

ICT IN TEACHER EDUCATION: EDUCAMPS AND PEER LEARNING

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Abstract

Educamp is an event where participants share possibilities of software tools and network with each other. This method has been used at the University of Iceland (UI) from 2014 to the present in a course on Information Communication Technologies (ICT) for undergraduate teacher students who are earning a B.Ed. degree. They submitted reflections about their contributions and experiences. Most rated the educamp as interesting/fun and felt they had learned much. Participants enjoy and learn from the educamp method to reflect and think about using ICT in education. The method can be recommended as a way to increase ICT competences of teacher students.

Introduction

There is a need to focus on ICT competences in teacher education (European Commission, 2019; Gudmundsdóttir & Hatlevik, 2018). At the University of Iceland – School of Education (UISE), various methods, including educamps, have been used for that purpose with different groups of undergraduate and graduate students as well as practicing teachers for professional development. Educamps have been organized as independent events or as course modules for these groups. In this paper, the focus is on their use in an undergraduate course on ICT in education for teacher students.

Educamps: Definitions and Use

Hale and Bessette (2016) describe an unconference as “a less-structured opportunity for participants to learn and grow by sharing individual expertise in a variety of ways that reflect participant interests, preferences, skill sets, and needs.” Unconferences have been used for many years involving different kinds of participants, and other labels have also been used for such events where educators are the target group. Leal Fonseca (2011) used the term educamp for a face to face (f2f) event focused on ICT and described it as “an unstructured collective learning experience” (p. 60) where participants can share possibilities of software tools and network with each other. The term “edcamp” has also been used by (Carpenter, 2016; Carpenter & Linton, 2018; Carpenter & MacFarlane, 2018) and it is seen as a “typically voluntary, participant-driven unconferences for educators” (Carpenter & MacFarlane, 2018, p. 71). Other labels include “playdate” (Schlesinger, 2017) and “teachmeet” (Turner, 2017). The term “educamp” used by Leal Fonseca is used here because his article provided an inspiration for several educators in Iceland to start organizing educamps in 2012 involving teachers or teacher students. The term educamp was translated into Icelandic as *menntabúðir* and it has now spread and become popular around the country for various groups and even with students at the primary or secondary level. These types of events appear to be working very well as a method in professional development related to ICT in teaching and learning in Iceland (Jakobsdóttir, 2015; Ástvaldsdóttir, in press) and in

other countries (Leal Fonseca, 2011; Carpenter, 2016; Carpenter & Linton, 2018; Carpenter & MacFarlane, 2018). In this paper, I will describe how the method can also be used with positive results in teacher education when participation is not voluntary. Earlier findings have focused on the experience at the University of Iceland 2014-2017 (Jakobsdóttir, 2018) but in this paper I will also include findings from 2018-2019.

Project Description

In this section the educamp module is described, its goals and the preparation phase, the event itself, and the online contributions from the students, as well as their evaluation of the module. In addition, an overview is provided of the participating student cohorts.

The Educamp Module

The educamp module was integrated in a five ECTS (European Credit Transfer and Accumulation System) distance education introduction course on ICT in education. The course description is the following for the current academic year:

What is information and communication technology (ICT) and what could be its effects on education in the future? When did computer use start in Icelandic schools and how has the digital landscape “developed in schools? How does the national curriculum for compulsory schools present ICT as a special subject and across other subjects and how does it link to key competences and fundamental education pillars? Current national and global issues and trends in relation to ICT in teaching and learning will be explored. In addition, key research and theory will be introduced which could be applied when planning students’ learning experiences with ICT. Participants test and evaluate software, digital educational resources, and tools, and link technology and pedagogy to plan activities or projects for students at the compulsory level. The focus is also on the teacher as a professional and on opportunities for professional development about and with ICT and social media linked to teachers’ communities of practice. Emphasis is on a formation of an inquiry-oriented learning community which will focus on the above subjects, sharing ideas and experiences about challenges and opportunities associated with ICT use in education. (University of Iceland, 2018).

The course is mainly taught online (using Moodle) but includes two face-to-face meetings during a 14-week semester in January to April. The module counted as 10% of the final grade (involving 12-15 hours of work). The goals were the following:

- understand the value of peer learning, sharing experience, knowledge and ideas about ICT use in learning and teaching;
- understand the importance of professional development in ICT and opportunities and possibilities to keep up with changes and innovation;
- widen the professional network among fellow students and teachers regarding the use of technology and pedagogy, and
- increase knowledge about the use of ICT and development of associated teaching methods.

Students prepared for a face-to-face educamp event organized during the second campus session (at the end of March) by reading research papers available in the Moodle Learning Management System and watching recordings as introduction to the topics. They could

access resources gathered by earlier cohorts and student groups and lists of useful ICT tools as well as models of ICT use and pedagogy in teaching and learning. In the week before the event, they provided preliminary information about their presentations in a wiki document which facilitated the organization during the educamp event. The wiki provided information about what they were going to introduce and with whom if they wanted to work in pairs or small groups. In 2018 and 2019, the introductions were categorized by subjects (e.g. foreign languages, math) or more generally cross-curriculum and/or ICT. The teacher then made a preliminary schedule one or two days before the event, evenly dividing the listed presentations into three periods. This schedule was online (in Googledocs in 2018 and 2019) and participants could easily make changes to the document before and during the event. Each two-hour event was divided into three main parts.

1. Preparation period (10-15 minutes): Finalizing the schedule.
2. Main part (90 minutes): Peer learning, divided in three periods
3. Wrap-up (10-15 minutes): Discussion of the project and experience

The educamp event started with 10-15 minute preparation period where the schedule was reviewed and changes made when necessary. A few students had changed their minds about what they wanted to introduce. Some had neglected to provide prior information about their introduction, and others needed to change their introduction to a different period. In some years, this period included a brief introduction to additional presentations from university staff members or outsiders that might be invited to the event, for example related to other projects in the course such as coding (see Figure 1). Participants could also ask questions if something was unclear about the procedure.



Figure 1. Educamp 2018. Guests in the preparation phase.

The main part of the event, involving the peer learning, was divided into three half hour periods (1, 2, 3). About 1/3 of the whole group was in a teacher role during each period, with teacher students distributed among numbered tables/stations in the classroom(s). During each period, about two thirds of the group were in a student role and could choose from which peers (or additional visitors) they wanted to learn. They were required to visit at least five stations when in a student role but could choose how long they stayed, whether to visit many fellow students briefly or fewer peers for longer time during each half hour session. Teacher students showed their peers different types of digital learning tools, discussed with, and learned from each other. Figures 2, 3 and 4 display over-the-shoulder peer learning during educamps in 2019.



Figure 2. Educamp 2019. Individual presentation with three peers.



Figure 3. Educamp 2019. Discussing Google Classroom and Kami with peers.



Figure 4. Educamp 2019. Showing Lingohut to several peers.

Finally, the educamp event concluded with a 10 minute wrap-up period with a whole group discussion about the educamp project. The participants expressed their thoughts and experiences and could ask questions about their online contributions.

The days after the educamp event, the teacher students sent information and reflections about their own presentations and experiences. Some of the students in the course were unable to attend the campus session. To complete the module, they were required to send in information and reflections about two digital tools (instead of one that had also been presented during the event). All the presentations were made available as a learning resource (pdf document and/or a wiki) for the students in the Moodle LMS.

In addition, students were required to send in reflections online about five visits to other students during the educamp event. They were also invited to rate the educamp project where they indicated how much or little they had learned and how interesting/fun the project had been. Finally, they could add comments in an open-ended question. Those who had not been able to attend the event wrote about five selected presentations from the learning resource described earlier.

Participants

Most of the course participants were in their second semester (spring) in an undergraduate teacher education program in the course in which the educamp module was embedded in 2014, 2015, 2016, 2018, and 2019. The number of participants each year in the educamps ranged from 36 to 80. The majority of the students registered in the course were women (75-81%).

Table 1

Overview of participants in the educamp module and survey by year

Participants Information		Year				
		2014	2015	2016	2018	2019
Course	Number of students	113	109	96	100	48*
	Female: Male (F:M) ratio	80:20	78:22	77:23	81:19	75:25
	Mean age (age range)	27 (20-58)	30 (20-57)	27 (20-52)	28 (20-61)	32 (21-62)
	Course completion rate	85%	79%	83%	83%	NA*
Survey	N (females, males)	88 (77F, 11M)	72** (60F,10M)	70 (55F,15M)	81** (66F,12M)	34 (28F,6M)
	Survey completion rates total (females, males)***	78% (86%,48%)	66% (71%,42%)	73% (74%,68%)	81% (81%,63%)	71% (77%,50%)

Notes. *In 2019, a new department division was in effect which influenced the number of students registering for the course; the course was not completed when this paper was submitted in April.

**In 2015 two did not identify gender, and three did not in 2018.

***The rate is based on the total number of students originally registered for the courses. Most students completing the course and the educamp module completed the survey.

As can be seen in Table 1, there were considerably fewer students in the ICT course in 2019 than in earlier years. The reason was a new department division, as teacher students preparing to teach in the early years were in a different department.

Results

Table 2 displays participation in the educamp module during the event itself and in terms of contributions about tools/software submitted online after the event. During the event there were 32 to 84 students who presented at 17 to 53 stations. Eight to 25 did so individually, but

others in pairs or smaller groups of 3 to 4. Number of contributions sent in online from students ranged from 38 to 73 about 30 to 66 digital tools, software and/or e-learning materials. Examples of the tools included digital portals in Icelandic, educational games or drill and practice in language learning or Mathematics, digital maps in Geography, social media, question games, flashcards, music making, and tools for multimedia production and online communications.

Table 2

Participation by year

Project part	Participation	2014	2015	2016	2018	2019
The Educamp event	Number of stations/presentations	45	53	36	40	17
	Number of teacher students	71	84	65	72	32
	Number of individual presenters	24	25	15	12	8
	Number of pairs	16	26	13	18	5
	Number of groups with 3-4 members	5	2	8	8	4
Online contributions	Number of contributions sent online	73	72	62	73	38
	Number of tools/software	52	51	49	66	30
	Number of students with online contributions	80	76	57	80	35

The students tended to rate the experience as *very interesting/fun*, with a large majority (73-85%) agreeing. All others said it was *considerably interesting/fun* (Figure 5). Furthermore, a large majority thought they had *learned much* or *very much*. Totals for these two categories ranged from 79 to 89% (Figure 6).

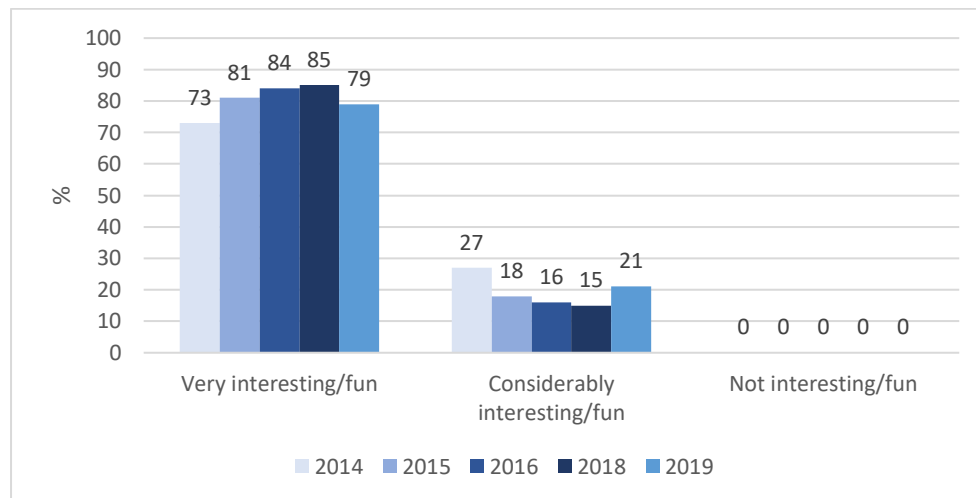


Figure 5. Students' ratings of the educamp event regarding how interesting/fun.

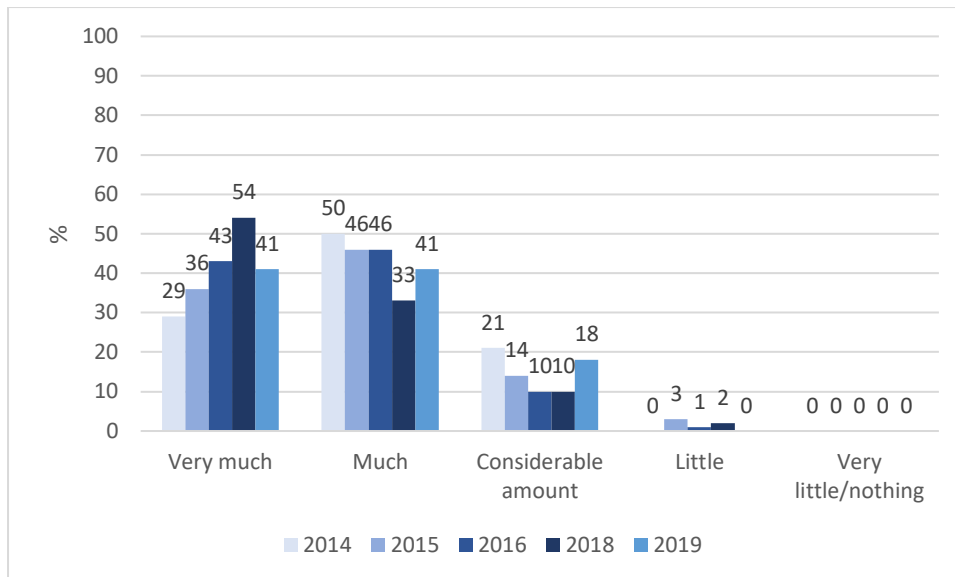


Figure 6. Students' ratings of the Educamp event regarding learning.

Participants were invited to respond to an open-ended question asking for additional thoughts. Many emphasized that they had really enjoyed the event and several said that they had learned something new they felt was useful. Some indicated appreciation for this type of peer learning. Here are some examples of comments from the 2018 cohort (translated by the author).

I think it was a lot of fun and it went well. (Male, early 20's)

I thought it was very fun and many interesting programs one can use in teaching and at home. We are of course here talking about the future and programming for example. (Female, early 40's)

This was very interesting, I learned many new things and it was fun to try this type of teaching, I am happy with this day. I would have liked to participate in more introductions but there was just not time to do that but within each intro they were often introducing more than just one app or website. (Female, early 30's)

The time went incredibly quickly and I would like to get to do this again and get to know even more software that you can apply in teaching. Also I would like to have more courses with educamps where one can get to know various things related to school work (learning materials / teaching methods). (Female, late 30's)

This was a really big surprise for me, was stressed beforehand but my introduction went really well and I learned an incredible amount. I saw there and learned about software and websites I would never have discovered on my own!! Very cool and could be used in more courses. (Female, early 30's)

I thought it was great that we could share informally our experiences about [ICT] implementation in our work. It is good to be able to ask and get an immediate answer. In addition it was good to chat with other teacher students. It would have been good to get more time. (Female, early 40's)

I thought the experience was very good and it was fun to get a chance to teach others something one knows about but others don't. Everyone I met was really happy with my introduction and it made me happy. (Female, early 20's)

...The more communication teachers have and the more they reflect on their work the better chance for them to improve what they think is important... (Male, early 60's)

Generally very interesting and I can imagine that I will be able to apply a lot of what I learned about in my own teaching. (Male, late 20's)

Suggestions for improvement included that it would be better to have the event in just one classroom and better to have it earlier in the day. (The last two years, the event took place on a Friday afternoon from 13:00 to 15:00). Some students have family and time pressures, for example picking young children up from daycare.

In the earlier years (before 2018) there was a tendency (a significant positive correlation) for ratings of the project both regarding enjoyment and learning to improve longitudinally (Jakobsdóttir, 2018), which may have indicated that the organization of the event was getting better. However, the ratings dropped a bit in 2019 both regarding interest and learning (see Figures 5 and 6). This may have been due to the big decrease in the number of students attending the event and therefore less variety in the ICT introduced and fewer opportunities than in earlier years to learn something new. Also, in earlier years the educamp module was introduced in the earlier campus session, which was not the case in 2019. Still, there were predominantly positive responses from the last cohort.

Discussion

The results of this project show that teacher students enjoy learning with peers in educamps, which encourage them to reflect and think about using ICT in education. The method can be recommended as a way to increase ICT competences of teacher education students.

Educamps for teachers around Iceland have become increasingly popular (Ástvaldsdóttir, in press) for professional development as special events or as part of conferences or courses arranged by various associations, municipalities or schools. There is obviously high interest to develop the method further with different groups to facilitate a culture of sharing and inquiry in the teaching profession. Introducing the method to teacher students early in their studies could make them more aware of possibilities to continue learning new skills from their peers in the future as well as to share their own expertise.

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