dictate everything, so it can save time as learners can get the material online. Students also indicated that technologies offer a wider range of opportunities for improving language skills, such as watching series to develop your vocabulary knowledge. Authentic listening and audio-visual materials facilitate the development and improvement of learners' pronunciation and vocabulary knowledge. With the help of these teaching aids, learners are able to memorise, perceive and understand information in a much easier and faster way than they would do in the case of traditional teaching. It is also very convenient to share information online in different forms, including instant messaging, e-mailing, searching texts and topic-related content on the Internet, translating words and phrases with online translation tools, etc. In addition, it would be useful for the learners to hear the pronunciation of native speakers of the English language, in this way their language input would not be limited only to their teacher's speech. Technology is both motivating and stimulating for 21st century learners, it can promote interactivity and collaboration within learning.

Not only the advantages, but the disadvantages of using technologies in English teaching had to be stated too. The main disadvantage is that the teacher must have a plan B in case the technology fails because various problems may happen. Furthermore, it requires money to purchase these devices, and learners can lose their attention or they not always prepare their homework. The teacher should always tightly control classroom interactions during technology-based lessons because pupils can use their smartphones, tablet PCs or laptops for entertainment or social networking instead of doing the assignments or tasks given to them by the teacher. Therefore, constant monitoring of classroom work and technology usage is required. Also, managing the devices can take away valuable lesson time which is already too short for the teacher. The Internet provides a great amount of information, but it can also result in the loss of attention and teachers may use technologies in cases when it is not needed to be used. It is important not to be too dependent on technologies. Another disadvantage would be that watching digital screens too often may result in problems with learners' eyesight. Furthermore, some teachers are unable to use digital technologies without any problems and this can be very distracting for the learners.

In the next question, prospective teachers had to assess their IT skills regarding the use of the Internet and digital devices in the lessons on a scale from 1 (very bad) to 10 (very good). Most respondents indicated that his/her technological skills are rather good, as the most common numbers were 8 (marked by 18 students) and 9 (marked by 20 students).

It was also an interesting task for respondents to define how they understand technology-centred language teaching. The definitions were the following:

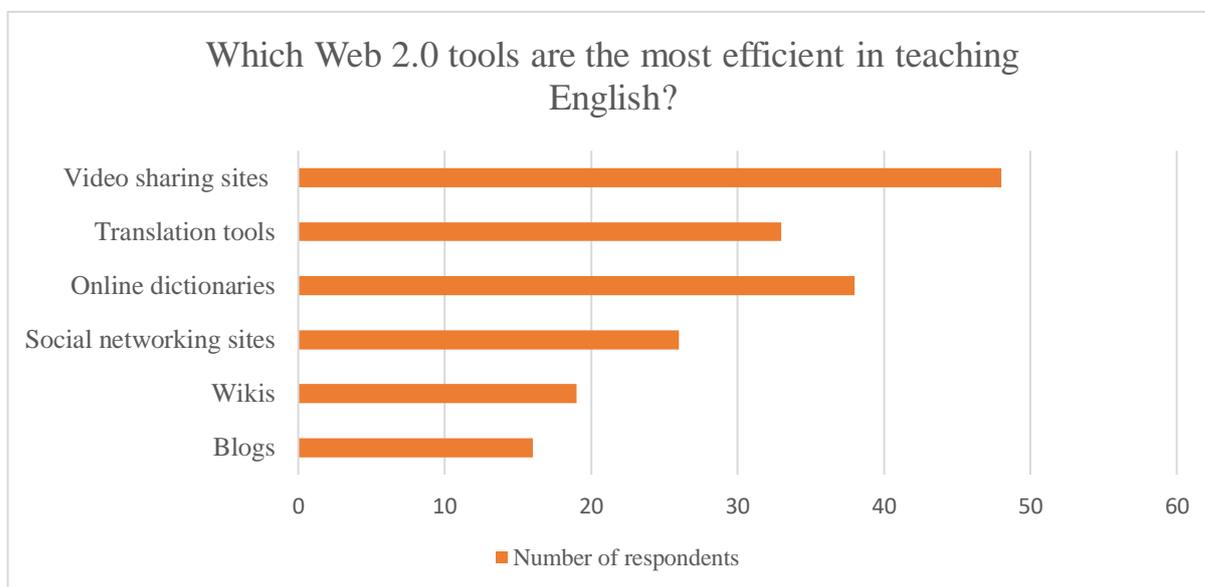
- use of digital equipment for quality presentation of information;
- a form of teaching that can transform pupils from passive to active learners;
- teaching language only with technology, the teacher brings listening materials to the lesson and presents information with digital devices;
- a type of teaching which is faster and easier;
- online language courses and presentations;
- a method of teaching languages based on information from the Internet;
- a modern, interesting, effective, productive, affordable, important and future-oriented style of learning a foreign language, which involves a variety of programmes and teaching methods;
- a collection of teaching strategies focusing on the needs, preferences and interests of the learners;
- using modern digital devices and the Internet during the lessons instead of the conventional paperback books;
- a modern and more useful variant of language teaching for the younger generation.

The next question dealt with the possible problems that could emerge during a technology-based lesson. The students mentioned a great number of problems, including the possibility that technology be faulty or the teacher might not know how to use devices properly. Teachers have to be prepared for blackouts and battery-related issues too. Problems may arise related to the speed of the Internet connection, especially if the teacher wants to show an online video to the class. Organisational problems can also happen because it is difficult to keep up the attention of learners and to make them concentrate on the material, so the teacher can lose precious classroom time. Using technologies in the classroom always requires preparation which can be time-consuming, too. Therefore, learners may not pay attention to the teacher, they might associate technology with having fun, use their own devices for playing games or sending messages on social networking sites, this would result in the lack of discipline in class.

Web 2.0 tools were also mentioned in the research, as respondents had to mark them according to their efficiency in English teaching. Based on the results, the most efficient tools are video sharing websites (e.g. YouTube), marked by 48 students (85,7%) and online dictionaries,

marked by 38 students (67,9%). Translation programmes (chosen by 33 respondents, 58,9%) and social networking sites (chosen by 26 respondents, 46,4%) are also very useful in teaching English. The two least efficient Web 2.0 tools for teaching English are blogs and wikis, according to the students. The detailed results can be seen in Diagram 3.3.1.

Diagram 3.3.1 The efficiency of Web 2.0 tools in language teaching



In the last question, students had to indicate how much they agree or disagree with given statements on a scale from 1 (completely disagree) to 5 (completely agree). The statements which resulted in the biggest amount of agreement were that teachers often use technologies in higher education, and that Transcarpathian schools are not as well-equipped as secondary schools in Hungary. Moreover, many people agreed that technology-centred language teaching is good for saving time for the teacher, and that it is often used in private lessons. Students also generally agreed that after graduation it will not be hard to find a job in a Transcarpathian secondary school. There were only two statements which received more disagreement than agreement: behavioural problems are more frequent in technology-centred lessons, and teachers do not receive the necessary training to control digital devices properly.

3.3.2 Questionnaire II

The second questionnaire was designed to collect information from college students who had already completed their pedagogical practicum. These are the students of years III, IV and V, and their own experiences will be included in this section. The location of the respondents' pedagogical practicum has to be stated. Most participants completed their practicum in Beregszász (Secondary School №4, Primary School №6, the Hungarian Grammar School), while

the others in Beregdéda, Csonkapapi, Izsnyéte, Nagyszőlős, Tiszaásvány, Tiszakeresztúr, Tiszaújlak and Verbóc.

Four out of the 48 respondents currently occupy teaching posts. One of them works in a grammar school in Beregszász and she has 26 lessons a week. The other respondent works in a secondary school in Beregszász, where she has 4 lessons a week and in an elementary school in a neighbouring village, where she holds 5 lessons per week. The third student works in a lyceum in Munkács with 9 lessons a week. The last person is a teacher of English in a village near Nagyszőlős (18 lessons).

The respondents are also experienced in terms of holding private lessons. Out of the 48 participants, 33 work or used to work as private tutors of English, some of them had at least five learners usually with nine or ten private English lessons per week, while other respondents had 8-10 learners this semester to whom they gave private lessons. Others also had or currently have multiple private students.

It is also interesting to look at the goals of students who study English in private lessons. According to the respondents, they would like to achieve better results in the English lessons (27 respondents, 56,3%), prepare for school-leaving examinations (14 respondents, 29,2%) or they just simply want to have an easier life in the future (13 respondents, 27,1%). Job opportunities abroad were chosen only by 4 respondents (8,3%), so it is not a common goal among private English students.

Not all respondents would like to take up language teaching posts in Transcarpathian schools. The main reasons are connected to the low salaries that teachers receive and the enormous effort required by this job. Some students do not like the teaching process at all, so they want to pursue a career different from teaching in the future. Only 24 respondents (50%) answered positively to this question, while 19 students (39,6%) responded negatively. Also, some prospective teachers have not decided it yet, or they would not like to stay in Transcarpathia in the future (5 participants, 10,4%). However, some respondents are already working as teachers here, or would like to work as an English teacher in their homeland. Their reasons are that they would like to get a job with a decent salary without having to leave their families and they enjoy this profession. One respondent's motivation is to give the learners a better understanding of the language to help them achieve their goals in life, and give the youngsters a better chance to get a degree or a well-paid job in the future. Furthermore, it is important for many college students to stay in their homeland because there is a great need for teachers nowadays to pass their knowledge to the younger generation.

What is surprising is that students do not want to work in Hungary as teachers. Only 14 students (29,2%) answered positively, while 30 students (62,5%) gave a negative response to the

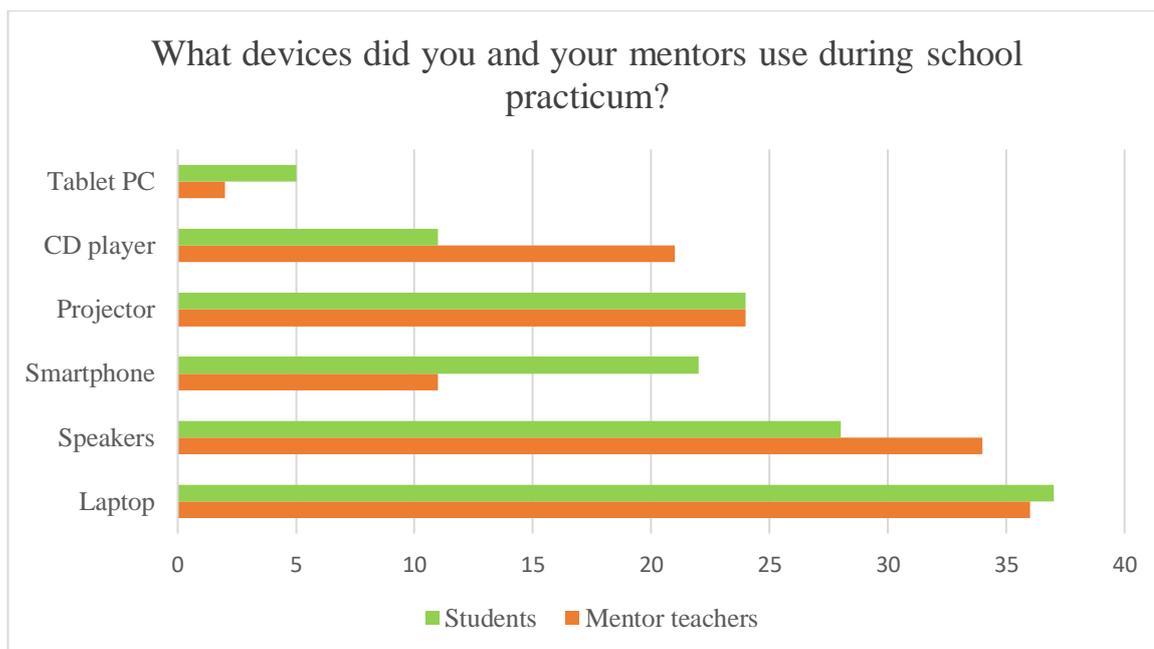
question whether they would like to work as an English teacher in a secondary school in Hungary or not. The remaining 4 participants (8,3%) have not decided it yet. In general, college students would like to stay in Transcarpathia where they grew up, their family and friends are all here, they got used to this culture, and they cannot imagine themselves working in another country. Moreover, some students whose mother tongue is Ukrainian indicated that they could not speak Hungarian so well to work in that country. Another group of reasons is connected to the bad behaviour of children and the necessity to have patience when working with them, therefore, most English majors would rather be interpreters or translators. The main reasons for going abroad to work as English teachers are that classrooms are better equipped and salaries are higher, and if they live in Hungary, working as an English teacher is a good job opportunity that they can do for a living. Other students said that they are open to opportunities and could work both in their homeland or abroad, if an opportunity presents itself.

Students also had to state why they want to obtain a degree in English language and literature. The answer which was marked by 37 respondents (77,1%) was that they are looking for better job opportunities. Other common answers included: to be a teacher in their homeland, or to live abroad in the future (16 respondents, 33,3%), while giving private lessons at home (9 respondents, 18,8%) is not the main reason to have a diploma.

The next question was focusing on the digital devices that the mentoring teachers used during the pedagogical practicum. The most commonly used technologies were laptops (36 respondents, 75%), speakers (34 respondents, 70,8%) and projectors (24 respondents, 50%). CD players were also rather frequently used by senior teachers (21 respondents, 43,8%), while smartphones (11 respondents, 22,9%) and tablet PCs (2 respondents, 4,2%) were the least frequently used devices.

Students also had to indicate what devices they used themselves during their practice. The most commonly used device was the laptop, used by 37 respondents (77,1%). Speakers (28 students, 58,3%), projectors (24 students, 50%) and smartphones (22 students, 45,8%) were also often used. Detailed answers can be seen below in Diagram 3.3.2 where the devices used by the mentoring teachers and students will be compared.

Diagram 3.3.2 Devices used by senior teachers and students



Respondents were asked to identify problems they observed during their practicum in Transcarpathian educational institutions that make teachers' work more problematic. The most common problems were the following:

- limited availability of digital devices (34 respondents);
- limited financial resources (26 respondents);
- overcrowded curriculum (24 respondents);
- insufficient number of lessons (19 respondents);
- lack of skills in using the newest technologies (14 respondents);
- poor command of the Ukrainian language (6 respondents).

Additional answers included the decreasing prestige of teachers' profession and the necessity to complete too much paperwork related to this job.

It is very important that older teachers are more concerned about traditional teaching than the younger ones, according to students. Only 6 respondents (12,5%) stated that older teachers use digital devices with similar frequency as younger ones, while another student indicated that it depends on the personality of the teacher. The main reasons why older teachers are more interested in the traditional teaching were the following:

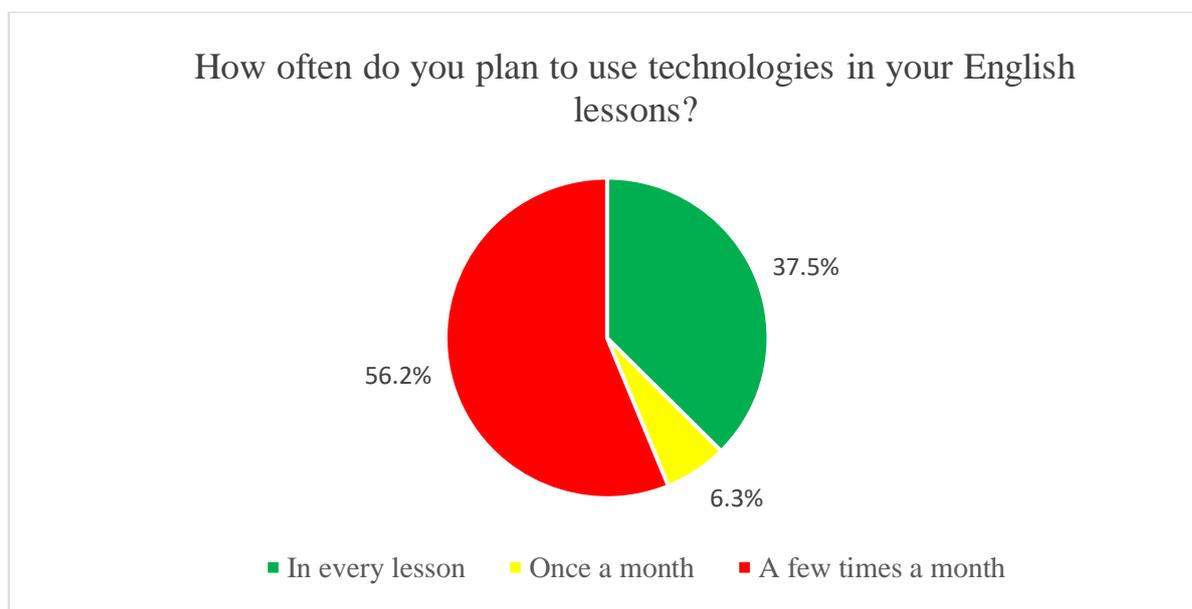
- they did not receive proper training (26 respondents, 54,2%);
- they are afraid of the unknown (19 respondents, 39,6%);
- there are not enough digital devices in schools (14 respondents, 29,2%).

Respondents had to state whether they think that technology-centred language teaching is more effective than the traditional methods or not, and for what reasons. Most respondents

agreed that using technologies is more effective because teachers can use videos or pictures to illustrate the topic and they can play funny games with learners. Authentic materials and creative tasks are also available to make the lessons more memorable and interesting. Furthermore, native speakers' audio recordings can help learners to achieve more native-like pronunciation. English materials are also accessible from the convenience of learners' homes, and because children are themselves technology-centred, they will be more active during the lesson if the teacher uses technology. In addition, technology is a great motivating factor for 21st century learners to pay more attention to the lesson and to learn a foreign language. Other respondents would choose to create a mixed approach between the innovative and traditional methods of teaching English as technologies could distract learners sometimes and we cannot abandon the traditional teaching approaches completely, so we should find the right balance between the two approaches. Although teachers should focus on keeping their teaching strategies up-to-date, both approaches are equally important and serve different purposes that cannot be neglected.

When prospective teachers were asked to indicate how often they plan using technologies in their English lessons, most of them selected either to use them in every lesson (18 respondents, 37,5%) or a few times a month (27 respondents, 56,2%). Other options like 'once a month' (3 respondents, 6,3%) or 'never' (0 respondents) were not considered to be important in answering this question.

Diagram 3.3.2 Frequency of using technologies in the English lessons



The advantages of using technologies in the English lessons include the following options, based on respondents' answers:

- unlimited resources from the Internet;

- if implemented correctly it is more interesting for the learners and much more efficient than traditional teaching;
- online materials make the lesson less boring and more varied;
- it is easier to remember and process audio-visual materials;
- language acquisition is more effective;
- learners' pronunciation and listening skills are improved better than with the help of conventional teaching;
- learners participate more actively;
- technologies also help teachers by providing online quizzes, movies, videos and interesting classroom ideas for them;
- learning can take place in an environment which is interactive and similar to real-life settings;
- it stimulates motivation and engagement.

In opposition to the advantages, the negative side of technology-enhanced language teaching will also be illustrated with examples by respondents:

- technology can backfire on us, not everything works as planned;
- children can lose focus on the topic;
- sometimes it is easier to teach a topic with the traditional methods;
- the teacher has to buy devices sometimes without any financial support;
- problems with Internet access or electricity supply;
- teachers have to face new challenges and acquire new skills;
- using technology in the classroom requires more preparation;
- digital devices are harder to use for older people;
- the lesson will be centred around technology rather than the topic itself;
- some learners can get distracted;
- watching digital screens too often may result in problems with eyesight;
- learners can also get used to an easy access to materials and become lazy to work on their own, so they will not be able to do tasks in a creative way.

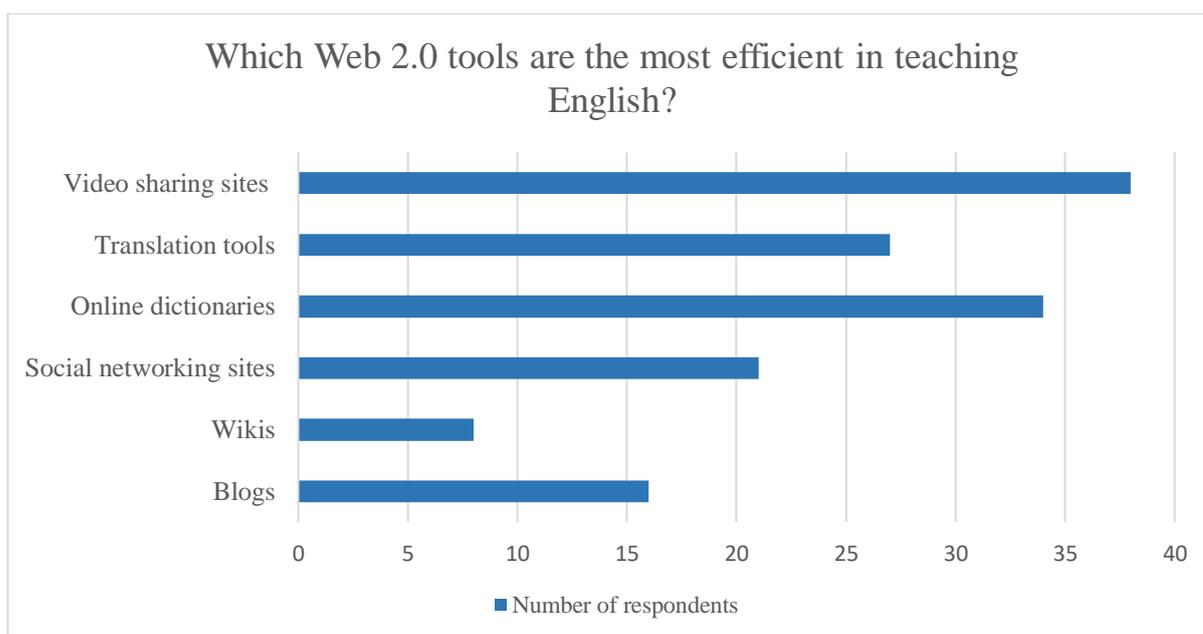
Students were asked to rate their own IT skills on a scale from 1 (very bad) to 10 (very good). According to their own answers, their skills are well-developed, as the most frequently chosen values were 7 (11 students), 8 (10 students), 9 (14 students) and 10 (10 students).

In the next question, students had to answer whether or not the methodological knowledge that they received in the college prepared them well to deal with the hardships of technology-based language teaching. Out of the 48 respondents, 40 students (83,3%) answered positively to this question.

Prospective teachers were also asked to indicate what difficulties they faced during their teaching practice connected to teaching English with technology. Only 12 respondents experienced difficulties. For example, they had to bring their own devices to the classroom, the CD player did not work properly for a few minutes, the school did not have any projectors and the laptop was hardly visible for all the children. Moreover, one respondent said that when she used a presentation, they went through it really fast and she had to improvise what to do in the remaining time. Also, it was hard to get speakers during the practicum for another student, so she had to play the audio recording on her smartphone, but it was not as effective as it would have been with proper equipment. In summary, most problems were related to the limited availability of digital devices in schools.

According to the respondents, the most effective Web 2.0 tools are video sharing websites (38 respondents) and online dictionaries (34 respondents). In addition, online translation tools (27 respondents) and social networking sites (21 respondents) also proved to be useful in language teaching. Detailed results can be seen below in Diagram 3.3.2.

Diagram 3.3.2 Efficiency of Web 2.0 tools in teaching English



Prospective teachers also enumerated what kind of problems can emerge if the teacher plans to hold a technology-enhanced language lesson. Children can lose their focus, do not want to cooperate, the teacher can have problems with setting up the equipment and it can take a long time. The laptop may start an updating process or pupils may use their mobile phones for other purposes (entertainment, social networking). Learners might be distracted; they can also make too much noise in the class. Lack of devices is another problem, and some learners will disrupt the lesson one way or another, it does not matter what the teacher does to make them interested.

Teachers should focus on using technologies only if they are necessary or add some additional value to the lesson. The selection of online materials is also important, so that these will match the skill level of learners. Because of the limited availability of digital devices, slow Internet speed, bad behaviour of pupils and the possibility of a blackout, it is necessary for the teachers to have an extra plan for conducting the lesson in the traditional way.

Respondents strongly agreed with the statements that technology-centred language teaching is more popular in private lessons than in regular school lessons, teachers often use technologies in higher education, students from the college can easily find a job in a Transcarpathian school after graduation, and schools in our homeland are not as well-equipped as schools in Hungary. It was also well-agreed that technology-based language teaching can save time for the teacher. However, two statements received mixed responses, more respondents disagreed that teachers do not receive the proper training to use digital technologies and that behavioural problems are more common during technology-centred lessons.

3.4 Discussion and interpretation of the results

The research was conducted in the form of online questionnaires with both full-time and correspondent students majoring in English language and literature at the Ferenc Rákóczi II Transcarpathian Hungarian College of Higher Education. Because of the differences between the lower and upper years of students, different instruments were used to collect information: in the first case, students' opinions and presuppositions were asked, while in the second case, students' own experiences were analysed.

Altogether 104 prospective teachers participated in the research, out of which 56 students (years I-II) filled out the first questionnaire, and 48 students (years III-V) completed the modified second instrument. The division of the research sample into two distinct groups was necessary because there are differences between the students who had not completed their pedagogical practice yet, and those students who had already participated in one practicum at least. The collected answers of the two groups will be analysed and interpreted in the following section, divided into the most important topics that emerged from the research findings.

3.4.1 Future plans of prospective teachers

The majority of students expressed their readiness to teach English in Transcarpathian educational institutions because in this way they can stay in their homeland without leaving their family and friends. Students think that working as an English teacher here is a good way to start

their career and to get experience. However, some of them imagine their lives abroad (in Hungary) and they also consider teachers' salaries as too low based on the effort they have to make connected to their job. Moreover, some of the students do not even want to be teachers in the future. Many people want to get a degree in the faculty of English because it would result in better job opportunities and easier life abroad. Respondents also strongly agreed that schools in Hungary are much better equipped than Transcarpathian secondary schools.

Table 3.4.1 Working as English teachers in Transcarpathia

Reasons for	Reasons against
Staying in the homeland	Living abroad is better
Knowledge about local customs and circumstances	Interest in another profession (translator, interpreter)
Improving learners' language skills	Low salaries for teachers
Gaining experience, passing knowledge	Lack of teachers' authority
Good opportunities for starting a career	Bad behaviour of children
Solving the problem of teacher shortage	Too much patience is required

Fewer students contemplate working as English teachers in Hungary. Only 40,4% of the total sample responded positively to this question, but the most interesting data is that 62,5% of students studying in the upper years (III-V) who already have some teaching experience answered that they do not want to work in Hungary as teachers. The pro- and con-arguments will be described in the table below.

Table 3.4.1 Working as English teachers in Hungary

Reasons for	Reasons against
Better working conditions	Relatives and friends in the homeland
Higher teacher salaries	Problems with moving abroad
More modern equipment	Lack of Hungarian language skills
Better career and professional opportunities	No interest in the teaching profession
Higher level of education	Refusal to work with children
Greater expectations and challenges	Teacher shortage in Transcarpathia

It also has to be stated that students work as private tutors, especially in the upper years of their study (64,6% of respondents from years III-V taught at least 4 learners already as private tutors). They agreed that technologies are more often used in private lessons than in schools usually. Private students usually want to prepare for school leaving examinations or to achieve

better results in the English lessons. After graduating as English teachers, it is not really hard to find a job in a Transcarpathian secondary school, according to the respondents. In fact, even some of the students work as teachers of English besides their studies. They genuinely enjoy their profession and their goal is to give children a chance to learn the lingua franca of the modern world.

3.4.2 Technology-enhanced vs traditional language teaching

According to students, technology-centred language teaching and the traditional approach to teaching English are both equally effective in developing speaking skills. However, listening skills and vocabulary knowledge are far more efficiently developed with the help of technology, while writing skills and reading skills can be better improved traditionally, and not with technologies.

Most of the respondents agreed that older teachers are more concerned with the traditional approach to language teaching because they did not receive proper training in using the newest digital devices and the Internet in the classroom. Other problems related to this topic include the limited availability of digital devices in schools, and the fact that teachers are afraid to use methods which they are not familiar with.

Prospective teachers think that technology-assisted language teaching is more effective in general because audio-visual presentation of the material makes it easier for the learners to pay attention and to memorise what the teacher says. Furthermore, children use technology every day at home and they are interested in using it in the classroom too, but one must be cautious not to let them use it for their own purposes (e.g. social networking, entertainment). Lessons can be made much more interesting and interactive for 21st century learners with the help of technologies, which also motivates them to participate more actively in the educational process. Nevertheless, a mixed approach between the innovative and the traditional methods would be the best way of teaching English to make use of the advantages of both approaches and to find the balance between them.

3.4.3 Main devices used by students to teach English

Prospective teachers who are yet to complete their practice would generally use a projector, laptop and speakers for teaching English in their lessons. They would use technologies in every lesson (67,8%), or at least a few times in a month (28,6%), so it is important for them not to stick only to the traditional paper-based approach. Web 2.0 tools would also be used by students,

mainly video sharing sites (e.g. YouTube) and online dictionaries, as they consider these tools to be the most efficient in teaching English.

Other respondents who had already completed their pedagogical practice could compare what devices they and their mentor teachers used during the practicum. It can be said that mentor teachers used laptops, speakers, projectors and CD players most often, while students also used their smartphones besides these devices. CD players were not used by student teachers as often as their mentor teachers. About the frequency of using technologies in the English lessons, the answers of experienced prospective teachers were slightly different because they prefer using these devices at least a few times a month (56,2%), but not in every lesson (37,5%) in most cases. The most effective Web 2.0 tools according to them are online dictionaries, video sharing sites and translation tools, while wikis and blogs are rather not useful in language teaching based on their choices.

The methodological knowledge they received in the college prepared them well to use digital devices and to deal with problems in the classroom (according to 83,3% of the participants). Students also have highly professional technological or IT skills, which means that they can use the Internet and digital devices in the lessons without any problems, based on their own opinions. Furthermore, every respondent strongly agreed that teachers often use technologies in higher education.

3.4.4 Problems related to language teaching

First of all, prospective teachers had to indicate the most serious problems in Transcarpathian educational institutions. The biggest problems seem to be the limited availability of digital devices and the lack of financial resources. Another issue is connected to the overcrowded curriculum; therefore, teachers do not have time to make lessons more colourful and varied. Problems such as the poor command of the Ukrainian language and lack of skills in using the newest technologies in teaching are not really important, according to the respondents.

Furthermore, teachers belonging to the older generation did not receive appropriate training to control modern digital devices, so they try to focus on the traditional methods of education instead of using the advantages of technology-enhanced language teaching, as it was stated in the previous sections.

The three main categories of issues that can happen in a technology-enhanced lesson:

1. Technological problems: faulty devices, problems with Internet connection and electricity supply, the teacher might not know how to control devices properly, laptops may start updating, limited availability of devices, disappearance of websites and electronic resources.

2. Organisational problems: it is difficult to keep the learners concentrated on the material, the teacher can run out of time as it can take longer to set up the equipment, the necessity of being prepared to conduct the lesson in the traditional way too, lack of knowledge in controlling modern devices.

3. Behavioural problems: children might associate technology with fun, use their own smartphones to play games or chat on social networking sites, lack of discipline in class, divided attention of learners, lowered concentration on the topic, more noise in the classroom.

Prospective teachers who had completed their practicum faced some problems related to technologies. Sometimes they had to use their own devices because the school did not have a properly working CD player, so they played listening materials on their smartphones which is not too effective. Also, as there are no projectors in most classrooms, the teachers had to show videos and presentations only on the screen of their laptop which was hardly visible for every pupil. We also have to be prepared to fill in the remaining time if we finish too early with our planned tasks or the technology fails.

3.4.5 Advantages and disadvantages of using technology

The positive and negative sides of using technologies in teaching English are summarised in Table 3.4.5. These benefits and drawbacks are based on the responses of prospective teachers.

Table 3.4.5 Advantages and disadvantages of using technology

Advantages	Disadvantages
More motivated learners	Plan B is necessary if technology fails
Better perception of information	The investment of money
Audio-visual teaching materials	Learners may be distracted
It can save time for the teacher (it is easier to share the material)	It can take away time from the lesson (time-consuming preparation of equipment)
Wider range of opportunities	Children can get used to easy access of data
Interesting online quizzes, videos, ideas	Problems related to eyesight
Lessons are more varied and colourful	New challenges for teachers
Learners are more willing to actively participate in classroom discussions	Constant monitoring of learners' behaviour is required
Authentic teaching materials with native speakers (listening tasks)	Unforeseen issues (blackout, slow Internet speed, Windows update)
More interactivity and collaboration	

In summary, the third part of the study gave an insight into prospective English teachers' perceptions of using technology in foreign language teaching. Two questionnaires were designed to collect information from college students regarding their experience and opinion about technology-enhanced language teaching. Prospective teachers indicated their future plans, attitudes towards digital devices and web-based applications, and gave information about the most serious problems in educational institutions in Transcarpathia that make the integration of technologies into the classroom more difficult. Furthermore, respondents compared the modern and the traditional methods of English teaching, highlighting their main advantages and disadvantages.

PART 4

ENGLISH TEACHERS' ATTITUDES TOWARDS ONLINE EDUCATION

After the discussion of the different aspects of technology-enhanced language teaching and the quantitative study of prospective teachers' perceptions of using technology in teaching EFL, the next part of the thesis will deal with the description of in-service English teachers' opinions and attitudes towards foreign language teaching during digital education. The changes in the educational system as a result of the quarantine measures introduced in March 2020 made it possible to examine the practical application of technology-based English language teaching methods outlined in the theoretical part.

In order to curb the spread of the coronavirus epidemic, it has become necessary to replace face-to-face education with digital distance education in all educational institutions from elementary schools to universities and colleges. In the new situation thus created, both students and teachers had to face many unforeseen challenges and problems. With the help of this research, we will try to find out how the transition to online education took place in the educational institutions of Transcarpathia, and how effectively the teaching of English as a foreign language can be implemented in digital education. The study is based on interviews with English language teachers to gain insight into the situation of foreign language education during the COVID-19 epidemic.

4.1 Methodology of the research

Since the aim of this thesis was to present the situation of foreign language teaching implemented in the framework of digital education, the study was conducted in the form of interviews with English language teachers. The interview questions (see Appendix C) sought to examine the connection between digital education and English language teaching as broadly as possible.

The main research questions were the following:

- What digital tools and online applications are used in English language teaching during the traditional and the digital education period?
- What were the main difficulties of the first transition to digital education?
- What are the main advantages and disadvantages of online education?
- How can learners develop their language skills in the online space?
- How did pupils' attitude to learning English change in digital education?

- Does the lack of personal contact between learners and the teacher affect language learning?
- How can the new skills, experiences and competences acquired through distance learning make the transition to digital education easier?

As the questions to be followed during the interviews were predetermined, the interviews took place in a semi-structured form, but on several occasions we managed to cover topics other than those which were fixed in the preliminary research plan during the interviews, thus expanding our knowledge about teaching English in the digital space.

After finalising the interview questions, the method of selecting the research sample had to be determined. Primarily, the convenience sampling procedure was used, so interviews were conducted with language teachers who were easily accessible in time and space. In addition, in order to expand the number of research participants, the snowball sampling method also contributed to the fact that the qualitative research was finally conducted with 16 teachers.

One of the most important aspects in the selection of the interviewees was that they had to work as English language teachers in Transcarpathian educational institutions during the quarantine period, as the emphasis was on the teachers' personal experience with digital education. Another important aspect was that the distribution of foreign language teachers in secondary and tertiary education within the sample should be nearly the same for greater comparability.

Some interviews were conducted in the form of personal conversations, while in other cases, when this was not possible for various health-related or organisational reasons, the data was collected through telephone calls. Respondents consented to their responses being recorded in the form of audio recordings. Furthermore, the interviewees participating in the research were assured about their anonymity, as neither their real name nor the exact name of their educational institution is included in the discussion of the research results.

After recording the interviews, the responses were transcribed in a written document. With the help of thematic analysis, the information obtained from the conversations was grouped under several subsections, attempting to discover and emphasise the regularities and recurring elements in the answers.

4.2 Participants of the study

The availability sampling procedure (convenience sampling) was used, so the study was based on the responses of foreign language teachers who were easily accessible in time and space. In

addition, the snowball sampling method was also used to reach as many respondents as possible, expanding the number of research subjects.

Interviews were conducted with a total of 16 foreign language teachers. The most important factor when selecting the research sample was that respondents had to teach English in digital distance education during the quarantine that was initiated in March 2020. Nine of the interviewees work in a primary school, secondary school, lyceum or grammar school. Administratively, the language teachers carry out their teaching activities in the following units: Beregszász micro-region (5 teachers), Munkács micro-region (2 teachers), Nagyszőlős micro-region (1 teacher) and Nagybégány micro-region (1 teacher). Representing higher education, interviews were conducted with a total of seven English language teachers who are lecturers at a college institution in the Beregszász micro-region.

The most important characteristics about the interviewees can be seen in Table 4.2.

Table 4.2 Main characteristics of interview subjects

Code	Gender	Teaching experience (years)	Place of work (micro-region)	Type of school	Form of interview
SE1	Female	20	Beregszász	Lyceum	Telephone
SE2	Female	16,5	Beregszász	Lyceum	Personal
SE3	Female	19	Nagyszőlős	Secondary school	Telephone
SE4	Female	2	Beregszász	Grammar school	Telephone
SE5	Male	2	Munkács	Lyceum	Telephone
SE6	Female	2,5	Munkács	Lyceum	Personal
SE7	Male	1	Beregszász	Secondary school	Personal
SE8	Male	1,5	Beregszász	Secondary school	Telephone
SE9	Female	1,5	Nagybégány	Primary school	Personal
HE1	Male	6	Beregszász	College	Personal
HE2	Female	24	Beregszász	College	Telephone
HE3	Male	15	Beregszász	College	Telephone
HE4	Male	18	Beregszász	College	Personal
HE5	Female	25	Beregszász	College	Telephone
HE6	Male	22	Beregszász	College	Personal
HE7	Female	20	Beregszász	College	Personal

The gender distribution of the research subjects was the following: out of 16 participants, 7 were men (43,8%) and 9 were women (56,2%). Regarding the years spent teaching English,

the respondents included teachers with decades of teaching experience, as well as novice teachers who found work in an educational institution right after graduation.

As it can be seen, in order to preserve the anonymity of the research subjects, codes were used to mark them. Code *SEI* indicates that the person is the first interview subject from secondary education institutions. Code *HEI* shows that the educator marked with the code is the first interviewee from higher education. Some teachers work in urban educational institutions, while others teach in rural schools, so we can get a more comprehensive picture of the phenomenon of distance education in Transcarpathia.

4.3 Data analysis

In the next section, an analysis of the data obtained from the 16 interviewees will follow. As the research sample can be easily distinguished depending on the variable whether the interviewed foreign language teachers work in secondary or tertiary education, the data will also be analysed in two parts: the opinions of secondary school teachers (including teachers from primary schools, grammar schools and lyceums), as well as the attitudes of college educators towards teaching English during the digital education period.

4.3.1 Secondary school teachers' perceptions of online education

A total of 9 educators were interviewed who taught English in a secondary school, primary school, grammar school or lyceum in Transcarpathia during the transition from the traditional classroom education to online education. In this subsection, their responses will be analysed from which we can learn about their attitudes and experiences with digital education.

Foreign language teachers were first required to declare what digital technologies they use and how often during face-to-face education. Teachers most often bring their own laptops (5 participants, 55,6%) or smartphones (3 participants, 33,3%) to the classroom to play audio material or English-language songs to pupils in lower grades. In order to watch videos, teachers must bring a laptop to the lesson, but due to the small number of lessons, this is usually possible only once in a week.

In institutions with more advanced technological backgrounds, teachers also seek to take advantage of the benefits of interactive whiteboards and computers during English language lessons. In this case, projectors are used to demonstrate online exercises or instructional videos to learners, and it is not necessary for the teachers to carry their own devices to school. Listening comprehension tasks are the most commonly used technology-related classroom activities, as 7

(77,8%) of the 9 interviewees specifically highlighted that playing audio recordings is a very effective teaching technique when practising new words.

The next question focused on what technological tools language teachers use during the distance education period. Since in this case they are teaching from home, their own laptop or computer is used in each lesson. One of the greatest advantages of online education is that teachers can use digital aids much more often: *“I use audio and video materials during distance learning, but not just once a week, as I can prepare a short video for pupils every lesson”* (SE1).

Instructors prefer to create group conversations using social networks so they can easily connect with learners. Teachers who teach very young children are in a particularly difficult position: *“Since children in the first four classes do not have a mobile phone, we had to form a group on Messenger with the help of their parents, and I sent the course material in Word format to them. I conducted several lessons through video calls with the children, in which cases the parents helped me start the call, but it was quite difficult to keep up their attention for 40 minutes, so often 20 minutes were enough from the lesson, unfortunately”* (SE9).

The next question was closely related to the previous one, as respondents had to determine which applications were best suited for teaching English in digital education. The Google Classroom was mentioned by all teachers (9 respondents, 100%). In general, they are satisfied with the services provided by the online classroom, but according to one teacher, *“Its efficiency largely depends on the class and on the learners themselves. There are classes where the Classroom works very well, children are happy to use it, but there are also classes where it is absolutely not functional, so distance learning is very difficult with them. I do not think there is an application that would be perfect for all classes during distance learning”* (SE6).

In addition, teachers are happy to teach through video lessons using various applications: Skype, Messenger, Zoom, Google Meet. They try to make a video call in almost every second lesson, but if that fails, the new material is sent to learners in the form of a text document. In addition, YouTube videos, songs, online exercises, or photos illustrating new words may be attached to the lesson.

English language teachers then had to share their experiences of what problems made the transition to digital education more difficult for the first time. The biggest concern is that not all children have the opportunity to join the online education process due to lack of digital devices. In addition, there are socially disadvantaged families with no Internet connection. Beyond these, even pupils with digital devices and an Internet connection were unfamiliar with using the Google Classroom and Google Meet or Zoom.

“At first, while digital education was new to everyone, we just sent assignments and tried to hold online lessons, but many kids did not have the opportunity to connect because they did

not have the right tools. They did not even take this type of learning seriously. However, this has improved a lot by now, with children seeing online learning as a form of school lessons” (SE1).

“The unpreparedness made the situation harder. One day we taught in the classroom, the next day through the Internet. It was not planned methodologically what applications to use, we had to experiment with new software and methods that were not used previously” (SE5).

Pupils were less concerned with learning, not paying attention to deadlines, although this was strongly class- and person-dependent. *“Parents had to get involved in the lower grades, but many still could not understand the tasks. They could not explain the material to the children, even though I described the rules of English verb tenses in Hungarian, they simply could not pass this on to their kids correctly” (SE9).*

These problems had to be solved somehow in order for the educational process to be successful. *“At our school, we have created a unified Google Classroom interface for all classes, we keep teaching on a schedule, and we have also tightened the rules of attendance a bit. Of course, it is important to be able to work with the parents as well, as there are children who unfortunately cannot take part in this form of learning and we send the tasks to the parents in this case” (SE2).*

Both educators and learners have been slowly accustomed to using newly learned programmes. *“Our IT teachers have put together a guide for kids and parents and it has been passed on to everyone. I think it helped a lot too” (SE4).* The problem in terms of lack of equipment was usually addressed by having children living close to each other move into each other’s homes and thus participate in online classes.

Neither teachers nor educational institutions were adequately prepared for the sudden transition to online education in the spring of 2020, but with the help of IT professionals, schools tried to adapt to the new situation as soon as possible. *“We all had to find the right teaching methods in almost a couple of hours, but we tried to cope with the challenge, and by autumn, although it was still a bit difficult both for the children and the teachers, we were fully prepared to hold high quality lessons” (SE1).*

It was especially difficult for older teachers to start online education, as even younger novice teachers did not understand how to use the virtual classrooms and online video lessons needed for digital education correctly. *“I had to get used to not meeting them (the kids) in person, not sitting next to them, but only reaching them online” (SE6).*

“At first, there were even issues like some teachers could not use the Classroom, so they had to watch instructional videos. But I have noticed lately that the transition is less problematic now” (SE8).

“Online education started with great difficulties, it began on March 12th and approximately the end of April was the time when I was finally able to organise the Classroom tasks. Even though I sent messages, many people did not even know that there was a group at all. It was very difficult to correct everything that the learners sent to me, this was very time-consuming. If I held classes in the morning and gave out assignments, the answers and questions came in the afternoon, and I often had to work at night” (SE3).

In the following questions, foreign language teachers had to list the benefits of digital education and their positive experiences with the phenomenon. The following benefits have been mentioned:

- more colourful tasks, interactive teaching materials;
- many children enjoy learning with online resources;
- children who are a little shy in class can also succeed in the online space;
- diligent and hard-working learners are better able to allocate their time;
- teachers and learners do not have to travel to school;
- parents can spend more time with their children;
- IT skills can be developed.

However, despite all these benefits, most teachers believe that online distance learning does not have many advantages for teaching English, only in terms of convenience. Some interviewees do not support online education at all, preferring the form of face-to-face teaching.

Therefore, the instructors had a limited amount of positive experiences with online education. On the positive side, some students performed better online than in class, and some teachers found it easier to motivate children with online assignments (such as Liveworksheets). Keeping in touch with older pupils was easy with the help of Messenger groups, and more videos could be sent to learners to solve related tasks, as most of the time there was only one laptop available in the classroom, which made it very difficult to illustrate the material.

After listing the benefits, teachers had to reflect on the disadvantages of online education based on their personal experiences:

- lack of personal contact (6 teachers, 66,7%);
- evaluation of learners’ performance is unrealistic as they can easily use aids and Internet sources to complete homework assignments;
- most children need the guidance and support of a teacher;
- due to cheating on online tests, objective evaluation is almost impossible;
- it is difficult to involve all children equally in the course of the lesson;
- the teacher's attention is divided because the pupils are not in the same room, they have to deal with everyone separately;

- learners do not always show up in the online class and often have to be warned to turn on their camera;
- it is difficult to explain less understandable parts of the material;
- high inactivity among learners;
- problems may occur with the speed of the Internet connection;
- not all pupils have a computer or Internet connection at home.

Teachers have a great number of negative experiences with online education. One of the biggest problems is that they cannot control what the learners are doing on the other side of the camera, whether or not they are copying the answers from the Internet when completing tests or homework assignments. In addition, digital education is very time-consuming as teachers need to summarise the topic of each video lesson in detail so that those who are unable to attend the online lesson are not left behind. It is difficult to correct and keep track of all the written assignments, essays, exercises and test papers.

There have been a number of problems with the Internet connection, while in some cases a power failure on the part of the teacher or learners made the online lessons unsuccessful. It was almost impossible to reach pupils who came from smaller villages or families with a bad financial background. Learners with multiple siblings were very often unable to join the online lesson because they had to share the computer or the laptop.

One respondent had problems with learners' class activity: *"The presence of pupils is approximately 30% in online classes, homework is sent regularly by approximately 40% of children. This makes evaluation very difficult"* (SE7). Most of the time, learners do not turn on their camera and microphone. *"In lower grades, the participation rate is higher because children join the Meet call via their parents' e-mail address"* (SE8).

Educators expressed their views on which language skills can be effectively developed in digital education and which cannot. Based on the answers, listening comprehension can be improved very easily if teachers upload audio materials to the Google Classroom or send them via Messenger. In addition, many pupils were motivated to watch videos or movies in English.

Reading can be practised with word processing tasks, but there may be problems with the sound quality of the video call: *"The quality of the call does not reflect the quality of live speech, the sounds are not transmitted in the same way. Not all children know new words, so it is much more difficult for me to correct their pronunciation during online education"* (SE8).

Writing skills can also be developed easily, however, educators need to make sure that children do not just copy homework and essays from the Internet. Vocabulary development can be a problem due to the fact that teachers do not ask learners to repeat new words they have learnt, and it is also difficult for younger children to learn the correct pronunciation of words:

“When learning new words, I transcribed the English words’ pronunciation using Hungarian letters in parentheses. Although according to the official rules phonetic symbols should be used, but children would not understand them” (SE9).

Developing speaking skills during online lessons involves a number of difficulties. According to 6 (66,7%) of the 9 teachers interviewed, communication skills cannot be effectively developed in the digital space. There are options for teacher-pupil communication through the Zoom or Google Meet platforms, however, many learners do not show up in the lesson or just do not want to participate in the conversation.

An interesting dilemma among English language teachers was the question of whether it is possible to learn a foreign language online without personal contact or not. According to 3 educators (33,3%), this is not possible because in order to learn a foreign language, it is necessary to communicate as much as possible in the given language, for which the existence of personal contact is essential. According to the remaining 6 English teachers (66,7%), it is possible to learn a foreign language up to a certain level without personal communication, but we will only be able to use it at a basic level.

“Traditional education is better when everyone is there in the classroom, as it is much easier to teach in this way, to divide the pupils into groups or pairs” (SE6). Face-to-face education is much more effective in terms of language teaching, as the teacher can easily explain grammatical rules, thus helping learners interpret the topic of the lesson. *“Passive vocabulary will be developed, but because we learn English in school to be a basic tool of international communication, distance learning is not good at all for language teaching”* (SE7).

In the question that followed, teachers listed some examples of tasks they gave to children during online education. Lots of varied tasks were mentioned, including listening to audio materials, writing dialogues and compositions, situational tasks, grammar exercises, reading texts. *“In one task, they had to imagine that they were the mayor in their settlement and had to say five things they would change and they made a short video about it”* (SE5).

More interactive learning materials were also used, such as tasks related to YouTube videos, description of English movie trailers, completion of Liveworksheets tasks, testing in the form of Google Forms, letter writing. *“I tried to promote listening to English music and watching movies with subtitles among children”* (SE7).

Instructors sought to maintain teacher-learner contact on various online social networking sites, often warning pupils about deadlines on Messenger. *“Children have the opportunity to ask for help, they can write a message to me and they often take this opportunity. Moreover, it is a special pleasure and challenge for them to be able to write only in English, so they have a slight sense of success if they can communicate with the teacher in English”* (SE1).

In addition, teachers used Google Meet and Zoom to keep in touch with their pupils in the form of online consultations. Many times, certain tasks were explained to learners separately if they did not understand something. The situation was particularly difficult with the lower grade children, as here the communication and organisation of classes took place through the parents and required a lot of coordination. In general, all teachers were open to help through online communication channels.

“During online lessons, I think it is important that every learner should turn on a camera so we can see each other at least that way. I try to remind them of unfinished tasks and send them the results with personal comments” (SE4).

Learners’ attitudes towards learning English during online education can be said to be quite mixed. Some of them really enjoyed online lessons, but many children were completely passive in attending lessons as well as solving tasks. Due to the slow Internet connection, there were often problems during the video lessons (based on the experiences of 5 teachers). There were even issues with the submitted assignments, as it was not possible to check whether the learners had written the essays themselves or with the help of someone else. It was also difficult to keep up learners’ attention during digital education due to the home environment.

“It was pupil-dependent because those who love English took it seriously and sent back the assigned tasks within half an hour. But those who had a harder time learning English or did not like to learn in general had more problems with online education, as they had to be addressed constantly to follow deadlines” (SE6).

“Some families could not afford to buy a mobile phone or to have Internet connection for financial reasons. We could not communicate with them, so these children did not participate in the process of digital education. Unfortunately, I had to evaluate them based on their previous grades, because according to the law, if we were unable to communicate with a child during quarantine, he or she had to be evaluated based on his or her previous grades” (SE9).

A total of 7 participants (77,8%) noticed negative effects on their pupils’ performance and emotional state in the quarantine. Children needed company, personal contact, conversation with friends. Learners who were unable to attend online classes were unfortunately unable to perform well either. Even the more diligent pupils performed poorly during this period. *“Emotionally, it was clearly enduring that they could not meet their classmates for a very long time”* (SE4).

Many children became lazy during quarantine because they were used to the Internet solving everything and having to deal with English less seriously. They were not motivated in class, they showed a high degree of disinterest. *“They were not present during distance learning in the online classes, the whole online education was perceived as a holiday by them”* (SE7).

Following the return of the traditional educational order, 5 teachers (55,6%) observed a change in learners' behaviour and attitudes to learning. For the most part, the same children were active as during the digital education period, but they really needed face-to-face encounters. Several teachers said that pupils became more active during the lessons as they were happy to be able to return to school with their friends.

“Now they want to learn in a more playful and interactive way, not just write simply in a notebook. They are used to technology and they want to do online tasks. The ordinary book is no longer so interesting, they are not so used to traditional education anymore” (SE6).

All interviewees reported that their professional knowledge increased during distance learning, especially their computer skills. They learned to manage online platforms and a number of programs that they will be able to use in their teaching strategies in the future as well.

For the reasons just mentioned, the transition to digital education would be much easier in the future according to respondent teachers. They have gained a lot of useful experience, thanks to which switching to online learning would no longer be a problem anymore. Learners, parents and teachers alike have acquired more routine in managing digital technologies and online platforms.

4.3.2 College teachers' perceptions of online education

Representing higher education, a total of 7 college educators were interviewed about the situation of English language teaching in distance education. Respondents use some kind of digital device in traditional lessons almost every time, the vast majority of teachers using a laptop, projector, speaker or interactive whiteboard if needed. Some subjects require effective illustration, so presentations or short films are projected for students, and audio materials are often used in practical English lessons. In addition to face-to-face education, teachers often use the opportunities provided by the Google Classroom to upload materials or tests, or to systematise the submitted essays and assignments.

During distance learning, the video lessons were conducted through the Google Meet and Zoom interface, while the course materials were uploaded into the Google Classroom. Several applications were used for testing, the simplest of which were Google Forms and Microsoft Word documents. In order to make cheating more difficult, some teachers created tests using Redmenta.

“When the quarantine started, it got us unprepared, so we used those applications that we were familiar with. Students were contacted on Messenger and Facebook. We first tried to conduct the exams through Messenger, then in Google Hangouts, but finally we switched to

Google Classroom and Google Meet. At first, the problem was that the storage space was filled up very quickly, as I asked for handwritten homework in photos so that the students would not copy the document files from each other” (HE3).

The most suitable tools for presenting the theoretical material are presentations made with PowerPoint. *“In the Google Classroom, you cannot teach synchronously, just upload homework or additional material. Online lessons require Google Meet or Zoom, which has better quality but also a time limit” (HE5).*

The transition to digital education has been hampered not only by a number of factors in secondary education, but also in higher education. Not all instructors were familiar with applications that enable online video conferencing, and the use of a virtual classroom was not widespread before. There were many problems with the Internet service, and power outages also aggravated the situation. In some cases, even during exams, the connection between the student and the teacher was lost, so the person had to retake the exam.

“It was not even mandatory to have a synchronous class in the spring; we gave the students weekly assignments only. It was unusual that we had to sit in front of the computer so much, but we got used to it in a week or two. When we started online classes during the autumn quarantine, there were no problems: all my students joined on time, because by the fall everyone became familiar with online education. In fact, students often asked me to give them a link to the online class a day before the lesson” (HE5).

In some settlements, the Internet connection was particularly weak, so students had problems during their online classes because they could either not be heard or their camera did not work properly. However, after the difficulties of the first few weeks, the problems were eliminated little by little, and digital distance learning took place almost without any problems in the autumn. The instructors tried to hold synchronous lessons according to the official timetable of the college.

Out of the 7 college teachers interviewed, 6 (85,7%) responded that they were not prepared for a sudden transition to online education. In their opinion, the first couple of weeks were spent getting acquainted with the technologies and they tried to adapt to the situation as quickly as possible. Educators had to find new ways to solve the problem of testing: *“I used to compile tests in Microsoft Word, but now I had to look for some online applications to digitise existing tests. It took a full day to compile the first test through Redmenta” (HE3).*

Due to the sudden transition, language teachers often needed help, so it would have been useful to organise webinars (online conferences) to prepare them for the difficulties of online education: *“I was not really prepared for online education, sometimes I called colleagues and asked how to use various software. It would have been good to have a preparation lesson for*

teachers where someone who had tried digital education before would have explained how this and that worked” (HE4).

“Distance learning was not widespread in Ukraine, in fact, teachers were not prepared for distance learning at all in teacher training courses. During the autumn quarantine, the situation was different, with both students and teachers being well-prepared for online education based on their spring and summer experiences. Teacher training has also changed, as the topic of online language teaching has been included in the curriculum for the methodological training of future teachers” (HE5).

Only one instructor was prepared from the respondents to switch to digital education, as in his opinion, the applications used in online learning are not difficult to manage and he was able to use the applications at the required level from the first time when he opened them.

Teachers believe that online education has the following advantages:

- any information is readily available on the Internet;
- it is practical because it requires little storage space;
- students can look at their mistakes at any time, check their test results;
- easy to retrieve materials from the virtual classroom;
- it is convenient as you do not have to leave your home environment;
- some applications and aids are more motivating and interesting for today's students than sitting in the classroom;
- students who are unable to attend lessons due to illness or travel problems may also be involved in the education process;
- the increasing use of technology by teachers who were previously afraid to use it;
- the teaching of the theoretical material is very effective;
- lower chance of getting sick if not having to go to school;
- students will be able to learn autonomously.

Teachers’ positive experiences with online education are quite limited. On the one hand, they were introduced to many new programmes that can be used later in their teaching, and on the other hand, it was easier for correspondent students to participate in the educational process in this way, as many of them were abroad. The educators emphasised that distance learning was advantageous in terms of convenience, but the situation was different in terms of the quality of language teaching. The Internet is not suitable for learning a language in practice, students communicate less than in traditional seminar sessions, and they can cheat more easily on online tests, so they do not learn diligently.

The disadvantages of digital education include a number of problems:

- power outages and Internet connection issues for teachers and students;

- each student should be given a personalised task so that they cannot copy the solutions from each other;
- lack of personal contact is a barrier to language learning;
- many students do not want to turn on the camera, so it is not possible to check what they are doing or whether they are paying attention;
- organisational problems for students with large families, as not everyone has their own room or computer;
- it is much easier to cheat on tests, so most students are less diligent;
- students are overloaded as they often have to solve a lot of tasks at home without the supervision of a teacher.

Respondent educators mentioned several interesting negative experiences. There were problems with the home environment, for example, as family members often disrupted the lessons. In addition, one of the recurring problems is the topic of testing and examination.

“At the exam, I could not know if anyone was helping the students. There were times when I asked them to raise their hands or turn around, and then they knew nothing, but as they looked at the monitor, they knew the answer right away. Even during contact lessons, the students sit in front of me and use a smartphone to cheat on the tests. However, if the testing is 50 or 100 kilometres away from me, I have no way of knowing who is completing the test or whether they are discussing the questions in a group chat” (HE7). Teachers can limit the completion of tests only in time, but *“students can circumvent the system in plenty of ways”* (HE3).

“There were many problems with hybrid education in the autumn of 2020, when all students could choose to study online or in attendance. It was very chaotic, as within a group, some of the students checked in from home while the others sat in the classroom with the teacher. There was often interference between the devices, the microphone echoed, students could barely hear each other. In addition, many of the textbooks we use in class are not digitised and can only be found in the library, but students did not have the books at home, so this was a serious problem” (HE2).

According to the interviewees, all four language skills can be developed in digital education at some level. Reading and listening comprehension are easily improved with stories and audio recordings. Writing skills can be developed in the same way, as students can solve grammar exercises or write essays. *“It is better to ask the students to send the essays in digital form because that way I can find out more quickly whether it is plagiarism or not, I do not have to search on the Internet for matches, and reading students’ handwriting is not a problem either”* (HE4).

However, in the case of speaking skills, the situation is not so simple, as it is time-consuming to ask each student individually during video conferences. It is feasible with smaller groups, but we have to carefully plan the timing and it is not easy for students to talk flexibly like in the classroom. Communication is also more difficult in the online space due to the lack of eye contact, the teachers need to motivate the students to do the activity and make dialogues in English. During online lessons, the application of pair work is complicated because students communicate mainly with the teacher only. However, according to one respondent, *“Speaking skills can be improved in the same way through video classes because we see each other, the students are sitting facing me, I can hear how they pronounce words, so I do not see a difference between contact and online education”* (HE5).

Teachers’ opinions are divided on whether or not we can learn a foreign language online. This phenomenon is student-dependent, as there are examples of online courses or mobile applications with which learners are able to acquire a foreign language at a certain level but most students require teacher guidance in the learning process. Several teachers say there is a need for social connections and personal communication for effective language learning.

There are other opinions too: *“A student can learn a lot on his own, especially in the field of vocabulary development. Even if a student does not have the opportunity to practice the language in person with someone for a while, but he/she is diligently learning words, reads, listens to recordings in the target language, I think he/she will be able to overcome difficulties in live communication very quickly thanks to the newly learnt vocabulary items”* (HE2).

During digital education, teachers tried to come up with as diverse tasks as possible in higher education: making presentations, writing essays, completing multiple-choice tests, filling in missing words in texts, completing true/false tasks and summarising the lives of historical figures for country studies. Teachers tried to create personalised assignments for students to work independently. They often had to express their opinions about short films and learners analysed scientific articles.

Students had to be given much more written assignments than during attendance education. They made translations, solved grammar exercises and worked on tasks from the textbooks. *“On Redmenta, certain types of assignments that are evident to language teachers could not be used. For example, listening comprehension tasks and reading tasks where multiple words have to be substituted - these types of exercises were the most difficult to apply. In the online lessons, we continued learning from the textbook, so the main problem was in connection with testing”* (HE3).

Educators sought to keep in touch with students through the Google Meet interface as well as social networking sites. Learners could contact the instructors at any time via Messenger,

Viber or e-mail. *“I texted them in Google Classroom most of the time, waiting for them to respond. I tried to use the ‘Stream’ page, which helped me to have some kind of contact with my students”* (HE4).

“I first created a closed group for each class on Facebook and we were communicating on Messenger, but some students thought that if they do not sign up for weeks, it will not be a problem. Even though I notified them of the tasks in messages, they did not care about it, so a few of them dropped out. It is a lot easier now because everyone has been given a name-based e-mail address, so anyone can be added to the Classroom and cannot avoid taking part in online education” (HE1).

Each teacher had different experiences of how students perceived learning English during online education. Two educators did not have any problems, all of their students actively participated in the online classes. However, other teachers noticed that there were students who tried to avoid responsibilities by not showing up for most of the lessons or they copied the test papers from their better-performing classmates.

Most of the students were much less diligent, they were not even prepared for test writing as they wanted to get good results by cheating. Demotivation and a lack of the usual discipline in the classroom were common because relaxation was identified with the home environment. It was difficult to catch the attention of the students, which unfortunately was visible on their performance sometimes as well.

“At first, this novelty seemed interesting to them, but towards the end of the semester, the quarantine, the loneliness, the necessity of staying at home and the constant online presence were all too stressful. Students are still young, they need excitement, social life, so it was very unusual for them to lack these” (HE6).

A few students took their English learning seriously even during the quarantine, but the majority got tired, especially when we think of writing year papers and theses. *“I could not check if the students’ Internet connection was really bad or they just simply did not want to connect, so I could only assume that there was really a problem with their connection”* (HE3).

“A lot depends on what type of assignment we give to students. If they are given a personalised task, they are forced to perform well and work harder” (HE2). Teachers found that students missed personal contact with groupmates. Especially in the spring of 2020, it was extremely difficult for them to get used to the new situation, as they were overloaded with a lot of written assignments and found it difficult to identify with having to allocate their time and show a high degree of autonomy to make online learning effective.

When the traditional order of education was restored, the students were happy to return to the classrooms. *“They were positively influenced by teacher-student and student-student*

personal contact, freeing themselves from the long months of online space” (HE1). Several students increased their vocabulary knowledge as they had a lot of time to watch English-language movies at home, while others found it more difficult to communicate in a foreign language after the quarantine.

“In attendance education, students’ behaviour has changed dramatically, they had become much more motivated by the presence of the instructor. This is a determining factor in the teaching process” (HE6). Students had to work harder because they had less opportunity to cheat on tests, so they had to get used to learning regularly again.

All educators gained new computer skills and became better acquainted with the world of digital technologies during online education. As a result, some teachers are already *“less afraid to use technological tools”* (HE7). Compiling online tests is no longer as much of an issue as before, and new platforms make it much easier to reach students at any time.

Switching back to digital education would also be much easier in the future, according to college educators, as they already have the basic skills and they can handle the most important applications needed for online education. Both students and teachers have become more experienced in managing technological tools and web applications, so they use them more confidently.

“It would be much easier to reorganise education because we already have the mandatory use of the Google Classroom, whether we teach online or not. All students will be added via their e-mail addresses, and the methods for uploading homework and testing on Redmenta will remain, the only difference being that they will now complete the tests in front of me in an IT classroom” (HE3).

However, one teacher takes a different view: *“There is no change in distance learning compared to last year, maybe I use different types of tasks, but the key concept is demotivation, as language learning is virtually impossible without motivation”* (HE6).

4.4 Discussion and interpretation of the results

The data obtained from the interviews with 16 English language teachers are interpreted below and presented by themes. The topics are aimed at illustrating the situation of digital education in Transcarpathia, as well as detailing the process of foreign language education during the period of distance education. However, given the size of the research sample, it is not possible to draw large generalisations from the obtained results.

4.4.1 Digital tools and applications used in language teaching

In most secondary schools, there is only a limited number of technological tools available to teachers that they can use in their lessons. Therefore, language teachers use their own laptop or smartphone in English lessons with speakers, as the tasks often include audio materials with native speakers and English songs, which are used in the lower grades to improve pupils' language skills.

In some more advanced lyceums, a well-equipped IT classroom, interactive whiteboards and projectors are also available for teachers, so the presentation of the material is much more efficient, as well as the opportunity to watch instructional videos or solve online tasks within the lessons. The biggest difference from higher education is that educators have the opportunity to use technology in college during almost every lesson because the classrooms are better equipped.

During distance learning, language teachers conduct online lessons using their own devices, usually a laptop or computer at home. One of the benefits of distance learning is that instructors are more likely to be able to show videos related to the topic of the lesson to learners. In terms of applications, students are contacted through Google Classroom, Zoom, Messenger, Gmail, and Viber applications. However, in the case of lower grades, the situation is greatly complicated by the fact that due to the young age of the pupils, online classes are held with the help of their parents, chat groups are set up through their e-mail address, so the teacher needs to make a lot of organisation during digital education.

In tertiary education, language teachers use Zoom and Google Meet interfaces to hold video conferences during distance learning, and upload resources to the Google Classroom. To illustrate the theoretical material, teachers often use PowerPoint presentations, so students can study the topic of the lesson at home. Testing has been implemented across several platforms, the most successful of which has been Redmenta, as it can be used to reduce the risk of cheating or copying the answers from different sources.

4.4.2 Problems of the transition to online education

In the spring of 2020, learners did not take digital education seriously at first, they perceived the quarantine period as an opportunity to rest. Initially, teachers were not prepared at all to use the methods and applications for delivering the material online, as they had only taught in face-to-face education. Instructors sought to incorporate previously used applications into teaching, but gradually switched to teaching in the form of Google Classroom and video lessons. In order to solve the issue of unpreparedness, it was necessary to experiment with how to teach English

effectively in the online space, so the transition to distance learning took place without any serious problems in the autumn.

A common problem at all levels of education is that some learners have issues with the Internet connection or the network speed is very slow. As a result, there have been regular cases where the video lesson has been disrupted, the sound or the picture had a bad quality, even during an exam. An additional concern is that some learners come from a disadvantaged family or have multiple siblings, so this has often caused organisational barriers during online lessons. Family members disrupted the lesson and the home environment distracted students from paying attention to the teacher.

Young learners often had to be warned to meet deadlines because they were not motivated enough to learn in the absence of teacher supervision. In secondary education, this often involved the help of the parents, but even so, progress was difficult for many children. It was strongly learner- and class-dependent how seriously online education was taken. Another problem was the lack of skills needed to manage technology for both teachers and learners. Although they were given a description of how to use digital technologies, it would have been necessary for an expert to explain the main aspects of online education. For this reason, the methodology of online language teaching has become part of teacher education since the autumn of 2020.

Table 4.4.2 Problems associated with the transition to digital education and their solutions

Problems	Possible solutions
Unpreparedness	Experimenting with new techniques, gaining experience. Adherence to an institutionally organised timetable, use of Google Classroom and video conferencing.
Lack of computer skills	Preparatory courses for both teachers and learners. Teaching the methodology of online language teaching during teacher training.
Power outages and connection problems	Students check in from each other's homes. Uploading the material in the form of a written document for those who could not attend the lesson.
Lack of digital tools	Establishing contact with parents, scheduling within the family for siblings when to use the computer or the laptop.
Negative attitude of learners	Motivation to learn English, reminders to meet deadlines, provide interesting tasks, keep in touch with parents and students alike.
The impossibility of objective evaluation	Use of online forms and programmes designed for testing, personalised tasks, requesting handwritten essays and answers, time frame for completing tests.

It was time-consuming to correct and organise the assignments submitted by the students, to answer their questions, to evaluate all the written assignments. Many learners were unaware for a time that groups had been formed on social media sites or did not even want to join the online education process. Objective assessment was almost impossible because learners could easily cheat and teachers could not control the use of additional aids. The most difficult situation was for children who did not have Internet connection or a computer in their home, so there were pupils with whom the teachers could not even communicate during distance learning.

4.4.3 Advantages and disadvantages of digital education

According to the respondents, online education has the following **benefits**:

- more colourful and interesting tasks, interactive teaching materials;
- even shy learners can succeed in the online space;
- developing autonomous learning skills;
- learning and teaching from home is convenient;
- less chance of getting sick;
- developing IT skills, so teachers are less afraid to use technology even in traditional classroom settings;
- learners with illness or connection problems can also join the lesson;
- educational videos can be used more often;
- students can easily retrieve course materials in the virtual classroom and see their mistakes in online tests.

According to language teachers, the **drawbacks** of digital education include:

- the difficulty of objective evaluation due to the possibilities of cheating;
- lack of personal contact for practical language acquisition;
- it is more difficult to develop communication skills;
- younger learners need the presence and guidance of a teacher;
- difficulties in contacting parents and pupils from lower grades;
- inactivity and lack of interest on the part of learners;
- some students have a weak network connection or the Internet is not available at all in socially disadvantaged families, so these pupils are left behind;
- due to lack of technologies, not all learners can connect to online classes;
- it is time-consuming to correct and evaluate all the written tasks;
- learners are occasionally overloaded with assignments;
- each student should be given a personalised task.

4.4.4 How effective is online education for language learning?

According to the language teachers, it is important to develop all language skills in digital education, but teachers should be aware of the disadvantages and limitations of the online space. Receptive language skills such as reading and listening comprehension can be developed relatively well, while productive language skills are in many cases hard to improve. The biggest problem with writing skills is that each learner should be given a personalised task so they will not be able to copy essays and solutions from each other. In the case of vocabulary development, there are problems with learning the correct pronunciation of words because the teacher cannot support students with explanations as in the classroom.

The development of speaking skills falls into a separate category, as one of the most important elements of foreign language learning is the practical use of language for communication, but this is difficult to achieve online. One of the options is to speak with learners in English during online classes, but it is very time-consuming and difficult to actively involve all participants in the conversation. Further complicating the situation is that in most classes, learners often do not participate in online lessons or do not turn on the camera, which makes effective communication impossible.

Table 4.4.4 Developing language skills during online education

Language skills	Advantages	Disadvantages
Reading	Text interpretation tasks; interesting online tests; interactive exercises.	Lack of teacher explanation; difficulties in pronouncing and interpreting unknown words.
Listening	Easy to upload audio materials; watching videos and movie clips.	No drawbacks.
Speaking	It is hard to communicate with learners through online video conferencing.	The sound quality of a video call is worse than live speech; many learners do not show up in online classes; pair or group work cannot be used often; it is difficult to engage all learners; lack of nonverbal cues.
Writing	Quick check for suspicion of plagiarism; no problems with reading learners' handwriting.	Exchange of documents and solutions; essays copied from the Internet.
Vocabulary	You can expand your vocabulary by watching movies and videos in foreign languages.	It is difficult to correct learners' pronunciation; fewer options to check their knowledge of the new words.

Educators say that it is highly learner-dependent whether it is possible to learn English online with little personal communication or not. Some students are able to learn independently through language learning applications created for this purpose, but they can only become effective language users to a certain level if they do not practise the new words they have learned in conversation. In order to sustainably improve learners' language skills, there is a need for face-to-face communication, group assignments, teacher explanation, classroom interactions, and personal contact between teacher and learners.

4.4.5 Attitudes towards learning English in online education

The teachers involved in the research tried to motivate their pupils and students to learn the language with as diverse and varied tasks as possible. In addition to the usual essays and listening tasks, interesting resources such as YouTube videos, interactive worksheets, presentations and online testing platforms were also used.

Learners were generally characterised by disinterest, inactivity and demotivation in most cases, with very few educators having positive experiences in this regard. Because it was easier to write a test from home and they had more cheating opportunities, learners were less diligent about online education, they missed some lessons or even if they attended, their webcam was never turned on, so instructors could not control their activities. Some learners' grades deteriorated because they did not take distance learning seriously and interpreted the quarantine period as an opportunity to rest, while others (especially previously underperforming learners) received better grades because of cheating on tests.

Most of the young pupils were overloaded with plenty of written assignments and constant staying at home, some of them were negatively affected by the lack of company of friends after a while, so they were happy to return to school in the autumn semester. Some teachers observed that they were more motivated and enjoyed school education more than before. Because the home environment distracts children, it was often difficult to conduct full-length lessons, especially among pupils in the first four grades. Young children need the presence and guidance of a teacher in language learning, but even some college students were not able to learn autonomously and solve problems alone, so it is essential to use face-to-face education in learning and teaching English.

4.4.6 How has the transition to distance learning changed?

As a result of their experience with online education, teachers have become acquainted with a set of new applications. They learned how to use the Google Classroom interface, organise online lessons through Zoom and Google Meet and experienced which types of assignments are most successful in digital learning in terms of language acquisition. With the expansion of computer skills, educators are less afraid to use technology in their lessons, and they believe that the use of programmes will also facilitate their future work as teachers.

Online forms of communication and contact channels had been established through which educators can connect with learners and parents alike. Language teachers had more or less successfully solved the most pressing problems in terms of foreign language teaching during distance learning: they used new test preparation methods, personalised tasks and materials that make both synchronous and asynchronous learning possible. They gained insight into what workload can be considered sensible and productive for learners so they can ensure the success of distance learning with realistic expectations and assessment techniques.

As a result of the new computer skills and pedagogical knowledge acquired, it would be much easier to switch back to distance learning, according to the interviewees. Since the spring of 2020, as a result of a lot of experimentation, the participants of the teaching and learning process, as well as educational institutions, are all much more prepared, as it may be necessary to stop classroom education at any time depending on the epidemic situation. Several teachers noted that the online upload of materials and the use of Google Classroom remain unchanged, so that the introduction of distance learning at all levels of the education system is now almost unhindered.

In conclusion, the fourth part of the study described the process of teaching English in the course of online education as a result of the COVID-19 pandemic. Information was collected from foreign language teachers with the help of semi-structured interviews. From the findings, the main problems of the first transition to digital education can be interpreted, together with their possible solutions. Furthermore, the efficiency of online education was investigated in terms of language teaching, and learners' attitudes to learning English were characterised through the experiences of foreign language teachers.

CONCLUSIONS

This thesis has given an account of technology-enhanced language teaching, which is becoming increasingly popular among educators as a result of the changing expectations of 21st century learners and the necessity of teaching through online education because of the COVID-19 pandemic. In order to investigate the use of technology in English language teaching as broadly as possible, a large amount of theoretical literature was analysed and two separate studies were designed.

The first two parts of the research focused on the description of technology-enhanced language teaching and its effects on teachers and learners. Academic literature was analysed in order to describe computer-assisted language learning, mobile-assisted language learning, Web 2.0 tools, online dictionaries, video conferencing software, podcasting and Google Classroom, which were the main devices and applications that could be used in teaching English. In addition, the benefits and drawbacks of integrating technology into language teaching were also summarised, together with the main barriers that make the spread of digital language teaching more problematic.

In the third part of the thesis, two different questionnaires were designed to collect information from college students as prospective teachers of English. The questions were focusing on their prejudices and perceptions towards using technology in the English lessons. In the fourth part of the study, in-service teachers were interviewed about their experiences with teaching English in online distance education during the quarantine period.

The questionnaires were completed by 104 prospective teachers. Findings show that college students would rather stay in their homeland and work in a Transcarpathian secondary school than move to Hungary and occupy teaching positions. Although they agree that schools are better equipped and the salaries are higher abroad, most of them want to stay near to their family. On the contrary, the goal of some students is not to become teachers in the future, but to have better job opportunities with their degree and English language skills. Others enjoy working as teachers and helping the children to learn a foreign language either in schools or in the form of private lessons.

Prospective teachers are generally in favour of using technology in teaching English as they plan using technologies at least a few times a month or in every lesson. The devices which they consider the most important are laptops, projectors and speakers, all needed to teach English. Moreover, Web 2.0 tools are also effective in improving learners' skills, mainly video sharing websites and online dictionaries are the most efficient according to students.

Moreover, respondents consider the use of technologies in teaching English as more effective than traditional teaching, but a mixture of the two approaches would be the best option with perfect balance between innovation and tradition in teaching. Furthermore, the main advantages of technology-based language teaching are the increased motivation of learners to participate in the lesson, the availability of authentic audio-visual teaching aids and a wider range of possibilities with which the teacher can make his/her lessons more interesting for children.

However, we should not forget the possible problems that could emerge, including unforeseen technological issues, organisational or behavioural problems and time-related issues. Teachers should use technology only if it is necessary and can add an extra value to the lesson. In addition, teachers of the older generation tend to use technology less often in their lessons because they did not receive proper training in using the newest devices and the Internet in the classroom. The main barriers of integrating technology into the foreign language lessons in Transcarpathian schools seem to be the limited availability of digital devices and financial resources, while the insufficient number of English lessons is another issue.

Semi-structured interviews were conducted with 16 foreign language teachers from different secondary and tertiary educational institutions in Transcarpathia. Respondents were asked about their experiences with teaching English in digital education as a result of the coronavirus pandemic. The most frequently used applications in online learning were Google Classroom, Zoom, Messenger, Gmail and Google Meet.

The first transition from face-to-face education to digital education in the spring of 2020 was hampered by a lot of problems. First of all, teachers had to use previously unknown applications and they were generally unprepared for the sudden changes. Although IT professionals developed guides and descriptions for the software, a preparatory course would have been necessary to help them get acquainted with the tools of online education. As a result, online language teaching had been introduced to the methodological curriculum in teacher training institutions in the autumn.

Problems with the quality of Internet connection, electricity supply, limited number of devices in socially disadvantaged families and the distracting nature of the home environment all made the first months of digital education more complicated. Pupils from the lower grades had to be contacted through their parents, which required a lot of organisation from the teachers. In addition, learners were often demotivated and they had to be warned about deadlines. It was very time-consuming for the teachers to correct and systematise all the written assignments that learners completed, and the objective evaluation of pupils' and students' work was nearly

impossible because they could easily use any kind of help through the Internet, even during examinations.

Despite all these problems, digital education has some benefits too: more opportunities to use colourful and interactive materials; developing autonomous learning skills; the convenience of not having to travel; newly acquired IT skills; less fear of using technology in traditional classroom environments; possibilities of synchronous and asynchronous learning. On the other hand, teachers had many negative experiences with English teaching in the online space: the difficulty of testing and objective evaluation; lack of personal contact with learners; younger learners missed the presence and guidance of a teacher; lack of interest on the part of the learners; problems with the Internet connection.

Furthermore, teachers often had to develop personalised tasks for each learner or ask them to prepare their assignments in handwritten form in order to prevent copying the homework from the Internet or each other. Also, not all the basic language skills can be improved effectively online. Teachers agreed that reading, writing and listening skills can be developed without any serious drawbacks, but in the case of vocabulary knowledge and speaking skills, the situation was more difficult. Engaging all learners in active communication in the video lessons is very time-consuming, and teachers cannot use group or pair work as flexibly as in the classroom.

The success of digital English language teaching was strictly learner- and class-dependent. Those who took it seriously and completed the assignments were able to improve their language skills, but others became lazier and perceived online education as an opportunity to relax. In general, learners were happy to return to schools and spend some time with their classmates again, they became more enthusiastic and active in the lessons. Some of them got used to technologies and interactive tasks, and as a result, the teachers use online resources more often in their lessons than before.

According to the interviewees' opinion, the quality of digital education had improved a lot by the autumn of 2020 as they gained rich experience using the applications and the most appropriate teaching techniques that could be used in online teaching. The use of Google Classroom and online consultations remained mandatory in some schools during face-to-face education too. The transition to digital education would be much less problematic now for the reasons mentioned previously.

The results of this research support the idea that technology-enhanced language teaching is becoming more and more prominent in the field of teaching English as a foreign language. Moreover, the evidence from this study indicates that the transition to digital education would be

easier now that teachers had the opportunity to develop skills of teaching English in the online space during the quarantine period.

Returning to the hypotheses posed at the beginning of the study, it is now possible to state that the younger teacher generation plans to use technology in the English lessons at least a few times a month, thus they would like to hold technology-enhanced lessons as often as possible.

Another hypothesis which was proven is that prospective teachers consider the technology-based approach of English teaching more effective than the traditional approach because of the changing needs of 21st century learners. However, some respondents agreed that a mixture of the two teaching paradigms would be the best to utilise in the lessons.

In addition, the third hypothesis was also proved in relation to the problems in Transcarpathian schools which make the integration of technology into the educational process more difficult. These problems include: limited availability of financial resources and digital devices in schools; overcrowded curriculum and insufficient number of English lessons; and to some extent, not all teachers have the necessary skills to use digital equipment appropriately.

The next hypothesis was also accepted because the first transition to digital education was very challenging for English teachers as they did not have any previous experience with online teaching, and they had to develop new techniques of teaching in a relatively short period of time.

The fifth hypothesis was subject to dispute among foreign language teachers, as not all respondents were in favour of teaching English in online education, but some teachers considered it to be as effective as face-to-face teaching in the development of language skills. Although the necessity of personal contact and conversation between teachers and learners was emphasised, some educators believed that learners can be motivated to acquire a foreign language in distance education too, and speaking skills can be developed without any serious problems during online video lessons.

Lastly, all teachers agreed that the transition to digital education would be much easier now than in the spring of 2020. Both teachers and learners managed to learn how to handle online applications, video conferencing software and virtual classrooms. They acquired new skills in relation to the use of the tools required in digital education and reasonable amount of homework that would not make learners overloaded with tasks. Furthermore, the method of online language teaching became part of the methodological curriculum in teacher training institutions since the autumn of 2020.

The current findings add to a growing body of literature on technology-enhanced language teaching and digital distance education. Hopefully, our understanding of the

importance of using technology and online resources in language teaching would become more extensive due to these findings.

More information on the effects of technology on learners' performance would help us establish a greater degree of accuracy on this matter. Considerably more work will need to be done to determine the differences between the linguistic performance and motivation of learners who study English online autonomously and in classrooms with the help of teachers.

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РЕЗЮМЕ

Викладання іноземних мов засобами інформаційно-комунікаційних технологій набуло значної популярності серед лав викладачів внаслідок перегляду компетентностей XXI століття, зумовлених наслідками пандемії COVID-19 і необхідності запровадження дистанційного навчання. Метою означеного дослідження є вивчення можливостей удосконалення іншомовної освіти засобами інформаційно-комунікаційних технологій, а також аналіз ставлення майбутніх учителів англійської мови як іноземної до диджиталізації процесу викладання мови.

У роботі проаналізовано дидактичні підходи до навчання іноземних мов засобами комп'ютерних, мобільних технологій, інструменти Веб 2.0, онлайн-словники, програмне забезпечення для відеоконференцій, віртуальні навчальні платформи та ін. Підсумовано переваги та недоліки інтеграції технологій у викладання іноземних мов, а також основні бар'єри, які стоять на заваді запровадження цифрового викладання мов.

Здійснено емпіричне дослідження, спрямоване на вивчення диспозицій майбутніх викладачів англійської мови із застосуванням методу анкетування, а також проаналізовано досвід викладачів іноземних мов стосовно дистанційної освіти із використанням інтерв'ю.

У дослідженні взяли участь 104 майбутніх викладачів англійської мови. Результати засвідчують, що студенти воліють залишитися на батьківщині та працювати в середніх школах Закарпатської області, ніж займати викладацькі посади в Угорщині або закордоном. Респонденти виступають за використання технологій у викладанні англійської мови, оскільки вони планують застосовувати технологічні засоби принаймні кілька разів на місяць або на кожному уроці. На їхню думку, найефективнішими пристроями є ноутбуки, проектори та динаміки. Інструменти Веб 2.0 є також ефективними для вдосконалення мовленнєвих навичок учнів, головними серед яких є веб-сайти для обміну відео та онлайн-словники.

Респонденти вважають навчання англійської мови засобами інформаційних технологій більш ефективним, ніж традиційні форми викладання, водночас підкреслюючи необхідність встановлення балансу між інноваційними та традиційними підходами в іншомовній освіті. Основними перевагами викладання мови засобами інформаційних технологій є зростання мотивації учнів, наявність автентичних аудіовізуальних засобів навчання та широкі можливості урізноманітнення організаційно-змістових форм.

Проведено напівструктуроване інтерв'ю за участю 16 викладачів іноземних мов середніх та вищих освітніх закладів Закарпатської області для з'ясування досвіду

викладання англійської мови у віртуальному середовищі в результаті пандемії коронавірусу.

З'ясовано, що перехід від класної освіти до цифрової освіти навесні 2020 року супроводжувався численними труднощами, викликаних необхідністю використання невідомого програмного забезпечення і неготовністю викладачів до раптових змін. Проблеми з якістю підключення до Інтернету, електропостачанням, обмеженою кількістю пристроїв у соціально незахищених сім'ях та атмосфера домашнього середовища стали ускладнюючими факторами, які супроводжували початковий період переходу до цифрової освіти. З учнями молодших класів слід було зв'язуватися через батьків, що вимагало вирішення організаційних питань.

Згідно з думкою респондентів, не всі базові мовленнєві навички можна ефективно формувати у віртуальному середовищі. Вчителі зауважили, що навички читання, письма та аудіювання можна безперешкодно розвивати навіть дистанційно, але розвиток словникового запасу і усної комунікативної компетентності виявилися непростим завданням. Залучення всіх учнів до активного спілкування на відеоуроках займає дуже багато часу. Також вчителі не можуть організувати роботу у невеликих групах або парах настільки гнучко, як у класі.

Незважаючи на всі вище представлені проблеми, цифрова освіта також має незаперечні переваги: можливість використання інтерактивних навчальних матеріалів; розвиток навичок автономного навчання; відсутність необхідності доїжджати до освітнього закладу; розвиток навичок застосування технологічних засобів; зменшення рівня упередженості і стресу перед використанням технологій у традиційному класі; можливості синхронного та асинхронного навчання.

На думку респондентів, якість цифрової освіти значно зросла за означений період, оскільки вони здобули багатий досвід використання програмного забезпечення і дидактичних підходів, які використовуються в онлайн-навчанні. Використання Google Клас та онлайн консультації залишались обов'язковими елементами в деяких освітніх закладах.

Результати цього дослідження свідчать про зростання важливості ролі інформаційно-комунікаційних технологій у галузі викладання англійської мови як іноземної. Перспективами подальших досліджень є вивчення впливу застосування інформаційно-комунікаційних технологій на навчальну успішність учнів.

APPENDICES

Appendix A

Questionnaire I

Gender: male/female

Age:.....

Year: I/ II.

Course type: full-time/correspondent

1. Do you have any experience working as a teacher of English? If yes, what type of experience?

- a) Yes b) No

Teaching experience:.....

2. Where would you like to complete your pedagogical practice in the future?

Name of the school:.....

3. Do you currently hold or have you held private lessons in English before? If yes, how many students did you teach?

- a) Yes b) No

Number of students:.....

4. If you teach students as a private tutor, what are their goals of learning English?

- a) Preparing for school leaving exams b) Job opportunities abroad
b) Better performance in the English lessons d) Easier life in the future

Other:.....

5. Would you like to work as an English teacher in a Transcarpathian school?

- a) Yes b) No

Reason:.....

6. Would you like to work as an English teacher in the future in a school in Hungary?

- a) Yes b) No

Reason:.....

7. Why do you want to obtain your diploma in the English language and literature?

- a) I want to be a teacher in my homeland b) Giving private lessons at home
c) I want to live abroad in the future d) Better job opportunities

Other:.....

8. What technologies or applications do you know that can be used in teaching English?

.....

9. Which teaching mode is more efficient in teaching the following language skills?

Language skills	Technology-centred language teaching	Traditional teaching mode
Reading		
Writing		
Listening		
Speaking		
Vocabulary		

10. What type of devices would you use during your teaching practice in the lessons?

Device	Yes	No
Laptop		
Speakers		
Smartphone		
Projector		
CD player		
Tablet PC		

Other devices:.....

11. What do you think are the biggest problems connected to Transcarpathian educational institutions that make teachers' work more problematic?

- a) Limited financial resources
- b) Limited availability of digital devices
- c) Overcrowded curriculum
- d) Poor command of the Ukrainian language
- e) Insufficient number of lessons
- f) Lack of skills in using new technologies

Other problems:.....

12. How often do you plan using technologies in your English lessons as a teacher?

- a) Never
- b) Once a month
- c) A few times a month
- d) In every lesson

13. Do you think that older teachers are more concerned about traditional teaching? If yes, why?

- a) Yes, because they are afraid of the unknown
- b) Yes, because they did not receive proper training in using the Internet and other technologies in the lessons
- c) Yes, because they do not have enough digital devices in schools
- d) No, older teachers also use digital devices in their lessons

14. As a prospective teacher, do you consider technology-centred language teaching as more efficient than traditional teaching? Why?

- a) Yes
- b) No

Reason:.....

15. What are the advantages of using technologies in the English lessons?

Advantages:.....

16. What are the disadvantages of using technologies in the English lessons?

Disadvantages:.....

17. On a scale from 1 (very bad) to 10 (very good), how would you rate your own IT skills regarding the use of the Internet and digital devices in the lessons?

1	2	3	4	5	6	7	8	9	10

18. How would you define technology-centred language teaching?

.....

19. Which Web 2.0 tools are the most efficient in teaching English?

- a) Blogs
- b) Online dictionaries
- c) Social networking sites
- d) Wikis
- e) Translation programs
- f) Video sharing sites

20. What problems could emerge if the teacher plans to hold a technology-centred language lesson?

Technological problems:.....

Organisational problems:.....

Behavioural problems:.....

Other:.....

21. On a scale from 1 (disagree) to 5 (agree), how much do you agree with the following statements?

Statements	1	2	3	4	5
Transcarpathian schools are less well-equipped than schools in Hungary.					
English teachers do not receive the necessary training to use digital technologies.					
Students from the college can easily find a job in a Transcarpathian school after graduation.					
Technology-centred language teaching is more popular in private lessons than in schools.					
Teachers often use technologies in the lesson in higher education.					
Behavioural problems are more common in technology-centred lessons among learners.					
Technology-centred language teaching is good for saving time for the teacher.					

Appendix B

Questionnaire II

Gender: male/female

Age:.....

Year: III/ IV/ V.

Course type: full-time/correspondent

1. Have you already completed your pedagogical practice?

- a) Yes b) No

2. If yes, when and where did you complete your pedagogical practice?

Year of practice:.....

Name of the school:.....

3. Do you currently work as a teacher? If yes, in which school and how many lessons do you have per week?

- a) Yes b) No

Name of school:.....

Number of lessons in a week:.....

4. Do you hold or have you held private lessons in English before? If yes, how many students did you teach?

- a) Yes b) No

Number of students:.....

5. If you teach students as a private tutor, what are their goals of learning English?

- a) Preparing for school leaving exams b) Job opportunities abroad

- b) Better performance in the English lessons d) Easier life in the future

Other:.....

6. Would you like to work as an English teacher in a Transcarpathian school?

- a) Yes b) No

Reason:.....

7. Would you like to work as an English teacher in the future in a school in Hungary?

- a) Yes b) No

Reason:.....

8. Why do you want to obtain your diploma in the English language and literature?

- a) I want to be a teacher in my homeland
- b) Giving private lessons at home
- c) I want to live abroad in the future
- d) Better job opportunities

Other:.....

9. During your teaching practice, did your mentor teacher use any kind of digital devices in the lessons? If yes, what devices?

Device	Yes	No
Laptop		
Speakers		
Smartphone		
Projector		
CD player		
Tablet PC		

Other devices:.....

10. During your teaching practice, did you use any kind of digital devices in the lessons? If yes, what devices?

Device	Yes	No
Laptop		
Speakers		
Smartphone		
Projector		
CD player		
Tablet PC		

Other devices:.....

11. What kind of problems did you observe connected to Transcarpathian educational institutions that make teachers' work more problematic?

- a) Limited financial resources
- b) Limited availability of digital devices
- c) Overcrowded curriculum
- d) Poor command of the Ukrainian language
- e) Insufficient number of lessons
- f) Lack of skills in using new technologies

Other problems:.....

12. How often do you plan using technologies in your English lessons as a teacher?

- a) Never
- b) Once a month
- c) A few times a month
- d) In every lesson

13. Do you think that older teachers are more concerned about traditional teaching? If yes, why?

- a) Yes, because they are afraid of the unknown
- b) Yes, because they did not receive proper training in using the Internet and other technologies in the lesson
- c) Yes, because they do not have enough digital devices in schools
- d) No, older teachers also use digital devices in their lessons

14. As a prospective teacher, do you consider technology-centred language teaching as more efficient than traditional teaching? Why?

- a) Yes
- b) No

Reason:.....

15. What are the advantages of using technologies in the English lessons?

Advantages:.....

16. What are the disadvantages of using technologies in the English lessons?

Disadvantages:.....

17. On a scale from 1 (very bad) to 10 (very good), how would you rate your own IT skills regarding the use of the Internet and digital devices in the lessons?

1	2	3	4	5	6	7	8	9	10

18. Did the methodological knowledge that you obtained in the college prepare you well to deal with the hardships of technology-centred language teaching?

- a) Yes
- b) No

19. Did you face any difficulties during your teaching practice related to teaching English with technology?

.....

20. Which web 2.0 tools are the most efficient in teaching English?

- a) Blogs
- b) Online dictionaries
- c) Social networking sites
- d) Wikis
- e) Translation programs
- f) Video sharing sites

21. What problems can emerge if the teacher plans to hold a technology-centred language lesson?

Technological problems:.....

Organisational problems:.....

Behavioural problems:.....

Other:.....

22. On a scale from 1 (disagree) to 5 (agree), how much do you agree with the following statements?

Statements	1	2	3	4	5
Transcarpathian schools are less well-equipped than schools in Hungary.					
English teachers do not receive the necessary training to use digital technologies.					
Students from the college can easily find a job in a Transcarpathian school after graduation.					
Technology-centred language teaching is more popular in private lessons than in schools.					
Teachers often use technologies in the lesson in higher education.					
Behavioural problems are more common in technology-centred lessons among learners.					
Technology-centred language teaching is good for saving time for the teacher.					

Appendix C

Interview questions

1. How long have you been working as an English teacher?
2. In which school do you currently teach?
3. What technological tools do you use in your lessons and how often?
4. What technological tools do you use in online teaching and how often?
5. Which applications are the most suitable for teaching English in digital education? Have you used any of these?
6. What problems made the transition to digital education more difficult for the first time?
7. Have any of these problems been solved? If yes, how?
8. How well-prepared were you and the educational institution where you teach for the sudden transition to online education?
9. What are the advantages of digital education over face-to-face education?
10. Do you have any positive experiences with distance learning?
11. What are the disadvantages of digital education compared to face-to-face education?
12. Do you have any negative experiences with distance learning?
13. Which language skills can be effectively developed in distance learning and which cannot? (reading, writing, vocabulary knowledge, speaking skills, listening comprehension)
14. Do you think that it is possible to learn a foreign language effectively in the online space without personal contact and speech practice?
15. What kind of tasks did you give to your learners? Please, give some examples.
16. How did you try to maintain personal contact with your pupils/students?
17. What was the learners' attitudes towards learning English during distance learning? What were the most common problems?
18. What negative effects have you observed on learners' performance or emotional state during digital education?
19. Did you experience any change in learners' attitudes to learning and English language performance when the traditional educational mode was restored?
20. What new skills did you acquire during online education? Has your professional knowledge expanded?
21. How do you think the transition to digital education would be different now? Would it be easier or harder compared to last year? Why?