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Article

Swedish as a Second Language Teachers' Perceptions and Experiences with CALL for the Newly Arrived

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Abstract

The use of digital technology in the subject of Swedish as a second language (SSL) has increased in recent years. Schools in Sweden have received many newly arrived students due to the migration situation prevailing in contemporary European society. This article shares the findings of a study carried out on six SSL teachers' perceptions and experiences of using digital technology for SSL with newly arrived students. Participants' responses to interview questions were analyzed using thematic analysis. The findings indicated the following: participants negotiated the digital tools as an entry ticket for the newly arrived students to become engaged with the teaching, to support literacy development, and to aid communication. The findings also underscore the challenges that respondents struggled with in teaching using digital technology. Results suggest that although digital technology is a regular part of Swedish education, there is no clear research-based framework for computer-assisted language learning (CALL) in SSL education or teacher education that teachers can rely on, meaning that it is up to teachers themselves to uncover relevant uses of digital technology to support SSL teaching.

KEYWORDS:CALL; EDUCATION; NEWLY ARRIVED STUDENTS; SECOND LANGUAGE ACQUISITION; SWEDISH AS A SECOND LANGUAGE

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Introduction

The general purpose of this study is to examine Swedish as a second language (SSL) teachers' perceptions of and experiences with digital technologies in SSL instruction for newly arrived students. Digitalization has had a great impact on society, and Swedish schools are currently among the most connected within the Organization for Economic Co-operation and Development (OECD) countries: both the number of computers and the amount of screen time exceed the OECD average (OECD, 2015). As has been argued, the increased influence of globalization and digitalization in contemporary society leads to more linguistic diversity in our schools (e.g., Androutsopoulos & Juffermans, 2014; Blommaert & Rampton, 2011; Jacquemet, 2005). Accordingly, recent migration to Sweden has led to an increase in and growing importance of SSL instruction, particularly in light of the recent influx of newly arrived immigrants, who bring with them diverse linguistic and educational backgrounds. Despite the increased number of multilingual students in the Swedish education system and the correspondingly high investments made in digital technology, our understanding of teachers' use and perceptions of digital technology in SSL teaching remains limited. Adding to our understanding of the use of computer-assisted language learning (CALL) by practicing SSL teachers can further inform SSL teacher training, in order to better prepare future teachers to effectively incorporate technology in supporting Swedish language learning among diverse learner populations.

Background: The Need for CALL in Sweden

The New Migration and Impact of Digitalization

The increased impact of digitalization has made digital artifacts in teaching commonplace in Swedish schools and compulsory in teaching according to the curriculum (Swedish National Agency for Education, 2018). A key reason for the Swedish government's focus on digitalization is the goal of achieving equality in schools, and of ensuring that all students, in particular students with a history of migration, receive the same support and prerequisites to be competitive in their future work life (Regeringskansliet, 2017).

Recent migration patterns have enabled more foreign-born individuals to live in Sweden than ever before; in 2018, this group grew by almost 80,000 people. At the end of 2018, the number of Swedish residents born outside Sweden was almost 1,960,000—about 19% of Sweden's total population (Statistikmyndigheten SCB, 2020). In comparison, an estimated 14% of the population of the United Kingdom, a country known to have a large immigration pattern, were born outside the country in 2018 (Migration Observatory, 2020).

Swedish as a Second Language and Newly Arrived Students

The new migration and linguistic diversity have created the need for SSL instruction. Swedish as a second language is a relatively new subject in the Swedish school system, introduced as late as 1995 (Tingbjörn, 2004). From this perspective, it is relevant to outline the origin of the subject. Fridlund (2011) argues that the discussion regarding the development of SSL started in the 1960s within the academic community. The strongest criticism of introducing SSL with its own curriculum was that it could contribute to dividing students into an "A-team" and a "B team," designating immigrant students as a less competent group (Fridlund, 2011; Siekkinen, 2017). Sahlée (2017) provides an increased understanding of SSL when arguing that perceptions of language affect who the subject is aimed at and who actually studies it. Consequently, SSL can be considered as based on a monolingual norm that pigeonholes the students studying it as deviant and non-standard (Fridlund, 2011; Siekkinen, 2017).

In addition, the term "newly arrived," when applied to SSL learners, has been unclear. A relatively recent definition has been added to Swedish school law, which states that the newly arrived are students who meet the following criteria: they have started Swedish school during or after the autumn semester of the current school year, are at least seven years old, and have been in Sweden for a maximum of four years (Utbildningsdepartementet, 2010).

CALL in the Swedish Education System

The need for a greater focus on CALL research on SSL learners in Sweden arises from the increasing digitalization of the Swedish education system. This is illustrated prominently in the method "Att skriva sig till läsning" (ASL), translated in this article as "writing to read," which has had a significant impact on Swedish primary school literacy education (Trageton, 2003). The basis of this method is that children learn to read by writing on the computer and thereby develop an enjoyment of reading. Genlott and Grönlund's (2013, 2016) method of "writing to learn" (WTL) has also had an impact on teaching in Sweden. Neither of these studies focuses specifically on multilingualism or second language learning. Overall, despite the growth of SSL in Sweden and the significant presence of digitalization in the Swedish education system, research that draws upon work in the field of CALL, specifically in the SSL context, remains limited (see Karlström, 2009).

Instead, research on CALL in Sweden has primarily focused on English as a second or foreign language, not Swedish. Thus, while there is no shortage of research on the digitalization of education in Sweden, there is generally no second language (as opposed to foreign language) perspective in the research.

The literature regarding digitalization and SSL in general is related to the concept of multiliteracies (Cope & Kalantzis, 2009), although the term CALL is not used. Research on digitalization in SSL focuses on the process of reading and writing from a multimodal point of departure. Mainly, studies scrutinize how students make meaning and decode meaning based on cultural and social contexts (e.g., Godhe & Jönsson, 2016; Lyngfelt, 2019; Sofkova Hashemi, 2017). Thus, while there is no shortage of research on the digitalization of education in Sweden, there is a dearth of research on SSL from a CALL perspective. As Sauro (2016) argues, CALL research on a range of languages can serve "to illuminate technology mediated solutions to the challenges learners of less prominent non-global languages face" (p. 6).

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Challenges for CALL Development among SSL Teachers

The need for CALL research is underscored by Kessler and Hubbard (2017), who highlight several challenges in preparing future teachers to be familiar with CALL or digital pedagogy. Since digital technology has become a natural part of all levels of education in Sweden, there are risks with assuming that teaching through technology or CALL is already completely normalized in language pedagogy. In the case of Sweden, this becomes an even more pronounced concern when faced with the training of new SSL teachers to address the recent influx of newly arrived learners, whose journey to Sweden and integration into Swedish society may have relied on vastly different langua-technocultural practices (Sauro & Chapelle, 2017).

The incentive for teachers to change their traditional teaching methods to keep pace with digitalization is sometimes called into question when schools in general or teachers specifically are already comfortable with existing teaching practices. Another concern is when the teacher believes that they have too little knowledge about teaching with digital technology and thus holds back on developing their competence. Therefore, teachers not only need basic knowledge of how digital technology can be incorporated into the classroom in a practical sense, but they must also gain an understanding of, and in some cases education in, how their teaching can benefit from the integration of digital

tools. This not only benefits students' learning, but also provides opportunities to reorganize processes linked to teaching (Philpott & Oates, 2017).

Accordingly, expanding our understanding of the use of CALL among practicing SSL teachers can further inform SSL teacher training to better prepare future teachers to effectively incorporate technology in supporting Swedish language learning among diverse learner populations.

Teacher Beliefs about CALL

To inform research on SSL and teacher beliefs regarding CALL in the classroom, we look to prior research that has been carried out on other populations of language teachers and their perceptions of CALL. This begins with the work of Lam (2000), who explored English as a second language (ESL) teachers' beliefs and decision-making when using CALL in their teaching. Through interviews with ESL teachers, Lam found that personal beliefs were the most significant factor in their decision-making process. Lam also argued for the importance of pursuing activities to raise the level of competence, and to increase teachers' and students' self-confidence in using technology. However, research has also found that many CALL teachers explored on their own rather than through formal instruction how to integrate technology into their teaching when working with students in the classroom (Kessler, 2006; Kessler & Plakans, 2008).

In a mixed-methods study, Hedayati and Marandi (2014) examined Iranian English as a foreign language (EFL) teachers' attitudes toward the implementation of technology in teaching. This study highlights the impact of school support and infrastructure on teachers' beliefs and practices in incorporating technology into language instruction. The findings suggest that participating teachers were unwilling to incorporate digital technology into their classes for three types of reasons.

1. Those connected to the individual teachers, such as a lack of digital literacy, lack of formal training, resistance toward technology, and lack of support from stakeholders.
2. Those connected to facility shortcomings, such as non-availability of devices, low quality of the technology, and poor Internet connection.
3. Those connected to learner constraints, such as age, native language, level of digital literacy, and attitudes.

Another study that examined the perceptions of technology use for language teaching was Wiebe and Kabata's (2010) mixed-methods study comparing attitudes toward educational technologies among students and instructors in

Japanese university courses. The results point to gaps between students' and instructors' perceptions of information and communication technology (ICT), in particular, the instructors' incomplete understanding of their students' actual use of technology. As this study shows, to take full advantage of the potential of digital technology in language teaching, it is essential that teachers understand students' existing digital skills. These findings are relevant for this present study, as they align with what the National Agency for Education (Skolverket) advises regarding the need for teachers to recognize students' digital competence (what they can do), as opposed to focusing on their digital deficiencies (what they cannot do; see Skolverket, 2020).

Problem Statement

Living in a digitalized society, a second language teacher should be well aware of how technology can support—or impede—second language learning. Some teachers have exposure to CALL research from their context, yet not all have this same opportunity. A case in point raised by Sauro (2016) is that a majority of CALL-related research is based on the teaching and learning of English, which may not be generalizable to all other target languages.

This poses a challenge for teachers of SSL if they are not exposed to research based on their teaching context, the specific target language, or their specific learner population. Teachers need to know how to draw upon technology effectively to support the learning of a language that does not have the same global status as English. Based on this rationale, the questions that guide this study are as follows.

1. What experiences and perceptions do practicing SSL teachers have with regard to using technology to support the newly arrived?
2. What implications does this have for SSL teaching and teacher training?

Method

This research utilizes a qualitative research design to gain a deep understanding of the six respondents' conceptions of using technology in the SSL context. The main data are semi-structured interviews with the selected respondents. This method suits the objectives of this research, as it leads to a "more precise description of an aspect of an interaction or a particular pattern of behavior, or even to the discovery of a phenomenon that is entirely new" (Levy & Moore, 2018, p. 7).

Participants

The participating schools were identified by theoretical sampling—that is, schools and teachers were selected based on their relevance to the research questions, theoretical frameworks, and methodology (Mason, 2002, p. 124). Important criteria were (1) schools located in multilingual areas, (2) schools of the same size and for the past 10 years having received a high proportion of newly arrived children, and (3) schools heavily utilizing digital technology in teaching. The participating teachers were recruited by an email sent to the principals containing information about the study. Ten different schools were identified as possible candidates, and three of those schools had a positive attitude toward participating. The schools studied and the profiles of the participating teachers are presented in Table 1. The six participants are Swedish primary school teachers with varied ages, genders, countries of origin, and teaching experience (note that Rebecca is a teacher in special education and meets with all the newly arrived students in grades 1–3 at the school every week).

Table 1
Schools studied and the profiles of the participating teachers

Participant*	Gender / years of teaching experience	Newly arrived students in the classes / total students	Regularly using digital technology in SSL	Grade / children's age
School 1; 550 students				
Ulla	Female / 25	3 / 22	4–6 hours/week	2 / 8
Nadira**	Female / 3	4 / 24	4–6 hours/week	1 / 7
Rebecca	Female / 8	Special education***	4–6 hours/week	1–3 / 7–9
School 2; 530 students				
Fatima**	Female / 3	2 / 25	8–10 hours/week	1 / 7
Martina	Female / 10	4 / 23	4–6 hours/week	1 / 7
School 3; 530 students				
John	Male / 7	5 / 25	8–10 hours/week	3 / 9

* Pseudonyms were used to protect the participants' identities.
** Non-native Swedish speaker.
*** Teaching consists of individualized basic reading and writing instruction.

Data Collection

Semi-structured interviews were employed in this study (Kvale, 2014) on the planning for and implementation of digitalization and teaching of newly arrived students in digitalized SSL activities. The semi-structured interviews were aimed at gathering in-depth information on the participants' attitudes, opinions, and personal experiences regarding CALL for newly arrived students, and to gain information by seeing the world through the eyes of the participants (Westby et al., 2003). The interview questions were tested in a small-scale pilot study with two respondents with similar experiences as those who participated in the study. The pilot study allowed us to investigate whether the questions about the participants' experiences and understandings of CALL in SSL elicited sufficiently accurate descriptions that could be further developed. Following analysis of the pilot study responses, we then modified the interview questions, so that they gave the participants a greater opportunity to tell their story, and not to answer questions to "meet our expectations" of how they "should" use digital technology in teaching.

Data were collected by the first author, and the interviews were recorded through the Voice Memos application. The interviews lasted 60–90 minutes each and were in most cases conducted at the respective schools. Three of the teachers were interviewed on two occasions because of time limits on the first occasion. Respondents were informed that the interviews were recorded, and the information collected was handled with strict confidentiality. All interviews were conducted in Swedish.

Analysis of the Data

Data from the interviews were transcribed into Microsoft Word to be analyzed thematically (Braun & Clarke, 2006). Both authors contributed to the five-phase analysis. To ensure the reliability of the coding process, the authors revised all codes and themes and held meticulous discussions.

- The first step consisted of transcribing the corpus and handling the data reflexively. The transcription was a meaning-producing interpretative act; that is, the transcription was at the meaning level and not the phonological level, so not all disfluencies and repetitions were transcribed (Lapadat & Lindsay, 1999). The corpus was translated from Swedish to English by the researchers.
- The second step was to produce initial codes (i.e., to include words or phrases that are representative of groups or patterns of data) and organize the data into meaningful groups (Braun & Clarke, 2006). Three types of codes were created: descriptive codes, which require very little interpretation;

interpretation codes, whose data require a certain depth of interpretation to be fully understood; and inferential codes, related to data that provide explanations and indicate causation (Miles et al., 2014).

- In the third step, codes were combined into initial themes based on common patterns among the codes (Braun & Clarke, 2006).
- In step four, the different themes were reviewed and reworked to fit all the data extracts (Braun & Clarke, 2006). The coded data were grouped according to similarities or patterns and the initial themes established. During the review process, the researchers asked a series of questions about the various elements of data identified. The questions made it possible to assess the internal validity of the analysis and the context of its components (Miles et al., 2014). Example questions included the following: which data include the theme and which are excluded? Is the theme a good representation of the data? Is the theme a good representation of the codes?
- The fifth step of the analysis was to define and name the final themes, in reference to all the operations performed in the previous phases, ensuring that they dependably represented the meanings developing from the data set (Braun & Clarke, 2006). The themes were defined on the basis of relevant reference works within the CALL and SLA literature.

Four themes, explained in Table 2, were identified as crucial to meeting the objectives of the study.

Findings

The research findings are organized into four thematic sections that all relate to the teachers' perceptions of the use of tools, both between teacher and students and among students, that fosters communication among all parties involved. Table 2 illustrates the four themes, with explanations and examples.

Table 2
Explanation of the four final themes

Final theme	Explanation	Examples
Digital tools used as an entry ticket	The participants describe that they use the tools as a link for the newly arrived student into the Swedish teaching context. The immediate opportunities for individual adaptation regardless of knowledge of Swedish create conditions for students to be agents in their own learning.	"They may not be so used to handling an iPad, but when you put it in their hands, it becomes a learning activity that they feel they master and get something out of." (Rebecca) "I often experience it as a difficult situation, both for the newly arrived student and for the teacher, when the student enters the class in the middle of the school year without any prior knowledge of Swedish. While I have to meet the student's needs, I have the rest of the class to think about as well. Technology is valuable in that situation. The student can actually work digitally with tasks that are developing and stimulating, right from the very beginning." (John)
The use of tools in support of the development of literacy skills	The teachers emphasized how they used the tools for literacy development, in that the tools enabled meaning-making and interaction among students.	"The students are responsible for a shared document. Being able to collaborate around a collective product is prominently facilitated by digital tools." (John) "It's always peer work. Because of the language development and this with Vygotsky [an influential theorist in pedagogy], cooperation … support each other." (Martina)
Digital tools used to aid communication	Technology enabled communication among all the actors in the classroom (by using Google Translate, etc.).	"The children become more independent, and then I can give time to the students who need me more to learn the language in interaction. In this process, the language gaps become smaller. It is a more democratic process." (John)
Teachers' perceptions of how well they make use of technology	The participants considered that they used technology to enable language learning but mainly drew upon their own interpretations and models.	"I have not received anything from the school management, but I rely on my own experiences." (Fatima) "Although it was not really permitted, I did what I thought fit my students best." (Nadira)

Digital Tools Used as an Entry Ticket

The participants perceived the digital tools as a necessary entry ticket for the newly arrived students to gain access to and be agents in their own learning and/or to be included in the teaching. Technology is often used when students are not familiar with the Swedish language or school culture; for instance, participants frequently mentioned the use of learning apps, Google Translate, Google Classroom, and the speech synthesis application IntoWords for immediate participation when teaching SSL.

Rebecca and Martina mentioned that apps connected to the materials they use for literacy development are easier for the newly arrived students to use than books, and that the new arrivals often work with apps when the other students in the class read, fostering inclusivity. Rebecca also mentioned that this may spark interest among the newly arrived students and help them feel competent when they are learning to manage the literacy-related apps.

> After all, many newly arrived students who come here have not been enrolled in a school before or at least do not recognize the alphabet. When they have worked with some apps here and they notice that something is happening, that they learn to recognize the letters, they become very proud. They can do this on their own and do not need support from me. (Rebecca)

John believed that technology itself contains elements that make newly arrived students participants in learning activities.

> Speech synthesis reading of the text with Google Translate, simple writing exercises where they printed the text, drew something, and finally read their texts for each other. They also had a small reward at the end … it sounds very simple, but it gave great results. (John)

During the interviews, the participants were eager to share their ideas and thoughts on how technology was used to include the newly arrived students in the educational context. Martina stated that technology should be used to make teaching more interesting and inclusive, using digital elements like films, videos, and music videos.

> We sing and we dance, using our whole bodies. When we are watching, for example, a YouTube video, it becomes more engaging among all students than if I would stand in front of them trying to perform some Swedish nursery rhymes. (Martina)

The Use of Tools in Support of the Development of Literacy Skills

This theme encapsulates the participants' perceptions of using technology for collaboration in a classroom having several students with a migratory background. Five of the six teachers see benefits with technology, since it creates opportunities for literacy development through collaboration.

> In my opinion, technology mediates availability. Paper becomes more private. The tool itself allows you to ask your friend to come and join. Writing in digital spaces like Google Classroom encourages collaboration and participation, and the students want to share their texts. Handwriting is a slower tool. (John)

Ulla's focus on collaboration echoes the sociocultural perspective, the dominant theoretical perspective in Swedish teacher education programs, and subsequently the participants' reasoning in the present study.

> I try to enable peer work between all of the students in the class. Thus, starting with collective exercises when we produce texts together on the smartboard, we can introduce peer work for the newly arrived students' first day in the class with Google Translate. What is most important is that they work together and collaborate. That's how you learn a new language. (Ulla)

Factors mentioned as most important when working with digital technology include working in pairs for text-based activities, engaging in peer assessment, and talking in groups about text creation.

Digital Tools Used to Aid Communication

For this theme, the findings highlight the participants' perceptions of how communication was promoted through the use of digital tools. The participants often used Google Translate in their conversations with the students and in the discussions among students with different first languages. Three participants strongly regarded teaching with technology as allowing them to actually get to know the students, since technology enabled communication.

> We use the audio function on Google Translate; if we do not have any common language, we get to know each other that way. (John)

> When my students work with the computer, there is a greater opportunity for me to sit down next to the student and create a relationship. (Ulla)

> Technology acts as a bridge in communication with the students. When I first experienced having newly arrived students come into my class, I had a conception that it would be a fairly similar process and that all of them would have the same needs. Actually, my experience now is that all of them have their own story and that the term "newly arrived" is quite vague. The best time for me to get to know the students individually is when we are working with technology in SSL, partly because we are a small group then and partly because technology allows me to communicate with them even if we don't share the same language. We communicate a lot with images we find on Google. (Martina)

The findings also demonstrate that the participants' perceptions with regard to using more languages than Swedish in the digital SSL activities are mostly positive, and all agree that the students are supported by using their entire linguistic register when collaborating. The teachers believe that Google Translate enables the communication process, but they also pointed out other helpful factors for the newly arrived students, such as support from their peers during the digital activities. John shared that it was very helpful for his Somali-speaking newly arrived student to have another Somali student in the class, who could act as a language broker when they collaborated during digital text collaboration. Martina expressed that the seating arrangement was also an important resource when working with digital technology.

> Since I have four English-speaking students, I usually put them in a group so their language matches each other's. (Martina)

Teachers' Perceptions of How Well They Make Use of Technology

The final theme relates to the challenges the teachers face in CALL teaching. The theme encompasses the teachers' reflections on the lack of support for how to teach using digital technology; four of the six teachers stated that they do not have enough knowledge of CALL teaching to feel comfortable enough when using these methods. Only one teacher regarded himself as being properly educated in CALL. Two of the teachers mentioned that they have education in ASL, the "writing to read" approach, but the rest found themselves in situations where the school management assumed that they were individually responsible for understanding how best to integrate technology into language learning.

> I think it's fair to say that I have not received any instruction at all [i.e., education in CALL in teacher education or at the school] … I am totally an autodidact in that area. I have found my way of working with technology in teaching, but I know that I don't use it as much as the school administration wants me to. If I had been given more instruction, I might use the technology to a greater extent. (Nadira)

Standing alone in tough circumstances is also a great challenge for two teachers, as shown in the following quotes.

> Everything I have tried I have done based on my sense of what the student needs. I did not get any support. I have figured out how to use digital technology for my newly arrived to be on track, and we have mainly worked with Google Translate. I would have liked to get some tips from someone who is experienced. I know it works for plenty of experienced teachers at this school, but I have not had access to the support. I am left to myself. Lack of communication and time for planning are two things that have a negative impact. (Fatima)

> I have never felt as alone as when the building manager [who distributed the digital tools] gave me a box containing new computers, headphones and cables and I was supposed to figure out everything on my own. I wanted to cry and felt old and … stupid. (Ulla)

Discussion

This article began with a discussion of how the recent influx of newly arrived students who bring with them diverse linguistic and educational backgrounds has created a need for SSL instruction. The Swedish curriculum requires digital technology to be included in teaching, but frameworks such as CALL have not had much impact on SSL, since the primary focus in CALL research is on ESL and EFL (Sauro, 2016). The frameworks of CALL and second language acquisition (SLA) have been found to be useful in understanding non-native speakers' digital practices (Chapelle, 2009; Ortega, 2017). This is a very pertinent issue, because even though Sweden is a multilingual country, there are still barriers between language varieties and a so-called correct or standard variety of Swedish in SSL teaching (Hedman & Magnusson, 2018). However, teaching SLL via CALL has not been sufficiently explored. Therefore, this study sought to scrutinize primary school SSL teachers' experiences and perceptions regarding digital technology in teaching newly arrived students. The study also aims to explore what implications this has for SSL teaching and teacher training.

The results of this study contribute to understanding the different ways the participating SSL teachers perceive the use of technology, both between teacher and students and among students, that fosters communication among all parties involved. In three of the established themes, participants described different strategies and purposes for involving technology in teaching that they regarded as fruitful for newly arrived students' second language acquisition. The fourth theme points to the challenges that the respondents struggled with in teaching using digital technology.

The first important finding in this study is that digital technology represents not only language learning but also an entrance into daily classroom activities, by affording the newly arrived students digital tools to directly participate in SSL. The focus was not always on the purpose of the digital activities but rather on the participation itself—creating opportunities for students to be active. Wiebe and Kabata (2010) argue that using CALL without a clear goal had little or no effect on students' learning. This aspect can be problematized on two levels from the results of this study: on the one hand, there is a desire and commitment among the participants to use digital tools, from day one, to facilitate language acquisition; on the other hand, the participants' strategies to achieve this are not always clear.

The Swedish National Agency for Education has mainly focused on the digitalization of secondary and upper secondary schools, with particular attention on creating availability and equality among all pupils through digital technology (Skolverket, 2020). However, there is little research or a corresponding mandate on digital technology and second language learning for younger SSL students. Teachers must rely on theories deriving from larger conversations about digitalization in society and attempt to apply them to their teaching. The finding that digital tools were a necessary entry ticket for learners to gain full access to participating in teaching drew on the concept of inclusion, but not from theories of SLA and multilingualism. This finding is very much based on the participants' positions and worldviews, and the finding is comparable with Lam's (2000) results, stating that teachers' personal beliefs form the content and activities of CALL.

Second, the participants in the present study highlighted the benefits of digital tools in support of the development of literacy skills. What counts as literacy in relation to students' digital meaning-making must take into account the different modes of communication these practices entail, and thus should adopt a multiliteracy perspective (Jewitt, 2013). The sociocultural perspective, that is, understanding knowledge as a problem-solving, communicative, and practical resource that arises in collaboration with others (Säljö, 2014), is prominent and is reflected in all the teachers' narratives. Kitade (2015) reflects on digital activities as being sufficient for the students to negotiate their own sociocultural identity. This aspect of CALL—that learning takes place together with others in a dialogue where you yourself have the opportunity to express your thoughts, pick up the recipient's thoughts, and create new knowledge through common thought—is highly prominent among the teachers in this study. Nevertheless, how digital devices can be used to support this process from an SLA perspective is not made visible in any of the teachers' narratives, but is instead something that many of the participants sought more knowledge about.

With sociocultural perspectives on SLA having a focus on mulitiliteracy, the consequences of including CALL in this process can be an awareness of the contextual factors of technology and language; consequently, the factors that matter to people in a specific context may mean something else to someone else elsewhere (Jewitt, 2013). The participants' perspectives on CALL are mainly on text-based activities; five of the six participants regarded the printed text to be the final product of the digital literacy activities. This finding agrees with Holmberg et al. (2018), who found that teachers in Sweden primarily use digital technology for text-based literacy education. However, their approach could be better informed through training in CALL that draws more explicitly on multimodal theories and multiliteracy perspectives (e.g., Buendgens-Kosten, unpublished manuscript; Holmberg et al., 2018).

The third finding shows that the participants use the tools to aid communication. The participants expressed the view that the digital tools promoted relationships; additionally, tools such as Google Translate facilitated immediate communication. They also pointed out the benefits of giving the students the opportunity to communicate in other languages with peers during digital literacy activities. The specific context that prevails in Sweden, where new arrivals start in regular classes from day one, creates a need for research that examines how these students can be integrated into literacy education through CALL based on theories of how to include multilingualism as a learning resource (May, 2019). However, without research-based training, teachers will have no other choice than to follow their personal beliefs about best practices.

Sauro's (2016) call to broaden the CALL research field to include a wider, multilingual perspective and Ortega's (2017) request to develop research that addresses multilingualism and social justice by focusing on multilingualism, including marginalized languages, provide useful recommendations for further teacher training.

The fourth finding underscores that the participants' greatest challenge lies in having limited or no training in how to use technology for second language teaching. The main reason for teachers' feeling challenged was their lack of self-confidence in CALL teaching, which corresponds with Lam's (2000) findings. This reality conflicts with the image of a teacher as someone who has knowledge of everything going on in the classroom. This is what students expect of their teachers, but the teachers feared that if they could not meet the students' expectations regarding CALL teaching, they might fail to teach the newly arrived students the right things.

This finding correlates well with previous research (Hedayati & Marandi, 2014; Holmberg et al., 2018; Kessler, 2006; Kessler & Plakans, 2008; Lam, 2000) by revealing that teachers' lack of formal training creates uncertainty about digital technology, and that it is up to the individual teacher to independently

find working models for CALL. On the other hand, the participants have found ways to support language learning, collaboration, and integration of different languages in SSL through technology.

Conclusion

This study highlights both the practicality and ingenuity of practicing SSL teachers in incorporating digital technology into their classes, in order to support their newly arrived students despite feeling insufficiently prepared or supported to do so. Specifically, the participating SSL teachers described that they used digital tools with different strategies for language development purposes. At the same time, in the absence of guidance or training, teachers drew upon their own beliefs and assumptions regarding technology to support their newly arrived students, yet also struggled with frustration and self-doubt.

Digital technology is a regular part of SSL teaching in Sweden, but there is no clear research-based CALL framework for the digitalization of SSL. Therefore, we suggest that the research field of language and technology must expand in Sweden, with a focus on younger students' multilingual literacy development.

About the Authors

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