

Digitalisation in Schools in Sweden: Needs and Experiences of Trainee Teachers of Languages

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We are living in a digital era and technology affects our whole life nowadays. According to the *Official Journal of the European Union* (2006), digital competence is one of eight key skills for lifelong learning. This leads to change in every part of our lives, for example how we communicate, how we access information and how we learn.

ICT tools for learning are being continuously developed, and digital competence has become a key skill for teachers and pupils. There is much evidence that technology has a positive effect on language teaching and learning. Firstly, technology makes it possible to have contact with the target language, which is positive since a lack of such contact is a great hinder to language learning (Blake, 2008). Secondly, digital tools can improve discussions in the classroom, even though there are challenges with the pedagogical set-up (Gelfgren, 2014, p.103). It is also important to make teaching relevant for pupils in order to motivate them, and digital tools can create the possibility to link teaching with the pupils' linguistic and cultural interests (Creelman et al., 2014). However, research has also shown that the change towards more digitalised teaching can also bring with it disadvantages for teachers, such as, for example, increased stress (cf. Syvänen et al., 2016). Teachers have to know about digital tools and how to apply them in teaching practices; for this reason, it is important that teacher educational programmes take into account the real needs and skills of their students.

This article presents the result of a survey about digital competence skills and needs among

teacher trainees focusing on modern language subjects including English at a university in Sweden. A background on digital competence in Swedish society and in Swedish schools in particular comes first. Then, we present our survey method and results.

Definitions of Digitalisation

In the EU, digital competence has been of great importance since 2006 when it was named as one of the important skills needed for lifelong learning (European Parliament and the Council, 2006). This led to the DigComp project which was published as Vuorilari et al. (2016). DigComp created a framework in order to map and describe digital competence, which was defined as the "confident and critical use of ICT tools" (Vuorilari et al., 2016, p.5), and five sorts of competences are taken up: a) information and digital literacy, b) communication and collaboration, c) the creation of digital content, d) safety, and e) problem-solving (Vuorilari et al., 2016, pp.8-9). This can be compared with the Digitalisation Commission in Sweden's definition of digital competence as: *the extent to which an individual is acquainted with digital tools and services, and has the ability to follow digital development* ("i vilken utsträckning en individ är förtrogen

med digitala verktyg och tjänster samt har förmåga att följa med i den digitala utvecklingen”; Digitaliseringskommissionen, 2015, p.28).

In their synthesis of research and policy documents, Gallardo-Echenique et al. (2015) note that the concept of digital competence has changed from describing skills in using a computer to information-searching and source-criticism (“källkritik”). Martin (2009) describes three levels of digital knowledge: “digital competence” is the lowest level which includes skills and concepts. Level 2 is called “digital usage” where these skills are used in professional contexts; and level 3 is called “digital transformation” where users are innovative and creative in digital contexts. In a similar vein, Käck and Männikkö-Barbutiu (2012) write about technical, theoretical and didactic digital competence.

Digitalisation in Schools in Sweden

The discussion surrounding digital competence has led to four aspects being taken up in the curriculum in Sweden for compulsory schooling (cf. the commentary material for the curriculum in Skolverket, 2017): the effect of digitalisation on society, using and understanding digital tools and media, having a critical and responsible attitude to digital material, and being able to solve problems and put ideas into action (Skolverket, 2017, pp.10-11). Regarding languages, it is mentioned that digital media can enrich communication and increase contacts out in the world (Skolverket, 2017, p.20).

The national digitalisation strategy of 2017 from the Swedish government includes different areas of focus, with the first being: *digital competence for all in the school system* (“digital kompetens för alla i skolväsendet”). Goal 3 specifies the needs of school staff: *staff who work with children should have the competence to choose and use appropriate digital tools in education* (“personal som arbetar med barn och

elever ska ha kompetens att välja och använda ändamålsenliga digitala verktyg i utbildningen”; Digitaliseringsstrategi, 2017, p.6). They specifically mention the need for education and further training during people’s working lives (Digitaliseringsstrategi, 2017, p.8).

Skolverket (2016) also argue that teachers have a continued need for training in ICT. If this is compared with what the government writes about the need for developing digital competence, it is not surprising that teachers realise that they must train all the time. As described in Käck and Männikkö-Barbutiu (2012), digital competence is ever-changing. Technology is continuously developing, and therefore research into and knowledge of didactic, theoretical and technical digital competence are needed (p.62). With this background, we now present our method of collecting data.

Data Collection and Method

As teachers of languages within teacher training programmes at our university, the authors are well acquainted with the problems of our own and students’ digital competence. Students have often orally expressed a frustration at not getting enough practical help with using digital tools in schools. Therefore, we decided to investigate their needs further with the help of a survey.

A survey was created in Google Forms and sent by link to students focusing on language subjects (English and Modern Languages) in the 7-9 and upper secondary teacher training programmes. The survey was completed in 2019 and collected data on students’ self-reported level of digital competence outside education, and their views of what digital competence actually is. What digital tools they have used in teaching practice is also considered. Students’ need for extra training and what they felt was most difficult about using digital tools in schools were also investigated. Students were asked to give

consent to participate in the survey, and were told that they could withdraw their participation at any time. Email addresses were collected in order to administer further interviews, as a second part of the project.

In total, 26 informants completed the survey, 20 of whom were women. Almost half of the informants work as language teachers in Sweden. The informants might be divided into two different groups: those who completed the survey in the beginning of the first term of their teacher education (group A, 10 informants), and those who completed the survey after having completed the second term of their program (group B, 16 students). In terms of age, the majority of Group B were aged 31-45, while in Group A the same number of informants were aged 20-30 and 31-45.

Results

The results of the survey are summarized in the following three sections.

What is Digital Competence?

The background to this article has mentioned that there are different levels of digital competence: from the simple ability to use a computer, to an expert, creative use of tools. These different levels are all reflected in the informants' replies. Some saw digital competence as simply the use of computers, while most felt that the regular, critical use of digital tools was the main sign of digital competence. This reflects the skills that these students are expected to impart in pupils, as source-criticism is one of the skills mentioned in the different curriculums in Sweden. It is interesting to note that even if the vast majority of the informants consider themselves as digitally competent, the students in Group A show more confidence when assessing their own digital competence, while Group B seem to be more cautious, showing in their replies their

awareness of the negative aspects of digitalisation.

The Use of Digital Tools in the Classroom

Almost all informants had tried to use digital tools in their in-service training ("Verksamhetsförlagd utbildning [VFU]"), and the majority were positive towards using them, especially Group A. When asked what was particularly positive about digital tools, informants replied that they made teaching more fun and more up-to-date, and affected language learning in a positive way. This precise issue has been mentioned in the literature as good for motivating language learners (cf. Creelman et al., 2014).

The students felt that more time was needed to plan lessons using digital tools and especially Group B showed they were aware of the fact that more time was needed when preparing and developing digital activities, even if more class time itself would not be needed.

Trainee Teachers' Needs

The main things that the students felt they needed in order to use digital tools effectively was support from leadership, and in particular practical training and workshops. This is an important point for us, as school leaders need to clearly demonstrate that they are positive towards developing good quality teaching using digital tools (cf. Digitaliseringsstrategi, 2017).

Conclusions

Teacher trainees seem to be aware about the complexity of "digital competence", as well as the necessity of including digital tools in school. The majority of them consider themselves as digitally competent and are very positive towards digitalisation in the classroom. However, they also seem to be aware that working with the development of their pupils' digital competence is time-consuming. There is a slightly different

attitude as well between the students starting the program and the students who have already studied two terms, the latter group being more aware of the difficulties of this implementation of digital tools, especially in terms of time. In our opinion this might be a result of the discussions and practices carried out during their education during university courses. It is especially important that almost all the students express their needs for having more practical instruction, not only within the teaching program but also in schools. In this sense, time and resources also need to be set aside for teachers to be able to attend training and workshops and most importantly the time to plan and develop digital teaching.

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