Linnæus University
Sweden

Independent project

EFL teachers' experiences with transitioning to online instruction
A study during the COVID-19 pandemic

Author: Marcus Abrahamsson
Supervisor: Charlotte Hommerberg
Examiner: Marie Källkvist
Term: HT20
Subject: English
Level: G3
Course code: 2ENÄ2E

Abstract

Teachers need to continuously develop their *Information and Communication Technology* (ICT) proficiency to keep up with the rapid development of technology, and the COVID-19 pandemic has only made this more apparent. This study aims to understand how EFL-teachers exercise their teacher agency and adapt their teaching in an environment where ICT is the basis for their teaching. Semi-structured interviews were conducted with six upper secondary school teachers and then analysed using thematic analysis. The results showed a significant decrease in professional development as a result of reduced contact between colleagues. Most teachers have focused on developing their tool-specific skills. Adaption of teaching strategies has seen the most success in the teaching of writing proficiency. Most teachers are familiar with integrating technology with writing. Most teachers have found strategies to increase the accessibility of information as well as increased clarity of tasks. However, teachers have found it difficult to motivate students who have a hard time working on their own. They have also found it difficult to follow students' progress in more extensive tasks.

Key words

EFL, online instruction, Semi-structured interviews, TPACK

Innehåll

Appendices

Linnæus University
Sweden

Appendix 3 – Interview guide (Swedish)

Appendix 4 – Interview guide (English)

Appendix 5 – Quotes (English)

Appendix 6 – Quotes (Swedish)

Linnæus University
Sweden

1 Introduction

In recent years, digital technology has developed rapidly and is predicted to continue to do so in the future. This digitisation brings with it new tools for learning and teaching (Natl. Ag. Ed. 2017:9-10). In Sweden, digital technology has been part of the core content for several years (Natl. Ag. Ed. 2011:12), and changes in the syllabus for English 5 coming into force this year specifically requires that students should develop strategies so that they can be active in discussions through digital mediums (Natl. Ag. Ed. 2020a:4).

There has been a noticeable resistance in adopting new technologies in teaching. In some cases, this is because there is a lack of support when adopting these new technologies. In other cases, this resistance is a result of a lack of interest or cooperation among colleagues (The Committee on Education 41:2016). Additionally, some teachers have expressed a lack of support with the implementation of new technology (National Union of Teachers in Sweden (LR):8-12). Resistance to new technology is not unique to Sweden. Mishra & Koehler (2006:1023) have found some teachers to be resistant because they fear the change that new technology brings, accompanied by the fact that time and support for learning to use new tools are limited. The Swedish National Agency for Education (2018:9) points out the importance of cooperation between everyone involved in order to create an environment that focuses on learning and development. Nevertheless, during my previous practicum, several teachers reported that the new technology had been imported without teachers' input, which resulted in a lack of time for evaluation of these new tools, as well as difficulties in using these tools to enhance teaching in new ways.

The recent Covid-19 pandemic has quickly and drastically increased the pressure on teachers, particularly upper secondary school teachers, to urgently gain sufficient proficiency in using technology to enable a transition to distance

teaching. During this period, the teachers' experiences may demonstrate areas where proficiency in using *Information and Communication Technology* (ICT) resources has proved to be adequate as well as situations where the need to replace classroom activities with ICT variants has led to new, creative pedagogical practices. Moreover, it also highlights aspects of ICT usage that have previously received less attention and where teacher skills may need further development. Because of the new perspective on ICT brought about by the pandemic, it is of particular interest to investigate teacher agency in relation to ICT technology at this crucial point in time. For instance, teachers need to find ways to adapt their teaching to pupils with varying ICT competencies. The Swedish National Agency for Education (2020c:13) report that the transition to distance learning has shown to be more challenging for newly arrived students. Additionally, practical programs have had to, in some cases, postpone theoretical classes until spring next year in the hope of being able to offer more workplace learning by letting smaller groups of students perform practical parts of their education. They also report that teachers have expressed difficulties in making sure students have done their work by themselves without receiving outside help, as well as inability to make sure grades are fair and equally applied (Natl. Ag. Ed. 2020c:14-16). Researcher Loeb (Loeb in Sprangers 2020) has found that student motivation has been negatively impacted during distance teaching due to, among other factors, being away from peers. Many students have also become increasingly worried because they feel they cannot perform to the same extent. One of the greatest challenges during the pandemic has been helping students lacking in motivation as well as those most affected by the decrease in social interactions (Natl. Ag. Ed. 2020c:21-22). The pandemic has thus had quite an extensive impact on teacher agency.

1.1 Aim and research questions

This study aims to understand how EFL teachers exercise their teacher agency and adapt their teaching in an environment where ICT is the basis for their teaching. The goal is therefore to answer the following questions:

- How do teacher experience -
    - Their technological knowledge in the online teaching environment?
    - Their technological pedagogical knowledge in the online environment?
    - Their technological content knowledge in the online environment?

2 Previous research

Expectations of ICT usefulness may affect outcomes. A study by Sangeeta and Tandon (2020:7), which was conducted through an online survey with 643 schoolteachers from North India found that educating teachers about the benefits of using online teaching to improve expectancy were closely related to intentions and attitudes towards online teaching. Similarly, a mixed-method study in Iran by Dashtestani (2014:9-11) with EFL teachers participating in semi-structured interviews and questionnaires found that teachers had positive attitudes towards using technology to facilitate integrating online instructions. Additionally, the study found teachers' lack of ICT literacy and the facilities to support integration to be significant obstacles.

The skills needed for online teaching are different from those in the traditional classroom. Among these are the teachers' knowledge of different applications and the teacher's ability to lead interactive lessons in the online environment. This is echoed by several teachers in an article exploring the experiences of nine different English teachers in London (Evans et al. 2020:244-247) who

voice the difficulties of teaching in an online environment due to lack of social elements, resulting in discussions becoming less productive and making it considerably more difficult for students to share ideas. However, Spoel et al. (2020:632-633) found in their study, by comparing how teachers perceived online teaching before and a month after transitioning to online teaching, that ICT has been beneficial in areas such as giving feedback and instructions as well as active and collaborative learning. In their online survey of teachers in Germany, König et al. (2020:617) found that tutorials and other resources are important in creating tasks suitable for students' different individual needs and teachers who are familiar with the technology available during online teaching are more likely to succeed in its implementation. Additionally, König et al. (2020:617) found that teachers who belong to the generation of digital natives, i.e. those growing up surrounded by technology, are not more likely to have a skilful grasp of ICT in online education. A possible reason for this is the lack of systematic introduction of technology in some schools.

Researchers found that the inability to identify body language and gestures and the ability to see students' reactions to questions caused teacher-student interactions to be hindered during online teaching. Online interaction differs from classroom interaction (Evans et al. 2020:251-252; König et al. 2020:614; Dasthestani 2014:10-11). Dasthestani (2014:11) proposed using video conferencing tools to counter several of these challenges to mitigate this. However, implementing video conferencing tools showed varying degrees of success. Limitations such as a lack of familiarity with the tools caused a hindrance to this implementation. Spoel et al. (2020:633-634) found that monitoring students' progress benefited from greater technology integration and suggested developing these areas further. Some students found themselves uncomfortable in the online environment where others have instead thrived, which might be seen as further evidence that students' interest and needs have had different

effects on outcomes (Evans et al. 2020:250-251; König Et al. 2020:618-619; Spoel et al. 2020:632).

Researchers have identified teacher agency with decisional capital, the authority to make judgement calls, and linked it to the degree of autonomy teachers have in making decisions to meet students' needs in different learning contexts (Nolan and Molla 2017 in Albion & Tondeur 2018:9). Albion and Tondeur (2018:12, 14) state that teachers who feel supported by their community are more likely to act with greater agency. They also found that encouraging teachers to explore new technologies and working together with professional learning communities enhances ICT development.

3   Theoretical background

The following section will present teacher agency and *Technological Pedagogical Content Knowledge* (TPACK). These theories will be used as a basis for the interview guides and as a resource to analyse the results.

3.1   Teacher agency

Teacher agency has been defined in many ways by researchers. Van Lier regards agency as an umbrella term covering volition, intentionality, intrinsic and extrinsic motivation and autonomy (van Lier 2008:171). Additionally, he proposes three core features of agency based on some existing definitions of agency.

> 1) Agency involves initiative or self-regulation by the learner (or group)

> 2) Agency is interdependent, that is, it mediates and is mediated by the sociocultural context

3) Agency includes an awareness of the responsibility for one's own actions vis-à-vis the environment, including affected others (van Lier 2008:172)

3.2 Technological Pedagogical Content Knowledge – TPACK

This study uses Mishra and Koehler's (2006) model of *Technological Pedagogical Content Knowledge* (TPACK) as a point of departure for the analysis. Mishra and Koehler's model (2006:1024-1026) sees technology as an integral part of education and explore the relationship and interaction between pedagogy, content, and technology.
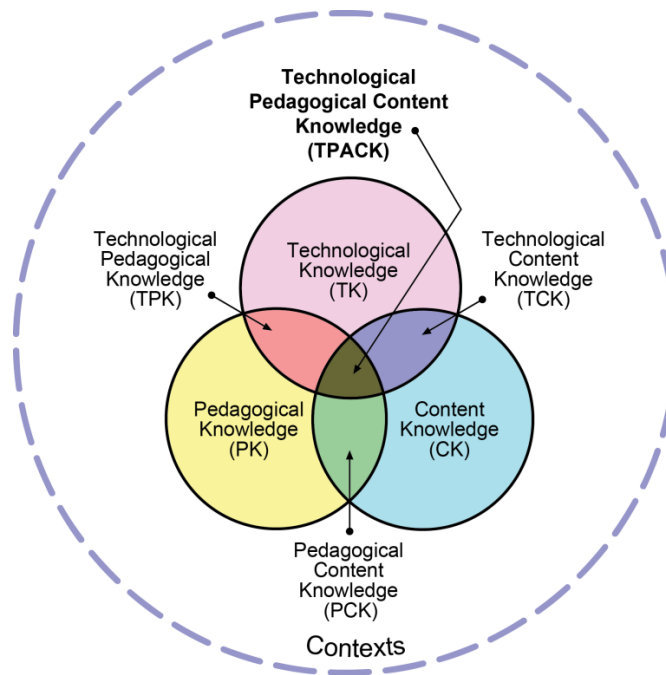
Figure 1. TPACK. Reproduced by permission of the publisher, © 2012 by tpack.org

Content Knowledge (CK) refers to teachers' knowledge of what is to be taught or learned in the subject being taught. CK also includes how this knowledge is acquired, established practices and approaches of teaching (Mishra & Koehler 2006:1026; Mishra & Koehler 2009:63).

Pedagogical Knowledge (PK) is the knowledge of the processes of learning as well as the different practices and methods for teaching and learning. PK

includes knowledge of all areas related to the learning processes: e.g. areas such as: classroom management; planning of lessons and actualisation of these lesson plans; and purposeful use of techniques and methods concerning students' cognitive and social development (Mishra & Koehler 2006:1026-1027; Mishra & Koehler 2009:64).

The TPACK framework's definition of *Pedagogical Content Knowledge* (PCK) is similar to that of PCK described by Shulman (1986), where it is described as the knowledge of how pedagogy is applied in teaching specific content, and how this content can be structured to improve teaching and learning outcomes. Furthermore, PCK includes the knowledge of students' prior learning experience, their current knowledge and how this can either be an asset or an obstacle during the teaching or learning process (Mishra & Koehler 2006:1027; Mishra & Koehler 2009:64).

Technological Knowledge (TK) is not only the knowledge of advanced tools such as computers and other digital devices but also tools like whiteboard and books. TK also encompasses knowledge of how these tools are used, for example, how to install and use new software on digital devices, or how to archive information using the different mediums. ICT-tools are often subject to continuous changes, either by being replaced by new tools or updates which might change how they work (Mishra & Koehler 2006:1027-1028; Mishra & Koehler 2009:64).

Technological Content Knowledge (TCK) represents the knowledge of how technology and content mutually affect one another in both positive and negative ways. New technology can bring innovative ways of presenting subject matter. Teachers' TCK involves the knowledge of how technology can be used to change the subject matter, for example, by using interactive whiteboards to enhance student participation. Teachers need to know what technology enables but also how it might hinder them in their teaching (Mishra & Koehler 2006:1028; Mishra & Koehler 2009:65).

Technological Pedagogical Knowledge (TPK) is the knowledge of how the use of technology can change learning and teaching when using various tools. TPK represents the knowledge of the different pedagogical possibilities and limitations that certain tools bring in the specific circumstances they are used, such as ways of using technology assessment criteria for different tasks more readily available for students to access (Mishra & Koehler 2006:1028; Mishra & Koehler 2009:65-66).

At the centre of the Venn diagram (Figure 1) we find TPACK. The Venn diagram visualises the interaction between pedagogy, content, and technology knowledge, and the TPACK is the resulting knowledge that emerges from these interactions. TPACK is the representation of what knowledge is required to use technology effectively in teaching (Mishra & Koehler 2006:1028-1031; Mishra & Koehler 2009:66-67). They argue that in order for the use of technology to be productive teachers need to see these three intersecting knowledge areas as part of one system and recognise that each learning situation is a unique combination of these parts. Because each situation is unique, an all-encompassing solution for all teachers and classes does not exist (Mishra & Koehler 2006:1028-1031; Mishra & Koehler 2009:66-67). However, the model has received criticism towards the lack of clarity in defining the different definitions and the boundaries (Graham 2011:1959; Archambault & Barnett 2010:1661; Brantley-Dias & Ertmer 2013:122-123).

4 Material and method

This section will present participants, collection of data, method of analysis and ethical considerations.

4.1 Participants

This study used purposive sampling and convenience sampling to select participants. The sampling strategies used followed Denscombe's (2014:44-45)

recommendations. Using purposive sampling ensures that those included in the study are likely to generate new information (Denscombe 2014:41), and convenience sampling reduces the time taken to find participants (Denscombe 2014:43). The study recruited teachers from different schools in order to increase the probability that different ideas and experiences would surface through the data. The choice of participants also involved convenience strategies to some extent, since participants available at short notice were targeted. Through these sampling strategies, six teachers were recruited for the study. They all currently teach at upper secondary schools in Sweden.

Name	Years of experience	Subjects	Class size
Justin	8	English, Religion, E-sport	~30
Shawn	6	English, Civil law	~5-20
Kelly	4	English	~20-30
Alex	6	English, Religion	~15-30
Taylor	2	English	~30
Jordan	5	English	~15-30

Table 1. Participants.

4.2 Collection of data

The study used semi-structured interviews to collect data. A semi-structured interview allows the interviewer to control the topic of the conversation by means of pre-defined interview questions while simultaneously allowing the interviewee to speak more freely and extensively about their experiences (Denscombe 2014:186). Through interviews, the researcher can gain a greater depth of information on a subject as well as provide and ask for additional clarification if needed (Denscombe 2014:201–202; Bryman 2018:561–562).

An interview guide with 13 questions was prepared before the interviews. The interviews were conducted in Swedish. TPACK (Mishra & Koehler 2006) was

used to help formulate and categorise questions. These categories were created to make sure all the relevant areas would be covered in the teachers' responses. However, although questions were organised into set categories, teachers' answers may extend to other categories.

The interviews were conducted online. Online based interviews have the benefit of allowing the researcher to find teachers to interview anywhere in the country without being limited by geographical distance. However, as with any use of technology, issues concerning connection and quality may vary (Bryman 2018:590-593).

The audio from the interviews was recorded using Open Broadcast Software (OBS). OBS was used as familiarity with its different functions was greater than other transcription focused software and made the transcription process more efficient.

4.3   Analysis of data

The data collected from the interviews were analysed using thematic analysis guided by Ryan and Bernard (2003). A matrix-based method for compiling data was used in the thematic analysis. The purpose is to formulate an index with themes, which will then be applied to the collected data that has been organised into core themes (Bryman 2018:704). Themes are created both from the researcher's initial understanding of what is being studied, an a priori approach, and discovery of themes that emerge from the data (Ryan & Bernard 2003:88).

A priori themes	Definition
Agency	To act purposefully and constructively to direct the growth of self and others.

TK	Technological knowledge is the knowledge of tools and how they can be used.
TCK	*Technological Content Knowledge* is the knowledge of how content and technology affect one another.
TPK	*Technological Pedagogical Knowledge* is the knowledge of pedagogical possibilities and limitations of technology.
TPACK	*Technological Pedagogical Content Knowledge* is the knowledge and understanding of how the different areas affect one another when using technology to teach and learn.

Table 2. A priori themes.

In this study, the techniques that have been used to process the data and identify themes are *repetitions*, *similarities and differences*, *cutting and sorting*. Repetition is a method that identifies data that occurs more frequently as a potential theme (Ryan & Bernard 2003:89). Using the method similarities and differences to find themes involves a repeated comparison of data and understanding how different data is similar or different. Depending on how significant these differences or similarities are, subthemes may be generated (Ryan & Bernard 2003:91). Through cutting and sorting, the researcher identifies data that seems essential to the study and then sort it into related groups (Ryan & Bernard 2003:94).

Before analysing the collected data, each interview was transcribed. The collected data were then sorted into a priori themes. From these themes additional subthemes were then identified. The initial categorisation of interview

questions into the different a priori themes was based on an anticipation of what theme answers were more likely to be included.

4.4 Ethical considerations

The study followed the ethical guidelines for research set by the Swedish Research Council (2017):

> 1) You shall tell the truth about your research.
>
> 2) You shall consciously review and report the basic premises of your studies.
>
> 3) You shall openly account for your methods and results.
>
> 4) You shall openly account for your commercial interests and other associations.
>
> 5) You shall not make unauthorised use of the research results of others.
>
> 6) You shall keep your research organised, for example through documentation and filing.
>
> 7) You shall strive to conduct your research without doing harm to people, animals or the environment.
>
> 8) You shall be fair in your judgement of others' research. (Research Council 2017: 10).

Participants were informed about what and how information was recorded and for what purpose.

Participants must be informed of their role in the study, the study's purpose, the fact that all participation is voluntary, and that participation can be withdrawn at any time. Additionally, participants must give their informed consent for participation in the study. A consent form was sent to potential interviewees before conducting the interviews (Appendix 2). The researcher coded the

participants' information to ensure confidentiality. The study uses voice recordings of interviews with possible personal information. In order to protect this data, a password protected device not connected to the internet was used to store the interviews (Swedish Research Council 2017: 40). The only data classified as personal data gathered in the study was the voice recordings of interviews (Swedish Authority for Privacy Protection (IMY) 2020). These voice recordings were stored in a secure external device and deleted after transcriptions following Linnaeus university (Linnéuniversitetet 2020) guidelines for the use of personal data.

5 Results

In this section the themes and subthemes that were identified are presented. Each section connects to the different research subquestions.

5.1 Technological knowledge – TK

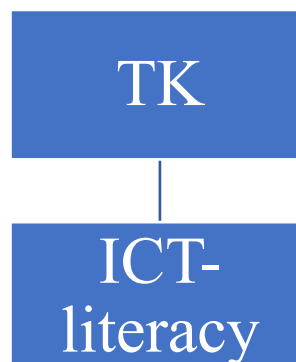The subtheme identified under technological knowledge relates to teachers' ICT-literacy and how it has developed:

Figure 2 TK - Subthemes

5.1.1 ICT-literacy

All teachers in this study considered themselves to have had a high or very high digital literacy level even before the pandemic:

(1) I have always been tech-savvy. (Alex, q6)

Even though all teachers expressed a high level of digital literacy or a digital literacy above average, most of them expressed areas where they have gained new knowledge or new ways of using their existing knowledge. Many of these development areas strongly relate to the applications being used by the schools:

(2) We have had to learn how to do things in specific situations. Apart from specific teaching situations, there has been no major change. (Shawn, q6)

A couple of teachers expressed a limitation in the tools they have had available limiting their teaching in some ways. However, these teachers have been able to develop their skills in using different applications to mend this apparent gap:

(3) Some applications are not adapted to certain situations so I have worked a lot with coming up with solutions where I have pushed the tools to their limits. (Taylor, q6)

There are significant differences in how the schools have decided to work with the integration of ICT. In similar ways, two schools have assigned teams or individuals to be responsible for developing strategies and application-specific skills. This created a space for teachers to turn to when needed:

(4) We have a teacher who is responsible for digital development who have produced instructional videos, tips and tricks together with other people. (Shawn, q6)

(5) I have been responsible for much of the technical work while also working with others to come up with adaptations to the digital environment and evaluation of solutions. (Justin, q6)

In contrast to these two, Kelly explains that although they have full support from the school management in their development, she expressed a need for teachers to use similar or the same solutions. However, teachers in this school, because of limiting factors in the online classroom, have instead developed

their skills on their own and have found ways of using applications that they are more comfortable in using:

> (6) The school management has stood behind us. We have also been free to use our own solutions. However, it would have been easier if everyone used the same solutions because it would have been easier for students if there were fewer differences between solutions. (Kelly, q14)

Kelly adopted the strategy of allowing students to influence what tools they would use in specific tasks unless a specific tool was needed; which helped her gain more knowledge of specific tools. This can be one way of gaining new knowledge of how students use ICT and use it as a point of reference when selecting methods for using technology:

> (7) Before the restrictions, I was most familiar with Skype. Now afterwards, I have familiarized myself with some new video-conferencing tools. I have been open to testing new tools if the situation does not require a specific tool. (Kelly, q6)

Alex explained that he had to receive help from his students when some students misused technology and his knowledge of the application was insufficient at the time could not do anything stop them:

> (8) On one occasion, someone had added bots that played sounds, this resulted in the lecture being cancelled and some students invited friends. After this, a few knowledgeable students helped me administer who can join. (Alex, q11)

Teachers' technological skill development has generally not seen much of a change during this period. The development has mostly focused on specific tools and how to use them effectively in specific situations. Most teachers have used discussions and evaluations during meetings to further develop their skills in using ICT.

5.2 Technological content knowledge – TCK

Three subthemes were identified under technological content knowledge: difficulties teachers have met with teaching language skills online; knowledge and familiarity of tools and how this have affected teaching outcomes, as well as students' influence on content:
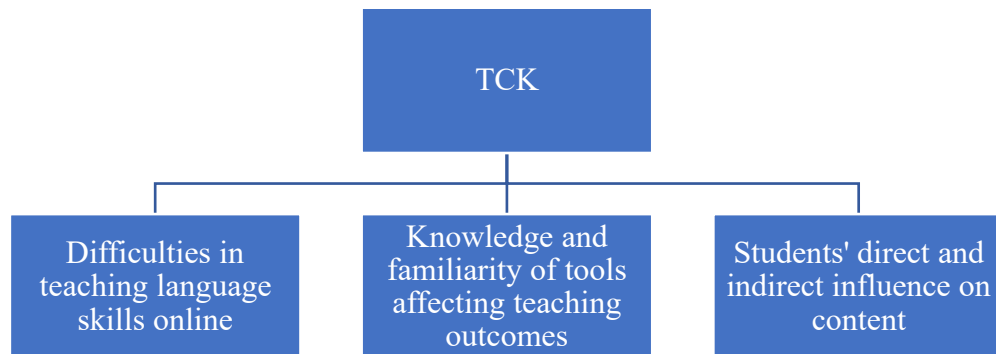

Figure 3 TCK - Subthemes

5.2.1 Difficulties in teaching language skills online

Most of the teachers seemed to agree that speaking was the most challenging area of the core content to teach in an online environment. Teaching listening comprehension was the second most challenging and some teachers found reading comprehension difficult. Interactions online seemed to have been difficult overall:

(9)   Speaking and listening have been the most difficult to teach because interactions are not as natural online. You can't see each other the same way. (Justin, q5)

(10) Some students expressed concern about the possibility of being recorded. At the same time, much of their natural charisma disappeared as they did not get the same energy because it felt like presenting in front of a wall, which led to lower results and motivation. (Jordan, q5)

Reading and listening comprehension appear to have been difficult because of either a lack of interest in the content being taught or difficulties in making

sure students are not cheating or doing what they are supposed to while being tested:

> (11) Many of my students are quite reluctant to read fiction and during distance teaching it is very difficult to determine if they are actually reading or if they use summaries from websites. (Alex, q5)

Difficulties in teaching interactions seemed to be due to a lack of human interaction, which caused interactions to feel less natural. Additionally, some students had concerns about privacy further creating an uncomfortable environment for some of them. Other difficulties were a result of students' lack of interest or not being able to follow their work.

5.2.2 Knowledge and familiarity of tools affecting teaching outcomes

Jordan explained how, in contrast to most classes where interactions have been more challenging to teach, in one of his classes, it was instead the opposite due to them being more comfortable behind a screen. Teaching the same content in the same way in different classes can have very different outcomes depending on students' interests and backgrounds:

> (12) In a class where we have several 'gamers', more of them have participated thanks to the communication being like what they are used to, namely behind a screen. This made it easier for them to get attention and higher participation. (Jordan, q12)

Using appropriate technology to teach specific content is very important to reach the desired outcome. Although many of the teachers have not made many changes in ways they teach, they have instead adapted what they have to the online environment. Some tools have been very successful in certain areas:

> (13) I have not made more adaptions than before. However, it became easier to give oral feedback as there were no others around who listened, it became more private. (Alex, Q11)

(14) By working in the Classroom, we can better see how students work, if they start to fall behind and at what stage, or if they get side-tracked. (Alex, q10)

The context in which a tool is used can have very different results. During this period, teachers have had to familiarise themselves with digital tools. The teachers in this study have reflected on the outcomes of using different tools. Benefits and drawbacks of some tools have been made more apparent.

5.2.3 Students' direct and indirect influence on content

Most of the teachers agree that student influence has decreased. The most common type of influence that students had was able to have a say in how they should be examined. Justin explained that students' influence decreased as a result of needing to be stricter in what can and cannot be done and difficulties in making on the spot changes if things did not work out as expected:

(15) Influence has definitely decreased, largely because you needed to be stricter. At the same time, it has not been possible to stop a lesson because it did not go as expected. It became more difficult to organize change. (Justin, q11)

None of the teachers have made any more extensive changes in how they work in order to make lessons feel relevant to students. Changes that teachers have implemented have mostly been making content and instructions more readily available. Kelly added that compared to before, she was available in more places concurrently. Jordan explained that the inherent qualities in having discussions online had shifted the focus from having more academic discussion topics to instead focusing on the use of language to make oneself understood:

(16) It has not really changed. It is mostly me being available in several places. (Kelly, q9)

(17) Discussions have shifted from academic content to a focus on comprehensible language through, for example discussing interest. I cannot hear closed group discussions I am not in. It was important to make assessment opportunities and that they were the ones I listened to at that time clear. The

students really felt that it was them I focus on since other groups could not be heard. (Jordan, q9)

Teachers need to allocate time differently in online teaching and that has reduced the students' influence. Teaching online made it difficult for teachers to move between groups and changing things during lessons required more planning and organisation.

5.3 Technological pedagogical knowledge – TPK

Four subthemes under technological pedagogical knowledge were identified: how teachers make objectives clear and how they track progress; students' needs and how they are met; effects caused by the change in environment; and how teacher adapted material and method to the online environment:
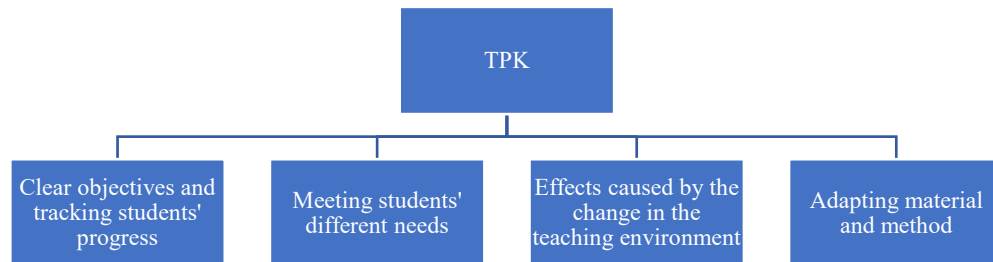
Figure 4 TPK – Subthemes

5.3.1 Clear objectives and tracking students' progress

With the new online-environment teachers had to use different strategies to make lesson objectives clear. A few different ways to make sure if students are on the right track have been found:

(18) Giving out assignments one at a time worked well I think. (Justin, q13)

(19) We use Google Hangouts and Google tools to see if students are doing what they are supposed to. (Justin, q8)

Most teachers appeared to experience the same problem with attendance and active participation and how to use technology to check these two issues:

> (20) You cannot tell if students have started to work if they are working as easily as you can in a classroom. (Shawn, q5)

A few teachers came up with similar solutions to tell if students had been active during their lessons:

> (21) At the end of each lesson, we had an 'exit ticket' such as a quiz to check if students have been active. (Shawn, q5)

Instead of checking the activity during the lesson by using a similar strategy, another teacher instead adopted a strategy where activity was observed using digital tools:

> (22) We use google hangouts and screen capture so we can see what students are doing and what they need help with. When a student needs help, we can then open a room to give them help. (Justin, q4)

This change in the teaching environment has made it more difficult for teachers to follow their students' progress in a natural way. Two teachers state that tasks requiring more effort and time from the students are even more problematic when it comes to telling if they are working towards the goal. Making sure students are on the right track while they are working has proven difficult:

> (23) Difficult parts have become more difficult. Unlike in the classroom where I can see that students who are working are on the right track, I cannot see this as easily online. Knowing if they actually understand content or are following instructions is more difficult online. (Taylor, q14)

Some teachers have found that making sure students are on track is to follow students' progress by actively accessing their work using tools that are always connected to the internet. Another way is for teachers to give students one task at a time. The most common method appears to be for teachers to track the students' progress through different ways of checking how they are working and how far they have come. Lack of familiarity with the different tools seems to have resulted in technical difficulties where teachers have had difficulties

tracking students' activity and organising groups. Many of the solutions teachers have found target the ability to monitor their work more easily.

5.3.2 Meeting students' different needs

The online-based environment has increased opportunities for teachers to give students more freedom to work on their own. However, this has required teachers to know how well their students can handle working more independently. Students who had difficulties working in a classroom seem to, in many cases, have had even greater difficulties working online:

> (24) Those who work well in the classroom have also worked well during distance education. However, there are some students who have not been able to work in the classroom who have been able to work remotely, mainly those who are interested in technology. Those who generally have difficulties have also had it during distance education; those who need a push have fallen behind. (Taylor, q12)

Teachers have had to create more opportunities for students to do tests, different ways of completing assignments and as one teacher stated, be even more thorough with additional adjustments and special support to catch students falling behind. Comparatively, it appears less time was spent on students who could work on their own. Instead, more time was spent on students who needed help:

> (25) Students were given more opportunities for tests and similar activities since their circumstances could differ greatly. I collaborated more with student health. (Taylor, q11)
>
> (26) More extra work because you needed to be more careful with extra adjustments and catch students who fall behind. (Jordan, q10)

Shawn explained that students' abilities to work with technology and finding successful strategies have increased. Many students have learned to work with others and use the tools they have available to seek teachers' guidance when

needed. However, it has been difficult to ensure that students do their own work and not receive outside help:

(27) Their knowledge has increased a lot and they have learned that you can participate in other ways. We made sure to clarify the importance of attendance even during distance learning. They have learned to use the various digital tools, how to call teachers, talk to each other and create study groups. The understanding of how to work in different ways with digital tools has really improved. (Shawn, q11)

There were situations where teachers had to adapt their solutions to circumstances that appeared because some students use other tools instead, even in situations where the school management had set clear guidelines:

(28) The more tech-savvy use Discord. We have been given orders from management to use Google Meet. Despite this, students use Discord. […] What I do is divide them into smaller groups so that I can see everyone more easily. (Taylor, q12)

Teachers have found the online environment to be beneficial in increasing opportunities for students to work on their own. However, this has impacted students differently, requiring teachers to spend more time helping individuals who need extra help.

5.3.3   Effects caused by the change in the teaching environment

Students have had different environments at home, some lacking quiet study areas. Students who have previously been negatively affected by outside noise have now found a calmer work environment, which has benefited them greatly. Additionally, students who could find their motivation to study as well as those who could work with less teacher input have had more success. However, weaker students have instead suffered:

(29) Keeping track of students is harder so you have to rely on them taking responsibility for their education. Motivated and generally strong students do

well even during distance education. On the other hand, they did not get attention as quickly, but at the same time they could work undisturbed. The weaker students or those lacking a quiet working environment were negatively affected. (Alex, q5)

Alex noticed that certain students were more active during discussions and found that usually quiet students spoke more than before. Shawn also noticed that some students who previously had trouble coming to classes in the morning were more likely to do so now:

(30) Some strong but quiet students became more active than before during distance education. (Alex, q12)

(31) Students who had difficulties in the morning could now just turn on their computer to get to class. (Shawn, q11)

To increase students' ability to be personally responsible for their learning, teachers have increased clarity of instructions and made them accessible for students and in more formats:

(32) Give clearer instructions, such as how to use specific tools for different purposes. We have created or found a lot of new digital materials and tasks. (Jordan, q10)

Students' influence on lessons seems to have suffered. Students could mostly influence the forms and frequency of examinations. One reason for this reduced influence was that a teacher's ability to make changes during a lesson was more difficult because of greater difficulties in organising discussions in the middle of a lesson to discuss possible changes with students. Another reason was that other solutions have had to take precedence. Alex explained that if students had complaints and brought them forward, a solution would then be discussed to see if and what changes could be made to give all students equal chances to complete the task successfully:

(33) Students have mainly had an influence on examination forms, for example deciding if they should be oral or written. (Justin, q11)

(34) Influence has absolutely decreased. You could not interrupt lessons in the middle to make major changes when it did not work. It was a much bigger process. (Shawn, q11)

(35) Much like before, if students had complaints, I would discuss how we could adapt the task to give everyone the same opportunities with them. (Alex, q11)

Many of the teachers agreed that the new environment had significantly disparate effects on students; students who have had difficulties studying have had an even harder time during online-teaching as this environment made it easier for them to leave without being noticed. In other words, strong students have had an easier time, whereas weaker students have had greater difficulties.

5.3.4 Adapting material and method

A few teachers raised the importance of creating flexible tasks to appropriately challenge students who aim for higher grades and give students who are struggling with school a chance to succeed. Justin explained that this method gave him more time to help individuals, which required more time than before:

(36) Partly by creating flexible tasks that can be adapted to the students' level but also reducing the number of tasks to instead focus on a few with greater variety. […] it is a bit about buying time, if a student needs help it will be a much bigger process than before. (Justin, q11)

Most of the teachers have shortened their presentations as well as recorded and made them available for students to access at any time. Assignments have generally also become more specific in that they focused on fewer aspects. Alex explained that this could be achieved by dividing the tasks into different parts, where each lesson focuses on one part. The students would then be given new instructions in the following lesson. Taylor shortened presentations because it was more difficult to notice if students could follow along or understand the content of the presentations. It is easier to tell if a student is struggling in a classroom; presentations are not merely a one-way communication:

(37) Many reviews have been shortened and much of the information has been moved to documents or other formats in simpler forms. (Justin, q11)

(38) You cannot as easily tell if students are keeping up, it is a form of two-way communication that is lacking even when we use webcams. (Taylor, q11)

(39) I divide the tasks into much smaller parts where we have lesson assignments etc. (Alex, q10)

Most teachers have had to change how they present and make information available to make it easier for students and the teacher. Additionally, most teachers have changed tasks to be more flexible or structured differently to challenge all student.

5.4   Technological pedagogical content knowledge – TPACK

Three subthemes were identified under technological pedagogical content knowledge. The first subtheme focuses on how teachers used technology to increase the accessibility of information. The second focuses on how teachers used technology to enhance aspects of teaching in an online environment. The third focuses on how teachers worked to promote the professional development of both self and others:
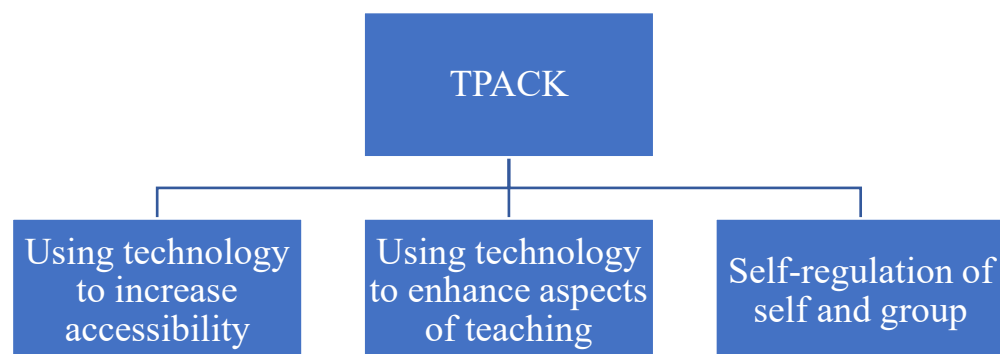

Figure 5 TPACK - Subthemes

5.4.1   Using technology to increase accessibility

One way most interviewed teachers have used in order to facilitate learning was by recording lessons and presentations. This allowed students to go

through instructions or material as many times as they needed. Shawn explained that being able to do this has helped students with neurodevelopmental disorders and other difficulties. Furthermore, not having to repeat instructions has given teachers more time to spend on formative feedback. Some teachers used live documents where they could see what students were writing in real-time. This allowed teachers to follow the process more closely and give feedback or contact students when necessary. Jordan explained that playing Dungeons and Dragons, although it lacked some physical properties, benefited from easy access to game rules and other instructions. Easy access to these instructions allowed the students to focus on the game without delays:

(40) Recording lessons have been very much appreciated. […] The students like being able to go back and check, especially the weaker students. If they have forgotten something, they can check again and work at their own pace. We have several with NPF diagnosis and for them it has been valuable to listen again. (Shawn, q10)

(41) Students waited longer to ask for help because they had to call me. I had more time to work with formative assessment since I could see and comment on their work at any time. (Shawn, q11)

(42) Playing DnD worked very well, but probably not any better than normal. […] it is different being able to see each other and physically roll a die. […] however, all information was easily accessible which facilitated interactions. (Jordan, q13)

Using technology to increase the accessibility of information allowed teachers to spend more time giving students formative feedback. Designing tasks with the inherent benefits of technology in mind has allowed some task to have the same benefits.

5.4.2   Using technology to enhance aspects of teaching

Justin found that giving presentations in school are more advantageous than online. Combining both online and face to face instructions would allow him

to include students who would otherwise be unable to attend. Students who are unable to attend would be able to do so if the lessons were to be broadcasted:

(43) Being able to let students participate digitally if they are unable to come is very good for including students. (Justin, q10)

Some applications helped teachers monitor student activity. One such application helped teachers with this by lighting up. Shawn pointed out how writing became easier to assess as documents were updated real-time, making it easier to spot cheating. Shawn worked with technology to reduce cheating during the test by setting a time limit that was almost equal to the length of the audio recording sent to the students. He found this method to have worked as the results were close to expectations based on previous results. Kelly found that using online discussions reduced students' stress, due to it not being as apparent that the teacher was also listening to the discussions. This made it easier for students to relax:

(44) Apart from during presentations I had a very high participation rate during distance teaching. […] It was very clear who spoke thanks to a light lighting up. […] all students were visible this way. (Jordan, q11)

(45) I could see the students' work during the whole process. […] I could contact them directly if something seemed unusual. (Shawn, q8)

(46) During a listening comprehension we gave them an audio file of 45min and set the time limit for the test to 5min longer than the file, this made it harder to cheat because there was no time to do so. […] the results turned out to be within my expectations without any bigger differences from previous results. (Shawn, q13)

(47) It is not as obvious that I am listening when it happens online, which helps them relax. The distance made it a bit easier, I think. (Kelly, q13)

Online teaching seems to have benefited from an increased structure in lessons. Some applications have enhanced teaching in certain situations,

especially in ways of knowing who is doing what. Others have set additional limitations to reduce cheating.

5.4.3 Self-regulation of self and group

After interviewing the teachers, it appears common for professional development to have stagnated during lockdowns. One reason for this appears to have been the reduced contact amongst colleagues. Another reason seems to have resulted from allowing teachers to come up with personal solutions and less focus is placed on collaborative solutions:

(48) I will probably continue working the same way but with the difference that we all instead use the same solutions so that it is not as messy. (Kelly, q10)

(49) To ask a colleague about something quickly, disappeared completely. The structured collegial work continued as usual, but the informal disappeared. (Alex, q7)

Although much of the professional growth that is dependent on informal meetings has decreased because of the changing environment, regular and structured meetings have stayed much the same and provided teachers with opportunities to grow and develop solutions to problems:

(50) At our meetings, we had many discussions where we worked together to come up with solutions to the difficulties we encountered. (Shawn, q6)

Teachers working together has shown to be beneficial for professional development, and reduced contact between them resulted in reduced growth.

6 Discussion

6.1 Discussion of results

One of the more significant obstacles in online teaching is the lack of teachers' ICT-literacy (Dashtestani 2014:10). All teachers in this study considered themselves to have high digital literacy but have developed new ways of using

this knowledge during the pandemic. The skills needed for online teaching are different from those needed in a classroom. In online teaching, for instance, teachers need to have the ability to use various tools and online resources. Although all teachers state that they have high ICT-literacy, teachers will need to stay updated as tools are improved or replaced by new ones (Mishra & Koehler 2006:1027-1028). Teachers have been most successful in adapting to the online environment when it comes to teaching writing proficiency. The tools used by most teachers in this study have been greatly successful in allowing teachers to follow the work of their students while at the same time giving them the tools needed for giving feedback. The tools have allowed teachers to make comments in these documents even while they are being worked on or notifying students that they want to speak with them. Similarly, König et al. (2020:617) found that already well-known resources and tools result in higher probability of the teaching to be more successful when encountering a new situation in which these are then utilized.

Some teachers have expressed that certain tools are limited in their use and have had to find ways to work around these issues. A lack of facilities and resources may cause teachers and students to lack confidence in online teaching and learning. Having an infrastructure that supports online teaching has shown a positive impact on intentions and attitudes towards using ICT and that having regular training sessions is needed to work towards increasing awareness and positive attitudes (Sangeeta & Tandon 2020:7; Dashtestani 2014:9-11). It is important to know what resources are available when developing new teaching strategies (Dashtestani 2014:10).

The abrupt change in the environment has required teachers to direct their professional growth purposefully. Results show that although it has been more challenging to find out to what extent students can work on their own, the possibilities for students to direct their growth has increased amongst students able to work independently. Learning from these experiences, some teachers

show interest in keeping certain pedagogical practices for increased opportunities. Previous research has found that teachers' use of ICT during online teaching have benefited when giving feedback, instructions, and collaborative learning processes (Spoel et al. 2020:632-633). This study has likewise found instructions to be one of the areas that have seen a change, where instructions have been made clearer for students. Different groups of students have been affected in different ways from learning in an online environment. Increased structure both in individual lessons as well as from lesson to lesson has been beneficial for teaching.

Teachers in this study have made some adaptions in order to meet students' needs. Unfortunately, many of them agree that much of student influence has decreased during the pandemic. Professional development has mostly related to developing skills in using specific applications through different strategies with varying degrees of student influence. Teachers' discussing outcomes, some were allowing students to decide application use and others finding innovative solutions. Results show that participants have not changed their teaching to a greater extent. Some teachers have used 'exit tickets' to make sure students are working during their lessons, while others use tools to frequently check in on students, thus making it easier to give frequent feedback. Instead of changing how they teach, many have tried adapting what they are doing to the online environment. Teacher agency is closely related to the teacher's ability to make autonomous decisions in different learning context (Nolan & Molla 2017 in Albion & Tondeur 2018:9). Although the teachers in this study have not focused on making the content seem more relevant than usual, they have instead worked on making information more accessible and assignments fewer and more varied to challenge students at different levels. Some teachers have adapted the content of discussions for them to be more engaging. A few teachers have noted that many struggling students have suffered while working independently in the online environment. In contrast,

teachers in previous research reported having introduced new content to their teaching and having developed their skills with ICT in online teaching and assessment to some extent (König et al. 2020:617). Online formative assessment is required to identify students' needs and make decisions that benefit them in online teaching (König et al. 2020:618).

Two of the schools have had similar ways of approaching ICT integration in the online environment, where they assigned teams or an individual to be responsible for the ICT development and space for other teachers to turn to when in need. This space has shown to be beneficial in both this and previous studies (König et al. (2020:617). Teachers have used different methods for students to influence the ongoing development where one allowed his students to influence what tools to be used when possible and others who try to find ways of using the available tools in unique ways to cover for lacking functionality. However, the most common way teachers have found to meet their students' needs is to track their progress throughout the process and make material available in various formats. Similarly, previous research results (Spoel et al. 2020:633) show that ICT has increased flexibility, differentiation, and possibilities to monitor students' progress while also increasing motivation. However, it has been noted by teachers in this study that while some students have found online teaching to be very fruitful other students have struggled even more than before to keep up, and motivating these students have been a struggle as it is harder to tell if a student is struggling in online teaching. Interaction has shown to be one of the most negatively affected areas in this and previous studies (Dashtestani 2014:10; Spoel et al. 2020:632; Evans et al. 2020:247).

Like previous research (Evans et al. 2020:252; König et al. 2020:617; Dashtestani 2014:10-11) the teachers in this study agree that interactions have been difficult to teach because of lacking elements such as gestures and other processes of which face-to-face interaction consist, and for some students, this has been to their liking and increased their attendance. This study has found

one group of students who have preferred online discussions over face-to-face discussions. Spoel et al. (2020:632) likewise found a group of students preferring the same; they found that introverted students mostly preferred this medium of communications and participated to a greater degree during online teaching. Dashtestani (2014:11) proposed the use of video conferencing to counter these challenges. Technological challenges remain, as it has been reportedly difficult because not everyone has the means to use these tools or feel uncomfortable with them. This study has found the monitoring of students' learning processes to have become easier in some areas. However, it has instead become more difficult to track students' progress during more extensive tasks. Spoel et al. (2020:633-634) suggest that teacher trainee programs put greater focus on this area. Although many of the teachers in this study have not made any significant changes in how they work the difference in how content is represented has made it possible for some students to thrive. Similar reports of students thriving in this environment have been found in previous research (Evans et al. 2020:250-251). It is necessary to identify students' individual needs to prevent social inequalities among students as school is also a place for social learning and development (König Et al. 2020:618-19).

6.2 Discussion of method

This study has several potential limitations. The first limitation of this study is the selection of participants. Purposive sampling and convenience sampling was used to select participants. Convenience sampling was used as a result of a low response frequency and may have resulted in a lower frequency of response from those with a lesser interest in the subject. The second limitation is that the data is based on participants and their answers. The participants may be affected by the interviewer, and the truthfulness or accuracy of the statement is impossible to verify entirely. This verification is even more difficult in an online-based interview due to the remoteness (Denscombe 2014:197-201). However, online interviews allow the researcher to select participants

from a larger geographical area (Bryman 2018:59). The third limitation is the risk that prior identification of themes brings. By analysing the data from a perspective where themes have already been identified, the researcher risks missing connections between the collected data and the research questions or ignoring new and unexpected themes that might occur in participants' responses (Ryan & Bernard 2003:94). A fourth limitation is that the theoretical framework TPACK has received criticism for having vague definitions (Graham 2011:1959; Archambault & Barnett 2010:1661; Brantley-Dias & Ertmer 2013:122-123). Categorising the different themes emerging from the interviews has been one of the greatest difficulties that this research has encountered and the preliminary division of interview questions according to expectations might instead have initially limited the understanding from a fresh point of view. Using the TPACK framework has been beneficial in focusing the research on ICT-integration from different perspectives.

6.3   Implications for teacher practice and areas of future research

This study has shown that reduced contact between teachers has had a negative effect on professional development. This has had the most significant impact on development that occurs in informal day to day meetings. Areas where teachers have already familiarised themselves with the tools used, have not seen as much of a negative impact. Colleagues working together to develop strategies have resulted in more cohesive solutions. Further collaboration between management and teachers is needed to address resource needs. Some schools have created a space for collaboration and source of information for the integration of ICT. This may address some of the issues other teachers have met, such as their tools' limitations. Further development of strategies using technology in areas where technology is currently seen as a hindrance than a tool to enhance teaching is necessary. Results also show that there is a need for collaborations to be more efficiently organised in order to promote professional development.

Interactions have shown to be a challenge for teachers both in this and previous studies. Interaction is important for professional development and is one of the reasons why development has stagnated. Future research could explore limitations as well as affordances of different mediums and how to use them effectively.

7 References

Albion, P.R. & Tondeur, J. (2018). Information and Communication Technology and Education: Meaningful Change through Teacher Agency. ResearchGate. Available at: https://www.researchgate.net/publication/324039549_Information_and_Communication_Technology_and_Education_Meaningful_Change_through_Teacher_Agency [accessed 23 October 2020]

Archambault, L.M. & Barnett, J.H. (2010). Revisiting technological pedagogical content knowledge: Exploring the TPACK framework. *Computers & Education,* 55(4), 1656-1662. Available at: https://www-sciencedirect-com.proxy.lnu.se/science/article/pii/S0360131510002010 [accessed 22 December 2020]

Brantley-Dias, L. & Ertmer, P.A. (2013). Goldilocks and TPACK: Is the Construct "Just Right?". *Journal of Research on Technology in Education,* 46(2), 103-128. Available at: https://search-proquest-com.proxy.lnu.se/docview/1492735420?pq-origsite=primo [accessed 22 December 2020]

Bryman, A. (2018). Samhällsvetenskapliga metoder. Upplaga 3, Stockholm: Liber

Dashtestani, R. (2014). English as a foreign language-teachers' perspectives on implementing online instruction in the Iranian EFL context. *Research in Learning Technology,* 22. Available at: https://doi.org/10.3402/rlt.v22.20142 [accessed 2 December 2020]

Denscombe, M. (2014). The good research guide: for small-scale social research projects. Ed. 5, Maidenhead: Open University Press

Evans, C., O'Connor, CJ., Graves, T., Kemp, F., Kennedy, A., Allen, P., Bonnar, G., Reza, A. & Aya, U. (2020). Teaching under Lockdown: the experiences of London English teachers. *Changing English Studies in Culture and Education,* 27(3), 244-254. Available at: https://doi.org/10.1080/1358684X.2020.1779030 [accessed 2 December 2020]

Graham, C. (2011). Theoretical considerations for understanding technological pedagogical content knowledge (TPACK). *Computers & Education,* 57(3), 1953-1960. Available at: http://dx.doi.org/10.1016/j.compedu.2011.04.010 [accessed 22 December 2020]

König, J., Jäger-biela, D.J., Glutsch, N. (2020). Adapting to online teaching during COVID-19 school closure: teacher education and teacher competence effects among early career teachers in Germany. *European*

Journal of Teacher Education, 43(4), 608-622. Available at: https://doi.org/10.1080/02619768.2020.1809650 [accessed 2 December 2020]

Linnéuniversitetet (2020). GDPR för studenter. https://lnu.se/ub/skriva-och-referera/Skriva-akademiskt/gdpr-for-studenter/ [accessed 22 October]

Mishra, P. & Koehler, J. (2006). Technological Pedagogical Content Knowledge: A Framework for Teacher Knowledge. Teachers College Records 108(6), 1017-1054. Available at: https://www.re-searchgate.net/publication/220041541_Technological_Pedagogical_Content_Knowledge_A_Framework_for_Teacher_Knowledge [accessed 9 October 2020]

Mishra, P. & Koehler, J. (2009). What is Technological Pedagogical Content Knowledge? *Contemporary Issues in Technology and Teacher Education,* 9(1), 60-70. Available at: (PDF) What Is Technological Pedagogical Content Knowledge? (researchgate.net) [accessed 9 October 2020]

National Agency for Education (2020a). Statensskolverksförfattnings-samling. ISSN 1102-1950. *Förordning om ändring i förordningen (SKOLFS 2010:261) om ämnesplaner för de gymnasiegemensamma ämnena.* Available at: https://www.skolverket.se/sitevision/proxy/reg-ler-och-ansvar/sok-forordningar-och-foreskrifter-skolfs/svid12_6bfaca41169863e6a6595a/2062829119/api/v1/down-load/andringsforfattning/2020:94 [accessed 16 October 2020]

National Agency for Education (2020b). Mobilförbud inte en garanti för högre skolresultat. Stockholm: Skolverket. Available at: https://www.skolverket.se/skolutveckling/forskning-och-utvarderin-gar/forskning/mobilforbud-inte-en-garanti-for-hogre-skolresultat [accessed 17 October 2020]

National Agency for Education (2020c). Covid-19-pandemins påverkan på skolväsendet. Stockholm: Skolverket. Available at: https://www.skolverket.se/getFile?file=7079 [accessed 2 November 2020]

National Agency for Education (2011). Syllabus for English in upper second-ary school. Stockholm: Skolverket. Available at: https://www.skolver-ket.se/download/18.4fc05a3f164131a74181056/1535372297288/Eng-lish-swedish-school.pdf [accessed 4 October 2020]

National Agency for Education (2017). Få syn på digitaliseringen på gymn-asial nivå Stockholm: Skolverket. Available at: https://www.skolver-ket.se/getFile?file=3784 [accessed 5 October 2020]

National Agency for Education (2018). Curriculum for the upper secondary school 2013: revised 2018. Stockholm: Skolverket. Available at: https://www.skolverket.se/publikationer?id=2975 [accessed 16 October 2020]

National Union of Teachers in Sweden (2020). Lärarna om digitaliseringen: En undersökning om IT-lösningar och digitalt stöd i högstadiet och gymnasiet. Stockholm: Lärarnas Riksförbund. Available at: https://www.lr.se/download/18.7d39a1fc1724048c5293bfa/1590677071407/Lararna_om_digitaliseringen_LRUND187_202005.pdf [accessed 7 October 2020]

Ryan, G.W. & Bernard, H.R. (2003). Techniques to Identify Themes. *Field Methods*, 15, 85-109. Available at: https://journals-sagepub-com.proxy.lnu.se/doi/abs/10.1177/1525822x02239569 [accessed 21 October 2020]

Sangeeta, M. A. &Tandon, U. (2020). Factors influencing adoption of online teaching by schoolteachers: A study during COVID-19 pandemic. *Wiley.* Available at: https://doi.org/10.1002/pa.2503 [accessed 2 December 2020]

Shulman, L. (1986). Those Who Understand: Knowledge Growth in Teaching. *Educational Researcher*, 15(2), 4-14. Available at: http://www.jstor.org/stable/1175860 [accessed 25 October 2020]

Spoel, I, VD, Noroozi, O., Schuurink, E. & Ginkel, S.V. (2020). Teachers' online teaching expectations and experiences during the Covid19-pandemic in the Netherlands. *European Journal of Teacher Education,* 43(4), 623-638. Available at: https://doi.org/10.1080/02619768.2020.1821185 [accessed 2 December 2020]

Sprangers, J. (2020). Forskaren: "Distansundervisning stor utmaning för gymnasieelever". *SVT Nyheter,* 4 December 2020. Available at: https://www.svt.se/nyheter/lokalt/vast/distansundervisning-stor-utmaning-for-gymnasieelever [accessed 21 December 2020]

Swedish Authority for Privacy Protection (2020). Vad är egentligen en personuppgift? https://www.datainspektionen.se/vagledningar/en-introduktion-till-dataskyddsforordningen/vad-ar-en-personuppgift/ [accessed 22 October]

Swedish Research Council. (2017). Good research practice. Stockholm: Swedish Research Council. Available at: https://www.vr.se/download/18.5639980c162791bbfe697882/1555334908942/Good-Research-Practice_VR_2017.pdf [accessed 15 October 2020]

The Committee on Education (2016). *Digitaliseringen i skolan – dess påverkan på kvalitet, likvärdighet och resultat i utbildningen* Stockholm: Riksdagstryckeriet. Available at: https://data.riksdagen.se/fil/24B42258-6038-470F-80C6-F5CE149F401B [accessed 1 November 2020]

van Lier, L. (2008). Agency in the classroom. In Lantof, J.P. & Poehner, M.E. (Eds). *Sociocultural Theory and the Teaching of Second Languages.* London: Equinox. p. 163-186. Available at: https://www.equinoxpub.com/home/view-chapter/?id=29307 [accessed 13 October 2020]

Linnæus University
Sweden

Appendix 1 – Inquiry of interview participation
Förfrågan till digital intervju, söker lärare i ämnet engelska

Hej jag heter Marcus Abrahamsson och går ämneslärarprogrammet på Linnéuniversitetet med ämnet engelska. Under hösten genomför jag ett självständigt arbete där jag kommer att fokusera på engelsklärares erfarenheter och utveckling i förhållande till den förändrade arbetssituation som Covid-19 gett upphov till. Jag är framför allt intresserad av användningen av IKT-verktyg och hur det har påverkat undervisningen.

Deltagande är fullt frivilligt och kan när som helst avbrytas. All data som samlas in under intervjun anonymiseras och kommer endast användas i denna studie. Intervjun beräknas ta ca 30 minuter om någon väljer att delta i studien.

Med vänlig hälsning.

Marcus

Linnæus University
Sweden

Appendix 2 – Consent form
Samtycke till intervju

Kontaktinformation:

Marcus Abrahamsson

ma223je@student.lnu.se

0761890288

Syftet med intervjun är att undersöka engelslärares erfarenheter och utveckling i relation till digitala verktyg och hur dessa har påverkat undervisning det senaste året till följd av Covid-19-restriktionerna.

Deltagande i intervjun är fullt frivilligt. Du har rätt att när som helst avbryta ditt deltagande.

- All personlig information kommer att anonymiseras, och ingen person utanför intervjun kommer veta att det är du som blivit intervjuad.

- Ingen information kommer att användas utanför denna studie och dess syfte.

Jag kommer att spela in intervjun för att all information ska kunna återges korrekt. Ljudinspelningen kommer endast användas i samband med transkribering av intervjun.

- Ljudinspelning kommer att sparas tills den transkriberats

- Alla kopplingar mellan dina personuppgifter och inspelningen kommer att kodas.

- Inspelning kommer sparas på USB-minne som i sin tur efter transkribering kommer att raderas.

Uppsatsen kommer efter godkännande att finnas tillgänglig via det Digitala vetenskapliga arkivet DiVA.

Genom min underskrift ger jag samtycke till att delta i denna undersökning samt min tillåtelse att svar i intervjun används i forskningssyfte. Jag har fått information om studiens syfte och godkänner ovanstående information.

Om du önskar att avbryta deltagande eller har andra funderingar kan du kontakta mig på ovanstående e-postadress.

Svara med godkännande till följande e-mail: ma223je@student.lnu.se

Appendix 3 – Interview guide (Swedish)

Allmänt

1. Hur länge har du arbetat som lärare?
2. Vilka kurser undervisar du?
3. Hur stora är dina elevgrupper?

Situation (1)

4. Kan du berätta om hur en vanlig lektion brukade fungera när du undervisade studentgruppen online?

TPACK

5. Vilka delar har varit mest utmanande att undervisa i?
   - Tala, lyssna, läsa, skriva
   - Vad är det som har gjort (denna del) extra utmanande att undervisa i?
6. Hur har dina tekniska färdigheter utvecklats den senaste perioden?
   - Hur har du arbetat för att driva din utveckling i användande av digital teknik i språkundervisning framåt?
     o Vilken typ av stöd har du fått?
     o Reflektion över genomförande
       ▪ Kollaborativt?
7. Hur har det kollegiala arbetet sett ut?
   - Gemensamt/individuellt utarbetade strategier?
8. Vilka förändringar i din undervisning har du genomfört/testat?

TCK

9. Hur har du gått till väga för att i en skiftande arbetsmiljö arbetat för att anpassa innehåll efter elevers behov och intressen?

TPK

10. På vilka sätt har du nyttjat digitala verktyg för att ge elever möjlighet att på egen hand ansvara för sitt lärande?
    - Vilka förändringar från tidigare har skett?
    - Efter att undervisning återgått till den normala. Vilka förändringar ser du kommer kvarstå framöver?
11. Hur förändrades din undervisning under perioden då undervisningen genomfördes online?
    - Det har framgått att elevers deltagande har fluktuerat till stor grad. Hur har du arbetat för att öka elevers deltagande i undervisningen?
      o För att öka deltagande i form av närvaro och aktivit deltagande?
    - Hur har elevinflytande sett ut under den senaste tiden?

- o Hur har elevers kunskaper inom digital teknik ökat/minskat möjligheter till genomförande av undervisning?
- Vilka anpassningar har du behövt göra gällande strategier för undervisning?
    - o Presentationer, genomgångar, formativ bedömning

Uncategorised

12. Hur har elevsammansättningen påverkats av avskiljning?
    - Ser det aktiva deltagandet annorlunda ut?
    - Är det samma elever som är aktivt deltagande?

Situation (2)

13. Kan du berätta om en undervisningssituation där det fungerat särskilt bra att använda digital teknik?
    - Hur hjälpte den digitala tekniken till
        - o För att underlätta förmedling av ämnesinnehållet?
        - o För att förmedla undervisningens syfte, värden och mål?
14. Kan du berätta om en motsatt situation där det fungerat sämre att använda digital teknik i undervisningen?
    - Vad med tekniken orsakade att
        - o Ämnesinnehållet i undervisningen inte kunde förmedlas så som du hade för avsikt?
        - o Förmedling av undervisningens syfte, värden och mål försvårades?

Appendix 4 – Interview guide (English)

General questions
1. How long have you worked as a teacher?
2. What subjects do you teach?
3. How big are your student groups?

Situation (1)
4. Can you tell me how a regular lesson used to be like when you taught the student group online?

TPACK
5. Which parts have been the most challenging to teach?
   - Speak, listen, read, write
   - What has made (this part) extra challenging to teach?
6. How have your technical skills developed in the last period?
   - How have you worked to push your development in the use of digital technology in language teaching forward?
     o What kind of support have you received?
     o Reflect on the implementation
       ▪ Collaborative?
7. What has the collegial work looked like during this time?
   - Collaborative or individually developed strategies?
8. What changes in your teaching have you implemented?

TCK
9. How have you worked in this changing environment in order to adapt content to students' needs and interests?

TPK
10. In what way have you used digital tools to give students the opportunity to be responsible for their own learning?
    - What are some of the new changes?
    - When things return to normal, what changes do you think will remain?
11. How did your teaching change during this online-teaching period?
    - It has been noted that students' participation has fluctuated to a great extent. How have you worked to increase students' participation in class?
      o To increase participation in the form of attendance and active participation?
    - What has student influence looked like during this period?
      o How have students' knowledge of digital technology increased or decreased teaching possibilities?

- What adjustments have you had to make in terms of teaching strategies?
  - o Presentations, reviews, formative assessment

Uncategorised
12. How has student composition been affected by students being separated?
   - Does the active participation look different?
   - Are the same students as before active in class?

Situation (2)
13. Can you tell me about a teaching situation where it has worked particularly well to use digital technology?
   - How did technology help
     - o In conveying content?
     - o In communicating purpose, values and goals?
14. Can you tell me about a teaching situation where it instead worked particularly bad to use digital technology?
   - How did technology hinder
     - o Conveying of content?
     - o communication of purpose, values and goals?

Appendix 5 – Quotes (English)

(1) I have always been tech-savvy. (Alex, q6)

(2) We have had to learn how to do things in specific situations. Apart from specific teaching situations, there has been no major change. (Shawn, q6)

(3) Some applications are not adapted to certain situations so I have worked a lot with coming up with solutions where I have pushed the tools to their limits. (Taylor, q6)

(4) We have a teacher who is responsible for digital development who have produced instructional videos, tips and tricks together with other people. (Shawn, q6)

(5) I have been responsible for much of the technical work while also working with others to come up with adaptations to the digital environment and evaluation of solutions. (Justin, q6)

(6) The school management has stood behind us. We have also been free to use our own solutions. However, it would have been easier if everyone used the same solutions because it would have been easier for students if there were fewer differences between solutions. (Kelly, q14)

(7) Before the restrictions, I was most familiar with Skype. Now afterwards, I have familiarized myself with some new video-conferencing tools. I have been open to testing new tools if the situation does not require a specific tool. (Kelly, q6)

(8) On one occasion, someone had added bots that played sounds, this resulted in the lecture being cancelled and some students invited friends. After this, a few knowledgeable students helped me administer who can join. (Alex, q11)

(9) Speaking and listening have been the most difficult to teach because interactions are not as natural online. You can't see each other the same way. (Justin, q5)

(10) Some students expressed concern about the possibility of being recorded. At the same time, much of their natural charisma disappeared as they did not get the same energy because it felt like presenting in front of a wall, which led to lower results and motivation. (Jordan, q5)

(11) Many of my students are quite reluctant to read fiction and during distance teaching it is very difficult to determine if they are actually reading or if they use summaries from websites. (Alex, q5)

(12) In a class where we have several 'gamers', more of them have participated thanks to the communication being like what they are used to, namely behind a screen. This made it easier for them to get attention and higher participation. (Jordan, q12)

(13) I have not made more adaptions than before. However, it became easier to give oral feedback as there were no others around who listened, it became more private. (Alex, Q11)

(14) By working in the Classroom, we can better see how students work, if they start to fall behind and at what stage, or if they get side-tracked. (Alex, q10)

(15) Influence has definitely decreased, largely because you needed to be stricter. At the same time, it has not been possible to stop a lesson because it did not go as expected. It became more difficult to organize change. (Justin, q11)

(16) It has not really changed. It is mostly me being available in several places. (Kelly, q9)

(17) Discussions have shifted from academic content to a focus on comprehensible language through, for example discussing interest. I cannot hear closed group discussions I am not in. It was important to make assessment opportunities and that they were the ones I listened to at that time clear. The students really felt that it was them I focus on since other groups could not be heard. (Jordan, q9)

(18) Giving out assignments one at a time worked well I think. (Justin, q13)

(19) We use Google Hangouts and Google tools to see if students are doing what they are supposed to. (Justin, q8)

(20) You cannot tell if students have started to work if they are working as easily as you can in a classroom. Shawn, q5)

(21) At the end of each lesson, we had an 'exit ticket' such as a quiz to check if students have been active. (Shawn, q5)

(22) We use google hangouts and screen capture so we can see what students are doing and what they need help with. When a student needs help, we can then open a room to give them help. (Justin, q4)

(23) Difficult parts have become more difficult. Unlike in the classroom where I can see that students who are working are on the right track, I cannot see this as easily online. Knowing if they actually understand content or are following instructions is more difficult online. (Taylor, q14)

(24) Those who work well in the classroom have also worked well during distance education. However, there are some students who have not been able to work in the classroom who have been able to work remotely, mainly those who are interested in technology. Those who generally have difficulties have also had it during distance education; those who need a push have fallen behind. (Taylor, q12)

(25)   Students were given more opportunities for tests and similar activities since their circumstances could differ greatly. I collaborated more with student health. (Taylor, q11)

(26)   More extra work because you needed to be more careful with extra adjustments and catch students who fall behind. (Jordan, q10)

(27)   Their knowledge has increased a lot and they have learned that you can participate in other ways. We made sure to clarify the importance of attendance even during distance learning. They have learned to use the various digital tools, how to call teachers, talk to each other and create study groups. The understanding of how to work in different ways with digital tools has really improved. (Shawn, q11)

(28)   The more tech-savvy use Discord. We have been given orders from management to use Google Meet. Despite this, students use Discord. […] What I do is divide them into smaller groups so that I can see everyone more easily. (Taylor, q12)

(29)   Keeping track of students is harder so you have to rely on them taking responsibility for their education. Motivated and generally strong students do well even during distance education. On the other hand, they did not get attention as quickly, but at the same time they could work undisturbed. The weaker students or those lacking a quiet working environment were negatively affected. (Alex, q5)

(30)   Some strong but quiet students became more active than before during distance education. (Alex, q12)

(31)   Students who had difficulties in the morning could now just turn on their computer to get to class. (Shawn, q11)

(32)   Give clearer instructions, such as how to use specific tools for different purposes. We have created or found a lot of new digital materials and tasks. (Jordan, q10)

(33)   Students have mainly had an influence on examination forms, for example deciding if they should be oral or written. (Justin, q11)

(34)   Influence has absolutely decreased. You could not interrupt lessons in the middle to make major changes when it did not work. It was a much bigger process. (Alex, q11)

(35)   Much like before, if students had complaints, I would discuss how we could adapt the task to give everyone the same opportunities with them. (Alex, q11)

(36)   Partly by creating flexible tasks that can be adapted to the students' level but also reducing the number of tasks to instead focus on a few with greater variety. […] it is a bit about buying time, if a student needs help it will be a much bigger process than before. (Justin, q11)

(37) Many reviews have been shortened and much of the information has been moved to documents or other formats in simpler forms. (Justin, q11)

(38) You cannot as easily tell if students are keeping up, it is a form of two-way communication that is lacking even when we use webcams. (Taylor, q11)

(39) I divide the tasks into much smaller parts where we have lesson assignments etc. (Alex, q10)

(40) Recording lessons have been very much appreciated. […] The students like being able to go back and check, especially the weaker students. If they have forgotten something, they can check again and work at their own pace. We have several with NPF diagnosis and for them it has been valuable to listen again. (Shawn, q10)

(41) Students waited longer to ask for help because they had to call me. I had more time to work with formative assessment since I could see and comment on their work at any time. (Shawn, q11)

(42) Playing DnD worked very well, but probably not any better than normal… it is different being able to see each other and physically roll a die… however, all information was easily accessible which facilitated interactions. (Jordan, q13)

(43) Being able to let students participate digitally if they are unable to come is very good for including students. (Justin, q10)

(44) Apart from during presentations I had a very high participation rate during distance teaching. […] It was very clear who spoke thanks to a light lighting up. […] all students were visible this way. (Jordan, q11)

(45) I could see the students' work during the whole process. […] I could contact them directly if something seemed unusual. (Shawn, q8)

(46) During a listening comprehension we gave them an audio file of 45min and set the time limit for the test to 5min longer than the file, this made it harder to cheat because there was no time to do so. […] the results turned out to be within my expectations without any bigger differences from previous results. (Shawn, q13)

(47) It is not as obvious that I am listening when it happens online, which helps them relax. The distance made it a bit easier, I think. (Kelly, q13)

(48) I will probably continue working the same way but with the difference that we all instead use the same solutions so that it is not as messy. (Kelly, q10)

(49) To ask a colleague about something quickly, disappeared completely. The structured collegial work continued as usual, but the informal disappeared. (Alex, q7)

(50) At our meetings, we had many discussions where we worked together to come up with solutions to the difficulties we encountered. (Shawn, q6)

Appendix 6 – Quotes (Swedish)

(1) Jag har alltid varit tekniskt kunnig. (Alex, q6)

(2) Man har behövt lära sig hur man gör I specifika situationer. Utöver specifika undervisningssituationer så har det inte skett någon större förändring. (Shawn, q6)

(3) Vissa program är inte anpassade för visa situationer så jag har jobbat mycket med att försöka komma med lösningar där jag pressat verktygen till sitt yttersta. (Taylor, q6)

(4) Vi har en lärare som ansvarar för den digitala utvecklingen som tillsammans med andra tagit fram instruktionsvideor, tips och tricks. (Shawn, q6)

(5) Jag har ansvarat för stor del av det tekniska arbetet samtidigt som jag arbetat nära med andra för att lösa anpassningar till det digitala och utvärdering av lösningar. (Justin, q6)

(6) Skolledning har stått bakom oss och hjälp oss samtidigt som det varit fritt att använda våra egna lösningar. Det skulle däremot underlätta om alla hade använt samma lösningar för det hade varit lättare för elever med färre skillnader. (Kelly, q14)

(7) Innan restriktionerna var jag mest bekant med Skype, men nu efter har jag bekantat mig med en del nya videokonferens-verktyg. Jag har varit öppen för att testa nya verktyg om situationen inte kräver ett specifikt verktyg. (Kelly, q6)

(8) Vi ett tillfälle hade någon lagt in bottar som spelade upp ljud som innebar att föreläsningen var tvungen att avbrytas, och i andra fall bjudit in kompisar. Efter detta fick jag hjälp av kunniga elever för att bättre kunna styra upp vilka som kan delta. (Alex, q11)

(9) Tala och lyssna har varit svårast att undervisa i på grund av att interaktioner inte blir lika naturliga online då man inte kan se varandra på samma sätt. (Justin, q5)

(10) En del elever uttryckte oro för att de inte visste om de blev inspelade. Samtidigt försvann mycket av den naturliga karisman då de inte fick samma energi eftersom det kändes som att presentera framför en vägg vilket ledde till lägre resultat och motivation. (Jordan, q5)

(11) Många av mina elever är ganska motvilliga att läsa skönlitteratur och på distans så är det väldigt svårt att avgöra om de faktiskt läser eller om de går in på en hemsida för summering och tar infon därifrån. (Alex, q5)

(12) I klass där vi har flera som är 'gamers' har fler deltagit för att kommunikationen likar den som de har vanligtvis, det vill säga bakom en skärm. Detta gjorde att de fick det lättare att ta plats och högre deltagande. (Jordan, q12)

(13) Jag har inte gjort fler anpassningar än tidigare. Däremot blev det lättare att ge muntlig feedback då det inte fanns några andra runt om kring som lyssnade, det blev mer privat. (Alex, Q11)

(14) Genom att vi arbetar i classroom kan vi bättre se hu elever arbetar, om de börjar falla efter och hur tidigt, eller om de kommer in på sidospår. (Alex, q10)

(15) Inflytande har absolut minskat, mycket på grund av man behövt vara striktare. Samtidigt har man inte kunnat bryta en lektion för att det inte gått som förväntat. Det blev svårare att organisera förändringar. (Justin, q11)

(16) Det har inte direkt förändrats. Det är mest att jag varit med på flera olika platser. (Kelly, q9)

(17) Diskussioner har skiftat från akademiskt innehåll till fokus på begripligt språk genom exempelvis diskussioner om intressen. I slutna grupper hör jag inte diskussioner jag inte sitter med i. Det var viktigt att då göra bedömningstillfällen tydliga och att det var dem jag lyssnade på vid det tillfället. Eleverna kände verkligen att det var just dem i fokus eftersom andra grupper inte hördes. (Jordan, q9)

(18) Att ge uppgifter på löpande band har fungerat bra tror jag. (Justin, q13

(19) Vi använder google hangouts och google verktyg för att se att elever gör det som de ska. (Justin, q8)

(20) Man kan inte se om elever kommer igång och arbetar lika lätt som i ett klassrum. (Shawn, q5)

(21) I slutet av varje lektion hade vi en 'exit ticket' som exempelvis ett quiz för att kontrollera att elever varit aktiva. (Shawn, q5)

(22) Vi använder oss av google hangouts och screen capture vi kan då se vad elever gör och vad de behöver hjälp med. När någon elev behöver hjälp kan vi gå in i ett rum med dem för individuell hjälp. (Justin, q4)

(23) Svåra moment har blivit svårare. Till skillnad från i klassrummet där jag kan se att elever som arbetar är inne på rätt spår så kan jag inte se detta lika lätt online. Att se att de faktiskt förstår innehåll eller följer instruktioner är svårare online. (Taylor, q14)

(24) De som jobbar bra i klassrummet har även jobbat bra under distansundervisningen. Däremot är det vissa elever som inte kunnat jobba i klassrummet som har kunnat jobba på distans och det är främst de som är tekniskt intresserade. De som generellt har svårigheter har även haft det under distansundervisningen, de man behövt pusha framåt har tappat efter. (Taylor, q12)

(25) Elever fick fler möjligheter att genomföra prov och liknande eftersom deras omständigheter kunde skilja sig så mycket. Jag hade ett större samarbete med elevhälsan. (Taylor, q11)

(26) Det blev mer extrajobb för man behövde vara noggrannare med extra anpassningar och fånga upp elever som tappat efter. (Jordan, q10)

(27) Deras kunskaper har ökat mycket och de har lärt sig att man kan delta på andra sätt. Vi var noggranna med att förtydliga vikten av närvaro även under distansundervisning. De har lärt sig att använda de olika digitala verktygen, att kunna ringa upp lärare, prata med varandra och skapa egna studiegrupper. Förståelsen för hur man kan arbeta på andra sätt med digitala medel har verkligen förbättrats. (Shawn, q11)

(28) De mer tekniskt kunniga sitter på Discord. Vi har fått order från ledning att alla ska sitta i Google meet. Trots det går elever till Discord. […] Det jag gör är att jag delar in dem i mindre grupper så att jag lättare kan se alla. (Taylor, q12)

(29) Man har inte samma koll på eleverna så man får förlita sig på att de tar eget ansvar för sin utbildning. De motiverade och generellt sätt starka eleverna sköter sig bra även under distansundervisningen. Däremot fick de inte uppmärksamhet lika snabbt men samtidigt fick de större arbetsro. De svagare eleverna eller de som saknar arbetsro påverkades negativt. (Alex, q5)

(30) En del starka men tysta elever blev mer aktiva i distansundervisningen. (Alex, q12)

(31) Elever som hade svårt på morgonen kunde nu bara slå upp datorn för komma in. (Shawn, q11)

(32) Ge tydligare instruktioner, exempelvis hur de använder specifika verktyg för olika syften. Vi har skapat mycket nytt material eller hittat nya digitala material och uppgifter. (Jordan, q10)

(33) Elever har främst haft inflytande över examinationsformer, om de ska till exempel vara muntliga eller skriftliga. (Justin, q11)

(34) Inflytande har absolut minskat. Man kunde inte avbryta lektioner mitt i för att göra större förändringar om det inte fungerar, för att det blev en mycket större process. (Shawn, q11)

(35) Ungefär som tidigare, hade elever klagomål så brukade jag kommunicera med dem om hur vi kunde anpassa uppgiften för att ge alla samma möjligheter. (Alex, q11)

(36) Dels att man skapar flexibla uppgifter som kan anpassas till elevernas nivå men också att man minskar antalet uppgifter till att fokusera på några få med större variation… det handlar lite om att köpa sig tid, behöver en elev hjälp blir det en mycket större process än tidigare. (Justin, q11)

(37) Många genomgångar har kortats ned och flyttat mycket information till dokument eller liknande i enklare former. (Justin, q11)

(38) Man ser inte om elever hänger med på samma sätt, det är en form av tvåvägskommunikationen men den är bristande även om vi har webbkameror. (Taylor, q11)

(39) Jag delar upp uppgifterna i mycket mindre delar, där vi har lektionsuppdrag osv. (Alex, q10)

(40) Inspelning av lektioner har varit väldigt uppskattat. […] Eleverna gillar att kunna gå in igen för att kolla, speciellt de svagare eleverna. Har de glömt något kan de kolla igen och jobba i sin egen takt. Vi har flera med NPF-diagnoser och för dem har det varit värdefullt att lyssna igen. (Shawn, q10)

(41) Elever väntade mer med att fråga efter hjälp för att det fick du ringa upp mig. Jag fick mer tid att jobba formativt då jag alltid kunde se deras arbeten och direkt ge kommentarer. (Shawn, q11)

(42) Att spela DnD fungerade väldigt bra men kanske inte bättre än normalt. […] det är en annan grej att slå en tärning och se varandra. […] däremot fanns all information lättillgänglig vilket underlättade interaktioner. (Jordan, q13)

(43) Att kunna låta elever delta digital om de inte kan komma är väldigt bra för att fånga upp elever. (Justin, q10)

(44) Bortsett från presentationer hade jag väldigt högt deltagande under distansundervisningen. […] Det blev så tydligt vem som talade för att det lyste upp. […] alla elever syntes på så sätt. (Jordan, q11)

(45) Jag kunde under hela processen se elevernas arbete. […] såg något konstigt ut kunde jag direkt kontakta dem. (Shawn, q8)

(46) Under exempelvis en hörförståelse gav vi dem en ljudfil på 45min och satte tidsgränsen på testet 5min längre än filen, då blev de svårt att fuska för tiden fanns inte för det… och resultaten visade sig vara inom mina förväntningar och inga jättestora skillnader från tidigare resultat. (Shawn, q13)

(47) Det blir inte lika uppenbart att jag sitter och lyssnar när det sker online och de kunde koppla av bättre. Avståndet underlättade en del tror jag. (Kelly, q13)

(48) Jag kommer nog fortsätta arbeta på samma sätt men att vi alla istället använder samma lösningar så att det inte blir så rörigt. (Kelly, q10)

(49) Att gå och fråga en kollega om en snabb sak försvann helt. Det strukturerade kollegiala arbetet fortsatte som vanligt men det informella försvann. (Alex, q7)

(50) Vid våra möten hade vi många diskussioner där vi arbetade tillsammans för att komma med lösningar till svårigheter som vi mött. (Shawn, q6)