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Learners' and teachers' voices in developing digital language learning environments: insights from a survey

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Abstract: This article deals with a learning environment survey conducted among University of Helsinki students and language teachers in the university's Language Centre (LC). The survey was designed to acquire information for the development of a practical strategy for the digitalization of language learning and teaching by the local LC. The article presents the central results of the survey by systematically comparing the student (N = 219) and teacher (N = 39) data, and it also considers more general implications. The investigated areas include attitudes towards and experiences of out-of-classroom (language) learning environments in general and digital environments in particular. Special attention was in the possible differences and similarities of the response groups' views and experiences in order to point out possible gaps as specific challenges within the local context. One of the most central findings is that while there may be challenges, particularly in designing pedagogy for online environments, no huge generational gaps exist in attitudes towards online tools.

Keywords: learning environments, digitalization, language teaching and learning, online learning strategy, professional development

1 Background and aims of the study

For Finnish university degrees, a certain amount of language and communication studies are compulsory for all students. In this system, a graduating university student is required to have B2-level skills in at least one foreign language. Moreover, due to Finland's official bilingual policy, B1-level proficiency in the second domestic language (Swedish/Finnish) is also required. Finnish universities typically have a Language Centre (LC) or equivalent which offers these studies and develops them in collaboration with subject

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departments according to their needs. The University of Helsinki's LC offers a wide range of services to the university students and its staff, such as translation and language revision, but its main task is to provide the language and communication studies included in the degrees completed by graduates. The LC has approximately 15,000 students annually, and there are about 60 full-time instructors.

The basic guidelines for the local development of teaching are the University of Helsinki's strategy and the Language Centre's curriculum. The guidelines for the years 2017–2020 emphasize student and learner centredness, such as flexible learning possibilities facilitated by digital learning environments. In her dissertation *University of Helsinki teachers as users and adopters of change of web-based learning environments in teaching*, Rytkönen (2014: 13) states that the use of educational technology is already a natural and logical component of the modern teacher-designed learning environment. Similar development is currently taking place in Language Centres and other educational contexts in different European countries (for some examples, see Motteram 2013; Haines and Jeroen 2012; Hradilová 2016).

Jalkanen (2015: 69) emphasizes the importance of research-engaged processes as a part of pedagogical development. In order to gain insight into both students' and teachers' perspectives on and experiences of the development of learning environments, we conducted a comparable survey among both of these groups.¹ The primary goal of the survey was to acquire information to design a practical strategy for the digitalization of language learning and teaching. The survey questionnaire was not, however, restricted to aspects of digital language learning environments. Although the current article focuses on results concerning digital environments, the experiences of and attitudes towards language learning environments were accessed more widely in the survey. Moreover, the survey also set out to gather research data in this area for a more general discussion and development of the field of (language) teaching and learning.

In the local language courses at the University of Helsinki, learning environments range from all-online courses to almost purely classroom-based contexts where hardly any digital tools are used. However, neither of these extremes is very common. The most typical learning environment created by a teacher includes elements from both within and outside the classroom, involving the use of online platforms and digital tools to a greater or lesser extent (for research-

¹ At the time, both authors of this paper were staff in the Support for Teaching and Learning Unit, which is responsible for supporting language instructors in their development of teaching at the LC. The affiliation of the second author has since changed.

engaged examples, see e.g. Pitkänen et al. 2011; Matilainen et al. 2013; Lehtonen and Vaattovaara 2016).

While Rytönen's study (2014) deals with teachers' strategies in adopting new educational technologies, our present survey data focuses on both teachers' and students' experiences and attitudes. Our survey results can also be mirrored against the report published by the European Commission, the survey on the Impact of ICT and New Media on Language Learning (EACEA 2007). In the executive summary of the report, which covered eight European countries including Finland, one of the central findings was that "pedagogical applications do not keep pace with and are not integrated into technological innovation and change" (EACEA 2007: 7). Recent dissertations by Rytönen (2014) and Jalkanen (2015) provide more up-to date evidence of this in the Finnish context. Our study incorporates findings on particular attitudes towards and experiences of students and instructors (teachers) regarding digital learning environments.

2 On theoretical approaches to learning environments

By *learning environments*, we refer to any environment (locations, spaces and communities of practice) where learning takes place (e.g. Jonassen and Land 2012) and which offer to students "knowledge-building environments", namely, environments in which "the core work is the production of new knowledge, artifacts, and ideas of value to the community" (Scardamalia et al. 2012: 231). By *digital learning*, we refer to all types of learning situations where digital extensions, solutions and tools are used. Thus, such definitions as *blended learning* (see, e.g., Norberg et al. 2011), *online learning*, *e-learning* and *distance learning* (see, e.g., Moore et al. 2011), or *personalized learning environments* (Laakkonen and Taalas 2015) are all potentially relevant for digital learning environments.

The arrival of the digital age in the field of teaching and learning has called for certain advances and developments in both theory and pedagogy. Current developments usually take (socio)constructivist theories as the entry point, while dealing with complex systems of interactivity and knowledge work as approaches to 21st century skills: "working backward from goals" and "emergence of new competencies" (Scardamalia et al. 2012). A learning theory for the digital age called connectivism (Siemens 2005) proposes that learning may not only take place between people, but also reside in non-human appliances. One core skill is to see connections between fields and concepts; also important is

the capacity to maintain connections to different sources and channels of knowledge. According to the principles of connectivism (*ibid.*), it is more vital to be connected to constantly changing information than knowing and remembering certain content.

Computer-mediated communication (e.g. communication via an online learning platform) contains some characteristics of both written and spoken communication, yet it is a whole new way of interaction. Especially in language learning contexts, this can be regarded as an essential aspect. Herring (2007) proposes that computer-mediated discourse (CMD) is subject to two basic types of influence: medium (technological) and situation (social). Both technological features (e.g. messaging protocols and software) and social features (such as participants, relationships and the purposes of the communication) need to be taken into account when analysing interaction.

Although digitalization motivates and requires teachers to create new approaches to teaching and learning, digitalization as such is not as simple and unilateral a phenomenon as it might seem. Vuopala et al. (2007) state that in web-based learning environments, the tutor's or teacher's role is significant for keeping the group collaborative and unified. This is just as important as providing information on content (see also Herring 2007). This is strongly supported by our current data, as will be shown below. Norman and Furnes (2016) argue, however, that there are no systematic differences between digital and non-digital learning contexts in terms of the degree of correspondence between metacognitive monitoring and learning outcome (see also Jalkanen 2015). Furthermore, Bennet, Maton and Kervin (2008) emphasize that even though concepts such as "new network generation" and "digital natives" have been proposed and debated in current discussions, there is still no evidence of a distinctly different learning style emerging due to digitalization. However, as Bennet et al. point out, rather than speaking simply of alienation between "new" learners and "old" teachers, further investigation is needed on the perspectives including both young generations and the older ones (that is, their instructors).

Therefore, the present survey was designed in order to gain insights into this dynamic research area. In the following, we will first present an overview of the survey and the data (in Section 3), and then deal with the main results, first concerning the potential e-tools for learning (Section 4) in light of the target groups' experiences and attitudes, then (in Section 5) the results concerning the highlights and pitfalls of e-learning environments. Finally, Section 6 discusses the overall findings, pointing out more general implications for developing digital learning environments in Language Centres, if not also in higher education contexts more generally.

3 Survey data for developing learning environments

3.1 Aims of the survey

The aim of the survey was to tap into both students' and teachers' (university language instructors') attitudes towards different types of learning environments as well as experiences and expectations of them. As explained above, this was done in order to investigate the teacher-learner relationship in terms of developing learning environments and providing research-informed support for LC university instructors. As digitalization is among the primary goals of the University of Helsinki (see Sections 1 and 2 above), emphasis was put on digital learning environments.

We used an online questionnaire comprising Likert scales, multiple-choice questions and open-ended questions in three main areas: (1) experiences of different course types from the learner's or instructor's point of view, (2) views towards and experiences with out-of-classroom (language) learning environments in general, and (3) attitudes towards the digitalization of learning environments. The survey was designed to gather comparable data from the two target groups. Of particular interest was the question of differences and similarities of students' and teachers' views and experiences in order to point out possible gaps as specific challenges. Moreover, the teacher questionnaire included (4) a section that enquired about forums and support needs in the digitalization of teaching. This article presents the main findings of the comparable data from parts (2) and (3) of the survey.

3.2 Respondent groups and the data

Altogether 219 students and 39 teachers completed the questionnaire. Both data sets were collected during October–November 2015, and both groups responded to the questionnaire voluntarily. The students' survey link was sent to Language Centre instructors with a request to share it with students on Moodle platforms or otherwise during language courses. Thus, the response rate cannot be stated as a percentage, as it is unknown exactly how many teachers distributed the survey link or among how many students. 219 is a small proportion of the 15,000 students at the University of Helsinki, but sufficient since we were aiming at qualitative rather than quantitative data. We considered the overall data to be well balanced. Of the 219 student respondents, 73% were completing their

Bachelor's degree, 19% a Master's degree and 8% a doctoral degree or some other degree. The disproportionate number of Bachelor students' responses in the data is explained by the fact that the compulsory language studies for Finnish university degrees are mainly included in the Bachelor's degree, and most students in language courses are Bachelor's degree students. However, all students can take an unlimited amount of language courses without charge during their university studies. In practice, there are students at different stages of their studies in most of the language courses offered by the LC.

Furthermore, 10 out of 11 faculties of the university were represented in the student data. Of the student respondents, 64% were females and 31% males; 5% chose the option "No response". There were few respondents in the age groups of under 20 years (9 respondents) and over 60 (4 respondents), as the majority of student respondents were 20–25 (61%) or 26–30 (15%) years old. Therefore, we can conclude that regardless of the relatively modest amount of student responses and a slight bias towards females, the respondent population represented the average university student population quite well.

All the 39 teacher respondents were Language Centre instructors. The survey link was distributed to staff emailing lists, and it can be expected to have reached the whole Language Centre teaching staff of approximately 70 permanent and 100 part-time instructors. The teacher data indicates that the majority of the respondents had extensive teaching experience: nearly half of the teacher respondents had between 11 to 20 years of experience, a third over twenty years, seven persons between 5 to 10 years, and only two had less than five years. This respondent profile roughly corresponds to the current teaching staff structure of the LC. The teacher respondents were not asked about their gender, age or contract type (permanent, temporary or part-time).

4 Results: potential e-tools for learning

According to Rytönen (2014), all Finnish universities provide web-based learning environments for teaching personnel as centrally maintained systems and tools. The University of Helsinki is no exception here. The systems offered by the local university offer basic alternative tools for teachers for the web-based or blended learning course designs. In the following Section 4.1, we discuss these alternatives as "official tools", by which we refer to the digital tools offered and supported by the university. Individual teachers may either opt to use (some of) these officially provided tools or consider using other, "unofficial tools" and

resources not supported or provided by the university. Experiences of and attitudes towards these are analysed in Sections 4.2 and 4.3.

4.1 Familiarity with digital tools offered and supported by the local university

Both respondent groups were asked to assess their familiarity with (most of) the digital tools officially offered and supported by the University of Helsinki. The results are presented in Figures 1 and 2 below. Teacher responses (39) are reported in absolute numbers and student responses (219) in percentages.

Comparisons of the two respondents groups reveal very similar patterns in terms of familiarity with the official tools. Both teachers and students were most familiar with Moodle: 192 students out of 219 (88%) reported using Moodle regularly and 33 out of 39 teachers reported the same. In the whole data set, only one teacher and two students were unfamiliar with Moodle.

The respondents were generally less familiar with the rest of the tools, but the patterns in the student and teacher data are similar, with E-form and Blog being the most used/familiar ones among both groups. Teachers seemed to be more familiar with the collaborative platforms Flinga and Presemo, which might be due to the fact that these are perhaps more actively used for in-service teacher training

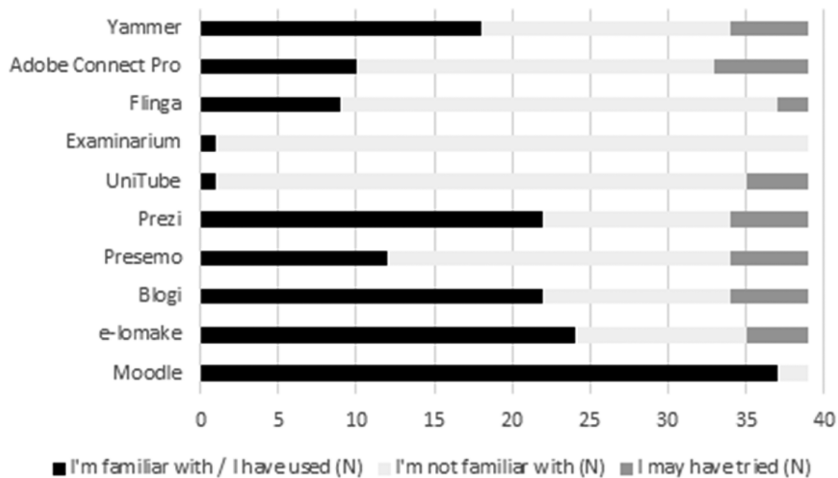


Figure 1: Teacher responses (N) to question on the familiarity of the digital tools offered by the University.

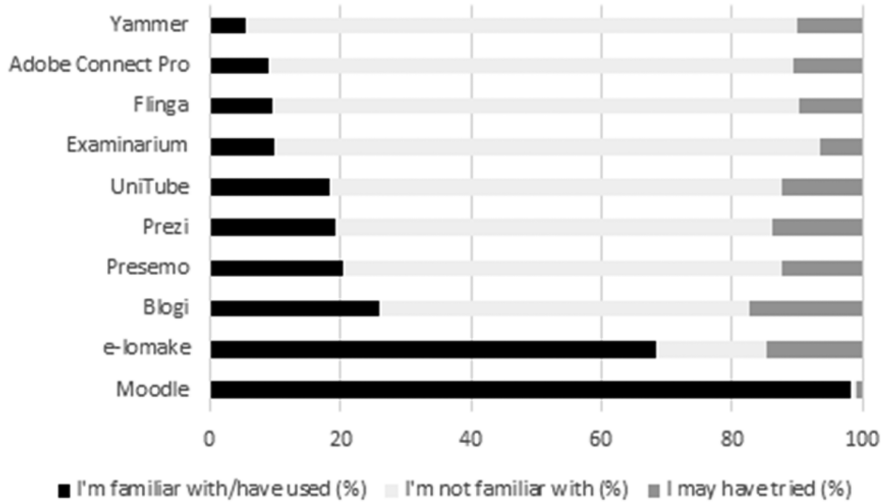


Figure 2: Student responses (%) to question on the familiarity of the digital tools offered by the University.

at the local university than applied in regular courses for students. Yammer was clearly better known among the teacher respondents than among the students. This is because teachers moved into the Outlook environment earlier than students, and Yammer has already been used for quite a while among the LC staff as an interaction space for different in-house interest groups. For their part, students were slightly more familiar with Examinarium (a virtual exam room) than the teacher respondents: 22 students (10%) reported being familiar with this environment, while only one LC teacher had experience with the tool. This comes as no surprise, as LC teachers have been moving more towards other assessment methods (such as portfolios and learning diaries) than the digitalization of exams. On the other hand, the digitalization of exams is among the new trends in the University of Helsinki's digitalization strategy.

The overall results indicate that students and teachers do have common ground in their use of official digital tools, and hence there is a good starting point for advanced uses of Moodle, for example. It is highly unlikely that a teacher will encounter a student needing a basic introduction to how Moodle works. Nevertheless, it is up to teachers to introduce new tools and possibilities of Moodle or other environments. There is no reason to believe that students would resist – as long as the tools supported meaningful interaction (see Section 5 for results concerning good and bad experiences of digital learning environments).

4.2 The digital tools with the most potential?

When it comes to all potential digital tools (including tools and resources not offered or supported by the university), both respondent groups provided interesting information on available or potential digital tools for (language) learning. The respondent groups were asked a slightly different question here. Teachers were asked to list the digital tools that they use regularly or at least sometimes to support students' learning in digital environments. Students were asked to list "other digital tools that they use regularly as part of daily routines". The word "other" referred to any other tool besides the official learning tools offered and supported by the university (which had been dealt with in the previous part of the questionnaire).

Figure 3 presents a Wordle cloud based on the open response data by teacher respondents. The cloud shows that teachers reported using Moodle in particular, while the game-based applications Quizlet and Kahoot also stand out as the most frequently mentioned tools. Other interactive tools such as Flinga and Presemo received some mentions, as did most of the other official tools.

The Wordle cloud in Figure 4 presents the outcome of the student responses, indicating how the group reacted to the question on the tools they regularly use as part of daily routines.

A comparison between Figures 3 and 4 reveals an interesting gap between the e-learning tools offered by university instructors (teacher respondents) and those used by students as part of their daily routines. Wordle clouds show the most frequent mentions in a large font (the larger the font, the more frequent the occurrence in the data). Google tools,



Figure 3: Teacher responses to "Applications used in language teaching regularly or sometimes".

4.3 Attitudes towards unofficial digital tools

Attitudes towards unofficial digital tools (tools not offered or officially supported by the University of Helsinki) were investigated in relation to four statements. The respondents were asked to assess their level of agreement with these on a five-point Likert scale (Fully agree – Partly agree – Cannot say – Partly disagree – Fully disagree). The statements were:

- i. I'm basically happy in my teaching/learning to use digital tools that are already familiar to me from my free time.
- ii. It is important to me that the university provides the digital applications so that I don't have to use my private accounts (for example, Google and Facebook).
- iii. I would not mind downloading free applications (such as WhatsApp or Skype) to my device for the sake of a single course.
- iv. I would be willing to download free applications (such as WhatsApp or Skype) to my device only if I knew that these would be useful in more than one course environment.

The rates of agreement with each statement by the respondent groups are presented below (see Figure 5).

First of all, the figures indicate relatively strong parallels between students and teachers regarding all of the statements. Most students and teachers agreed completely or partly with statement 1: *I'm basically happy in my teaching/learning to use digital tools that are already familiar to me from my free time*. Although teachers expressed slightly more hesitation and disagreement with this

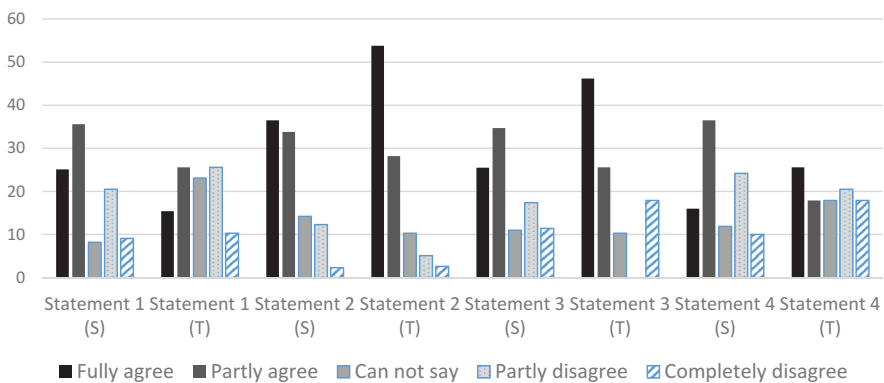


Figure 5: Student (S) and Teacher (T) responses (%) to statements 1–4 measuring attitudes towards unofficial e-tools (tools not supported or offered by the University).

statement than the students, no more than 10% in both of the groups expressed complete disagreement (see the bars in Figure 5).

Regarding statement 2 *It is important to me that the university provides the digital applications so that I don't have to use my private accounts (for example, Google and Facebook)*, there was very little complete disagreement among the response groups (see the bars in Figure 5). Generally, both groups regarded it as important that it should not be obligatory to use personal accounts in teaching and learning. However, responses to statements 3 and 4 about loading applications for the sake of one or more courses indicated more positive than negative attitudes. Regarding statement 3 *I would not mind downloading free applications (such as WhatsApp or Skype) to my device for the sake of a single course*, 46% of the teachers agreed fully with it, as did 26% of the students, while 34% of the students partly agreed. There was more disagreement in both groups regarding statement 4: *I would be willing to download free applications (such as WhatsApp or Skype) to my device only if I knew that these would be useful in more than one course environment*. This result implies that both teachers and students would be relatively willing to download an application for the sake of teaching/learning, regardless of the number of courses in which the application would be used.

On the basis of these results, it is safe to conclude that the attitudes towards using unofficial tools in teaching and learning are also generally quite positive and similar among both target groups, even though not all the respondents agreed with the presented statements to the same extent.

5 Results: reported experiences with digital learning environments

At this point, two essential questions remain: What is the added value offered by digitalization in the current learning environments? What types of meanings do digitalization have in everyday use in higher education? In order to explore this, we asked the student and teacher respondents to reflect on their “worst” and “best” experiences of digital learning environments from the points of view of teaching (teachers) and learning (students). It was possible to pass this section without answering, but the majority of the respondents did provide an answer to at least one of the two aspects. Interestingly, positive experiences were much more frequently reported than negative ones (see Sections 5.1 and 5.2 for more detailed analysis).

The open response data was analysed using qualitative, data-driven content analysis (e.g. Silverman 2007; Schreier 2012). The data was first read by three

researchers in order to obtain a general picture of the data as a whole. In the next phase, notes were taken and response categories of the “worst” and “best” experiences were formed. The student and teacher data sets were then investigated separately, and subcategories were formed on the basis of the data classification. During the last phase of the analysis, all items in the main categories of the “worst” and “best” experiences were systematically coded into one of the subcategories.

5.1 The reported “worst” experiences

Table 1 summarizes the main response categories for the “worst” experiences with digital learning environments reported by the teacher and student respondent groups. The reported items in both data sets fell into four broad subcategories, which emerged from the data. These were *Technical issues*, *Inadequate implementation*, *Lack of skills* and *Miscommunication* (Table 1).

Table 1: The “worst experiences” of digital learning environments reported by student and teacher respondents (main categories as a result of qualitative content analysis).

Response category	Students	Teachers
Technical issues	Poor usability + technical challenges	Poor usability + technical challenges
Inadequate implementation	The solution used wasn't pedagogically appropriate	Wrong and inappropriate tool in teaching
Embarrassment/ Lack of skills	One's own or teachers' unskillfulness	Feeling insecure and unskillful, embarrassment
Miscommunication online	Sense of loneliness on the web; forced to communicate online; absence of the instructor (feeling that the teacher didn't contribute)	Lack of student contribution; communication apprehension expressed by the students

Of the 219 student respondents, 79 students (with 106 things mentioned) reported on their worst experiences; of the 39 teachers, 18 did (citing 26 things). Thus, the majority of the respondents in both groups did not report any “worst” experiences.

Overall, the reported worst experiences mainly concerned a gap between the intentions and outcomes of learning or teaching. Most of the reported “worst” experiences seem to have arisen in situations where digitalization was not regarded as serving the purpose.

The most prominent subcategory in the reported “worst” experiences turned out to be “**technical issues**”. Roughly half of the teacher responses for the “worst” experiences fell into this category. Also, of the individual items in the student data, 23 out of 106 mentions fell into this category. Technical issues included situations where the internet connection failed or the digital solution could not be used at all for some other reason. The responses falling into the subcategory of “technical issues” among both respondent groups typically involved very similar situations: problems that influenced the process of teaching/learning or independent student/teacher activity. In most cases, the technical failures were unavoidable or such that the teacher/student had no power over them.

The response subcategory “**inadequate implementation**” consists of reflections on unsuccessful attempts to support or access learning acts or processes through a tool or method which was evidently unsuitable for the purpose. Inadequate implementation could refer to the tool itself (for example, to the limited possibilities of the tool to serve its purpose) or to poor or illogical use of the tool with respect to the assignment. The students typically reported situations in which a teacher used online learning solutions, but the implementation had deficiencies and inconsistencies. This is shown in the following example (2), extracted from the student data.

- (2) *Kurssit, joissa on tarkoitus käyttää verkkotyökaluja (varsinkin Moodlea), mutta joita lopulta käytetään niin vähän tai epäjohdonmukaisesti, ettei lopulta tiedä mistä tieto löytyy tai miten tehdä mikään tehtävä.* ‘Courses during which you are supposed to use digital learning tools (especially Moodle), but which in the end apply them so little or so inconsistently that you don’t know where to find information or how to do the assignments.’ (Student)

Teacher responses in this subcategory implied that a certain digital tool or solution in their language teaching did not work the way they had expected. This may have been due to various things, such as a lack of sufficient equipment on the part of the students or the chosen channel being unsuitable for the intended purpose. The following quotation (example 3) is from a teacher respondent who reported on how s/he and her/his colleague had tried to get students to shoot video CVs and upload them to the course website, without great success.

- (3) *Opiskelijat suhtautuivat tehtävään kovin epäluuloisesti, ja lopulta vain muutama latasi videonsa alustalle. Aika ei ollut kypsä, joten tehtävää ja*

sovellusta olisi pitänyt taustoittaa huomattavasti enemmän, ja painottaa, että vain kursilla olijat näkevät toistensa videot ‘Students reacted to the assignment with great suspicion, and finally only a few students uploaded their video to the platform. The time wasn’t right, and the assignment would have required much more instruction and emphasis that only those in the course would have access to each other’s videos.’ (Teacher)

This subcategory of “inadequate implementation” turned out to be the most prominent among the student respondents, with a total of 26 mentions. Due to the qualitative nature of the data and analysis, we do not aim to emphasize the quantitative aspect of the information here, but it is nonetheless notable that both teachers and students may find improper implementation or inappropriate tool choice as a primary reason for a bad digital learning or teaching experience. Moreover, according to both respondent groups, improper implementation was interpreted in terms of actions taken or choices made by the teacher.

A basically similar interpretation is present in the third subcategory, “**lack of skills**”. The responses falling into this category include experiences of an incapability to perform in online learning or teaching routines in an adequate way. Among the teacher respondents, the reported experiences reveal feelings of embarrassment or shame or some hesitation or insecurity (see example 4).

- (4) *[[]os teen edelleen vanhanaikaisella, ei-verkkopedagogisella tavalla jonkin asian, johon tiedän olevan olemassa hyvän verkkopedaratkaisun ... Silloin tunnen riittämättömyyttä! Uupumusta! Suorastaan häpeää!* ‘If I keep on doing things in an old-fashioned, non-digital pedagogical way even though I know there would be a better, technical alternative ... Then I feel inadequate! Exhausted! If not ashamed!’ (Teacher)

While the respondent’s own incapability was generally reflected on or highlighted in teachers’ responses, in the students’ reports the system or the teacher often got the blame. In example 5 below, a student respondent describes how a teacher’s actions (or rather lack of actions) can hinder student performance.

- (5) *Opettajien taitamattomuus Moodlen käytössä (asiat epäloogisissa kansioissa joista ei löydä mitään, toimimattomia linkkejä, materiaalit eivät aukea kaille/aukeavat vain yliopiston koneilla eivätkä edes etäyhteydellä).* ‘Incompetence of teachers to use Moodle (items in illogical folders where you can’t find anything, dead links, materials that cannot be opened or that can only be opened by the university computer and not any other way).’ (Student)

Furthermore, teacher responses in this subcategory reveal that they tended to have feelings of insecurity in terms of agency regarding their use of educational technology. The students also described failures in using digital tools, but such experiences quite systematically came down to a lack of support or sufficient guidance by the instructor.

Lack of guidance and a poor set up were also prominent features in the subcategory “miscommunication online”, which consists of experiences of poor online communication and digitally mediated interaction in a course context. Mentions which fell into this subcategory came mainly from the student respondents. Poor or unpleasant communication typically referred to situations where communication within the student group failed or was motivated by questionable arrangements by the instructor. According to the data, for example, assessments should perhaps be based on measures of quality rather than quantity of comments (see example 6).

- (6) *Yhteen postaukseen tuli kymmenittäin sivun pituisia kommentteja, koska opiskelijoille tuli paineita siitä, että 50 % arvosanasta muodostui blogista. Todellinen merkitys blogilta meni ja ihmiset kommentoivat kaikkea, riippumatta siitä, onko heillä oikeasti asiasta sanottavaa vai ei.* ‘Some posts received dozens of page-length comments, because the students were impressed by the fact that 50% of the grade depended on blog activity. The real point of the blog was challenged since everybody commented on everything regardless of whether they had something really to say or not.’ (Student)

While student respondents tended to be critical towards the quality of communication, the teacher respondents mainly reported on the absence or lack of participation by students. Hence, both students and teachers reported how online discussion among the students may result in an unsatisfactory experience. While teachers complained about a lack of participation by students, the student respondents pointed out that teachers could facilitate or support the online discussion better.

5.2 The reported “best” experiences

Out of 219 student respondents, 138 provided an answer when the “best” experiences were requested. This category included mentions of 169 things. Of the 39 teacher respondents, “best” experiences were reported by 22, with 27 things mentioned. Among both the teacher and the student respondents, the reported

mentions were quite evenly divided among the three subcategories that emerged in the data: *Added value with a digital tool*, *Suitable arrangement/a handy tool*, and *Seamless/natural way of working* (see Table 2). Among the student responses, the last of these was slightly more prominent with 56 responses. Among the teacher respondents, all three subcategories were quite evenly represented.

Table 2: The reported “best experiences” on digital environments reported by student and teacher respondents (main categories as a result of qualitative content analysis).

Response category	Students	Teachers
Added value by a digital tool	Pleasant online discussions and useful learning tools in action	Teaching “spiced up” by digitalization + creative communication and interaction among students
Suitable arrangement/a handy tool	Pleasant online discussion and useful learning tools in action	Online learning materials support lessons and peer-learning
Seamless/natural way of working	Online learning materials support lessons and peer-learning	Natural, inseparable part of teaching

While the “worst” experiences were often related to the unsatisfactory relationship between the digital solutions used and the benefit for the learning process actually gained from them, the “best” experiences reflected impressions of successful technological implementation. In practice, this meant situations where the choices of the tool(s) and the working methods were felt to support the learning process in an ideal way as a whole. In individual responses, some emphasized that digitalization better enabled teaching/learning performance or that using digital solutions fulfilled the aims and working methods without problems. In the following, we present the three subcategories that involve these aspects in the data.

In the subcategory “added value by a digital tool”, the responses deal with digital solutions and online learning tools as a means to enhance the quality of teaching and learning. The following quotations (7) and (8) reflect the perceived added value in online communication and in new ways of working, as seen by the respondent groups.

- (7) *Verkossa järjestettävät ryhmätyöt toimivat usein dynamiikaltaan paremmin kuin lähiopetuksessa.* ‘Group dynamics usually work better in online collaboration than in classroom situations.’ (Student)

- (8) *[M]ahdollisuus tarjota opiskelijoille autenttista ja innostavaa materiaalia ja tehtävänantoja. On myös kiva nähdä, miten opiskelijat osaavat hyödyntää verkkoa esim. esitelmiensä aineistona. ‘A possibility to offer authentic and inspiring material and assignments to students. It is also great to see how students use the internet (e.g. to search for material for presentations).’* (Teacher)

The descriptions of added value deal with the difference between digital and non-digital learning environments, stressing the benefits of digital elements or tools.

The subcategory “suitable arrangement or a handy tool” involves experiences of the functionality of tools in use or arrangements that suited the respondents’ life situation or their way of learning/teaching particularly well, such as the availability of an online course without classroom participation or useful exercises offered via a certain tool. The student respondents in particular described how online courses have helped them overcome certain obstacles related to time management and physical locations. In contrast to the subcategory “inadequate implementation” (in the “worst” experiences), the responses in this subcategory revealed satisfaction with the successful implementation of online tools or suitable course design in terms of online tools as a whole.

Teacher respondents wrote here about the suitability and handiness of online resources to facilitate both the students’ and the teacher’s job (e.g. praising a certain platform as a means of teaching and learning).

- (9) *Mainly when students take control of the e-learning tool and really use it for their learning (like a Google doc, for example, which becomes something that students use and contribute to).* (Teacher, originally in English)

Responses which fell into the subcategory “seamless and natural way of working” illustrate how the respondents did not draw a line between online learning and just learning. Some of the teacher respondents expressed bluntly that they do not see the point in making a distinction between different types of learning, online or otherwise (see example 10).

- (10) *Honestly, a lot of e-learning tools that I implement just seem like a natural part of teaching, in the same way that other technology is a normal part of other aspects of life.* (Teacher, originally in English)

Correspondingly, student respondents pointed out the significance of alignment. In the following example, a student describes how the digital platform Moodle supports learning during the process.

- (11) *Moodleen tulee sopivassa määrin hyödyllistä lisämateriaalia. Kurssilla lähiopetus on kuitenkin keskeisemmässä osassa kuin verkko, jolloin Moodlen sisällöt oikeasti innostavat opiskelemaan lisää eikä siellä vierailemisesta tule rasite.* ‘Moodle provides a good amount of useful extra material. During the course, classroom teaching plays a more central role than the web, when Moodle content truly encourages studying more and visiting the platform does not appear as a burden.’ (Student)

“Encouraging”, “useful” and “not appearing as a burden” can be framed as rewarding and/or an effortless/trouble-free part of the learning during the course. This thereby serves as an example of where the gaps between intentions and outcomes (see Section 5.1) have somewhat been bridged.

5.3 Overview of the reported experiences

The data based on the student and teacher respondents reporting on both the “worst” and the “best” experiences of digital learning environments encourage developing digital solutions for (language) teaching and learning. In terms of number of mentions concerning online learning and teaching processes, more pros (“best” experiences) than cons (“worst” experiences) were reported. The numbers should be cautiously interpreted, however, since answering the questionnaire was optional and the data was collected by means of a convenience sample within the University of Helsinki. Therefore, the data might be somewhat biased towards more positive than negative experiences, as it could be suspected that the most interested or active students and the most digitalization-friendly teachers participated as respondents of the survey.

Regarding our main area of interest here, comparing the responses given by the two distinct response groups, both groups considered the course instructor to be essentially responsible for functional implementation and a successful learning environment. Teachers themselves felt this responsibility, even though the students received some blame from teacher respondents for their lack of engagement, given their own responsibility as active learners. Yet, the reported “best” experiences in both response groups indicated that a proficient use of digital solutions offers a well-appreciated, successful learning process and meaningful communication and participation.

6 Discussion

As implied by the EACEA (2007) report a decade ago, the digitalization of higher education teaching and learning calls for new implementations of pedagogical support. Our present exploration of how teachers and students experience and view digitalization as part of their everyday teaching and learning paints a quite promising picture of the current situation at least in the local University of Helsinki context. According to the data in this study, teachers and learners largely have similar skills and share similar attitudes towards digital tools and learning environments. Both target groups in the present survey report some embarrassment and lack of skills in terms of managing digital tools. This can be regarded as natural, considering the pace of technical development. Due to the local nature of our data and our research objective, here we have excluded explorations of other university institutions, but there is no reason to believe that the situation would be fundamentally different in other university contexts. Bennett et al. (2008) argue that the debate concerning “digital natives” or the “net generation” is overstated. This is supported by the findings of our study which indicate that at least on the level of attitudes, there do not seem to be any notable generational gaps. In today’s work life, communities of practice commonly operate and develop in virtual environments (see Kietzmann et al. 2013), and both respondent groups seem to acknowledge the benefits of online learning environments in the formation and interaction of communities of practice (Lave and Wenger 1991; Wenger 1998). As supporting students’ generic and transferable skills is among the educational goals, extensions in the digitalization of learning environments are well justified.

In terms of learning and learner autonomy, virtual spaces offer flexible collaborative learning environments, but as our results imply, there are dangers of frustration if proper course design is lacking. The principles of constructive alignment in course design (Biggs and Tang 2011 [1999]) emphasize the active role of learners in the learning as well as the course design process, which starts with setting the goals (intended learning outcomes), making them transparent to students, and aligning both instruction practices and assessment with the learning outcomes. Virtual learning environments have already begun to be a natural part of teaching and learning in Finland, but as both Rytönen (2014) and Jalkanen (2015) reveal in their dissertations, there are still challenges when it comes to pedagogical implementation. In (language) learning, the pedagogical design should follow the processes of technological development in society; learning should not be seen as conducted by technology, but taking place in a technology-rich environment (see, e.g., Jalkanen 2015; Andreas and Hauge 2011).

Teaching and learning in a technology-rich environment call for a drastic change in pedagogical design. It could be argued that the design for teaching should change more towards a design for learning (see Andreas and Hauge 2011). Whereas the design for teaching can be seen as the teacher's responsibility, emerging through interpreting curricula and competence aims, design for learning refers to the enacted design, or what actually happens when teachers and learners engage in joint construction of the (learning) object (Andreas and Hauge 2011: 262). As Cope and Kalantzis (2000) have emphasized, designs for learning open up possibilities for using learners' out-of-school social and cultural experiences. However, our present data implies that the daily, natural digital environments that learners are already engaged in have not thus far brought much benefit as environments of formal learning. In our view, the gap between digital tools used in free time and those used for educational purposes calls for reassessments of in professional development encounters among (language) teachers.

Teachers as course designers are generally challenged by technological development. It takes time and effort to become familiar with the variety of available tools. As it is the teacher who is responsible for the overall pedagogical course design, his or her role is still crucial in the process of selecting the tool(s) to be used in digital learning. If the teacher lacks digital competence (i.e., does not know how to choose or use a suitable tool or set of tools), the risk of unsatisfactory learning and teaching experience increases. Another risk is naturally that a teacher avoids digital tools in the first place, in order to stay in his/her comfort zone (Rytkönen 2014).

It is evident on the basis of the present data that the successful implementation of digital solutions requires both successful peer communication and teacher-student interaction. This requires resources from the university in the form of pedagogical training and support, as emphasized by the EACEA report as long ago as 2007. As Rytkönen (2014) indicates, teachers need support in selecting and applying educational technology in their instruction in order to best benefit from the tools. Additionally, there is a need for pedagogical design models that would assist both teachers and students in structuring and analysing the interaction and literacy practices which take place in technology-rich settings (Jalkanen 2015: 73). As emphasized above, our overall findings also encourage institution-level discussion on and development of digital solutions and practices. We suggest that students should be involved in the pedagogical planning of course designs, both on a macro level (curriculum planning) and a micro level (using the tools in local course contexts). We agree with Jalkanen (2015: 18) that an important part of the development process is negotiation between teachers, students and institutions to create and support a fruitful digital teaching and learning culture.

In conclusion, it can be said that despite the current positive developments, the recommendation for local support structures in the implementation of ICT proposed by the European Commission report (EACEA 2007) has yet to be taken seriously. Future prospects include continuing research on the topic relevant to development of language teaching and learning environments. Resources for research in Language Centres tend to be limited, but we hope to have shown that further research would be welcome on, for example, on-line communication and learning in technology-rich environments.

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