

Digital Literacy in the Language Centre Classroom

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1. Introduction

Digital literacy (DL) has become a buzzword in the field of education over the last twenty years. Since its inception in mainstream thought through the work of Gilster (1997), where he put forward the notion of 'literacy for the digital age', various competing definitions have emerged (Bawden 2008). Yet perhaps because of the broadness of these varying notions of digital literacy, the concept has remained for many teachers both vague and challenging. Anecdotal evidence suggests that many teachers feel that digital content should form a key part of their teaching but they are uncertain as to exactly how this digital content can best be incorporated into their teaching and even exactly what digital literacy means.

This article examines the perceptions of language centre teachers as to what they believe digital literacy to be, and explores the current practices of language centre teachers in terms of their use of digital media. It also investigates to what extent digital literacy has infiltrated curricula design and the pedagogical approaches adopted by teachers. In all these areas the Jisc Digital Literacy Statements¹² from the teacher and curricula design perspectives were used as guiding frameworks. This research was carried out as part of the Finelc 2digi project to assist in the development of the digital literacy of language centre teachers in Finland by use of a structured questionnaire distributed to all language centres in Finland. In this way a picture of current practice was obtained, leading to informed digital literacy strategy suggestions based on present and potential practices. The insights gained from this research will hopefully have implications for both future teaching and curricula design.

2. Brief review of the literature

2.1 21st Century skills

Before considering in detail how digital literacy has been treated in the literature, it is important to see it in context as one of the skills that will be needed in workplace the coming century. In an influential report¹³ Davies, Fidler and Gorbis (2011) defined the workplace of the 21st century as being influenced by a number 'key drivers'. In their report they identify six 'drivers of change' (2011:3) that are creating a whole new range of skills needed in the future workplace. These drivers include the rise of smart machines and

¹² <https://www.jisc.ac.uk/full-guide/developing-digital-literacies>

¹³ Future Work Skills 2020 (University of Phoenix)

systems, and a computational and globally connected world. As a result of these changes in society, a list of ten core skills needed in the future workplace are presented that include the need for computational thinking, new media literacy, cognitive load management and virtual collaboration (2011: 8-12). These skills echo work done previously by the P21 partnership for 21st Century learning¹⁴ that identified communication and collaboration, and information, media and technology skills as being essential for 21st century learning. At the European level, digital competence 'has been recognized as one of the eight key competences for lifelong learning by the European Union' (Ala-Mutka 2011:5). More recently the World Economic Forum (2016)¹⁵ also singled out the rise of technology as a driver of change.

Perhaps the most useful definitions of 21st Century skills were expounded by Binkley et al. (2012) who conducted a meta-analysis of the varied frameworks of 21st Century skills used across the world. In this analysis they found ten core skills that they divided into four general areas: ways of thinking, ways of working, tools for working and living in the world (Binkley et al. 2012:36). These then formed the KSAVE framework: knowledge, skills, attitudes, values and ethics. This analysis is significant for any attempt to define digital literacy because it highlights the fact digital literacy is not an isolated skill; rather, it is deeply embedded in the broader concept of 21st century skills. It is possible, therefore, to deduce the importance of teaching digital literacy to students or at least the need to integrate elements of technology use into the classroom so as to best reflect these forthcoming requirements.

2.2 Digital literacy

The literature on digital literacy is extremely broad, but starts in its modern sense with the work of Gilster (1997). Notions of digital literacy are embedded to some extent in the concept of literacy *per se*. That is, as Bawden (2008: 28) has pointed out, what was considered in earlier times to be an educated person or to be literate in a general sense, has its modern equivalent in the need to be literate in a digital world. This is a rather obvious and broad definition and attempts to more specifically define digital literacy have filled an ever-expanding body of literature for the last twenty years.

Of these broad definitions, Lankshear and Knobel (2006) suggested that 'Definitions of digital literacy are of two main kinds: conceptual definitions and standardized sets of operations intended to provide national and international normalizations of digital literacy' (2006:12). Thus much of the literature is concerned with either the search for a definition of the concept of digital literacy or 'attempts to operationalize what is involved in being «digitally literate» in terms of certain tasks, performances, demonstrations of skills, etc., and to render these as a standard set for general adoption' (ibid 2006:13).

¹⁴ <http://www.p21.org/>

¹⁵ http://www3.weforum.org/docs/GCR2016-2017/05FullReport/TheGlobalCompetitivenessReport2016-2017_FINAL.pdf

In this article we are concerned with both aspects: we need to gain an understanding of what DL may be and also operationalize that definition or understanding for the benefit of language centre teaching and learning.

In his overview on the concepts and origins of DL, Bawden (2008) reviews how the notion of DL has evolved from its pre-Gilster origins based on information and computer literacies to the multi-faceted concept of digital literacies held today. Computer literacy or IT literacy — being able to use the necessary hard and software — was perhaps the origin of DL, which expanded to and was incorporated in the notion of information literacy in the 1980's (Bawden 2008:21). Information literacy was mostly concerned with library skills and the American Library Association's (ALA) six-stage model for information literacy¹⁶ has been influential in all later models. This line of thought — that DL is not simply concerned with technical skills and the ability to use computers — was then clearly embraced by Gilster 1997:15) when he said that it was about 'mastering ideas, not keystrokes'. This idea was echoed by Eshet-Alkalai (2004) who concurred that 'Digital literacy can be defined as survival skill in the digital era. It constitutes a system of skills and strategies used by learners and users in digital environments.' Eshet-Alkalai (2004:102).

Ng (2012) suggests a framework for DL that includes three major dimensions. There is firstly the technical dimension of DL which 'broadly means possessing the technical and operational skills to use' it (Ng 2012:1067). The second dimension is the 'cognitive' one which 'is associated with the ability to think critically in the search, evaluate and create cycle of handling digital information. It also means being able to evaluate and select appropriate software programs to learn with or to do a specific task' (Ng 2012:1067). The cognitive aspect also refers to the ability to be 'knowledgeable with the ethical, moral and legal issues associated with online trading and content reproduction that make use of digitally-based resources (e.g. copyrights and plagiarism)' (Ng 2012:1067). The third dimension is that of the socio-emotional that 'involve[s] being able to use the Internet responsibly for communicating, socializing and learning'. He summarizes the three elements saying that 'Central to all three dimensions of the digital literacy framework is critical literacy - understanding that people behind the scenes writing the information have their own motivations and being able to critically evaluate whose voice is being heard and whose is not important for learning as neutrally as possible' (Ng 2012:1067).

Ng's work is in line with the earlier research done by Bawden and in the conclusion of his article, Bawden sets out the 'four general agreed components of digital literacy' (2008:28). Bawden's four main themes begin with what he terms the underpinnings of DL — the traditional notions of literacy *per se* (and with it 'an ability to function in society) and the traditional idea of computer and ICT literacy. The second underpinning is that of background knowledge: a knowledge of the new world of information and the nature of information resources. He then identifies what he considers to be the competencies central to any definition of DL: reading and understanding digital and non-digital formats; creating and communicating digital information; evaluation of information; knowledge assembly; information literacy and media literacy. The final element refers to the attitudes and

¹⁶ Recognizing the need for information, identifying what information is needed, finding the information, evaluating, organizing and using the information. (ALA 1989).

perspectives needed for an 'educated' person: the propensity for independent learning and being 'grounded in some moral framework' engendering a social literacy (2008:40). It is interesting to note how well these core elements dovetail with many of the core elements put forward by Binkley et al. (2012) noted earlier. One further small, but significant point needs to be made: that one key part of digital literacy is, in addition to knowing when to use it, when not to use it (Bawden 208:28).

Despite the need for a clear definition of DL, this work is mostly concerned with the second aspect of Lankshear and Knobel's (2006) overview of DL definitions: how the notion of DL has been operationalized. In this it may be clearer to use the term 'digital practice' adopted by White (2015). He defines digital practice as 'the study of how individuals and groups use and apply digital technologies to everyday tasks, learning and work ...' (White 2015:28). White refers to two models for examining digital practice: those of White and LeCornu (2011) and Beetham and Sharpe (2010, 2011). White and LeCornu suggest a model of digital practice that sees participants in the digital world as either 'visitors' or 'residents'. Visitors, they suggest:

... understand the Web as akin to an untidy garden tool shed. They have defined a goal or task and go into the shed to select an appropriate tool which they use to attain their goal. Task over, the tool is returned to the shed. It may not have been perfect for the task, but they are happy to make do so long as some progress is made. (White and LeCornu 2011).

They continue that

Residents, on the other hand, see the Web as a place, perhaps like a park or a building in which there are clusters of friends and colleagues whom they can approach and with whom they can share information about their life and work. A proportion of their lives is actually lived out online where the distinction between online and off-line is increasingly blurred. (ibid 2011).

White and LeCornu feel that people can move between these two categories depending on the nature of the task, creating a developmental path between the two extremes (White 2015:29).

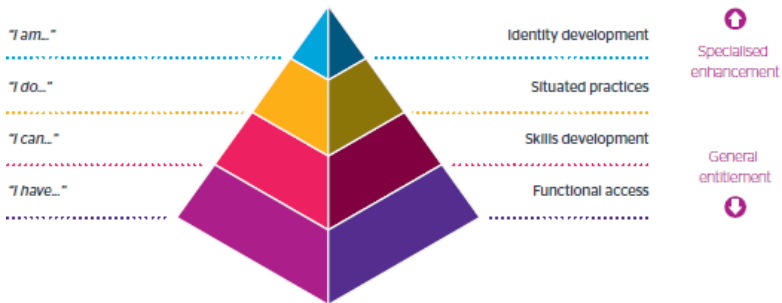
The second model mentioned is that of Beetham and Sharpe (2010), and it is on this model that this article is based. They suggested a pyramid model (seen in Fig. 1 below) where each level represents part of the process involved when individuals engage with digital literacy. In their original model in 2010 the four stages of development were access and awareness, skills, practices and identity. In a later model, created for Jisc¹⁷, we see a more accessible version with access and awareness replaced simply by functional access. This model presents the developmental path of attaining digital literacy as beginning with individuals

¹⁷ Jisc (formerly the **Joint Information Systems Committee**) is a United Kingdom not-for-profit company whose role is to support post-16 and higher education, and research, by providing relevant and useful advice, digital resources and network and technology services, while researching and developing new technologies and ways of working. It is funded by a combination of the UK further and higher education funding bodies, and individual higher education institutions. (Source: Wikipedia).

having functional access to the digital tools they need to use. Participants then gain skills, covered in the 'I can' layer of the pyramid, leading to situated practices where by using digital tools people gain ways of thinking and acting based on their acquired abilities. Finally, at the apex of the pyramid, based on the three previous levels of development, participants gain a digital identity (I am).

Fig.1 Beetham and Sharpe's pyramid model (2010).

Defining digital literacy: a general model



Beetham and Sharpe (2010)

Beetham and Sharpe's model was incorporated by Jisc and expanded into a detailed developmental framework. Jisc had created earlier (2009) a definition of digital literacy that encompassed seven elements shown below in Fig. 2. Once again it is possible to see an overlap with the work of Binkley et al. (2012) noted previously. What is important in this definition is that we are no longer discussing digital literacy as a single concept, but digital literacies in the plural that encompass many of the elements we saw in the early definitions of digital literacy. Jisc then updated this definition to include the six elements of digital capabilities after user feedback was analyzed. It was, therefore, with these broader definitions of digital capabilities that a survey was created to evaluate the current levels of knowledge and practice of digital literacy in Finnish language centres in January 2017.

Fig. 2 The seven elements of digital literacies (Jisc).

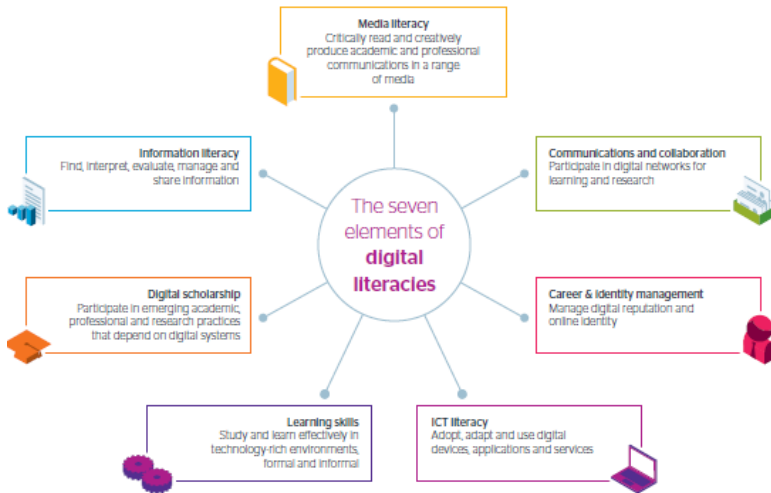
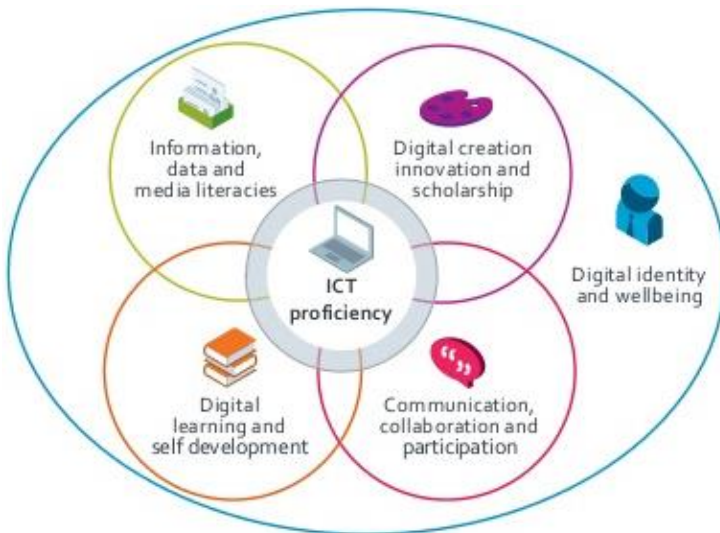


Fig. 3 Digital capabilities: the six elements (Jisc).



2.3 Paradigms of digital literacy

Finally, before venturing into the methodology used in this research it is important to give brief mention the deeper elements on which digital literacy is built. These were summarized by Nawaz and Kundi (2010) where they describe the contradictory paradigms that lie beneath any definition of digital literacy. They distinguish between the instrumental view of ICTs – that ‘they are just technologies and their role depends on their use’ and the more liberal or substantive view, where ICTs have the ability to change society (Nawaz and Kundi 2010:22) simply by their presence (also referred to as social determinism, where technology is formed as a result of social change and the society it is surrounded by). This is in opposition to the notion of technological determinism, where changes in society happen as a result of the new capabilities engendered by the new technology: technology is thus seen as a driver of social change. They then link these notions to the more traditional behaviourist vs constructivist debate, where the instrumental view is seen as a behaviourist model and the more liberal, substantive model is aligned with constructivist thought. They conclude by saying that ‘instrumental and substantive are two distinct moments in the learning process. Both are essential for mastering of any technology, art or science’ (Nawaz and Kundi 2010:24). It can be seen that these paradigms are possibly realized in Beetham and Sharpe’s (2010) model going from the behavioural access and skills development to the more constructivist ‘I am’ element. Likewise it is reflected in Bawden’s (2008) ICT literacy and attitudes and perspectives continuum.

3. Methods

The methodology used for this study is both qualitative and quantitative. A questionnaire was created using the Jisc Example Teacher Profile and the Jisc Digital Literacies Development Framework and in particular the matrices designed for learners and curriculum development. The concepts put forward in these frameworks formed the basis of a questionnaire that drew on the four levels of Beetham and Sharpe’s (2010) developmental pyramid to ascertain certain key questions: what functional access do teachers have, how do they evaluate their own and their colleagues’ current digital skills, what do they perceive digital literacy to be, how far it has been developed in their curricula and what pedagogical practices are already in place. Thus, the questionnaire began by ascertaining respondents’ functional access; that is, what digital tools are readily available to them in their daily working life. Their digital skills were then recorded utilizing the ‘I can’ questions of the Jisc matrices. The second half of the questionnaire asked respondents to evaluate their own and colleagues’ knowledge of what they consider digital literacy to be. Finally, they were asked to analyze how far digital literacy has found its way into the language centre curricula and what pedagogical approaches have been used up until now. The questionnaire can be found in Appendix A.

The survey was written in English, translated into Finnish and distributed to all Finnish language centres 27.1.2017-6.2.2017 using Webropol 2.0. The question types used in the survey consisted of yes/no/not sure questions, open questions for more reflective issues and a Likert scale of 1-5. One completion reminder was sent four days before the deadline date. In total, 104 replies were received from twelve different language centres with a

response rate of approximately 20% (104/521). The English and Finnish survey results were then merged in Webropol 3.0 to create a survey representing all respondents. Replies were then analyzed using both the quantitative results generated by Webropol and qualitatively. The qualitative analysis was carried out in part by analyzing the subjects' view on what they considered DL to be by using Bawden's (2008) four elements of DL and assigning each answer to one or more of the elements.

4. Results and discussion

4.1 Functional access

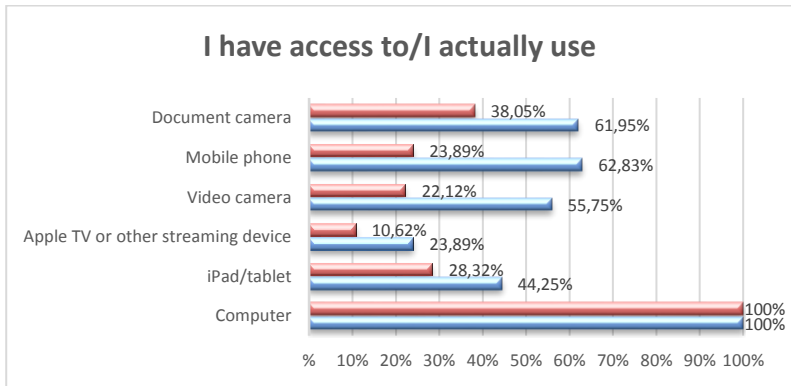
Respondents reported that the university networks they use are more than adequate with 88% (n=98) reporting networks functioned either well or very well. Likewise, access to a variety of digital hardware available for use in teaching was abundant. However, there was a marked difference between availability and actual usage (shown in Fig. 4 below). All had access to a computer for teaching (100%) and apart from Apple TV, 55% or more had access to a variety of digital equipment to use. However, apart from computer usage in the classroom (also 100%), other digital hardware tended to be used at a rate of 50%; that is, hardware was available but only used by 50% of the teachers. There are many possible explanations for this, but it can be argued that teachers will often use what is considered conducive to learning: just because one can use something does not mean it should be used. Here we can also return to Bawden's (2008) message that knowledge of DL also means knowing when not to use it. One respondent noted that

I think there is also a problem that we use platforms and blogs and all sorts of technology when the teaching outcomes would be more easily achieved without them.

Even more critically:

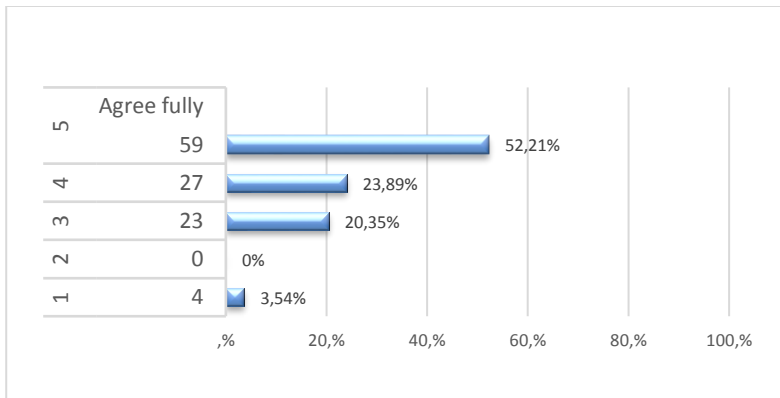
Suhtaudun kriittisesti langattoman teknologian käyttöön opetuksessa, sillä sen on lukuisissa tutkimuksissa todettu heikentävän oppimisen tärkeintä komponenttia, fokuointikykyä.

Fig. 4 Access to and actual usage of digital devices in language centres



This difference between actual usage and availability could also perhaps in part be explained by participants’ views on their own ability to use digital media. When asked ‘How would you evaluate your own digital skills in the classroom?’ only 15% considered themselves to be very good, whilst most (79%) saw themselves as being good or average. Despite these figures, over half respondents thought that having a digital element in their teaching was essential (Fig. 5).

Fig. 5 Having a digital element in my teaching is essential



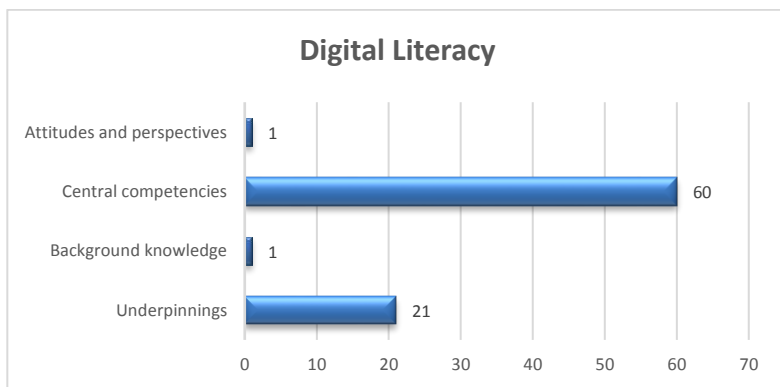
Respondents were then asked a series of ‘I can’ questions in relation to their digital skills. Results showed an overall level that was very high, including the ability to use technologies to support learning across the boundaries of time and space. However, participating in

digital academic communities was found to be less familiar (2.28/5), which may reflect the general focus of respondents on teaching, rather than research work.

4.2 The concept of digital literacy

Seventy per cent of respondents reported being interested in the concept of digital literacy, with just 9% saying they were not and 21% being unsure. When asked if they knew what digital literacy is, 45% said the concept was clear to them, whilst 43% reported they were not sure and 10% said they did not know what it is. When asked if their colleagues were aware of what digital literacy is, nearly 65% were unsure, as opposed to 35% believing their colleagues did know. Only 1% of respondents thought their colleagues did not know what DL is. 66% reported that digital literacy had been discussed in their language centre, 8% said it had not and 25% were unsure. Respondents were then asked in an open question to define what they think digital literacy is. Of the 114 respondents, 84 replies were received. Using Bawden's (2008) four basic definitions of digital literacy, findings are shown in Fig. 7 below.

Fig. 6 Answers to the question, 'What is digital literacy?' divided by Bawden's (2008) definitions.



It is perhaps unsurprising that a survey of predominantly teacher respondents would focus on the more practical aspects of the definitions. Those replies found in the 'underpinnings' section referred to DL being basic computer skills and the ability to teach with them, one respondent succinctly writing '*using computers and stuff*'. The main focus was on definition three: central competencies including information and media literacy for example,

Having the knowledge and skills to live, learn and work in a digital society e.g. finding, creating, evaluating, using, sharing and communicating through digital tools.

Only one answer each was found that could be linked to the other two categories. In category two, background knowledge, one teacher wrote *that*

Minusta tuntuu, että käsite on työelämän tarpeita ajatellen liian kapea, sillä siitä puuttuu näkemys teknologiavälitteisestä vuorovaikutuksesta ja vuorovaikutusosaamisesta teknologiavälitteisissä vuorovaikutuskontesteissa. Yhä useammin työhön liittyvät vuorovaikutussuhteet syntyvät ja kehittyvät teknologian välityksellä.

In category four, attitudes and perspectives we found

[digital literacy] is usually considered to entail critical thinking but I think more and more importantly humanistic values should be considered as part of digital 'expertise'.

Several respondents also referred to the notion of when not to use digital methods and some were completely against it altogether.

5. Pedagogical approaches to Digital Literacy

Answers to the question 'what pedagogical approaches to digital practices are now in use in your language centre and how do they facilitate digital literacy?' tended to focus on the kind of tools being used rather than the pedagogical principles behind their use: materials in digital format, web-based courses, use of, for example, Quizlet, Moodle, and Kahoot. However, there were some answers indicating a sophisticated pedagogical approach using digital methods, for example:

I have adopted pedagogical approaches based on Activity Theory and the principles of apprenticeship i.e. using examples of accepted models that are considered effective, scaffolding the students as they research, create and craft content and passing over the helm to them as they become more confident and ready to evaluate each other's work.

Other answers focused on an analytical approach to digital content in groups, learning methods that require digital content, use of digital materials, critical thinking, and use of the flipped classroom. There were several comments where respondents indicated they did not understand the question (Finnish version only) so the wording may have been less than optimal. Answers tended to focus thus on the practical applications of DL either in terms of using actual hard- and software or in terms of specific pedagogical practices. Again, arguably unsurprisingly given the time constraints on respondents, there was no explicit mention of the deeper paradigms through which the views of DL can be viewed. Thus reference to the instrumental vs substantive / behaviourist vs constructivist debate (Nawaz and Kundi 2010) and whether one adheres to a technological determinist or a social constructivist approach to digital literacy was not touched upon. This is an area that merits further discussion and could act as a theoretical basis for work done in the proposed Finelc 2Digi project.

From a practical perspective, Tinio (2003) provides us with an overview of the pedagogical approaches that are enhanced by access to digital media. These are summarized in the table below (Tinio 2003:9). Perhaps the most important of these is collaborative learning – a key factor noted earlier in the Work 2020 report (Davies et al. 2013).

Table 1 Overview of pedagogical approaches (Tinio 2003:9).

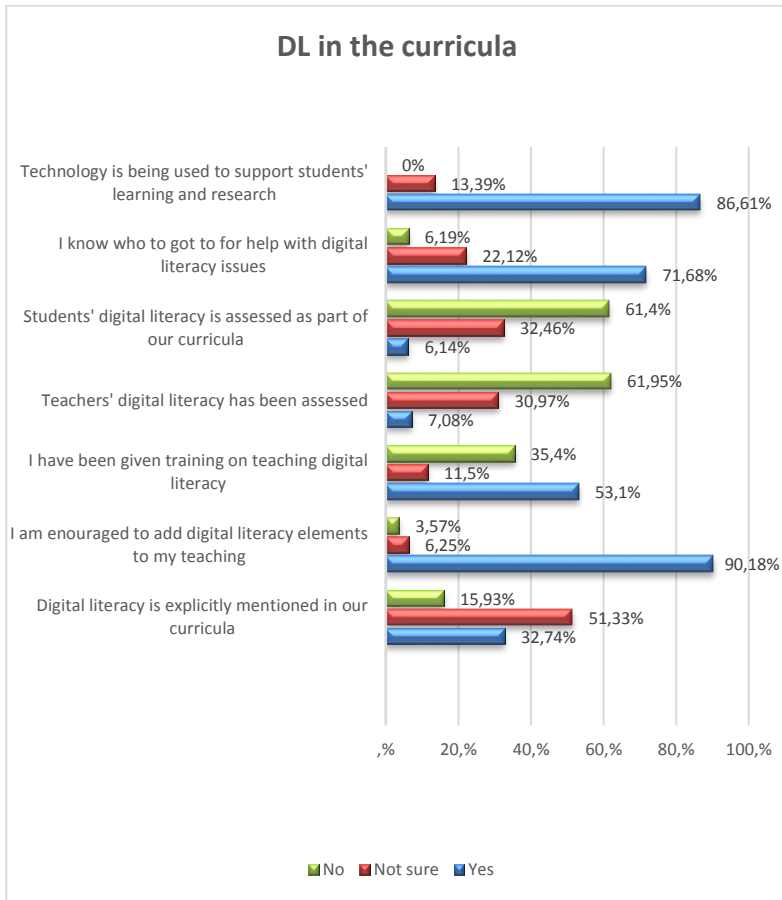
Aspect	Less (‘traditional pedagogy’)	More (‘emerging pedagogy’ for the information society)
Active	<ul style="list-style-type: none"> • Activities prescribed by teacher • Whole class instruction • Little variation in activities • Pace determined by the programme 	<ul style="list-style-type: none"> • Activities determined by learners • Small groups • Many different activities • Pace determined by learners
Collaborative	<ul style="list-style-type: none"> • Individual • Homogenous groups • Everyone for him/herself 	<ul style="list-style-type: none"> • Working in teams • Heterogeneous groups • Supporting each other
Creative	<ul style="list-style-type: none"> • Reproductive learning • Apply known solutions to problems 	<ul style="list-style-type: none"> • Productive learning • Find new solutions to problems
Integrative	<ul style="list-style-type: none"> • No link between theory and practice • Separate subjects • Discipline-based • Individual teachers 	<ul style="list-style-type: none"> • Integrating theory and practice • Relations between subjects • Thematic • Teams of teachers
Evaluative	<ul style="list-style-type: none"> • Teacher-directed • Summative 	<ul style="list-style-type: none"> • Student-directed • Diagnostic

Source: Thijs, A., et al. Learning Through the Web Available Online http://www.decidenet.nl/Publications/Web_Based_Learning.pdf Accessed 31 May 2002.

5.1 Digital literacy in language centre curricula

In the third part of the survey, respondents were questioned on how far DL had already become part of the curricula in their language centre. The results show that whilst technology and digital elements are common in teaching (86% reported that technology is used to support students’ learning and research) and 90% reported they are encouraged to do so), little work has been done on assessing teachers’ abilities (61% said no and only 7% yes), and similar figures emerge in relation to the assessment of students’ abilities. Only 15% said that DL is explicitly mentioned in the curricula, while 51% were not sure. These results indicate that whilst there is significant enthusiasm in language centres for digital methods to be used in the classroom, and is actively encouraged, it has not yet been adopted systematically at an institutional level to any major degree.

Fig. 7 Digital literacy in language centre curricula

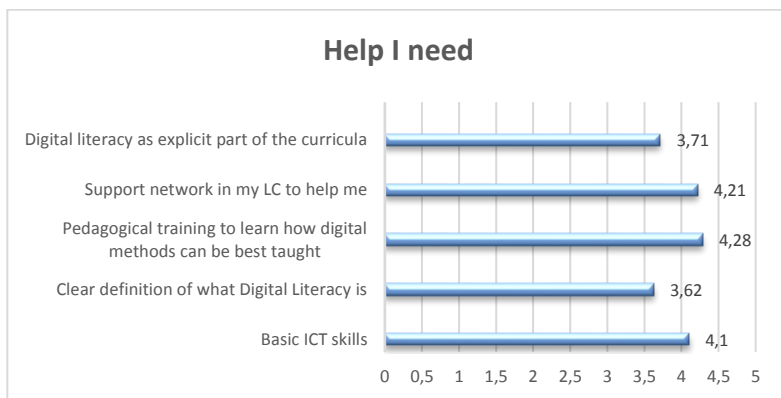


Guidance on how to approach digital literacy in curricula can be found in work done by Hinrichsen and Coombs (2013), who posit a four-stage framework for curriculum integration. This involves four resources for critical digital literacy: decoding, meaning making, using and analyzing. Their approach can be summarized in the following quotation that they take from the Jisc project, whereby work in this direction should 'focus less on the adoption of specific new technologies and more on how meaningful tasks which explore authentic academic digital practices can be embedded in curriculum learning and how emerging digital practices might be usefully recontextualised in an academic setting' (Payton 2012, p. 2 cited in Hinrichsen and Coombs 2013:3).

5.2 Future help needed

Answers in this category came both in the direct question shown below in Fig. 9 and also in the 'open' section answers. Once again we can see a focus on the practical issues rather than the abstract, for example, the importance of pedagogical training as opposed to having a definition of DL. This is in line with Hinrichsen and Coomb's comment that at institutional level the debate has remained more on the functional perspective (Hinrichsen and Coombs 2013:2).

Fig. 8 Preferred help in the future



Open answers related to future help were many and varied. However, certain recurring themes emerged: the need for onsite help and training, concrete examples to use in class, time, technical help, pedagogical rather than technical help, and support and reciprocal help from colleagues. Perhaps these themes can be summarized in the reply of one teacher:

- i) A digital skills map for the Language Centre to identify the necessary skills for teaching staff.
- ii) A framework to develop those skills with training or scaffolding from peers and a digital network of other actors in HE.
- iii) closer networking with the research community to drive the digital literacy process so that the technology is not the main emphasis but the pedagogics.

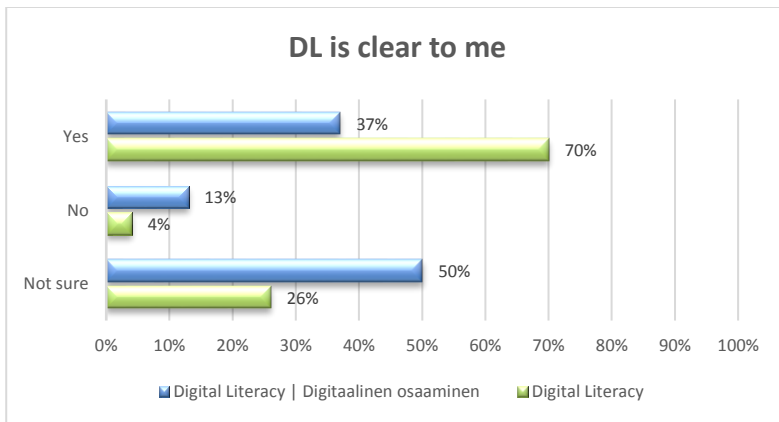
The recurring theme of help and training echo the uncertainty found earlier in the survey. There are many barriers to becoming digitally literate (Nawaz and Kundi 2010) and a lack of support is perhaps the biggest.

5.3 Comparison

One unexpected finding from this survey was the differences between those answering in English and those in Finnish. Whilst many answers were the same or very similar, certain quite noticeable differences occurred. Firstly, twice as many of those replying in English

compared to Finnish felt they understood the concept of DL (70%–37%). Likewise, Finnish respondents were twice as likely to be unsure what it means (26%–50%).

Fig. 9. I understand the concept of digital literacy: comparison between Finnish and English replies



When assessing their own perceived digital skills, English language respondents were three times more likely to give themselves the best score on the 1-5 Lickert scale. A note of caution needs to be employed here: the number of respondents was small (25 English, 84 Finnish) and it is difficult to draw any firm conclusions from such a small sample size. Further, the nature of the respondents may not form a homogenous group: it can be assumed that English (native) teachers would be more likely to complete the survey in English, but it is also likely that native speakers of other languages, who do not use Finnish, also used the English version of the questionnaire. One explanation may be that DL is essentially a concept coined in English, with no universally accepted Finnish translation, and so may simply be more familiar to native speakers of English.

6. Conclusion

This article has given an interesting but limited overview of the current state of digital literacy in Finnish language centres. The response rate of approximately 20% is one limiting factor, and given the generally positive nature of most answers it can be argued that those who responded were those already interested in DL and those who were not interested simply did not respond. This being said, the survey was able to shed light on certain core aspects of DL in language centres and provide us with the tools to begin work on the national-level *2digi* project. It has identified areas where there is a need for development and they are elucidated below.

1. Develop core digital skills: All language centres have a well-functioning Ethernet/Wi-Fi network and 100% of respondents have access to a computer in their classrooms. Access to iPads is running at just under one half, but most students carry some type of digital device. Despite this prevalence, only 15% judged themselves to be very good at using digital devices in teaching.
2. Clarify and define digital literacy for teachers: There was considerable uncertainty regarding a clear definition of digital literacy, with over half respondents being unsure or not knowing what it is. Most were also unsure as to whether their colleagues understand what it is, too.
3. Develop a pedagogical base for digital teaching: There was a mixed response to questions relating to the pedagogical aspects of digital literacy. Many answers focused on the software/apps being used, whilst others mentioned teaching approaches that can be taken. There was no attempt made to place this type of teaching within the broader, more theoretical aspects of educational theory. There is thus a strong need for clarity on this matter and any project undertaken should include work on providing teachers with pedagogical choices for the digital classroom.
4. Bring digital literacy to mainstream curricula: Most respondents reported a positive attitude toward and significant encouragement to use digital methodology in the classroom, but it has made little impact in language centre curricula in any systematic manner, with only 15% reporting said effect. Only 7% reported that their own digital literacy had been assessed and 6% reported that students' digital literacy had been assessed. There is thus a need to focus on digital literacy penetrating curricula content and ensuring that teachers' own abilities are not forgotten in the process. Assessment of both teachers and students could be made part of any forthcoming strategy at a national level.
5. Improve basic IT skills and ensure a local support network: Despite the generally positive answers to ability questions, teachers consistently raised the need to improve their own basic IT skills and the great need for a quick, proactively functioning support network in their own language centres.

This national survey has arguably provided us with a coherent overview of the nature and levels of digital literacy in Finnish language centres. As a result, it is possible to begin work on an informed action plan specifically for the language centre context to clarify, improve and implement digital literacy skills not only at the level of the individual teacher, but also at the level of language centre policy via focus on broader curricular issues. This will not be a simple or short-term project but will hopefully run concurrently with and complement other ongoing digital projects, of which there are many. The future is digital and the transition we face from an analogue world to the digital needs to be managed and scaffolded in language centres to afford all teachers the possibility of a rewarding and pedagogically sound classroom of the future.

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Appendix

The Survey Questionnaire

1. Name of my Language Centre

2. I have access to the following for my teaching in my language centre.

- Computer
- iPad/tablet
- Apple TV or other streaming device
- Video camera
- Mobile phone
- Document camera

3. How well does your university network (ethernet/wifi) work)?

4. Having a digital element in my teaching as essential.

5. How would you evaluate your own digital skills in the classroom?

6. I regularly use the following hardware in my teaching

- Computer
- iPad/tablet
- Apple TV or other streaming device
- Video camera
- Mobile phone
- Document camera

7. Respond to the following 'I can' statements according to how you feel your own skills match the statements. 1 = Poor 5 = Very good.

- I can use search engines
- I can use communication and presentation tools, eg Outlook, PowerPoint
- I can use, locate, and access the information I need
- I can organize and manage digital resources, eg create folders, favourites, links etc.
- I can teach and communicate using a range of digital media, eg text, audio, video and graphics in digital format
- I can instruct my students in the use of the above
- I can use technologies to support learning across boundaries of time and space
- I can use technology to share information, review and comment on my students' work, eg Word, Moodle, Turnitin etc.

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- I can participate in digital academic communities, eg use online tools such as Mendeley or Academia.edu to work collaboratively
8. The concept of digital literacy is clear to me.
9. Could you say, briefly, what you think digital literacy is?
10. The concept of digital literacy interests me.
11. Digital literacy been discussed/worked on in our language centre.
12. My colleagues know about and understand digital literacy.
13. Answer the following statements according how digital literacy is part of your Language Centre's curricula.
- Digital literacy is explicitly mentioned in our curricula
 - I am encouraged to add digital literacy elements to my teaching
 - I have been given training on teaching digital literacy
 - Teachers' digital literacy has been assessed
 - Students' digital literacy is assessed as part of our curricula
 - I know who to go to for help with digital literacy issues
 - Technology is being used to support students' learning and research
14. What pedagogical approaches to digital practices are in use now in your language centre and how do they facilitate digital literacy?
15. For the future, mark how important you feel the following would be to develop your digital literacy skills. 1 = not important, 5 = very important.
- Clear definition of what Digital Literacy is
 - Pedagogical training to learn how digital methods can be best taught
 - Support network in my LC to help me
 - Digital literacy as explicit part of the curricula
16. Something else you would like to happen in the future to help you with your digital literacy skills
17. Please write any comments you have here