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Title: Analysing students'rating of the SLP Digitally Competent Educators

Year: 2021

Version: Published version

Please cite the original version:

Bastos, G., Cendon, E., Firat, M., Günes, A., Hiltunen, L., Juutinen, S., Kananen, P., Uotinen, V., & Zarebski, M. (2021). Analysing students'rating of the SLP Digitally Competent Educators. In G. Ubachs, S. Meuleman, & A. Antonaci (Eds.), Proceedings of the Innovating Higher Education Conference 2021 : Overview of papers as presented during the Innovating Higher Education Conference 2021 3 -5 November in Bari (IT) (pp. 172-183). European Association of Distance Teaching Universities. https://conference.eadtu.eu/download/2630/

Analysing students' rating of the SLP Digitally Competent Educators

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Abstract

This article uses student feedback to examine the perspective of participants in the short learning programme (SLP) pilot Digitally Competent Educators (DCE). This SLP was targeted at the continuous professional development and lifelong learning for educators at various levels and several education areas. Student feedback was collected in 2020 using anonymous surveys at the end of each course. This implies that respondents were those participants who completed the course. Feedback, used on further development of

the SLP, focused on the content and implementation of the course modules. The SLP followed the design guidelines produced inside the E-SLP project and was based on the Digital Competence Framework for Educators (DigCompEdu) published by European Commission's Joint Research Centre (2017). This SLP combined six competence areas of DigCompEdu and aimed to develop and foster educators' digital competences in teaching and learning. DCE was developed from 2019 to 2020 in collaboration with the University of Jyväskylä (coordinator), Finland; FernUniversität in Hagen, Germany; Anadolu University, Turkey; and Universidade Aberta, Portugal.

Keywords: DigCompEdu, online short learning programmes, international collaboration, student feedback, continuous professional development

1. Introduction

There is a clear need to increase the provision of flexible and scalable academic studies and to support the continuous professional development of adult learners (Henderikx & Jansen, 2018). The European Short Learning Programmes project (E-SLP-project) answered this call by developing further a concept "short learning programme" (SLP) covering EQF levels 6 to 8. Within the project, an SLP was defined as a stackable and scalable course which is organised online (or in units, modules, learning building blocks) with a common subject and study load varying from 5 to 30 ECTS (Maina et al., 2020; Melai et al., 2020; Truyen et al., 2020).

The E-SLP-Project was funded from 2018 to 2021 under Erasmus+ Programme, Key Action 3: Support for Policy Reform, Initiatives for Policy Innovation, "Forward Looking Cooperation Projects" and coordinated by European Distance Teaching Universities (EADTU). As a part of the E-SLP-project, several short learning programmes were created and piloted in from 2019 to 2020 in collaboration with EADTU member universities (Melai et al., 2020; Truyen et al., 2020). Digitally Competent Educators (DCE) was developed as one of these pilot SLPs. It was based on three 5 ECTS modules, the workload of each module being 135 hours and the duration of a module varied between eight and ten weeks. Planning and implementation of DCE was done following "Design guidelines for flexible and scalable SLPs" created by the E-SLP project (Maina et al., 2020) and in collaboration with four institutions (Figure 1). DCE was embedded into an existing degree programme at each of the four institutions. Modules were planned in a manner that allowed their completion either individually or as a short learning programme (Henderikx et al., 2021). After each module was complete, feedback from the participants was collected by an anonymous survey questionnaire focusing on the content and implementation of the module. These data are analysed and discussed in this article.

Figure 1: Universities responsible of E-SLP "Digital Competent Educators" (15 ECTS): University of Jyväskylä (coordinator), Finland; FernUniversität in Hagen, Germany; Universidade Aberta, Portugal; and Anadolu University, Turkey.

1.1 Digital Competence Framework for Educators (DigCompEdu)

The SLP Digitally Competent Educators (DCE) focused on educator-specific digital competences needed in various levels of education and in several education areas. Content planning of this SLP was based on the Digital Competence Framework for Educators (DigCompEdu, Figure 2) published by the European Commission's Joint Research Center (Redecker, 2017). This framework includes a cumulative model where a participant is proceeding from a lower to higher proficiency level towards expertise.

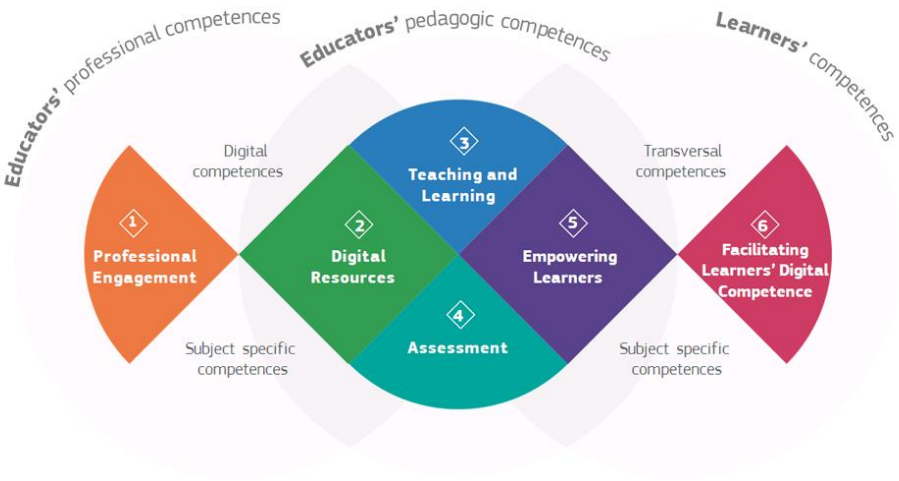

Figure 2. Digital Competence Framework for Educators by European Commission Joint Research Centre.

DigCompEdu framework identified six different competence areas with a total of 22 competences. DCE combined these competence areas in a new and innovative way. Competence areas were divided into three modules (Figure 3), with each module addressing a specific level of expertise within the framework – from newcomer to explorer, from explorer to integrator, and from integrator to expert (Redecker, 2017).

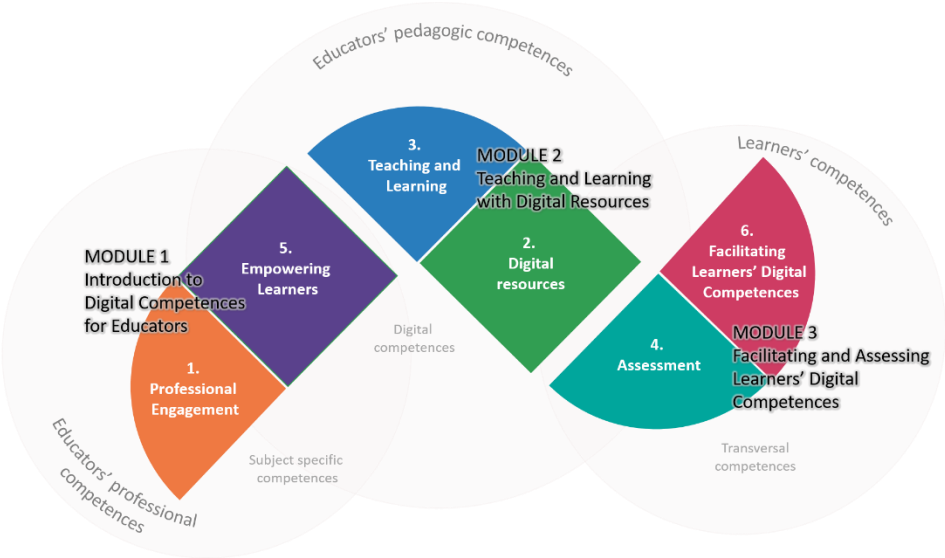

Figure 3. Areas of Digital Competence Framework for Educators in DCE short learning programme modules.

DCE was targeted for educators at various levels and several education areas. Participants may work, for example, as a schoolteacher, a school administrator, a teacher or trainer in vocational education, an

educational developer, an e-learning author, a lecturer or a researcher in higher education, an adult educator, an educational scientist or a trainer in the business sector.

Participants may start as a newcomer with Module 1, which concentrates on professional engagement, digital professional development and empowering as well as actively engaging learners. Exploring the potential of digital technologies in Module 2, which explores teaching and learning with digital resources including selecting, creating, modifying, managing, protecting and sharing digital resources. They may integrate new ideas into their own practices and also become an expert on facilitating and assessing learners' digital competences in Module 3. After studying all three modules, the participant receives a Digitally Competent Educator certificate.

1.2 The Digitally Competent Educators SLP

The Digitally Competent Educators SLP pilot included three modules, which participants could study either individually or by participating in all three modules. Participants could also start from Module 2 or Module 3 if they had sufficient background knowledge to skip the preceding modules. According to the project orientation, and as it has been described previously (Bastos et al., 2021), each module was designed in a scalable way to allow an unlimited number of participants. This decision had implications at several levels. For example, independent study was expected from participants and the tutoring work would focus only on generic guidelines, without intervention in the discussion of the contents. This also meant th at the teacher's role was concentrated on the process of the conception and the development of the modules.

Module 1 was called "Introduction to digital competences for educators". It focused on using digital technologies for communication, collaboration and professional development, with the aim to enhance inclusion, personalisation and learners' active engagement. The module belongs to the proficiency level from Newcomer to Explorer and lasted eight weeks, containing seven topics or learning building blocks (LBB). Participants were encouraged to have synchronous and asynchronous discussions and to share their experience within certain topics. All activities had an active as well as a reactive part, for example, after consulting the materials regarding one topic, participants either had to discuss the feasibility within their professional environment (synchronous in small groups as well as asynchronous in a larger group) or create certain examples due to the framework or test certain tools in regard to their range of functions. In a second step, they were asked to react to the responses of their peers. Materials were available online, and each topic included video clips for explanation and deeper illustration. The final assignment consist ed of a plan for a digital learning or work project. It was expected to include previously taught course contents, match students' professional background, and would preferably be usable in the future. In addition, each student was asked to peer review the final assignments of three other students.

Module 2 was called "Teaching and learning with digital resources". It focused on managing and orchestrating the use of digital technologies in teaching and learning, including sourcing, creating and sharing digital resources. Module 2 belonged to the proficiency level from Explorer to Integrator. Participants gained some insights about how to identify resources that best fit their learning objectives, learner group, teaching style and materials, as well as other digital resources to support teaching at the end of the module. They were encouraged to discuss the weekly topics with other students in the discussion forums in the learning platform. They were also asked to share their own ideas and the tools they discovered with others through forums. In the module there were eight weeks and seven topics to be covered, from the selection of digital resources to self-regulated learning. Participants were encouraged to have a conversation under the tasks by commenting on their peers' work. Some online tools were presented through videos and participants were also asked to

create some lesson materials. The final assignment was a detailed report on creating a digitally enhanced lesson plan.

According to DigCompEdu framework, the proficiency level for Module 3, "Facilitating and assessing learners' digital competencies" was from Integrator to Expert. The third module focused on using digital technologies and strategies to enhance assessment by enabling learners to creatively and responsibly use digital technologies for information, communication, content creation, wellbeing and problem solving. It had five topics or LBBs over the course of eight weeks. Each topic had a duration of one week, except the fourth one ("Feedback and planning"), which lasted two weeks in order to provide more time for group work. The learning materials made available were in different formats: articles, videos, tutorials and other online resources. Participants had tasks they did by themselves and added the materials to their personal portfolio. After the portfolio, they discussed their opinions and findings in the forums with other participants. Small group tasks were also given to be completed during the course. Participants were asked to form a small group and to do the weekly task with them by using a choice of their own tool for this purpose. For example, chat and wiki were offered for this task. The third module was based on a continuous assessment: each topic included both an automatically assessed activity and an activity that was posted in students' e-portfolio that was peer reviewed.

2. Methods

A student feedback questionnaire, used at the end of each DCE module, was originally created in collaboration with another short learning programme pilot within the E-SLP project. This situation would allow, at a later stage, further research and comparison between the two pilots.

2.1. Data Collection Tool

After each pilot module was completed, feedback was collected from participants using an anonymous feedback questionnaire created in Google Forms. The target of the collection of the feedback was to develop and improve the quality of the next versions of the modules. The questionnaire was carried out as an online survey consisting of 14 Likert items on a five-point scale (see Table 3) with the instructions: *Indicate your opinion regarding the structure, contents and activities proposed in the Module. Please let us know what your opinion is concerning the issues below. Scale: 1 = not at all, 2 = slightly, 3 = moderately, 4 = very well, 5 = perfectly*. In addition, the questionnaire included four open-ended questions (What would you add to the next course? What would you remove from the course? What was the less positive thing at the course? Other suggestions / comments), three demographic information questions (age, gender, nationality) and one yes-no question for permission to use the participant's data.

2.2. Data Collection Process

The feedback questionnaire was embedded in the learning management system (LMS) Moodle. The questionnaire was made available to participants at the end of the modules. Module 1 ran from 20 January to 15 March 2020, Module 2 from 14 April to 5 June 2020, and Module 3 from 5 October to 5 December 2020.

2.3. Participants

Forty-two participants started Module 1, while 19 completed it and 29 answered the survey. Forty-seven participants started Module 2, while 21 completed it and 22 answered the survey. Twenty-three participants started Module 3, while 18 completed it and 17 answered the survey. The demographic information of the module participants who participated in the survey is shown in Table 1 (gender and age) and Table 2 (nationality).

Table 1. Gender and age group of participants in Modules 1–3

	Module 1	Module 2	Module 3
Gender Female	21 (73%)	17 (77%)	15 (88%)
Gender Male	5 (17%)	5 (23%)	2 (12%)
Missing data of Gender	3 (10%)		
TOTAL	29 (100%)	22 (100%)	17 (100%)
Age group			
18–24 years	1	1	0
25–30 years	3	1	1
31–35 years	9	10	1
36–40 years	5	3	2
41–50 years	6	4	7
51+ years	5	3	6
TOTAL	29	22	17

Table 2. Nationality of participants in Modules 1–3

	Module 1	Module 2	Module 3
Finland	3	8	3
Germany	12	6	4
Portugal	5	5	7
Turkey	0	2	1
Other	8	1	2
Missing data	1		
TOTAL	29	22	17

3. Results

Table 3 presents the means of the Likert scale items of all three modules.

Table 3. Student Feedback Survey items (Likert scale 1–5*), means of the answers of participants in Modules 1–3.

	Module 1 N = 29	Module 2 N = 22	Module 3 N = 17
Navigation through the module was easy	3.96	4.63	4.29
The structure of the module was coherent	4.11	4.63	4.53
The contents of the module were relevant	4.25	4.67	4.59
The contents of the module met my personal interest	4.00	4.29	4.29
The contents of the module met my professional interest	4.25	4.21	4.31
The objectives/competences were clear	4.00	4.54	4.41
Activities were appropriate to the contents	4.07	4.46	4.35
The duration of the module was adequate	3.89	--	4.35
Group work was easy to manage	2.86	--	3.53
Discussion forums were easy to use	4.21	4.17	4.35
The estimated time for the tasks was adequate	3.54	4.58	4.18
Assessment activities were adequate and understandable	3.93	--	3.88
I am satisfied with my contribution in the course	3.79	4.38	4.06
The learning management system (Moodle) worked well	4.21	4.79	4.53

*) Instructions for participants: "Indicate your opinion regarding the structure, contents and activities proposed in the Module". Please let us know what your opinion is concerning the issues below. Scale: 1 = not at all, 2 = slightly, 3 = moderately, 4 = very well, 5 = perfectly.

As shown in Table 3, the vast majority of the Likert items received scores of 4 or above for all three modules. This indicates that the students in all three modules were satisfied.

3.1. Answers to the open-ended Questions

The following open-ended questions were used:

- What would you add to the next course?
- What would you remove from the course?
- What was the least positive thing about the course?
- Other suggestions / comments.

The most relevant feedback collected by open-ended questions at the end of each module is reported.

Module 1

The majority of participants shared the opinion that the social presence of teachers and interaction with peers and teachers could have been more extensive. Participants would like to have more team-building activities at the beginning, get to know where peers come from and especially meet their peers as well as teachers in synchronous meetings. Many of the participants were newcomers, so they stated a demand for good practice examples as well as practical implementation. Participants asked for more videos on tools and software as well as examples of how to implement the framework in practice and observe real-life solutions. The third theme emerged as transparency regarding course requirements along with diversity in the completion of assignments. Some participants also stated they would like to have more diversity in ways to complete the tasks and assignments in order to accommodate different learning styles.

A large number of participants consistently stated they would not remove anything, as all topics were useful. However, many of them criticised the way participants were grouped at the beginning of the course. Groups were either too small, the constellation was not right or group members remained inactive. Three participants mentioned the e-portfolio as difficult to work in due to technical issues, and they also wished for institutional integration and embedding it as a fixed task so it is possible to view all e-portfolios.

The third question asked about the less positive things concerning the course. Almost all respondents mentioned a lack of peer interaction within their groups, inactive group members and struggling to organise group meetings. In addition, a number of participants pointed out the workload caused by weekly deadlines. For adults who study while they work, weekly deadlines are difficult if the workload is high.

Most participants were grateful to take part in this module. They appreciated the content as valuable, were "happy to be part of DigCompEdu education" and indicated the module as a big step towards digital competence. Some students wished for more synchronous meetings and more clarity for course requirements.

Module 2

Some participants wanted more collaborative activities in the course, while others wished for more teacher-led activities. A request for more videos about different Web 2.0 tools for education was also mentioned. There were also some suggestions about the timing of the announcement of the final assignments. In general, participants stated they were satisfied with the course, and that they would not change a thing in it.

As in Module 1, most of the participants were satisfied with the module content and they stated there was no need to remove any content. However, a few participants emphasised the need for the removal of long articles.

Most of the participants liked and were satisfied with the presentation on Web 2.0 tools for education and infographics created by the teachers. The academic support throughout the course, practical design activities and well-organised course structure were also mentioned.

Some participants wanted an extension or a longer time for the final assignment. Some asked for a clearer grading criteria for the final assignment. Some participants also emphasised that the content of the module was interesting, while some also expressed a wish that similar courses would be increasingly offered.

Module 3

Module 3 was viewed as very important in personal (4.29) and professional (4.31) terms. This is an important result, considering the target group.

The open-ended answers indicated that the less positive aspect of Module 3 was group work. Participants had to do group work at the same time for two activities over a two-week period. Nevertheless, comments show differences among participants concerning perceptions about group work: for example, three participants suggested eliminating group work, while some others suggested adding more of it. Perhaps this is due to different experiences within their own groups. Some students wished for more forum discussions.

The conceptualisation and development of the module was based on an expectation that the module will have a large number of students in the future. Consequently, the pedagogical model for Module 3 was a compromise between independent learning and cooperation among participants, following guidelines from Universidade Aberta's own Virtual Pedagogical Model (Pereira, Quintas-Mendes, & Amante, 2007; Quintas-Mendes et al., 2019). Most activities were individual activities, but the assignment results were shared in the forums and individual e-portfolios. Even though the Module Learning Guide included the information that there is no active tutoring and no teacher feedback for individual activities, this was not clear to all participants.

4. Conclusions

Our starting point was to design an SLP that corresponds to the parameters of the E-SLP project and that is adaptable to curriculums of the four universities that represent different countries and national educational systems. The detailed design, control over content integration and the planning of learning activities and future sustainability of the SLP modules required the seamless coordination. While developing this new innovative SLP, information technology was utilised widely.

The aim of collecting student feedback from three pilot modules of the Digital Competent Educators SLP was to develop the programme further and to add it to courses targeted for adult learners. According to the data reported in this article, the experiences of students, of whom the vast majority had completed the modules, were mostly positive and encouraging. This was especially the case in the answers to the Likert scale items. The answers to the four open questions provided more specific feedback while allowing students to raise issues not covered by the structured survey questions. These comments showed that there were different expectations on how certain course activities, such as group work, should be organised. The group work caused some issues due to time differences and other scheduling problems. Some of the participants, in turn, were hoping for more collaborative work in the courses. Overall, the participants viewed the content of the modules and the need to learn about these issues as important for their career development. This suggests that the DicCompEdu framework and the way its content areas were applied in the three modules of DCE served the existing educational needs of educators and the diversity of the participants in various levels of education.

Since the feedback obtained from the pilot modules was to be used for further development of the SLP, it was relevant to explore whether the participants who responded to our survey resembled the target group of the SLP. The demographic characteristics of participants presented in Table 1 support the conclusion that they were more similar to adult learners than traditional young degree students.

Overall, it was a challenging and exciting task to create and test an SLP as a new and innovative educational concept. This was done by international partners working mainly online. The collection of student feedback from pilot courses was therefore essential.

In the development phase of all three modules, we collected student feedback from all modules separately. In the future it will be necessary to collect student feedback on the entire SLP, in other words from those participants who completed all three modules. This will most likely require the creation of a separate set of questions. In addition, the feedback and experiences of the teachers who taught the separate modules would be important to use for the further development of the SLP.

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