

"I Keep Returning to it, so Something Must Be Happening": Swedish Foreign Language Teacher Students' Conceptions of ICT and Digital Tools in Foreign Language Teaching and Learning

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Abstract

The annual report "The Swedes and the Internet" from 2017 states that close to 100 % of teenagers connect to the internet on a regular basis (Davidsson & Thoresson, 2017), mainly for social and recreational purposes. In relation to school work in general, around 80 % of secondary and upper-secondary pupils report that they use the internet and digital tools on a regular basis. For younger learners the figure is around 55 %. The inclusion of ICT and digital literacy has been a mainstay in the steering documents since 2011, and in 2017 the presence of digital literacy was further strengthened and specific knowledge requirements were introduced for several subjects. However, the area of pedagogical use of ICT and the promotion of digital literacy in foreign language (FL) teaching remains an under-researched area. The present study addresses this issue from the vantage point of FL teacher education. The paper reports on an analysis of 12 FL teacher students' views on the use of ICT and digital tools in FL teaching and learning. Reflective diaries written as part of an introductory course in language education theory, including a practicum period, were collected. Based on the frameworks of teacher cognition (Borg, 2015), self-efficacy (Bandura, 1982), and agency (Beauchamp & Thomas, 2011), the diary entries were analysed using a combination of qualitative content analysis (Creswell, 2014) and discourse analysis (Gee, 2011) to identify recurrent themes in the student's writing, and to establish the students' perceptions of their own sense of agency regarding their present assumptions and future projections of why, how and when to include ICT and digital tools in their teaching. The results indicate that the FL teacher students' own lack of pedagogical models initially restrict their sense of self-efficacy and agency in this respect, but also that the interplay between language education theory and teacher practicum may offer a stimulating arena to try out and reflect on ICT and digital tools for pedagogical purposes, potentially challenging previous held views. The results will be discussed in relation to FL teacher education and teaching practices.

Keywords: agency, FL teacher education, FL teaching and learning, ICT, reflection, self-efficacy;

1. Introduction

This study is set in the context of Swedish foreign language (FL) teacher education and concerns FL teacher students' cognitions regarding ICT and digital tools and their pedagogically justified inclusion in FL teaching. Sweden is one of the world's most connected countries and surveys indicate that close to 100 % of teenagers connect to the Internet on a regular basis. Around 80 % of secondary and upper-secondary pupils report that they regularly use digital tools as part of the school work [1]. In 2017, requirements for the inclusion of ICT and digital literacy were strengthened and specific knowledge requirements were introduced for a number of school subjects [2].

These two factors should pave the way for beneficial conditions for a pedagogically sound inclusion of digital tools in FL teaching. The area is under-researched in the Swedish context but published studies suggest that ICT teachers find it difficult to navigate in the vast number of digital resources that are available, both in terms of technology and pedagogical considerations [3]. Another issue is that students in pre-service FL teacher programs in many cases have substantial experience from using the internet and social media for personal needs and communication, but their experiences as pupils/learners in school have not provided them with models for the pedagogical use of ICT and digital tools. As pointed out by Zhang and Martinovic [4], as well as others, for instance Barnes, Marateo & Ferris [5], these students have not reflected on how their use of digital tools affects their own digital development. In other words, their use of ICT is quantitatively extensive but qualitatively constrained.

The present study sought to address these challenges among Swedish FL teacher students through the following questions:

- Which factors shape the FL teacher students' cognitions with regard to pedagogical applications of ICT and digital tools?



- How do the FL teacher students view their own possibilities to include ICT and digital tools in their future teaching?

2. Theoretical framework

The framework of the study is that of teacher cognition, or more specifically student teacher cognition. It seeks to probe into the "inner lives" of the teacher students, assuming that the experience-based cognitions held by the teacher students will influence their current thinking and projected scope of action [6]. The views held by the FL teacher students at the time of data collection were analyzed through the lens of self-efficacy, which for the purposes of the present study is taken to be the individual's expressions of how well he/she can "execute courses of action required to deal with prospective situations" [7]. I take this to be a 'current state of affairs' and a matter of to what extent the teacher student feels that he/she is in control of the present situation. Consequently, I do not use self-efficacy as an expression of a future projection of agency. This projected scope of action is captured by the notion of agency. I use Beauchamp & Thomas's definition of agency as the "performance within teaching contexts", and an "empowerment to move ideas forward, to reach goals or even to transform the context" [8]. In the context of the present study, agency thus refers to the FL teacher students' projections of future capacity to act as a teacher. In other words, I see digital agency as one very important component of teacher identity, and one that is not always emphasized in the TPAC model.

3. The study

3.1 Participants

The participants in the present study were 12 FL teacher students enrolled on a three-semester M Ed program. The students had completed their subject studies in one or more of the following languages: English, French, German, Italian, and Spanish, and they were studying to qualify as secondary or upper-secondary FL teachers. This study is part of a larger project where Swedish and Finnish FL teacher students are followed throughout their M Ed. The data collection for the present paper comes from the Swedish cohort and the first semester of study. Their linguistic histories vary: four students have L1 Swedish, four students have L1 Spanish, two students have L1 Italian, one student has L1 Polish, and one student has L1 Finnish. Their ages ranged from 24 to 35. All students had some previous teaching experience and experience in using technology for information search, social interaction and – to some extent – from educational contexts.

3.2 Data

The data for the present study was taken from a writing assignment during the FL language teacher students' initial course in language pedagogy. The course consisted of 12 seminars over six weeks, covering the following topics: theories of language learning, principles for foreign language teaching, communicative language teaching, task-based language teaching, form-focused instruction, and foreign language development and assessment. Issues relating to ICT and digital tools were considered throughout the course, and special attention was paid to these questions in Seminar 5.

As part of the requirements for this initial course, the students were asked to write a *cumulative reflection log*, where they made entries after each of the 12 seminars. They were free to choose the theme for each entry based on the course content, readings and seminar discussions. They wrote individually and made their entries consecutively in an electronic document that they kept throughout the course. For every third entry they were instructed to go back and critically re-read their previous entries, and include this in their further considerations, hence the label cumulative. As the final entry the teacher students were asked to write a meta-reflection on their own learning process. At the end of the course, the document containing the reflections, critical readings and the meta-log was handed in. This assignment was not graded. These documents from each of the 12 participants constitute the data for the present study.

3.3. Data analysis

Qualitative content analysis was used to identify recurrent content categories [10]. Once these content categories were established, each occurrence was further investigated using discourse analytical categories [11]. Based on Ruohotie-Lyhty's analytical categories, opening and restricting discourses were identified to uncover the discursive patterns used by the FL teacher students to express notions of self-efficacy and agency [12]. A third category, *discourses of reconciliation*, is suggested to capture fluctuating lines of development.

4. Results and analysis

The following broad content categories were identified in the FL teacher students' reflections containing references to ICT and digital tools. The figures in brackets indicate the number of occurrences identified for each theme.

- ICT as a general phenomenon (99)
- Proficiency development > reception, production, interaction (21)
- Feedback and assessment > formative assessment, peer assessment (12)
- Form-focused instruction > grammar, vocabulary, pronunciation (6)
- Literature and cultural competence (5)

As can be seen, general considerations relating to ICT dominated the material. This is not surprising given the introductory nature of the course, the students' initial limited knowledge of language pedagogy, and their relatively limited teaching experience. There is also a clear trend in the material for the more specific categories to emerge gradually as the course unfolded.

In the following, the two major content categories, 'ICT as a general phenomenon' and 'proficiency development' will be considered.

Within the broad content category of 'ICT as a general phenomenon' two prominent themes emerged.

4.1 Teacher authority and the role of the teacher

As can be seen from the following examples, the FL teacher students were quite concerned with classroom management issues, fearing that the presence of computers and other digital devices will disrupt teaching and challenge the authority of the teacher. In addition, the fear is voiced that the pupils will get access to the Internet "in an unchecked way".

Restricting discourses

"My experience is that, if unchecked, using ICT becomes an obstacle to teaching because the pupils have access to the whole of the Internet" (2.5)

"We could just as well abolish all classroom teaching and let the pupils sit in front of a computer with recorded lessons and with no contact with a teacher." (4.5)

"I have often been the person who has said that the use of computers in the classroom is largely a way of making the pupils focus on everything but the teaching." (8.5)

Opening discourses

There are, however, students who voice a more assertive stance towards ICT and who project their agency quite clearly.

"As a future teacher I feel considerable responsibility in relation to my pupils and their varying needs". (5.3)

"The internet has opened up new possibilities for both teachers and pupils to use various tools in the classroom, and with regard to language teaching I think that these tools can be used in a creative and constructive way in schools. (7.5)

4.2 The general usefulness of ICT

Restricting discourses

Student 4 sees few positive aspects of ICT in the language classroom, and refers to perceived general trends in society:

"The value of ICT is overestimated because it contributes to not only pupils but the whole of society becoming lazier and less interested in acquiring knowledge when all information is available on the Internet" (4.5)

Student 4 initially equates ICT with the Internet as a container of information and sees no or little pedagogical value in bringing it into the classroom. However, the student then goes on to discuss the use of digital tools in the classroom where, interestingly, the possibility of using ICT as a source of information is now seen as an asset but with no added pedagogical potential:

"There are probably a number of advantages in using ICT when it comes to gaining access to information and its dissemination, but the use of ICT and multimodal content itself in combination with certain gadgets and apps – does it really make teaching better in comparison to the time when ICT was not used at all?" (4.5)

Opening discourses

Student 5 is also concerned with the development in ICT, but takes a rather different stance to the issue compared to Student 4. Student 5 is also worried about the vast quantities of unsorted information available on the Internet, and expresses a concern about knowing less than her students. However, Student 5 frames the concerns in terms of the future work as a teacher:

"I will become a teacher at a point in time when pupils can access large quantities of information ... outside of my control. ... Even now I worry about how to set the limits. (5.3)

Student 5 voices her anxieties more from the pupils' points of view and also takes a learner and learning perspective. She expresses a clear notion of agency in her future work as a teacher even though she sees obstacles:

"As a student I'm prepared to learn as much as possible [about ICT] but I cannot be expected to know everything ... and I can't compete with a supersmart iPad or phone that can find all sorts of possible answers." (5.3)

After a few more seminars, the views of Student 5 have become more positive. One explanation for this could be that she no longer views ICT as just a vast and unmanageable ocean, but is able to relate to it in terms of concrete digital tools that have a specific pedagogical purpose.

"ICT can also come in the form of flashcards [Quizlet] where the pupils work with new vocabulary and they can also compete with each other ... So far, we have seen how ICT has changed to become a valuable tool for language teaching." (5.6)

4.3 Proficiency development

Generally, the FL teacher students' discourses on specific skills areas are more opening than restricting although both types are represented in the material:

"One method that we have been discussing during the seminars is to record small-group conversations. This method can have the drawback that it impedes some students just as some students are impeded by talking in front of the whole class." (1.C3)

"If a conversation is recorded the teacher can form an opinion about the pupils' strategies and their interactions." (5.7)

A discourse of reconciliation

One of the most developed lines of reasoning is given by Student 8, who has some previous teaching experience. Her initial take on ICT (see above) was that it was a way of making students pay attention to everything but the teaching. Regarding reading skills development she conducts an extensive and lengthy discussion about the use and usefulness of ICT and she returns to this topic in four of her blog entries. The following extracts illustrate her shifting lines of reasoning. Her initial attitude, based on her experience as a learner, is that reading should not be done digitally.

"Reading was done from books and printed texts" (8.6)

She seeks theoretical support and the student's quote below is taken from one of the course books.

"Increased use of the internet does not automatically lead to improved digital literacy and this reinforces the standpoint that printed text and linear reading is the basis for developing reading proficiency" (8.6)

"For me reading is a skill that takes a long time to develop and that requires considerable concentration" (8.6)

The implication here is that the required concentration cannot be achieved from digital reading. Student 8 refers to research reporting on increased levels of stress and lack of concentration as a result of excessive screen time. This leads her to the conclusion that ICT is not suitable for reading. She does not, however, discard digital tools altogether.

"ICT can be used for other activities (repetition of vocabulary, presentations, writing, feedback, etc.). But when it comes to reading of longer texts I will probably put ICT aside." (8.6)

In her final meta log, Student 8 returns to this issue. She refers back to the quotes above and then adds:

"Having worked with a teaching unit plan where reading formed an important part my opinion has changed. I now realise that the Internet is a large part of the pupils' world, and that the pupils will be reading long and short texts from the computer. Therefore, teachers need to support the pupils in this type of reading. The way to do this, which I point out in my teaching unit plan, is by asking guiding questions. This will give the pupils guidance in how to read webbased texts. Instead of discarding ICT for a specific skill it is my job as a teacher to improve their skills in using ICT." (8.Meta)

As can be seen from the analysis of this student's writing, she moves from a restricting discourse to a more opening one, and ends up with a clear statement of agency which is grounded in her changing level of self-efficacy. Her self-efficacy and sense of agency emanate from her ability to synthesize the various strands (principles for FL literacy development, the place of digital tools in teaching and an acknowledgement of the reality of the pupils she is going to teach). She does this without abandoning her very strong commitment to the importance of developing reading skills among her students.

4.4 Results summary

One of the clearest results in this study is that the lack of ICT-based pedagogical models from the FL student teachers' own educational background contributes to

- Low self-efficacy in terms of knowledge base (the pupils will know more than I do)



- Limited initial sense of agency in terms of concerns regarding discipline issues (internet is vast and uncontrolled)

As more concrete digital tools are introduced throughout the course several students 'turn' and give voice to a higher sense of agency, mainly expressed as a desire not to repeat "boring and repetitive lessons" that they themselves have experienced as pupils. However, their initial low level of self-efficacy seems to remain, that is, they still see themselves as inferior to their future pupils, who they construct as more knowledgeable and more "tech savvy" than they. There is thus a clear tension between ICT as such, mainly concretized as the Internet, on the one hand, and the more focused pedagogical use of specific software that can be harnessed for language teaching and learning.

5. Implications

One of the main direct implications to emerge from the present study is the already well-attested importance of reflection [8], and that reflection in the context of teacher education is something that has to be administered, that is it has to be made an integral part of the program. The cumulative nature of the reflection log that these FL teacher students had to write opened up avenues of thinking that they might not otherwise have tried.

Another important implication regarding ICT and digital tools is that the purpose of teacher education should not be to make every student an ardent proponent of these devices in an unreflected manner; that would be just as bad as the categorical "no-sayer", but to foster a considered basis for reflection so that whatever these individuals decide to do in their future work as FL teachers will be based on knowledge and reflected experience, and not just on preconceived ideas or unfounded fears.

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