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EFL TEACHING IN A DIGITAL ENVIRONMENT

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ABSTRACT



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Publisher's Note: MAP stays neutral with regard to jurisdictional claims in published maps and institutional affiliations. English as a Foreign Language (EFL) teaching has, similarly to all other subjects, gone through a digital transformation that was accelerated by the COVID-19 pandemic in 2020. Quarantines and subsequent distance learning led to new paths of teaching languages that opened up new chances to facilitate language learning. This web-based survey, conducted among Austrian secondary school students, aimed to identify methods and tools used in the EFL classroom, predictors for students' digital skills and chances that can be utilized in the future.

The following key results were observed: English classes during the school year 2021/2022 offered a wide variety of tools that the students worked with and improved in. Furthermore, the analysis showed that English language skills significantly influence and predict the improvement of students' digital skills. Finally, multiple chances for working with digital devices in the EFL classroom could be extrapolated from the results of the survey.

Keywords: digital literacy, digital competencies, EFL, self-assessment, language learning

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1. Introduction

The present paper examines EFL learning in a digital environment based on the introduction of digital devices into Austrian classrooms in the school year 2021/2022.

After introducing the "Initiative Digitales Lernen" (Bundesministerium für Bildung, Wissenschaft und Forschung, 2020), students in Austria had the opportunity to buy (for a reduced price) digital devices that were supposed to be implemented into regular teaching processes. Of course, then, the world had to take a giant leap in its digitalization efforts because of the Covid-19 pandemic (Dautbašić & Bećirović, 2022), and the distribution of digital devices was only one of the many measures taken by teachers all across the country to facilitate access to education. The aim of this research is to explore the methods and tools used in the EFL classroom, the possible predictors for students' digital skills and the chances that can be utilized to facilitate digital literacy in the EFL classroom.

2. Literature review

2.1 Digital literacy, digital learning and e-Learning

When discussing digital literacy, one regularly comes across the term digital competence. Those two terms have a lot in common; however, they are not interchangeable.

Digital competence is defined by the European Commission as:

"Digital competence involves the confident and critical use of Information Society Technology (IST) for work, leisure and communication. It is underpinned by basic skills in ICT: the use of computers to retrieve, assess, store, produce, present and exchange information, and to communicate and participate in collaborative networks via the Internet". (European Parliament, 2006, p. 15)

This definition is closer to what is nowadays known as digital literacy as it does not focus on individual skills so much as on the ability within the use of them. However, the term digital competence focuses very much on the skill of using digital media. Digital literacy, on the other hand, encompasses much more than that. In 2011, UNESCO defined digital literacy as such:

"Digital literacy is an umbrella concept for important skill clusters whose names are often used as synonyms; their content, however, is not exactly the same. ICT literacy refers to a set of user skills that enable active participation in a society where services and cultural offerings are computer-supported and distributed on the internet. Technological literacy (previously called computer literacy) entails a deeper understanding of digital technology and comprises both user and technical computing skills. Information literacy focuses on one of the key aspects of our Knowledge Society: the ability to locate, identify, retrieve, process and use digital information optimally". (Karpati, 2011, p. 2)

In order to facilitate digital literacy, digital learning serves as a natural progression of e-Learning. Möslein-Tröppner and Bernhard base it on the following four principles:

- Anytime: learning asynchronously
- Anywhere: learning location-independent
- Anyhow: learning on multiple devices
- Anybody: learning individually. (Möslein-Tröppner & Bernhard, 2021)

Therefore, e-Learning only refers to online content, whereas digital learning also encompasses content that is stored locally (Bećirović & Dervić, 2022; Francisco, et al., 2022.). On the following pages, both e-Learning and digital learning will be used when describing digital-device-supported learning.

Working with digital devices is not always welcomed by teachers or students. However, necessity beats refusal, as Beat Honegger describes in his book "Mehr als 0 und 1" the essentiality to teach "with, through and despite digital media" (Honegger, 2017, p. 45). This quote encapsulates the feeling that though sometimes unattractive, digital literacy teaching is inevitable for the school of tomorrow.

2.2 EFL teaching

EFL is short for English as a Foreign Language. Frequently it is interchanged with ESL (Mašić & Bećirović, 2021; Dervić & Bećirović, 2020).), which is short for English as a Second Language. In the particular school that was subject to the survey explored in the following chapters, English is taught as "the first living foreign language" (Lehrplan AHS-Unterstufe Erste Lebende Fremdsprache, 2018). How-



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ever, although this description might be found in the Austrian curriculum, it does not have much to do with the reality of students, who are from diverse backgrounds and oftentimes speak at least two languages fluently before entering the school system. For them, English is sometimes the third, fourth, or fifth language that they learn. Therefore, the decision was made to go forward in using EFL as the target term.

Gilquin and Granger argue that there are many more categories than just the two most prevalent ones. They view EFL and ESL as two extreme definitions and state that "SLA specialists have been aware for quite some time that the EFL/ESL distinction is not a clear-cut dichotomy but a continuum, with many factors pulling language varieties in one or the other direction" (Gilquin & Granger, 1996, p. 76). Other terms that are frequently used are TESOL (Teaching English to Speakers of Other Languages), EAL (English as an Additional Language), or ELL (English Language Learners) (Gunderson et al., 2019; Saračević et al., 2021).)

2.3 Digital literacy in the EFL classroom

As established before, digital literacy is about application and reflection.

At the moment, Austria's secondary schools are following a curriculum that was published in 2018/2019, which dictates two to four weekly lessons of basic digital education within four years. It is important to note that the German language does not differentiate between digital competence and digital literacy, as there is no equivalent word for "literacy" in German. Literacy, when directly translated, is identical to the state of alphabetization. This definition does not equate to the English definition of literacy. Thus, the Austrian curriculum focuses on the term digital competence. The curriculum defines digital competence as follows:

"Die Vermittlung digitaler Kompetenzen befähigt Schülerinnen und Schüler, auf Basis eines breiten Überblicks über aktuelle digitale Werkzeuge (Hard- und Software) für bestimmte Einsatzszenarien im schulischen, beruflichen sowie privaten Kontext jeweils passende Werkzeuge und Methoden auszuwählen, diese zu reflektieren und anzuwenden". (Bundesministerium für Bildung, Wissenschaft und Forschung, 2018)

This extract from the Austrian curriculum includes both the reference toward digital skills but also the operator words "reflect" and "apply", which take us back to the definition of digital literacy. So how does digital literacy play into the objectives of EFL teaching?

There are isolated studies that explore cross-curricular competence-based teachings (Polz & Bećirović, 2022). However, a comprehensive study is pending. Most available studies have been done with a focus on EFL teachers and their digital capabilities. Only a few publications can be found that focus on the students and the results of such cross-curricular teachings.

For example, in the case study "Digital literacy and digital content supports learning: The impact of blogs on teaching English as a foreign language", Charlene L. Al-Quallaf and Afaf S.R. Al-Mutairi describe the impact of blogs on EFL primary students in a public elementary school in Kuwait. The authors analyzed students' blogs over one semester and conducted focus groups with educators, in which they were asked about the use of social media in the classroom. The analysis of the blogs showed that the students' linguistic ability significantly increased throughout the weeks of contributing to the class blog. The authors found that the interactive format resulted in a positive learning experience, which then resulted in an increase in motivation. The focus groups with educators found that they require more incentives to include more digital classroom work. However, they noted that the students a lot of times showed better digital literacy than the teachers themselves. While this case study provides interesting findings about motivation and increased language skills, it does not focus on digital literacy itself (Al-Qallaf & Al-Mutairi, 2016).

In "Digital Literacy of EFL Students: An Empirical Study in Vietnamese Universities", Lan Anh Thuy Nguyen and Anita Habok explore the question as to what extent students use digital tools when learning English, whether there is a discrepancy among sexes regarding the digital literacy and if there is an age difference. The authors state that most students seem to have access to computers and the Internet and therefore have enough resources to improve their digital competence. They also underline the feasibility of the usage of English education technologies (Nguyen & Habok, 2021). Again – as with the study by Al-Quallaf and Al-Mutairi – the study focuses on the student's perception of the



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positive impact of digital tools on their language learning. Though this study is helpful for this paper in regard to the accessibility of digital tools, it again does not focus on digital literacy itself.

Similarly, "Digital literacy of language learners in two different contexts" by Jeong-Bae Son, Sang-Soon Park and Moonyounk Park (Son et al., 2017), "Technology-Based Language Learning: Investigation of Digital Technology and Digital Literacy" by Hussein Mohamad Alakrash and Norizan Abdul Razak (Alakrash & Razak, 2021), as well as "The Implementation of Digital Literacy in EFL Learning: A Case Study in SMP Muhammadiyah 1 Temanggung" by Hana Amri Solikhati and Bambang Widi Pratolo (Solikhati & Pratolo, 2021) offer interesting insights into the status quo of digital English learning, but they also do not offer data on increased digital literacy skills. These studies focus on the impact of digital literacy on language skills and student motivation.

Nuriyatul Hamidah states that recent research suggests that by developing students' digital literacy, they are supported in using said media and technology for their learning in other subjects (Hamidah, 2021). Therefore, facilitating digital literacy can have a positive effect on the digital skills of students as well as their motivation and language skills in the English classroom (Bećirović et al., 2022).

In "The use of digital technology in foreign language learning", Becirovic et al. identify a positive learner experience with technology-based language learning and the importance of the teacher's role in this learner journey (Bećirović et al., 2021). They also found a significant difference in the students' perceived usefulness of technology based on GPA level.

To sum up, there is still a lot to be explored in regard to digital literacy in the EFL classroom. Digital literacy as a secondary goal is barely touched in current research and offers huge opportunities in integrating digital literacy teaching into the existing school routine.

With the help of the following quantitative study, this paper aims to contribute to fill the gap that is outlined in the previous chapter.

3. Methodology

3.1 Participants

The study was conducted in 2022 at an Austrian grammar school with a sample of 151 students. The students attended 5th and 6th grade and had all been given a digital device as part of a nation-wide initiative of the Austrian government in 2021. The sample consisted of 6 classes, and 68 participants (45,7%) from grade 5 and 82 participants (54,3%) from grade 6 were surveyed. All subjects were asked to answer a web-based survey on a confidential basis. Since the school has this considerable amount of diverse students, it was also important to ask for the mother tongue of the students. Mother tongue was defined as the language that is spoken most in an everyday context. This showed that most of the students had a mother tongue different than German, which is the official language in Austria and is also the language the students are taught in (apart from foreign languages). 42% of participants identified German as their mother tongue, while 58% stated other languages and therefore did not see English as their "First Foreign Language".

3.2 Instruments and Procedures

The data for this study was gathered by means of a web-based survey. It included five major categories: (1) demography, (2) habits of using digital devices, (3) advantages and disadvantages of e-Learning use, (4) students' experience in using e-Learning and (5) self-assessment. After obtaining the informed consent from the Headmistress and SGA (Schulgemeinschaftsausschuß = school community committee), the online survey was provided and adjusted in accordance with the school and teachers. Participants were instructed about how to complete a Likert-type scale and were informed that the data gained from the survey would be anonymous, voluntary and confidential.

3.3 Data analysis

The data was organized by checking descriptive statistics such as percentage, standard deviation, mean or analysis of variance (ANOVA). The software of choice was Statistical Package for the Social Sciences (SPSS), which was established in the 1960s (Braunecker, 2021).



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4. Results

4.1 Specific digital teaching methods and tools

The findings of the survey show that the variety of tools used in English classes was substantial and that the improvement mostly mirrored the use. Writing seems to bear significant weight in the use of digital devices in the EFL classroom, as both the numbers of the use of word processing software and the main focus of general use show. This could be attributed to the multiple benefits of working with word processing software for both the students and the teachers. Digital texts can be corrected in a way that might seem more comprehensible and easier to keep track of for the student. Furthermore, learning games and quizzes are prominent in English lessons and at home. The gamification aspect must not be underestimated in this context. Introducing a playful aspect to learning seems to have been a priority of both students and teachers, and the results show that the majority of students felt like e-Learning was a fun change of habit in the classroom.

It was also observed that a significant amount of students completed their homework digitally. The translation of using the digital device in school towards using it at home shows the substantial connection between the methods and tools used in the educational context. It is apparent that teachers encouraged the use of digital devices beyond their presence in school.

Additionally, it would be crucial to assess if the listed tools were used in other subjects and to what extent in order to paint a broader picture of the improvement in certain areas. Furthermore, it would be valuable to inquire which other tools were used in the EFL classroom and to which extent. When it comes to teaching methods, it is clear that most participants preferred a hybrid environment in their EFL classroom. As stated in chapter 2, blended learning is regarded as one of the most promising e-Learning sectors and is experiencing a momentous surge amidst the growing number of educators incorporating digital devices into their classrooms. All participants of the survey experienced blended learning in some form during the last school year and seemed to associate a positive attitude with it.

4.2 English language skills as a predictor for students' digital skills

The analysis showed that there was a significant influence and prediction factor on the improvement of students' digital skills. This finding is particularly valuable when justifying the use of digital devices in the EFL classroom. After all, the implementation of e-Learning into existing educational structures must have a positive impact in order to bear weight. These results showed that by improving in one essential area of expertise, students develop substantial competencies in other areas as well. This makes the need for a thorough continuing education of EFL educators apparent, as an equally beneficial factor for both English and digital skills could be observed.

On the other hand, this also shows the limits of incorporating digital devices into a school subject. If students are struggling in a subject already, the implementation of e-Learning might be an additional burden on them and result in an unsatisfying outcome in both digital skills and English skills. This is certainly a factor that should be kept in mind when setting expectations for students.

4.3 Chances to be utilized in the future to facilitate digital literacy in the EFL classroom

Based on the data collected from the survey, it is important to extrapolate possible chances to facilitate digital literacy in the EFL classroom in the future.

Often, e-Learning is regarded as a promising resource for students who either do not have access to education or have different requirements for a successful learning experience (Bećirović, 2023). When asked whether e-Learning can solve many of the educational problems, only a small minority of participants agreed. This result, therefore, does not correlate with a lot of literature that was discussed in chapter two. This could mean two things: Either the available research is insufficient, or students just don't believe in e-Learning as a solution for educational problems. Both arguments could be made. Based on other results of this survey that convey a tendency towards rather negative views on e-Learning, one might conclude that this opinion might still change or be subject due to the challenging circumstances of having to adjust to digital learning because of the Covid-19 pan-



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demic. I think it is reasonable to assume that the hasty shift of presence teaching to online teaching in Austria of March 2020 and the recurring tumultuous changes in teaching methods and digital requirements for students all throughout the preceding two school years have negatively impacted the students' views on online learning. The same can be observed when students were asked whether online learning increased their ability to understand the subject matter. 45% either disagree or somewhat disagree with that statement. Only 33% either agree or somewhat agree that online learning increases their ability to understand the subject matter. However, a large majority (48%) agree or somewhat agree that their new digital device has helped to significantly improve their digital skills. This shows that students do not experience a large improvement of their English abilities based on online learning but that they recognize a large improvement in their digital skills through the use of their digital devices.

While the last few findings focused on a more global approach as to how digital literacy can be facilitated, I now want to offer a more detailed interpretation of how EFL teaching can facilitate digital literacy while at the same time promoting English skills. The results showed that only 54,3% of the students felt confident in recording and digital sound editing. There is a variety of tools available to help students work with audio files like Audacity, Media.io or Garage Band. Listening comprehension and Speaking skills are two of the four main pillars of English competence. However, a lot of times, teachers are burdened with big classes and/or students who do not feel comfortable speaking in front of their classmates. E-Learning offers an interesting addition to tested and proven teaching methods. Students could record themselves speaking English at home and then edit their recording, analyzing their own file or the file of other students and therefore work with both listening and speaking skills in a much more intense way than they ever would in the classroom. This method would also allow them the opportunity to listen to files more than twice and at their own speed, facilitating a more individual learning experience.

The survey showed that only 45,7% of students use mobile apps for language learning purposes. This could also be a great opportunity to incorporate online learning into the daily lives of students. The gamification aspect of applications like *DuoLingo* or *Babbel*, just two of the main lan-

guage acquisition apps on the market, could encourage students to learn a foreign language while at the same time fostering digital literacy.

What is clear from the results of the survey is that although 100% of the students surveyed are working with a digital device, only 66,9% feel like they understand the basic functions of computer hardware components. This is an essential part of digital literacy as well and must be promoted in a more meaningful way. The same goes for software components. When asked what kind of operating systems the students use, only 11,9% of participants answered "Windows". However, the digital devices administered to 98,7% of students run on Windows. This shows that there is still a big disconnect between the students and their digital devices.

To sum up, the research question "What chances can be utilized in the future to facilitate digital literacy" can only partly be answered through the findings of this survey. There is still a lot of room to grow, and it is likely that a large group of the students fosters a negative attitude towards online learning through two years of constant change in their teaching methods due to the pandemic.

5. Conclusion

The survey laid out how diverse the teaching methods were when it came to e-Learning in EFL classrooms. All provided categories showed a significant use in English class, and the improvement in the use of these tools also corresponds.

An interesting finding has been that three of the four English language skills (reading, writing, listening) significantly influenced the gain in digital skills. This correlation proves the deep connection of both language literacy and digital literacy. Lastly, the survey provided manifold insights into the chances that can still be utilized by incorporating digital literacy into the EFL classroom. With a lot of room to grow and research to be done, one can only imagine the possibilities of a marriage between the literacies.

It is utopic to assume that each school subject can cover the full scope of digital literacy. However, if each subject contributes to an educated and competent student body, a comprehensive picture could be created that will result in knowledgeable, skilled and able students.

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There are manifold possibilities on how to expand this topic, and the emphasis could be laid on multiple different aspects. The next years will offer more insight into the research done during the Covid-19 pandemic, as it has been a catalyst for many digital areas of growth.

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