

Digital Tools of the Trade

A Qualitative Study of EFL Teachers' Use of Digital Tools in a Swedish Post-Pandemic Context

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Abstract

Due to the increased focus on digitalisation in Swedish schools resulting from the digitalisation of society, pedagogical practices have changed. The Covid-19 pandemic introduced unique challenges to many teachers as education moved online. As digital tools became necessary for teaching, the need for digital competence became acute. There is a multitude of research investigating the pre-pandemic use of digital tools for EFL teaching, but there is a lack of studies conducted in a post-pandemic context. Through the accounts of 24 Swedish teachers, this qualitative study aims to contribute to the field by examining the post-pandemic use of digital tools in secondary school EFL teaching. The key findings of this study are that digital tools in Swedish EFL teaching were extensive and used to target various aspects of language learning. In contrast with research conducted before the pandemic, there was a balance between learner-centred and teacher-centred use of digital tools and between skill-based, practice-based and function-based practices. Teachers mostly believed these tools impacted their practice positively but also experienced some downsides related to their functionality and benefit to student achievement. In addition, the findings indicated that the majority of teachers had gained increased TPACK while teaching online during the pandemic. Moreover, it revealed a positive influence on the methodological practices of previously novice users of digital tools stemming from the pandemic teaching.

Table of Contents

- 1 Introduction 1**
- 2 Aim and Scope 2**
- 3 Background..... 3**
 - 3.1 Defining Digital Tools For Pedagogical Use..... 3
 - 3.2 Digitalisation in Swedish Schools 4
- 4 Previous research 4**
 - 4.1 Pedagogical Use of Digital Tools 5
 - 4.2 Pandemic Influence 7
 - 4.3 Advantages and Disadvantages of Digital Tools 8
- 5 Method 10**
 - 5.1 Qualitative Method 10
 - 5.2 Data Collection 11
 - 5.2.1 Semi-Structured Interview..... 11
 - 5.2.2 Qualitative Survey 11
 - 5.3 Participant Selection 12
 - 5.4 Data Analysis 14
 - 5.5 Ethical Considerations 14
 - 5.6 Reliability and Validity..... 15
 - 5.7 Limitations 15
- 6 Results 16**
 - 6.1 Current Use of Digital Tools in EFL Teaching 16
 - 6.2 Pandemic Influence 19
 - 6.3 Perceived Advantages and Disadvantages of Digital Tools 21
 - 6.3.1 Advantages of Digital Tools..... 21
 - 6.3.2 Disadvantages of Digital Tools. 23

7	Discussion.....	24
7.1	The Use of Digital Tools in EFL Teaching	24
7.2	Pandemic Influence	26
7.3	Advantages and Disadvantages of Digital Tools.....	27
8	Conclusion.....	30
	References	32
	Appendix A Interview Guide	1
	Appendix B Survey Questions.....	2

1 Introduction

The effects of rapid digitalisation are visible in most domains of modern society. A recent survey (Internetstiftelsen, 2022) found that 97% of 8-19-year-olds in the study used the Internet daily. When looking specifically at teenagers aged 13-19, they found the number to be 100%. Sweden is considered one of Europe's most advanced digital economies (The European Commission, 2022). As the world grows increasingly dependent on technology, digital competence becomes necessary to compete in the global market.

The digitalisation of society has also affected education, as reflected in the new curriculum from 2018 (Läroplan för grundskolan, förskoleklassen och fritidshemmet [LGR], 2022), where the integration of digital tools is made mandatory. The increased use of technology has resulted in a lesser need to be able to memorise and retell information. Instead, students must develop analytical skills, learn to be critical of new information, understand contexts, and separate opinion from fact. This shifts the role of the teacher from someone who presents students with information to someone who guides the students on their path towards knowledge (Säljö et al., 2017, p.195). The shift has affected pedagogical practices and increased the societal role of schools. As stated by Lundgren (2017, p. 153), education has become essential to acquire the diverse set of skills required for active participation in society.

The revised curriculum (LGR, 2022) dictated that students would learn to navigate different digital tools and enhance their digital skills to meet the increasing need for digital competence. A further reason why the requirement was introduced was to guarantee that all students have access to digital tools regardless of socioeconomic factors. Digital tools are also considered valuable for acquiring subject-related knowledge, which has become a growing concern since the publication of the Programme for International Student Assessment (PISA) report in 2012. According to the report, Swedish students performed below the average of countries in the Organisation for Economic Co-operation and Development (OECD) in all areas assessed in the test (OECD, 2014). While digital tools are made mandatory through the curriculum, their practical use in lessons is not regulated. As a result, teachers' use of digital tools in the classroom may vary significantly between municipalities, schools, or even among individual teachers at the same school.

The need for digital competence and innovation became acute during the Covid-19 pandemic as many parts of the world saw the need to impose temporary restrictions covering

many areas of society. In the spring of 2020, several countries imposed mandatory lockdowns and nationwide school closures, accelerating digitalisation as education moved from physical to virtual classrooms. Sweden did not implement a national lockdown, but the effects of the pandemic were still evident and led to temporary changes in schools across the country. Upper secondary schools were ordered to move their teaching online in March 2020 (Hall et al., 2022). There were no laws at the state level targeting lower secondary schools, and during the autumn of 2020, approximately one-third of lower secondary school students received online education. However, in the spring of 2021, local school principals were given the authority to implement online teaching if deemed necessary. Following this, the number of lower secondary school students who received online teaching grew to 80% (Statistiska centralbyrån, 2022).

Following the pandemic, the Swedish Post and Telecom Authority (Post- och telestyrelsen, 2021) noted that the teaching situation during the pandemic forced teachers to become more digitally competent and that it highlighted the possibilities and limitations of the digital tools used in schools. Effective integration of digital tools into teaching requires flexibility and the ability to rethink former teaching practices (Säljö et al., 2017, p.195).

The question of what will happen now emerges following the experiences of the new conditions for teaching during the pandemic. Has online teaching experience led to new areas of use for digital tools in education? Has it led to a change in attitude about their importance? Or has it not affected post-pandemic teaching practices at all?

The author of this study was unable to find any studies investigating the effects of the pandemic teaching situation on the use of digital tools in English as a Foreign Language (EFL) teaching. More research still needs to be conducted in the area as a significant part of the previous studies on digital tools in EFL teaching were conducted before the pandemic. This study investigates the practice of using digital tools in EFL teaching in Sweden with a qualitative method to gain insight into individual teachers' experiences. It also aims to examine what possible effects the Covid-19 pandemic may have had on these practices.

2 Aim and Scope

The study aims to examine Swedish EFL teachers' perspectives and opinions regarding digital tools and their use of digital tools in teaching practice following the Covid-19 pandemic.

Research questions:

- Which digital tools do EFL teachers use, and how do they incorporate them into their teaching?
- Have EFL teachers altered their use of digital tools after the pandemic?
- What are the advantages and disadvantages of using digital tools in teaching, according to EFL teachers?

This was investigated using data from 24 EFL teachers practising in secondary schools. The data was obtained through 23 responses to an online survey and one semi-structured interview.

3 Background

In this section, the concept of digital tools is defined (3.1). This section also provides a historical background of digitalisation and the use of digital tools in Swedish schools (3.2).

3.1 Defining Digital Tools For Pedagogical Use

The term "digital tools" has a broad definition and is frequently used in both research and governing agency documents. Typically, it includes both digital hardware and software. Hardware refers to digital devices such as computers and cell phones. These tools are used to access digital software, which refers to the programs and applications used to perform different tasks. This includes tools such as school platforms, word-processing programs, videos, websites, etc. In the responses from the participants in this study, there was a strong inclination to discuss the use of digital software. Hence, in this study, "digital tools" refers to digital software.

The pedagogical integration of technology is conceptualised under the acronym TPACK, which stands for Technological Pedagogical Content Knowledge. The concept, introduced by Thompson and Mishra (2006), describes professional competence in using technological tools in teaching. They argued that teachers in the modern world need competence in three main areas: technological competence, pedagogical competence, and content competence. They emphasised that these are not separate bodies of knowledge but part of a complex interplay in which all three are considered crucial for effective teaching as they ensure teachers can choose appropriate teaching methods. Furthermore, they concluded that these competencies are not static and that TPACK also includes the ability to adapt teaching methods to technological advances.

Regarding digital tools, TPACK refers to understanding which tools to use and how to use them effectively to enhance knowledge development. Studies have indicated a positive correlation between the degree of TPACK and the successful integration of digital tools into teaching (Kim et al., 2013; Mishra & Koehler, 2006). Within the TPACK framework, Thompson and Mishra (2006) identified three technological competencies. First, Technology knowledge (TK) which means knowing how to use digital technologies. Second, Technological content knowledge (TCK) means understanding how technology and content are interrelated. Third, Technological pedagogical knowledge (TPK) refers to knowledge about existing digital technologies and how they can be integrated into teaching. This entails adapting the teaching and use of technologies according to the content and context. Thompson and Mishra emphasised that separating these three competencies for analytical purposes is possible, but they are intertwined in practice.

3.2 Digitalisation in Swedish Schools

Technology integration in Swedish schools dates to the 1970s, with the introduction of calculators. In recent years, there has been an increasing focus on integrating digital tools into educational settings. As previously mentioned, the Swedish national curriculum for the compulsory school (LGR, 2022) was revised in 2018 to include digital competence. The curriculum states that students should have access to tools to aid the development of digital competence. The term digital competence is defined by four key aspects: understanding the impact of digitalisation on people and society, understanding and knowing how to use digital tools and systems, evaluating information from different sources, and using digital tools to realise ideas and solve problems (Skolverket, 2022). The Swedish National Agency for Education (Skolverket, 2018) underlines the importance of promoting digital competence in students and teachers. It notes that this shift will pose new challenges for teachers as they are expected to meet the new technological demands.

4 Previous research

This section will present an overview of prior studies concerning the pedagogical use of digital tools (4.1), the influence of the pandemic on the use of digital tools in education (4.2), as well as the perceived advantages and disadvantages of incorporating digital tools in teaching (4.3).

4.1 Pedagogical Use of Digital Tools

Previous research has found that the use of digital tools in teaching can be divided into two categories: teacher-centred and learner-centred. As described by Liu et al. (2019), teacher-centred use refers to the use of digital tools for instructional purposes. With teacher-centred use, teachers maintain their traditional role as they direct and control the learning process. Digital tools can be used to convey information, assess student progress or for structured work guided by the teacher. Additionally, these tools can be used to practice various skills in isolation, such as grammar or vocabulary drill exercises. Teacher-centred use provides little opportunity for student autonomy. In contrast, learner-centred use of digital tools gives students more control of the process. The teacher provides support, but students are encouraged to actively engage with the tools to create content and facilitate learning. Digital tools can be used for collaboration or to access information, i.e., skills are not taught in isolation. In sum, teacher-centred use places the teacher in control, while learner-centred use provides students with more autonomy.

Liu et al. (2019) conducted a mix-methods survey investigating 198 Chinese foreign language teachers' use of digital tools in their teaching. They found that while teachers intended to use digital tools for learner-centred purposes, the use was primarily teacher-centred. By examining 178 video recordings from lower-secondary school lessons in Norway in 2014-2015, Blikstad-Balas and Klette (2020) also found that digital tools were mainly used for teacher-centred purposes. They noted minimal effort was made to meet the curriculum's demand of furthering students' digital competence. Rather than promoting learning, digital tools were used by teachers to convey information without changing their methodological practices. Frequently, digital tools were used as substitutes for traditional pen and paper, serving purposes such as conveying assignment instructions or facilitating drill-and-practice exercises. *Microsoft Word* was the most used digital tool among students, accounting for 71% of the overall usage. This was reflected in classroom activities, where digital tools were predominantly used for individual text production, often restricted to a single modality and with limited integration of other modalities like images or sounds (Blikstad-Balas & Klette, 2020). In many cases, the use of digital tools was monologic rather than an active part of the learning process. A selection of studies conducted before 2020 showed similar results, concluding that digital tools often served teacher-centred purposes in EFL classrooms (Hutchison & Woodward, 2014; Andrei, 2017).

Ding et al. (2019) also found that the 12 Taiwanese EFL teachers included in their qualitative study mainly used digital tools for teacher-centred purposes. They applied the three primary methodological approaches for language teaching (Johnson, 1992) to the use of digital tools in teaching. The first is skill-based practice, where digital tools are used for language drills, such as practising vocabulary. The second is rule-based practice, for which digital tools are used to learn grammar, such as through instructional *PowerPoint* presentations to present grammatical structures. Lastly, function-based practice is when digital tools encourage student interaction, such as using videos as the basis for discussions.

One participant in Blikstad-Balas and Klette's (2020) study was found to use *Kahoot* to review content. The effects of using this tool for skill-based practice were investigated by Ahmed et al. (2022). The study, which included 50 Iranian EFL learners, contrasted results from students learning vocabulary using *Kahoot* with students using traditional tools. They found that students who used *Kahoot* retained new vocabulary for longer, concluding that such games appeared beneficial for learning vocabulary. Göksün & Gürsoy (2019) compared the use of *Kahoot* and the similar tool *Quizizz* to examine how these digital tools affected student engagement and academic achievement compared to traditional teaching methods. Reaching a similar conclusion as Ahmed et al. (2022), *Kahoot* was found to have positive effects on student engagement and academic achievements. However, the positive impact appeared to be tied explicitly to *Kahoot*. Students taught using *Quizizz* displayed less engagement and lower results than those taught with traditional methods, thus, highlighting the importance of pedagogical considerations in selecting digital tools.

The use of digital tools may depend on the individual teacher's TPACK. Studies have found that a lack of knowledge about possible pedagogical uses of digital tools resulted in limited use of their features (Hutchison & Woodward, 2014; Andrei, 2017). Through interviews with three ESL teachers working at a middle school in the United States, Andrei (2017) found the teachers to be confident users of digital tools. They frequently integrated them into their teaching and displayed beliefs about digital tools supporting students' learning process. However, despite this, the application of said tools was found to be basic. Andrei suggested that a lack of training may explain the basic use of digital tools. This notion is supported by Hutchison and Woodward (2014), who found that the use of digital tools changed as the single participant of their study was offered support and guidance, and as they gained more experience. Digital tools previously selected based on convenience were suddenly selected with the lesson's goal in mind. As a result, they became a conscious part of the lesson plan instead of being integrated into an existing one. Classroom activities became

more multimodal, making students more engaged with the content as the teacher grew more confident using digital tools. Knowledge about possible pedagogical applications of a few digital tools was also found to motivate further exploration of how digital tools could be used, both in combination with each other and combined with traditional teaching tools.

Despite the positive connection between TPACK and the integration of digital tools into teaching observed by Hutchison and Woodward (2014), this link appears to be connected to personal factors, such as individual teachers' desire to develop more profound digital competence (Hutchison & Woodward, 2014; Kaarakainen & Saikkonen, 2021). This is supported by a large-scale study conducted in Finland (Kaarakainen & Saikkonen, 2021). The study included 2 355 participants and found individual factors to play a more significant role in integrating digital tools in teaching than digital skills training. However, they also claimed that while digital skills training was found to have little influence on the use of digital tools in teaching, it could positively impact teachers' willingness to continue exploring digital tools independently.

4.2 Pandemic Influence

In the spring of 2020, Bergdahl and Nouri (2021) surveyed 153 Swedish teachers about the switch to online teaching. When asked what role digital tools had played in their teaching leading up to the point of the study, close to 50% of the participants responded that they used them to a considerable or high extent. Concerning their prior experience of teaching online, 47% stated that they had none. Similar results have been found in Norway (Federici & Vika, 2020), where 2 271 were surveyed, most of which reported little to no experience with online teaching before the pandemic.

The transition to online teaching during the Covid-19 pandemic meant teachers were suddenly faced with higher demands of digital competence than before. Many found the new teaching conditions challenging, facing an increased workload as they were required to alter their previous teaching methods to fit the new demands (Hall et al., 2022). Many teachers were also forced into uncharted territory as digital tools became necessary for teaching.

In a study including 15 German secondary school teachers, Wohlfart et al. (2021) concluded that the Covid-19 pandemic had a unique impact on the acceptance of digital tools among teachers, as it forced them to become familiar with them during online teaching. Some participants explained that they had watched tutorial videos on using the digital tools necessary to teach during this time to ease the transition. Regardless of digital literacy before

the pandemic, Wohlfart et al. found that all participants in their study learned how to operate these new digital tools within the first few weeks of online teaching.

Before the pandemic, word-processing programs were found to be the most used digital tools in classrooms (Blikstad-Balas & Klette, 2020). However, in 2020, word-processing programs were found to have been replaced by new digital tools (Bergdahl & Nouri, 2021). When asked what digital tools teachers used during the transition from traditional- to online teaching, learning platforms, programs for virtual meetings and video websites dominated.

The altered use of digital tools during this time improved TPACK for the teachers in Federici and Vika's (2020) study. Most reported that they had received some form of support related to TPACK while teaching online, and more than 90% of them stated that the pandemic teaching situation had improved their digital competence.

Findings from Wohlfart et al. (2021) revealed that several of the teachers in their study were grateful for being forced to use digital tools during this time. They expressed that by being forced to learn how to use them, they had been positively surprised by how useful they found them. One teacher explained that it had made them confident in integrating digital tools into their regular classroom teaching after the pandemic. The transition to online teaching also impacted the use of digital tools for teachers with high digital literacy. They expressed that teaching online had provided them with extra time and that they felt encouraged to use new digital tools. As a result, they became more familiar with them and gained more profound knowledge.

In Finland, the shift to online teaching during the pandemic was deemed to have been a success. Lavonen and Salmela-Aro (2022) accredited this to the Finnish teachers' high level of TPACK. The solid foundation of digital competence is cited as one of the reasons for the Finnish teachers' success in developing new digital pedagogical methods to meet the demands and conduct teaching online during the pandemic.

4.3 Advantages and Disadvantages of Digital Tools

Promoting student motivation has been cited as one benefit of using digital tools in teaching. In a qualitative study including eight secondary school teachers in China (Li, 2014), a benefit of the integration of digital tools into teaching was said to be their potential to improve student engagement in lessons. The belief in the motivational aspects of digital tools was also recorded by Demiröz & Türker (2020) in a study including 71 Turkish EFL teachers.

Moreover, Huang et al. (2016) investigated the motivational aspects of digital tools from a student perspective. 80 Taiwanese EFL students were included in their study, which found the claims of increased motivation valid as students became more engaged due to the integration of digital tools into teaching.

The opinions about digital tools vary among teachers. The growing emphasis on using digital tools in education has been met with mixed responses. Multiple studies have noted a gap between the governing agencies' communication and the practice in schools (Madsen et al., 2018; Blikstad-Balas & Klette, 2020). Research conducted in Norway in 2015 suggests that the majority of the 67 surveyed teacher educators at Norwegian universities believed the importance of using digital tools in education to be exaggerated (Madsen et al., 2018). Studies have indicated a link between how digital tools are perceived and how they are incorporated into teaching practices. In Norway and Sweden, digital tools are made mandatory through the national curriculums. Madsen et al. (2019) suggest that a top-down structure may influence teachers' perceptions of digital tools, as they have no say in whether to use them.

Individual teachers' opinions on the usefulness of digital tools have been found to affect their integration into teaching. In a study including 202 Chinese EFL teachers, Liu et al. (2017) found that the individual teachers' opinions about digital tools greatly affected their integration into lessons. This connection is supported by Karamifar et al. (2019) and Pardede (2020), who found that those with negative views of digital tools tended to emphasise the barriers rather than the possibilities. When sharing their thoughts about when to use digital tools, one of the three participants in Andrei's (2017) study stated that they would consider using them in cases when they believed it would make the task more time-efficient than traditional tools. Another participant said that they used digital tools if they believed it would help students reach the learning objectives.

Concerning benefits to the practices of teachers, many of the teachers interviewed by Wohlfart et al. (2021) expressed that one of the primary benefits of digital tools was their ability to facilitate communication. They used digital platforms to communicate with their classes, distribute teaching materials to students, correct assignments, organise schedules and communicate with parents and colleagues.

The teachers in Andrei's (2017) study displayed positive attitudes towards digital tools. However, they also expressed that technological malfunction was a significant concern. Primarily, this concern was focused on the loss of productivity or having to produce a back-up-plan on the spot. Similar concerns were also found by Wohlfart et al. (2021), where fear of not using digital tools properly was cited as one reason for not integrating them into teaching.

They noted that for some, fear had resulted in a negative attitude towards digital tools in general and resulted in their only using traditional teaching tools.

Time-related issues were also expressed as deterring the integration of digital tools into teaching practices (Makhlouf & Bensafi, 2021; Katemba, 2020). One teacher shared their previous bad experiences, stating they would spend much time with the tools but not find them to function correctly (Wohlfart et al., 2021). Other studies have also noted a lack of time as a deterrence to integrating new digital tools into teaching. Two teachers expressed that they did not have the time to learn how to operate new digital tools, and therefore, they usually resorted to using the same tools in repetition (Andrei, 2017). While time is sometimes mentioned as a barrier to using digital tools, Byrne and Furuyabu (2019) noted that they can also be used to make tasks more time efficient, pointing to the ability to provide instant feedback as an example.

5 Method

This section presents and discusses the methods for collecting the empirical data. This will include an overview of the chosen method (5.1), the process of collecting data (5.2), participant selection procedures (5.3), and data analysis (5.4). Additionally, ethical considerations (5.5), reliability and validity (5.6), and methodological limitations (5.7) will also be addressed.

5.1 Qualitative Method

The purpose of this study guided the decision to use a qualitative method to gain knowledge about EFL teachers' past and present experiences of using digital tools in teaching. A qualitative method can provide insight into how individuals think and reason about a specific topic. It also enables flexibility regarding the details of the answers from the participants, which in turn contributes to providing a nuanced understanding of their lived experiences (Christoffersen & Johannessen, 2015, pp. 15-16). Therefore, a qualitative method has been used to investigate the work-related experiences of teachers.

5.2 Data Collection

5.2.1 Semi-Structured Interview

A portion of the data for this study was collected through a semi-formal interview with one lower secondary school teacher following an interview guide. The method is time-consuming but often preferable when collecting data linked to personal experiences and thoughts (Christoffersen & Johannessen, 2015, p. 83). The interview lasted 20 minutes and was conducted via a digital meeting due to the geographical locations of the participant and the interviewer. Semi-structured interviews offer the benefit of combining standardisation and adaptability by incorporating both predetermined and spontaneous follow-up questions (Christoffersen & Johannessen, 2015, p. 85). As a result, they can provide insight into the thoughts and reasonings of participants.

The interview guide (see Appendix A) was designed using Christoffersen & Johannessen's (2015, pp. 86-91) and Kvale & Brinkmann's (2014, pp. 172-182) guides. The guide contains an initial question designed to provide information about the participant's teaching background and allow them time to become comfortable talking to the interviewer. Next, the participant was asked to share their definition of digital tools in EFL teaching. Following this, they were asked how they use digital tools in their teaching, what benefits they bring to EFL teaching and whether they began using new digital tools during the pandemic. They were also asked if they believed the pandemic influenced their use of these tools. Finally, they were asked if they used digital tools to the extent they would like and if they had encountered any obstacles when using them. Depending on the answers, follow-up questions were asked to provide clarity or more data.

The concept of digital tools was left undefined before the interview to prevent any bias or preconceived notions. This choice was made to ensure that the participant's responses were not influenced or guided in any specific direction.

5.2.2 Qualitative Survey

The data for the study was primarily collected through an online survey comprising open-ended questions with free-form text responses and closed-ended questions. Surveys are a more flexible alternative to interviews since they do not require responders to schedule a meeting and can be answered at the participant's convenience. This makes it possible to reach people who would otherwise not agree to participate in a qualitative study. To ensure

practicality, the method was selected as the primary means of data collection due to the busy work schedules of teachers. The semi-structured interview was also included as an additional method to complement the primary one. The survey was conducted using Google Forms and distributed via a link in two online forums for EFL teachers working in Sweden, which at the time of this study had more than 6,000 members each. The survey was also shared via a personal connection at a local upper secondary school. The distribution in online forums allowed the survey to reach teachers throughout the country.

The survey (see Appendix B) was designed using the interview guide for the semi-structured interview. Since questions in a survey do not allow for further clarification, they must be designed to prevent misinterpretation. When deemed necessary, additional notes and clarifications were included with the questions to ensure their purpose was apparent (see Appendix B). In some cases, structured questions with predetermined answers were used to gather more information for specific open-ended questions. To avoid misunderstandings, the pre-determined answer options were designed to be mutually exclusive (Christoffersen & Johannessen, 2015, p.154).

5.3 Participant Selection

The study aimed to discover how individual EFL teachers use digital tools in teaching and if they believed these practices had changed following the pandemic. Therefore, the participants had to meet some specific criteria. These were: a) licensed English teachers, b) working in secondary school, and c) with a minimum of 5 years of teaching experience. These criteria were set to ensure all participants had undergone similar educations, worked at a similar level, and had worked as teachers long enough to have experience teaching before the pandemic.

The study applied a combination of two sampling methods to the selection of participants. Firstly, convenience sampling was used to recruit teachers who met the criteria and were willing to participate. This was done by posting a link in two EFL teacher networking groups on Facebook, namely *Nätverk för Lärare i Engelska* and *Engelska i åk 6-9*, as well as contacting select schools via email with information about participation in the study. Additionally, snowball sampling was used to reach teachers who may not have been active on social media or working at the schools to which the e-mails were sent. This was done by asking previous contacts to share information about the study with people they believed to be interested in participating. All potential participants were given information concerning the aim of the study and how it was to be carried out, and assurance that their

identities would be kept confidential. Participants had to give their consent to participate in the study.

The final study included 24 participants, who were assigned codenames for anonymity. One participated in a semi-structured interview (Teacher A), and 23 by responding to the online survey (Teachers 1-23).

Teacher A reported 20 years of experience teaching English and Swedish but has exclusively taught English for the past six years. At the time of the study, they were employed at a lower secondary school that markets itself as being digitally advanced.

The 23 survey participants are referred to as Teachers 1-23. Their codenames were assigned based on the order in which the responses were received.

Table 1
Participant Characteristics

Section 1			Section 2		
Name	Experience	Grade level	Name	Experience	Grade level
Teacher A	11-20 years	Lower secondary school	Teacher 12	21+ years	Lower secondary school
Teacher 1	11-20 years	Upper secondary school	Teacher 13	21+ years	Lower secondary school
Teacher 2	21+ years	Upper secondary school	Teacher 14	21+ years	Upper secondary school
Teacher 3	21+ years	Upper secondary school	Teacher 15	11-20 years	Lower secondary school
Teacher 4	11-20 years	Lower secondary school	Teacher 16	11-20 years	Upper secondary school
Teacher 5	21+ years	Lower secondary school	Teacher 17	21+ years	Upper secondary school
Teacher 6	5-10 years	Lower secondary school	Teacher 18	5-10 years	Upper secondary school
Teacher 7	11-20 years	Lower secondary school	Teacher 19	11-20 years	Lower secondary school
Teacher 8	5-10 years	Lower secondary school	Teacher 20	11-20 years	Lower secondary school
Teacher 9	21+ years	Upper secondary school	Teacher 21	21+ years	Upper secondary school
Teacher 10	11-20 years	Lower secondary school	Teacher 22	5-10 years	Upper secondary school
Teacher 11	11-20 years	Lower secondary school	Teacher 23	11-20 years	Upper secondary school

Note. The table has been divided into two sections to enhance readability. Section 1 displays the characteristics of Teacher A and Teachers 1-11, while Section 2 presents the characteristics of Teachers 12-23.

Table 1 shows that, out of the 23 participants, 12 worked in the lower secondary school (Teachers 4, 5, 6, 7, 8, 10, 11, 12, 13, 15, 19, 20) and 11 in the upper secondary school (Teachers 1, 2, 3, 9, 14, 16, 17, 18, 21, 22, 23). Among them, four had a teaching experience of 5-10 years (Teachers 6, 8, 18, 22), 10 had a teaching experience of 11-20 years (Teachers 1, 4, 7, 10, 11, 15, 16, 19, 20, 23) and nine reported a teaching experience of 21+ years (Teachers 2, 3, 5, 9, 12, 13, 14, 17, 21).

5.4 Data Analysis

The semi-structured interview was conducted via a virtual meeting platform, and the audio was recorded and manually transcribed. Kvale and Brinkmann's (2014) chapters on interview analyses provided the framework for the data analysis of this study. Kvale and Brinkmann (p. 223) describe that the focus of the study determines the level of detail that needs to be included in the transcription. Because this study aimed to analyse the content of the answers, a clean verbatim transcription was conducted. The content became more tangible and clearer by removing word repetition, filler words, run-on sentences, etc.

The answers from the online survey were saved and organised into separate word-processing files, following the same structure as the interview transcription. Afterwards, the interview and survey data were colour-coded to identify recurring themes concerning perceptions, usage of digital tools, and the impact of the pandemic. These themes were then organised into relevant sub-themes to address the research questions.

5.5 Ethical Considerations

This study adhered to the ethical guidelines established in The Swedish Research Council's *Good Research Practice* (2017). The guidelines provide a framework for ethical conduct in research, including principles such as informed consent, voluntary participation, confidentiality, and prevention of potential harm. The topic of the study was not sensitive, and participants were not at risk of physical or psychological harm because of their involvement.

Before agreeing to participate in the study, participants were provided with information regarding the study's purpose, design, documentation, consent, and confidentiality. Participation was voluntary, and participants were informed of their right to revoke their consent to participate in the study. The interviewee provided oral consent before the interview, while survey participants were informed that completing the survey constituted consent to inclusion in the study.

All participants were provided codenames, and no personally identifiable information was collected or stored.

5.6 Reliability and Validity

Qualitative studies conducted through interviews present potential challenges to the reliability and validity of the study, as the data that emerges depends on the participants' memory and the accuracy in the retelling of their experiences. Data collection also depends on the information the participants choose to share with the researcher.

Several precautions were made to counteract potential risks concerning the reliability and validity of the study. Semi-structured interviews allow participants to formulate their own answers, thus, lessening the risk of interviewer bias colouring the answers (Christoffersen & Johannesen, 2015, p.85). An interview guide was constructed and carefully followed to avoid research reactivity interfering with the answers. Before being used in the study, the questions were tested in a trial interview. Further, the interviewer gave no positive or negative feedback to prevent participant bias due to a perceived indication of how to answer the questions.

There was no previous relationship between the researcher and any of the participants. This was a deliberate choice to avoid personal history hindering the ability to share information freely. However, the lack of a personal relationship does not negate the power imbalance that is an innate part of an interview situation, as the interviewer guides the conversation through questions formulated based on the aim of the study and then interprets the information (Kvale & Brinkmann, 2014, p.52). The same structural imbalances apply to survey data. The asymmetric relationship is further emphasised as the interview, survey, transcriptions, and analysis for this study were conducted by the same person. This can potentially pose a risk to objectivity as the researcher may unintentionally disregard information which does not support their beliefs. To avoid this, all data was carefully colour-coded and categorised into themes before analysis. This ensured that all information was thoroughly examined. The survey and interview data have been kept for future reference.

5.7 Limitations

It is essential to consider certain limitations when reviewing the findings of this study. The research was conducted during the latter half of the spring of 2023 when EFL teachers in Sweden were preoccupied with evaluating reading, listening, and writing skills in national exams and grading their students. Consequently, several teachers declined to participate in

this study. Ultimately, only one individual agreed to participate in the interview, leading to the need to modify the data collection approach rapidly. It was then decided that a qualitative online survey would be used to collect data in addition to the one semi-structured interview. Although the open-ended survey provided sufficient data to be analysed, its drawback was the inability to ask follow-up questions. This limited the depth of nuance in some of the answers provided.

The data collection for the survey was restricted to Facebook groups, targeted emails to specific schools, and distribution among colleagues of a personal acquaintance. A total of 23 participants were recruited for the survey using these methods.

The use of digital tools in EFL teaching is not considered a sensitive topic, but opinions among teachers about their effectiveness can vary. It is possible that teachers who remain neutral on the topic may have chosen not to participate in the study, which could result in a volunteer bias.

It is important to note that due to the small number of participants, the findings of this study cannot be applied to a larger population. It is necessary to consider these limitations and view the results as solely reflecting the professional views and experiences of the 24 Swedish EFL teachers who chose to participate in this study.

6 Results

In this section, the findings will be presented according to the themes previously outlined in section 4: Current Use of Digital Tools (6.1), Pandemic Influence (6.2), and Perceived Advantages and Disadvantages of Digital Tools (6.3).

6.1 Current Use of Digital Tools in EFL Teaching

The teachers in this study described a heterogenous use of digital tools. A minority of teachers reported mainly using digital tools to facilitate testing and to practice individual language skills. One of these was Teacher 8, who explained that they primarily used online dictionaries and *YouTube* to provide grammar instructions. Others described frequent use of digital tools for various purposes. When describing digital tools in their EFL teaching, Teacher 3 stated: “What do I not do? I use digital tools all the time.”

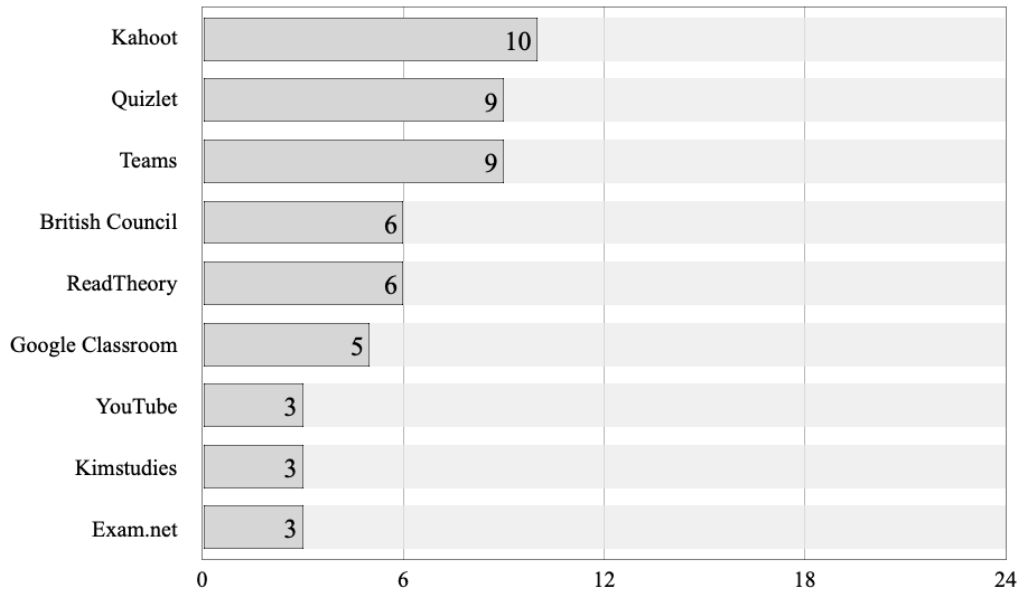


Fig. 1 The most commonly cited digital tools

As shown in Figure 1, the participants frequently used online games in their teaching. The most frequently cited digital tool was the interactive quizzing program *Kahoot*, which 10 participants mentioned using. The tool functions as a game where students choose the correct answer to a question and are awarded points based on accuracy and speed. *Quizlet*, where teachers can create flashcards for their students to practice, closely followed *Kahoot* in popularity. It was often cited as being used for similar purposes as *Kahoot*. Teacher A described that they frequently used both tools during their lessons. The lessons usually follow a similar framing, using different digital tools for various purposes. First, they used digital tools for warm-ups to get students to communicate with each other in English. Second, for the core work of the lesson. And last, as an exit ticket. They explained that this served as a class summary, allowing students time to think about what they had just learned. Various digital tools were used for this purpose, but often it was done using *Kahoot* or *Quizlet*.

Teacher 6 and Teacher 7 described that they would use *Quizlet* to teach new vocabulary, Teacher 7 stating that they would use it for this purpose every week. Others also reported using these or other online games like *Quizizz*, *Typeracer* and *Blooket* for vocabulary or grammar practice. Teacher 4 noted that they used them to make practising vocabulary and grammar more fun. This view was shared by Teacher 20, who explained that they believed integrating quizzes into their teaching made the process of learning more dynamic: “I can create my own quiz with questions connected to texts or videos the students have read/seen, which adds yet another perspective to the learning process.” They continued: “I usually use

digital tools as a ‘booster’ at the end of a lesson to enhance the area we have been working with.” In addition to this, they used the spelling game *Typeracer*. Because progression in the game required students to spell correctly; they believed this would make them more aware of their spelling.

Many also reported using a digital platform to communicate with students and their parents. *Microsoft Teams* and *Google Classroom* were found to be the most common tools for this purpose. Teachers would use them to structure students’ work, communicate assignments and homework, and disclose important information. Teacher 7 stated that, in addition to using *Google Classroom* for these purposes, they also used it to provide students with assignment feedback and to create a structure for students. They noted about this practice: “I’ve seen how important information flow is to the student. And how I should prioritise and clarify, sometimes simplify so the student doesn't get too much info, presented all in the same way.” Others also expressed that they used these tools to provide structure. Teacher 21 found it helpful as it enabled students who missed a lesson to access information and course materials.

In addition to providing structure, digital platforms were used for various other purposes. Teacher 2 and Teacher 5 described that they used them to monitor student progression and provide feedback on assignments during the writing process. Teacher 1 explained that they would use *Microsoft Teams* to record oral presentations and student discussions to lower performance anxiety.

Many participants used various digital tools to enable them to individualise assignments to students’ needs. The two most mentioned tools used for this purpose were *LearnEnglish* and *ReadTheory*. The British Council’s language learning website *LearnEnglish* provides practice materials based on The Common European Framework of Reference (CEFR) for various proficiency levels. Teacher 16 described using it to determine their students’ proficiency levels and provide them with tasks matching their level. Teacher 16 would continue to monitor their advancement to offer increasingly challenging work as they progressed. Teacher 23 explained that they believed *LearnEnglish* provided plenty of opportunities to practice all four language skills: listening, speaking, writing, and reading. When working solely with reading practice, many described using *ReadTheory*. The tool uses artificial intelligence to determine students’ level of reading proficiency and provides reading materials accordingly. After the teachers had assisted students in choosing the appropriate level of proficiency, these tools would mainly be used for solo practice. However, Teacher 7 noted they would also use *ReadTheory* for group practice.

For classroom discussions, Teacher A reported that they often used *Ted Ed* videos with their senior students. They also used other video streaming sites like *YouTube* and *UR Play* for similar purposes with students of all ages.

TED talks could also be used to practice listening skills, noted Teacher 1. Teacher 6 would use the website *Lyricstraining* to practice listening skills with their students. There, students would listen to music and fill in the lyrics.

Videos were also used to teach grammar, as described by Teacher 8 and Teacher 21, who would use *YouTube* for this purpose. Teacher 23 reported using the video series *The Grammar Company* found on the streaming site *UR Play*. Teacher 5 also used videos to teach grammar, stating that they would use *Microsoft Powerpoint* to produce grammar movies. In addition to videos, digital textbooks also provided materials to learn and practice grammar. Teacher 14 stated that they used the online textbooks *Online Grammar 1 & 2*, and Teacher 2 used *Solid Gold*.

The traditional word-processing tool *Microsoft Word* was only mentioned by one participant, Teacher 11. For writing practice, Teacher 2 and Teacher 23 used Cambridge's digital tool *Write & Improve*. The tool provides instant feedback on texts and suggestions for future improvements.

To restrict access to the internet and digital aids while administering tests, the software *Exam.net* was often mentioned. Teacher 22 explained that they use this and similar software for this purpose. Apart from being used for tests, Teacher 7 would use it to quiz students on their knowledge. It was also used for this purpose by Teacher 5, who described that they used the program for exit tickets at the end of a lesson. Further, they and Teacher 11 noted that they also used it to write essays without access to digital aids.

6.2 Pandemic Influence

Multiple teachers in this study reported that their teaching practices temporarily changed during the pandemic. For many, virtual meeting platforms found their way into daily practice as they began teaching online. Teacher 13 was one of nine who said they began using new digital tools during this time. They used the digital whiteboard program *Google Jamboard* to encourage active participation during online lessons on *Google Meet*. The collaborative program was said to promote active participation among students. Teacher 11 was introduced to *Microsoft Teams* as they began using it for virtual lessons during online teaching. They expressed that they believed it to be an excellent tool for communicating with students and

managing assignment hand-ins. The tool became an integrated part of their practice and followed them back into their physical classroom teaching.

While many reported using new digital tools during the pandemic, others already used them in their pre-pandemic teaching. Teacher 3 stated that they used *Microsoft Teams* almost daily, and Teacher 12 expressed that they had been using digital tools in their EFL teaching since 2010. They noted that the tools used during this time were familiar and that they were well-equipped to use them. These experiences were shared by Teacher 20, who also stated that their previous practice had prepared them to use the tools needed to teach online: “I had an interest in digital tools before the pandemic, and that certainly came in handy. I did not use any new tools, but rather used the ones I knew even more.”

Some reported that while teaching online was new, the lessons followed the same structure. Teacher 2 stated: “It was mostly business as usual with using textbooks, working with learning vocabulary and grammar etc.” For others, the teaching conditions during the pandemic introduced a pressing need for more knowledge about the operations of various digital tools. For Teacher 5, this meant consulting the Internet for information. While researching how to operate *Google Meet*, they found different instructional videos on *YouTube* that provided knowledge of the potential uses of digital tools. Teacher 5 expressed that this time had a lasting effect on their use of digital tools in their EFL teaching: “I have learned new ways of using them, especially when it comes to teaching kids with special needs.” Like Teacher 5, Teacher 21 also experienced a lasting influence from their time teaching online during the Covid-19 pandemic. They believed many tools they began using to teach online worked just as well in the physical classroom. They reported that they still frequently use *Microsoft Teams*, which they described as having discovered the benefits of during the pandemic.

The perceived benefits of the various digital tools used during online teaching were voiced by many of the participants in the study. While many shared experiences of gaining a deeper understanding of digital tools while teaching online, not all believed it had made a lasting impression on their practice. 14 out of 24 participants in this study reported no changes in their use of digital tools in their EFL teaching after the pandemic. One of these teachers was Teacher A, who worked at a school with a digital profile at which online teaching was temporarily enforced. They stated that while the pandemic teaching situation did not change their view or use of digital tools, the altered working conditions benefitted their further exploration. They described that it was unusual for them to be able to work undisturbed for extended periods, as they would usually be interrupted by colleagues or students and lose

focus. Teaching online from home allowed them to work more efficiently. As a result, this allowed them time to research and explore digital tools more in-depth than previously: “It’s not really a straight road, you really need to wrap your head around how to work on it [improving knowledge of digital tools]. And I suppose the pandemic gave me that possibility - or opportunity.”

While Teacher A saw online teaching as an opportunity to become more familiar with digital tools, Teacher 8 described being forced to use them out of necessity: “[I] did not like digital tools before, had to use them and still do not like it.” The temporary use of digital tools did not affect their practice, and instead, they reported that they preferred to use traditional teaching tools over digital ones.

6.3 Perceived Advantages and Disadvantages of Digital Tools

This section is divided into two parts that account for participants' perspectives regarding the advantages (6.3.1) and disadvantages (6.3.2) of using digital tools in EFL teaching.

6.3.1 Advantages of Digital Tools

When asked about the perceived benefits of using digital tools in EFL teaching, one of the most frequent responses was their ability to increase student motivation. Teacher A stated that they found digital tools to promote engagement, citing the many options of variation as a significant contributing factor: “Now all of a sudden, you’ve got the variation. It’s authentic, it’s fresh I would say as well, and it’s engaging.” Teacher 11 expressed similar beliefs about the motivational potential of digital tools. They described using interactive quizzing tools to encourage student motivation: “The main benefit of these tools is to do something fun and relaxing while still practising.” Another teacher who referred to potential motivational factors was Teacher 12, who highlighted the potential for variation. They thought this also helped students learn the difference between learning new content and practising retaining previous knowledge. Similarly, Teacher 20 also believed that student motivation increased by combining practising skills with digital games, adding another layer to the learning process.

Another dimension of motivation mentioned by Teacher A was authenticity. They stated that digital tools enhance student motivation by offering authenticity to assignments. They explained that in contrast to traditional teaching tools, digital tools provided instant access to current material:

You've got access to, on a daily basis, articles. That's very authentic. That did not exist when I started working as a teacher. So, authentic and then it's easily accessible. [...] You've got the world at your fingers with just one click.

Another frequently stated benefit of digital tools was the possibility of tracking student progression and adapting the material to their needs. Teacher A said: "The goal with teaching is to ensure that pupils get what they need according to their individual level." Students in a classroom are rarely a homogenous group, noted Teacher 2. Therefore, ensuring students work at their ideal level can be challenging in a traditional teaching context. They explained that digital tools could be used to ensure that students had their content-related individual needs met through level-appropriate assignments.

Additionally, Teacher 2 stated that digital platforms have the potential to promote inclusion: "Students who are reluctant to ask questions in class can do so via Teams and not be noticed by other students." Most participants described using these platforms to communicate assignments and additional important information to students and believed it made communication with students more efficient. Teacher 21 explained that one of the benefits of this was that it enabled students to stay up to date even if they were not physically present during lessons.

Teacher 2 found that assigning digital homework increased the likelihood of it being completed. By having it accessible online, they found that students were less likely to forget it than if they had to bring home a book or paper. Teacher 10 stated that they noticed a decrease in the importance of homework since integrating more digital tools into their teaching. They believed that this had resulted in fairer and more precise grading.

Similarly, Teacher 1 stated that digital tools helped collect accurate information about students' oral proficiency. They found that students tended to become stressed if they felt observed by the teacher, negatively impacting their performance. By allowing students to record their discussions instead, they would become relaxed and give a more accurate representation of their abilities. As a result, Teacher 1 believed that they could provide them with better feedforward for further improvement. Also, citing the ability to provide feedback, Teacher 2 explained that they used Cambridge's digital tool *Write & Improve* to give students feedback on improving their writing. They noted that this was very useful as they could not provide the amount of individualised feedback they would like.

6.3.2 Disadvantages of Digital Tools.

10 of the teachers in the study reported experiencing student-related problems when using digital tools. Teacher 19 expressed great scepticism towards using digital tools in their EFL teaching, describing that they continuously grow increasingly sceptical about using them. This view was shared by Teacher 8, who stated: “[I] did not like digital tools before, had to use them [during the pandemic] and still do not like it.” They continued by describing that their students rarely used the digital tools as intended by the teacher. Instead, they were said to claim every opportunity to use them for unrelated things. Teacher 8’s experience of unintended use of digital tools was shared by Teacher 13, who found that students often became distracted when using their computers for schoolwork. Teacher 22 connected digital tools to an increased risk of cheating when working in programs enabling access to the Internet.

Apart from problems with unintended use of the tools, some believed students to be reluctant to use digital tools. In contrast to their enthusiasm towards digital tools for EFL teaching, Teacher 17 found that many students did not enjoy working with them and expressed that they were not being able to use them in their teaching to the extent that they would like. Teacher 16 and Teacher 9 also believed that many students did not enjoy working with digital tools. Teacher 9 expanded on this by saying: “Many students are digital illiterates, despite their constant use of smartphones. It is difficult to make them use their laptops in an efficient and creative way, and they often lack interest to learn new software.”

In contrast, Teacher 11 found students to be confident users of digital tools. Instead, they believed students had become too reliant on them and that they found it challenging to inspire motivation without using digital tools, causing problems when working with traditional teaching tools.

Teacher 2 and Teacher 3 stated that they found digital tools to be a beneficial complement to traditional classroom teaching but that they should not replace other tools. Teacher 16 shared this sentiment: “Reading on real paper is always better than reading on screen.” While most participants seemed to agree that a mix of traditional and digital tools benefited students, Teacher 7 said they found it difficult to remember. They noted that while they believed it very important for students to practice writing by hand, they often forget to do this due to their frequent use of digital tools. According to Teacher 4, using digital tools has hurt students’ spelling abilities, believing students to be less proficient now than previously.

One of the most common problems mentioned by the participants of this study was the risk of technological malfunction. This could be due to the Wi-Fi or the computers not functioning correctly and was cited as a source of frustration as it limited the ability to work with the digital tools. Teacher A noted the digital tools chosen to be used in schools could sometimes lack in their performance. They found that the school platform tended to get overloaded with traffic when working during conference hours. They shared that this problem sometimes also affected the program *Exam.net*, which momentarily shut down during the national exam. Teacher 23 also found the performance of digital tools to be occasionally unreliable. They stated that sometimes they found that the digital tools they used could present incorrect information but continued to say that this can also occur with traditional printed material. Another common occurrence was students' forgetting their log-in information to various programs or having misplaced their computer chargers.

When using digital tools in teaching, Teacher A stated that it is important to vet them beforehand. They described an incident a few years ago when a pornographic advert appeared on the big screen during a lesson. Their school has since then installed better firewalls to block inappropriate content and avoid similar instances in the future. Teacher A noted that these things were rare but could occur when working with third-party digital tools.

7 Discussion

In this section, the findings obtained from the data analysis will be discussed based on the themes identified in Section 4 and Section 6. This study aimed to investigate how EFL teachers perceive and use digital tools in their current teaching practice. It also aimed to explore whether the pandemic has impacted their usage of digital tools. The findings will be discussed in the following order: The Use of Digital Tools in EFL Teaching (7.1), Pandemic Influence (7.2), and Advantages and Disadvantages of Digital Tools (7.3).

7.1 The Use of Digital Tools in EFL Teaching

Most of the participants in this study appeared to be confident and frequent users of digital tools, in concordance with previous findings by Andrei (2017). When analysing the data, the participants' use of digital tools was found to be balanced between teacher-centred and learner-centred. These results contrast previous research (Blikstad-Balas & Klette, 2020; Hutchison & Woodward, 2014; Liu et al., 2019), in which there was a clear favouring of teacher-centred instructional use of technology. There was also no evident preference for

skill-based, rule-based, or function-based practices by the teachers in this study. Instead, the use of digital tools was found to cover many different aspects of language teaching. The more balanced use of digital tools recorded in this study could indicate an increased TPACK among teachers in recent years. It seems reasonable to assume that this development could be due to the increasing number of digital tools available to teachers. However, it can also be viewed as a natural consequence of the increased focus on integrating these tools into education that came with the 2018 curriculum revision (LGR, 2022).

The reasons for integrating digital tools into teaching appear to have changed from 2014 to 2023. Between 2014-2015, digital tools did not appear to have a clear methodological purpose in the teaching practice. Blikstad-Balas and Klette (2020) found the tools to be used mainly as replacements for pen and paper, with the most frequent learner-centred use being individual text production using *Microsoft Word*. The interactive game *Kahoot*, released in early 2013, was only used by one of the participants in their study. In 2023, the results of this study show a significant shift in integrating digital tools in teaching. The most frequently mentioned digital tool was now *Kahoot*. Those who used it believed it benefitted both student motivation and language learning, as has been found to be the case in previous research (Göksün & Gürsoy, 2019; Ahmed et al., 2022). There was also a lack of mention of word-processing programs, which is consistent with the findings of Bergdahl and Nouri (2021) from 2020, where word-processing programs were reported to be used less frequently compared to earlier studies. While the absence of mention does not translate to the absence of use, it suggests that the participants of this study do not view word-processing programs as their primary use of digital tools for teaching.

As digital tools no longer appear to be used mainly for teacher-centred purposes or to replace traditional tools, it could be argued that these findings indicate a shift in the methodological practice. When used in replacement of traditional tools, lessons can be planned without considering the integration of digital tools. Pen and paper may be substituted for a word-processing program without affecting the lesson; thus, the traditional teaching practices require little to no adjustment. Interactive digital tools such as *Kahoot* cannot be seen as simply being used in place of such tools, thereby indicating that the selection of digital tools has become a conscious part of lesson planning, as Hutchison and Woodward (2014) found to be linked to increased knowledge and experience. Hence, the findings of this study may suggest that the teachers have complied with the requirements of enhancing their digital competence, as outlined in the revised curriculum (LGR, 2022).

7.2 Pandemic Influence

In concordance with the findings by Wohlfart et al. (2021), several of the participants in this study experienced that the teaching situation during the pandemic granted them the opportunity to improve their TPACK. The more digitally literate participants noted that working from home made them work more efficiently than before, thus, affording them time to further explore digital tools they were already familiar with. For some novice users of digital tools, the Covid-19 pandemic introduced a pressing need to learn how to use the tools necessary to teach online. Adopting a similar strategy as one of the participants in Wohlfart et al.'s (2021) study, one teacher in this study found tutorial videos helpful for learning how to use new digital tools during this time. Having to resort to tutorial videos may suggest that the teachers did not receive much technical support from their employers, and instead, they may have been left to figure the new tools out for themselves.

While the situation during the pandemic affected all teachers in this study, its influence on their practices differed. Some were pushed towards a permanent change in their use of digital tools for EFL teaching, while others opted to revert to their previous teaching methods when online teaching ended. Wohlfart et al. (2021) found that being forced to use digital tools during the pandemic uniquely impacted teachers' acceptance of digital tools. However, the results of this study do not fully align with this notion. Instead, the findings suggest that personal opinions about digital tools have a great effect on their use, thus aligning with other findings (Kaarakainen & Saikkonen, 2021; Liu et al., 2017; Karamifar et al., 2019; Pardede, 2020). Those who displayed the most enthusiasm concerning digital tools were also the ones who reported the most widespread use. The same connection can also be made in reverse as the teachers who expressed the most negative opinions about the benefits of digital tools also reported less use of them. Consequently, the pandemic appears to have impacted the use of digital tools by those who did not hold strong negative opinions about them beforehand.

One teacher said that they had been forced to use digital tools during the pandemic, but it did not impact their general negative opinion of digital tools. As this teacher did not explain their opinion further, it is only possible to speculate on the reasons for their dislike of digital tools. A possible factor could be the lack of a say in using them, as Madsen et al. (2019) argued. By this logic, the mandated online teaching may have resulted in the cemented negative opinion of digital tools, which this teacher appeared to hold.

The experience of teaching during the pandemic was found by many to have increased their TPACK, resulting in better use of digital tools. This corresponds with Federici and Vika's (2020) previous research, which revealed that an overwhelming majority of their participants believed the teaching conditions during the pandemic had resulted in improved TPACK.

Further, the previous integration of digital tools in teaching practices appears to have influenced post-pandemic practice. Lavonen and Salmela-Aro (2022) credited high TPACK for the successful implementation of online teaching in Finland. In this study, the most significant changes following the pandemic were described by those forced to learn how to operate new digital tools to teach online. In contrast, the post-pandemic use of digital tools remained unchanged for several of the more confident users. The switch to online teaching may have been less challenging for those with a higher TPACK, potentially resulting in a lesser need to rethink the practice for the more confident users of digital tools. Consequently, the long-term changes reported by some participants in this study can likely not be accredited solely to the teaching situation.

In sum, the pandemic seems to have positively affected the TPACK of all participants, regardless of previous skills and attitudes. However, the lasting effect of this appears to be highly dependent on personal attitudes towards digital tools.

7.3 Advantages and Disadvantages of Digital Tools

Several participants in this study praised digital tools for facilitating communication between the teacher and students. Similar thoughts were expressed in the findings of Wohlfart et al. (2021), whose participants also found communication to be one of the most prominent benefits of digital tools. The participants in both studies described using digital platforms to communicate and correct assignments and to organise and distribute teaching materials. However, while the stated uses of digital platforms in both studies share many similarities, there are also differences. The participants in this study described a broader and more student-focused use of digital platforms. Apart from being used for communication, they were also used to record student discussions to lower performance anxiety and enable shy students to actively participate during lessons and ask questions without fear of ridicule from other students.

Teachers also highlighted the ability to cater to individual student needs. Several participants noted that digital tools made it possible to allow students to work with level-

appropriate assignments that would adequately challenge their proficiency. Further, they make it possible to tailor the practice materials to target specific language skills. Historically, the classroom setting meant that teachers needed to position their teaching at a level suitable for most students. As a result, some students were likely to find the content too easy or difficult. As mentioned by one of the participants in this study, the goal of teaching is to challenge students enough to transform content into knowledge. This is realised in the zone of proximal development when working with challenging but comprehensible content. Therefore, the ability to provide students with materials catered to individual needs must be viewed as benefitting learning.

While manually constructing individual assignments can be time-consuming, some digital tools can automatically adapt materials to students' proficiency. This benefited students and teachers alike, as several teachers in this study expressed that digital tools make their work more time efficient. Aligning with findings from Byrne and Furuyabu (2019), they also used digital tools to ensure students would get adequate individual feedback on their work when they did not have enough time to supply it.

Concerning the disadvantages of digital tools, one of the biggest concerns of the teachers in this study was the risk of technological malfunction. Problems related to inadequate technological infrastructure at the schools where the participants worked were found to be common. Poor Wi-Fi connection was cited as a source of frustration, significantly impacting which digital tools could be used. This would often result in their having to rethink their lesson on the spot. These concerns were often expressed by teachers with high digital literacy, as was also found by Andrei (2017). Confident users of digital tools are likely more adept at dealing with problems related to using digital tools than novice users. Therefore, it seems reasonable to assume that the focus on poor Wi-Fi quality may be explained by a lack of worry about other problems that may arise when working with technology. In addition to poor Wi-Fi, one participant noted that the programs selected for the school's administrative work tended to get overloaded when used by many teachers simultaneously. Frustration regarding lacking capacity of the programs selected by the school management aligned with findings from Bergdahl and Nouri (2021). With curriculum demands of integrating digital tools into education, a lack of adequate digital infrastructure can be detrimental. To adhere to the demand, third-party applications may become necessary. However, this may present other problems as it requires careful vetting from the teacher before use, as noted by one teacher concerning the risk of inappropriate content being displayed in class.

While using third-party apps entails a risk, they can also provide authentic content. The ability to provide variation and authenticity to assignments was believed to be a motivational aspect for students. Participants would use videos and lectures to conduct classroom discussions about current topics. Doing this made them feel that schoolwork became more authentic as it connected with the outside world. A participant mentioned that students who have grown up with technology have come to expect a more varied input than previous generations. Considering the constant input that students are faced with through their mobile phones, this appears to be a reasonable belief. This type of merging of domains could prove to be a successful strategy for creating engagement among students.

Many also believed digital tools made learning content more fun for students. By using interactive games, some expressed that the line between schoolwork and play became blurred, thus, resulting in their learning content without thinking of it as traditional schoolwork. Previous research has validated the claims about the motivational aspects of digital tools (Li, 2014; Demiröz & Türker, 2020). Thus, the claims appear to hold weight.

Some expressed thoughts about potential benefits related to student achievement. One participant shared the example of practising spelling through interactive games. They argued that appealing to the competitive nature of students could lead to better spelling abilities. Ahmed et al. (2022) found that the inclusion of interactive games in teaching can improve vocabulary retention. One teacher in this study disagreed with this notion. Instead, they believed the presence of digital tools had a negative impact on students' spelling abilities. Both claims may be valid. The claim of better student achievements is likely valid when using digital tools designed to practice specific skills. In contrast, the claim of declining skills is likely also valid, perhaps due to excessive reliance on digital spelling assistance.

Several teachers in this study appear to have set opinions about digital tools. Some displayed great enthusiasm about the benefits of using them, while others expressed great scepticism towards them. However, it is important to consider that digital tools are a heterogeneous collection of various tools. This is an important distinction, as it could otherwise be easy to assume that using digital tools for teaching is inherently rewarding or unrewarding to educational practices. Positive gains from using one digital tool are not synonymous with positive gains from all, and vice versa. As discerned by previous research (Göksün & Gürsoy, 2019), one digital tool can increase student results compared to traditional teaching methods, while another can be found to decrease them. This highlights the need for a solid foundation of TPACK to allow teachers to make informed pedagogical

decisions in selecting digital tools. Some may benefit one specific aspect of language learning but not another. Context should therefore guide the selection of tools and teaching methods.

8 Conclusion

The aim of this study was to provide insight into the current use of digital tools in EFL teaching in Sweden in a post-pandemic context. To the author's knowledge, no previous research has investigated the impact of the pandemic teaching situation on these practices in Sweden.

The findings showed that many teachers were confident users of digital tools and that the tools were regularly integrated into their practices. They mostly expressed positive opinions about digital tools and were found to use them for skill-based, rule-based and function-based practice to cover all aspects of EFL learning.

Moreover, the results also showed that the pandemic had a positive impact on the TPACK of the majority of teachers. The more novice users of digital tools in this study were found to have changed their practices to include more frequent and varied use due to being confronted with the tools during online teaching. The more confident users were found to have expanded on their previous knowledge to gain a more profound understanding of their use. However, the results also suggested that personal factors also contributed to the changed use of digital tools.

Finally, the findings revealed that the teachers believed digital tools to be beneficial for communication, promoting student motivation, and knowledge retention. It also showed that teachers were concerned about technological malfunction, inadequate technological infrastructure, and students' inaccurate use of digital tools.

Concerning future research, it would be beneficial to observe the classroom teaching of Swedish EFL teachers to provide further insight into the variation of the use of digital tools in their everyday practice. This could reveal information that the participants may not think to share.

Additionally, conducting further investigation into the long-term effects of the pandemic on the integration of digital tools in education would be of interest. This could shed light on whether the observed changes in this study will persist or if teachers will eventually return to their prior practices over time.

Moreover, it would be interesting to investigate the link between digital tools and student motivation concerning an increased need for varied input from younger generations.

Such research could provide valuable insights into the potential impact of digital tools on enhancing student engagement and learning outcomes in the modern educational setting.

Finally, the results of this study point to a changed use of digital tools resulting from the pandemic online teaching. To enhance the results of this study, research including a larger sample size could reveal potentially generalisable conclusions about the post-pandemic use of digital tools in EFL teaching.

These suggestions for future research could provide further insight into the factors which affect the successful integration of digital tools in teaching. Further, it can contribute to teachers' informed selection of digital tools for teaching.

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Appendix A

Interview Guide

1. Tell me a little about yourself. How long have you been working as a teacher, and what subjects do you teach?
2. What comes to mind when you think of digital tools in the context of EFL teaching?
3. What types of digital tools do you use in your EFL teaching?
4. Did you start using new digital tools in your English teaching during the pandemic?
5. What do you see as the specific benefits they bring to the teaching of English?
6. Has the pandemic influenced the way you view and use digital tools in your English teaching today?
7. Do you feel that you use digital tools in your EFL teaching to the extent that you would like, or would you prefer to use them more or less?
8. Do you encounter any obstacles in your use of digital tools in the EFL classroom?
9. Is there anything else you would like to add?

Appendix B

Survey Questions

1.) I am certified to teach English (jag har lärarlegitimation):

Yes

No

2.) I have been working as a teacher for:

Less than 5 years

5-10 years

11-20 years

21+ years

3.) I currently teach English in (if you teach both, choose where you teach most often):

Lower secondary school (högstadiet)

Upper secondary school (gymnasiet)

4.) What comes to mind when you think of digital tools in the context of EFL teaching? (e.g., What types of digital tools can you think of?) You don't have to be using them yourself.

5.) What types of digital tools do you use in your EFL teaching, and how do you use them?

6.) Did you start using any new digital tools in your English teaching during the pandemic? If the school you work at did online teaching, please include this in your answer.

7.) If you answered yes. Was the use of these new digital tools decided by you or imposed by the school management? Please specify further if selecting "other".

It was decided by me.

It was imposed by the school management.

Other: _____

8.) Could you choose one or two examples of digital tools you use and explain how you believe they benefit your teaching?

9.) Has the pandemic influenced the way you view and use digital tools in your English teaching today? (e.g., Did you discover new ways of using them? Has your opinion of them changed? etc.)

10.) Do you feel that you use digital tools in your EFL teaching to the extent that you would like, or would you prefer to use them more or less? Please specify further if selecting "other".

Yes, I use them to the extent I would like.

No, I would like to use them more.

Other: _____

11.) Do you encounter any obstacles in your use of digital tools in the EFL classroom? (e.g., Do you see any downsides to using digital tools?)

12.) Is there anything else you would like to add? (optional)
