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# Using a blended approach to enrich MOOCs on Finnish education

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## Abstract

Blended education embraces various combinations of face-to-face and online teaching. It has become a normal part of higher education degree programmes. Since the late 1990s, the Open University of the University of Jyväskylä (JYUOpen) has been offering online and blended education for its rapidly growing number of students. For many years now, Finnish education has ranked high in PISA research. Furthermore, the University of Jyväskylä has been successful in global rankings, especially in the field of education (Shanghai Ranking: 36, QS World University Rankings: 51–100 and Times Higher Education: 67). In order to present the success factors of the Finnish education system, we offered our first MOOC in the autumn semester of 2016 and the blended model of it in the autumn semester of 2017. By utilising our MOOCs and offering face-to-face teaching on campus, we can enhance deeper understanding of different education topics and organise collaboration opportunities for our exchange and degree students. In the autumn semester of 2020, we offered this blended course fully online by utilising synchronous online meetings. In this article, we present student feedback and teacher experiences of our blended model. Based on the preliminary analysis, student feedback on the blended model is constructive and positive. Student feedback has been an essential part of the development of the MOOC courses.

**Keywords:** MOOC, blended learning, online learning, face-to-face teaching, PISA, Finnish education, collaboration

## 1. Introduction

This article describes how massive open online courses (MOOC) can be utilised to enrich education. We used a blended learning model, which featured MOOCs and face-to-face teaching, in order to present the success factors of Finnish Education to our international students.

Our blended Education in Finland course included five MOOCs and three face-to-face meetings. The face-to-face learning activities supported the online studies in a deliberate way, and we used them to clarify the online contents and deepen what was learned online. The Education in Finland course started with an online meeting. We used a large amount of time to activate the students to interact with each other. We also introduced all

five MOOCs to students and made sure that everybody had access to our learning management system (LMS) Moodle. We gave students a preliminary timetable, in which we advise students to study one MOOC in three weeks. In face-to-face meetings, we organised group discussions and different kinds of small tasks based on the MOOCs. The purpose was to make sure that the contents were clear and properly understood. We also deepened the content areas with short presentations. The main purposes of the meetings were interaction and knowledge sharing.

In this article we present our research findings on our blended learning course. We explain how we offered a blended Guide to Finnish Education course, how students reacted on it and what were teachers' as well as students' experiences of it.

### 1.1 From online to blended education and MOOCs

Bates (2016) defines online learning to be “any form of learning conducted partly or wholly over the Internet”. While learning, learners must use a computer, tablet or some other device. They must go online – through the Internet – to be able to obtain information or be able to discuss with a teacher or with other students. The fully online learning means that learners study entirely online and do not come to the campus at all (Bates, 2016). Vandana and Thurman (2019, p. 302) propose three alternative definitions for online learning:

- *learning experienced through the internet/online computers in a synchronous classroom where students interact with instructors and other students and are not dependent on their physical location for participating in this online learning experience.*
- *learning experienced through internet in an asynchronous environment where students engage with instructors and fellow students at a time of their convenience and do not need to be co-present online or in a physical space.*
- *education being delivered in an online environment through the use of the internet for teaching and learning. This includes online learning on the part of the students that is not dependent on their physical or virtual co-location. The teaching content is delivered online and the instructors develop teaching modules that enhance learning and interactivity in the synchronous or asynchronous environment.*

Graham (2006, p. 41) defines the term blended learning to be a learning system that “combine [s] face-to-face instruction with computer mediated instruction”. In his literature review, Vignare (2007, p. 38) says “Blended learning courses integrate online with face-to-face instruction in a planned, pedagogically valuable manner, and do not just combine but trade-off face-to-face with online activity (or vice versa)”. Goeman, Poelmans and Van Rompaey (2018, p. 16) define blended learning to be “learning as a result of a deliberate, integrated combination of online and face-to-face learning activities”. In the same research report they also define blended teaching as “the design and facilitation of blended learning activities” (Goeman et al., 2018). Cronje (2014, p. 114) argues that current definitions of blended learning talk mainly about the blend and ignore the word learning. He suggests a new definition for blended learning: “the appropriate use of a mix of theories, methods and technologies to optimise learning in a given context” (Cronje 2014, p. 120).

*Cambridge Dictionary (2021)* defines the term *MOOC* as a course which is available online and which is planned so that a large amount of people can study it at the same time. The development around MOOCs is ongoing and for that reason it is understandable that researchers continue to discuss a standard definition (Jansen, 2013). Figure 1 illustrates the ongoing discussion. It is not clear what is meant by each letter. For example, the following question should be discussed: how many students does a MOOC need to be massive – 1,000, 50,000, more?

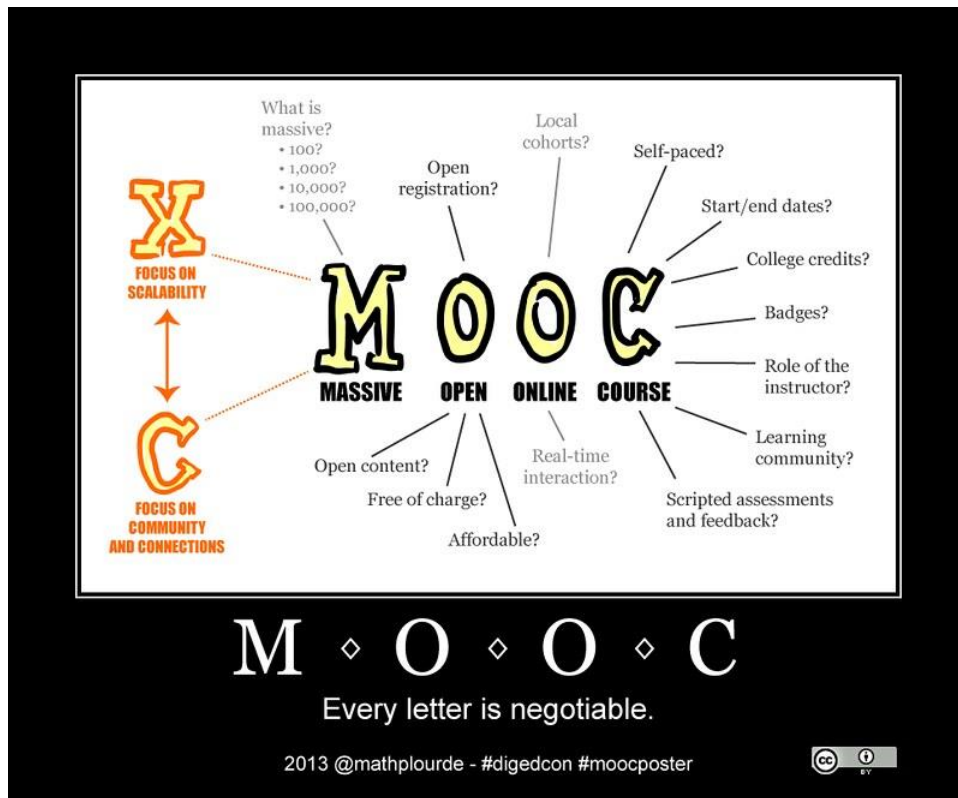


Figure 1: Every letter of the abbreviation of MOOC is negotiable (Plourde, 2013).

Stracke et al. (2019) agree that *MOOC* stands for Massive Open Online Course. But they repeat questions about every letter of the abbreviation. In this article we rely on the following MOOC definition: "MOOCs are courses designed for large numbers of participants, that can be accessed by anyone anywhere as long as they have an internet connection, are open to everyone without entry qualifications, and offer a full/complete course experience online for free" (OpenupEd, 2015).

## 1.2 From the first Finnish-Speaking teacher training college to a high-ranking University

Our five MOOCs on Finnish Education were developed at the University of Jyväskylä. The University of Jyväskylä is a multi-disciplinary university which was established in 1863 as the first Finnish-speaking teacher training seminary. The founding of the seminary was the beginning of teacher training in Finland. Nowadays, the University of Jyväskylä consists of five independent institutes, two subsidiaries and six faculties (JYU Faculties, 2021). The six faculties have over 14,000 students yearly from all over Finland and around the world (JYU Key Figures, 2021). When we include all the adult learners at JYU, the student number is about 45,000 students. In a global comparison of universities, our research activity belongs among the top three percent of higher education institutions and ranks as some of the best in several research areas and disciplines (JYU Facts and Figures, 2021). For example, education ranks 36th in the Shanghai Ranking, 51–100 in the QS World University Rankings and 67th in the Times Higher Education ranking (JYU Key Figures, 2021).

Since the autumn of 2015, the Faculty of Education and Psychology (EDUPSY), the Finnish Institute for Educational Research (FIER) and the Open University of the University of Jyväskylä (JYUOpen) have been located in the same building, Ruusupuisto, at the University of Jyväskylä. After moving into the building, the heads of EDUPSY, JYUOpen and FIER decided to meet regularly, once a month. They discussed current issues and developed new ideas together. Based on the university's success in education, they decided to build MOOCs around the theme of "The Success Factors Behind the Finnish Education". The closeness of the three different units enabled cooperation and made the MOOC development process fluent and productive.

JYUOpen has 19,000 students annually, offering around 50 different subjects and producing 130,000 ECTS credits every year. JYUOpen is Finland's largest open university, with 24% of the open university education in Finland (Annual Report of JYU, 2020). Furthermore, JYUOpen is specialised in adult education and its guidance methods are developed especially for distance learning (Pedagogical Guidelines, 2021).

The Faculty of Education and Psychology (EDUFI) is a research and education unit that includes four separate departments: Education, Teacher Education, Psychology and the Teacher Training School. EDUFI is one of the leading European experts in broad-based teacher education and adult education. Its pedagogical approach is based on student-centred methods and multidisciplinary phenomenon-based teaching and learning (Faculty of Education and Psychology, 2021).

The Finnish Institute for Educational Research (FIER) is a multidisciplinary independent institute within the university which has national tasks and international responsibilities. FIER investigates and assesses Finnish educational system as well as researches the entire educational system of Finland, starting from pre-school and extending to higher education. Furthermore, FIER is in charge of the Programme for International Student Assessment (PISA) studies in Finland (Finnish Institute of Educational Research, 2021).

### **1.3 Two decades of success in the Programme for International Student Assessment**

Since 2000, Finland has ranked high in all PISA tests. PISA is the Organisation for Economic Co-operation and Development's (OECD) international standardised assessment which produces information about education, learning outcomes and informal learning. PISA measures how well 15-year-old students can use their skills in reading, mathematics, and science knowledge to solve real-life problems. Participating OECD countries can follow their success and progress in meeting key learning goals in reading, mathematics, and science (OECD PISA, 2021).

The first PISA assessment was organised in 2000. Since then, the PISA assessment has been organised every three years (Minedu PISA, 2021). More than 90 countries and approximately 3,000,000 students have participated in PISA since it started. The OECD encourages low-achieving countries to research the educational policies and practices of the successful countries. Circumstances are, of course, different around the world, but benefits from different educational policies can be found. The educational models of successful countries can benefit low-achieving countries as they develop their educational systems (OECD PISA FAQ, 2021).

In PISA assessments in 2000–2009, Finnish young people ranked at the top of literacy skills (Väljörvi et al., 2002; Sulkunen, 2012). The Finnish students were particularly good at searching for information. They also understood what they had read and could make interpretations of it. The performance differences among Finnish young people were small when compared internationally (Väljörvi et al., 2002). According to Linnakylä and Sulkunen (2003), the international comparative results of literacy skills showed Finnish basic education has been successful in producing a consistently high level of literacy. However, the literacy skills of Finnish students started to show a decline in the 2009 PISA survey and continued to decline in 2012 (Arffman & Nissinen, 2015). According to the PISA (2018), despite the decline in PISA results, the literacy skills of Finnish young people were among the best in the OECD countries. The number of excellent readers has remained good, but the number of weak readers has increased. Similarly, differences between students have increased. However, Finland is the only country where both literacy and life satisfaction were at a high level (PISA, 2018).

From 2000 to 2009, the mathematics performance of Finnish young people was at a high level among OECD countries (Väljörvi et al., 2002; Kupari, 2012). Väljörvi et al. (2002) emphasised that the equality of Finnish education policy was clearly reflected in the results, as the variance in mathematics performance was smaller than in any other participating country. The share of Finnish students among low-achieving students was small, and the share of well-performing students was also higher than the OECD countries on average. The mathematics skill of Finnish students had decreased since 2009. According to Kupari and Nissinen (2015), the

strongest explanations for students' learning outcomes in mathematics were students' attitudinal factors towards mathematics, the immigrant background of the pupils, the cultural and the socioeconomic background, and attitude towards school. According to PISA (2018), the mathematical skills of Finnish young people were still clearly better than in the OECD countries on average.

Finnish young people were among the best in science in the first PISA assessment in 2000. It was typical for Finnish students that the performance differences among them were small (Väljärvi et al., 2002). The competence has been steadily declining since 2006 (PISA, 2018). However, the results of PISA (2018) showed that the competence in science of Finnish students was still at the top of OECD countries, just as they were in mathematics and reading.

#### **1.4 From inequality to the happiest nation in the world**

The basic idea of the Finnish education system is to provide all citizens equal opportunities to receive education despite age, domicile, sex, mother tongue and financial resources (Reinikainen, 2007). The development of the Finnish education system has occurred over a long period, and it has gone hand in hand with the development of the welfare state (Risku, 2014).

According to Antikainen et al. (2013), in the 16th century, the state began to take responsibility for organising education. The Basic Education Act was enacted in 1866. In Finland, education was regarded to have an essential role in the creation of social justice. Antikainen et al. (2013) mentions that the attitudes towards education were also negative for long time. Some people in the countryside thought that children should not waste their time by sitting in school when they were needed as labour in the fields. School attendance, therefore, was not regular.

Antikainen et al. (2013; see also Risku, 2014) suggests it was not until 1921 that participation in basic education was made compulsory for school-age children. It meant a common four-year basic school for all Finnish children. The basic schools were for the citizens of the whole nation whereas the grammar schools enabled higher education and access to a higher position in society. After Second World War, Finland experienced one of the strongest structural changes in its history. The country changed from an agrarian society to both an industrial society and a service society at the same time (Antikainen et al., 2013). If a person was a talented enough, lived in a city and applied to higher education, climbing the social ladder became possible, despite one's initial social status.

In the 1960s, Finland began to create a uniform nine-year comprehensive school which consisted of six years of primary school and three of lower secondary school (Antikainen et al., 2013; Risku, 2014). With the implementation of the comprehensive school system in early 1970s, the parallel school system was finally discontinued (Risku, 2014). Teacher training was transferred from teacher colleges to universities, and qualified teachers were required to have a master's degree (Risku, 2014). The equal opportunity for all and highly qualified teachers are the factors behind the success of the Finnish education system and the wellbeing and happiness of its citizens.

## 1.5 Aim of the study

The aim of the study was to investigate the students' feedback and experiences as well as teachers' experiences of our blended learning model.

The research questions were the following:

1. What kind of feedback did the students give after completing the blended learning course?
2. What did the students learn when participating in the blended learning course?
3. What kind of experience did the teachers have when teaching the blended learning course?

### Study assignment: Guide to Finnish Education MOOC

In this article, we analysed five MOOCs (Figure 2), each covering one area of Finnish education from pre-primary to upper secondary education. MOOCs are open to anyone interested in education, teaching and educational support services, and they do not require prior studies.



Figure 2. MOOCs on Education in Finland

### 2.1 The five MOOC courses

The MOOC “Early Childhood Education in Finland: What, Where and How?” introduced students to early childhood education and care (ECEC) in Finland. The students learned about the Finnish ECEC system and its main principles and values as well as the various levels of its curriculum. They also learned about the meaning of play in the Finnish ECEC system, the principles of child-centred pedagogy, and the meaning of educational partnership, teamwork and learning environment. During this MOOC, students discovered what kinds of learning environments and with what kinds of pedagogical practices children are actively learning throughout their day at day-care centres.

The MOOC “The Success Story behind Finnish Basic Education” presented knowledge about the operating principles and structures of Finnish schools. In this MOOC, students and teachers of primary and lower secondary education talk about their experiences of Finnish basic education. The MOOC deals with the students’ pedagogical skills and what the 21st century skills in teacher training are. The characteristics of Finnish teacherhood and the fundamental role of teacher education in the Finnish success story are important parts of this MOOC.

The MOOC “Educational Support and Guidance Services in Finland” concentrated on the nature of support, guidance and counselling services in Finland. The course handled the themes of special education, inclusive education, and guidance practices in Finland. The students reflected on and compared the Finnish support system with the services of other educational systems and countries.

The MOOC “Upper Secondary Education” concentrated on explaining the significant turning point in young adults’ lives. This is the first time when adolescents have the opportunity to choose where they would like to continue their studies. Earlier, compulsory school age ended at age 16. However, recent changes in Finnish legislation extended the compulsory school age to 18 years. This means that it is compulsory to enrol in upper secondary education. Students can choose between general upper secondary school or vocational education and training (VET). This MOOC presents these opportunities as equal because in Finland VET professionals are valued and well-paid members of Finnish society.

The MOOC “Educational Leadership” had two main goals: first, the students were expected to create an understanding about educational leadership in Finland, and second, through this understanding, understand the significance of educational leadership in general. Moreover, this MOOC presented the history of Finnish education system: how our education system was created and what affected its development.

The University of Jyväskylä has many international and exchange students. The Faculty of Education and Psychology wanted to utilise MOOCs for these students and for this reason the Open University and the Faculty of Education and Psychology developed a blended learning course called Guide to Finnish Education. This blended learning course included all of the above-mentioned MOOCs and three face-to-face meetings. Our blended learning model included extensive peer-to-peer interaction and some student–teacher interaction. In face-to-face meetings, we wanted to give students the opportunity to discuss and share their thoughts on different MOOC contents.

## **2.2 Methods and data**

The MOOCs were held in the autumn terms of 2019 and 2020. In 2019, 24 students enrolled in a course called Education in Finland and in 2020, there were 11. The course was implemented with the blended learning model. The students studied all five MOOCs and completed the assignments. For the students, there were synchronous meetings three times in the autumn semester – face to face in the autumn of 2019 and via Microsoft Teams in the autumn of 2020.

We collected feedback on three MOOCs in the autumn of 2019 and on four MOOCs in the autumn of 2020. The courses were The Success Story Behind Finnish Basic Education (EDUO102), Educational Support and Guidance Services in Finland (EDUO103), Upper Secondary Education (EDUO1006), and Educational Leadership (EDUO104, only 2020). Students gave both numeric and written feedback. We interviewed two teachers about their experiences of the blended learning model course. The students were also asked to share their thoughts and ideas about what they have learned during the courses. The data consist of the students’ responses to the



feedback surveys (N = 24 in 2019 and N = 11 in 2020), the teachers' interviews (N = 2) and the students' thoughts and ideas (N = 24 in 2019 and N = 11 in 2020).

### **2.3 Data analysis**

The students' responses to the feedback surveys were analysed by calculating the averages. The students also gave written feedback, which was analysed by content analysis. We analysed the answers of all four courses. The students' written feedback was classified into the following main categories: technical issues, course implementation, and course content.

We used content analysis to examine the teachers' interviews. The unit of analysis was an utterance which is a complete unit of speech (Bakhtin, 1987). The utterances were classified into three categories: students' participation and interaction, pedagogical implementation, co-teaching.

We analysed the students' thoughts and ideas using content analysis. The unit of analysis was a written utterance which originates from the thoughts and ideas of the student. In this study, the utterance is a complete unit of written text. We classified the utterances (N = 236) into three main categories: teaching, equality, and collaboration. The main categories were divided into sub-categories as follows: teaching: child and student centred, teaching methods, assessing pedagogy, and autonomy; equality: equal, and free of charge; collaboration: collaboration in early childhood education, collaboration at the school level, and collaboration of educational leaders.

## **Results**

In this study we explored what kind of feedback the students gave on our blended learning course. We also studied teachers' and students' experiences of the Education in Finland MOOCs. The analysis was carried out based on the data.

### **3.1 Student feedback**

We studied the students' feedback from our blended learning course. The students from the blended learning course answered the feedback questionnaire after they had finished each MOOC. Each feedback questionnaire contained a numeric section and an open-ended question.

#### **Numeric feedback**

Students rated, on a scale from 1 to 10 the following areas: how useful students considered the material to be (Figure 3) and what the quality of videos and articles was (Figure 4). In both cases, grades (on average) clearly improved from 2019 (N = 24) to 2020 (N = 11).

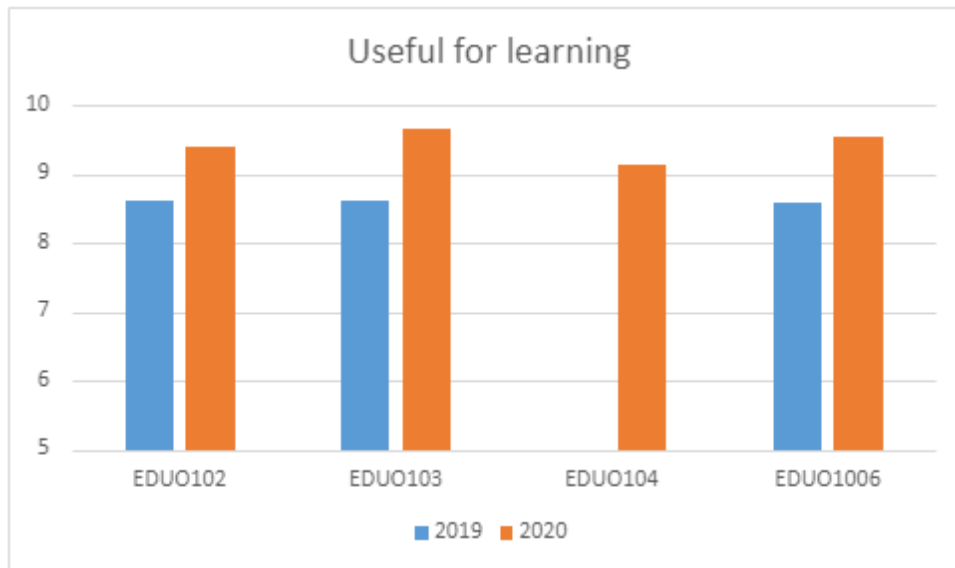


Figure 3. MOOC’s usefulness for learning on scale from 1 to 10 (1 = not useful, 10 = very useful). Data collection for course EDUO104 started in 2020.

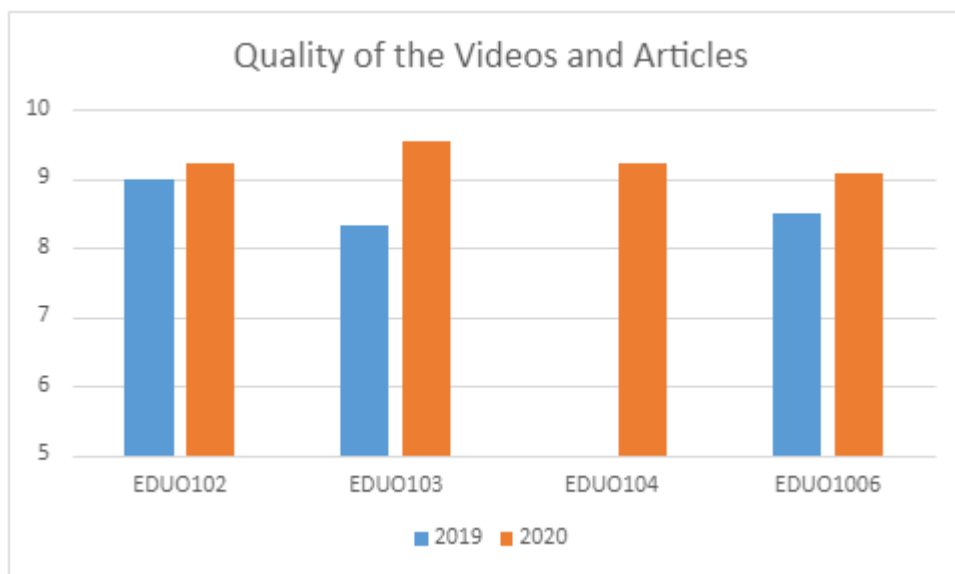


Figure 4: Quality of the Videos and Articles on scale from 1 to 10 (1= not useful, 10 = very useful). Data collection for course EDUO104 started at 2020.

**Open feedback:** “Tell us how to make this course even better”

The courses were considered excellent or good enough. Students liked and enjoyed the content of the courses. Studying was considered easy and interesting due to a range of materials such as articles, videos, podcasts, and quizzes. They also liked the wide variety of presenters. As such, the course was seen to be suitable for students’ different learning styles. Students liked the simplicity and concise approach.

The courses were found to be meaningful and valuable. The contents were explained well, and the interviews of the teachers and students were useful. The history of Finnish education and society was said to be eye-opening and interesting.

However, there were development proposals in many responses, which we analysed in more detail. The development proposals involved the students' ideas for technical improvements, students' feedback on implementation, and course content.

#### *Students' notions on technical improvements*

Feedback on technical issues included mostly comments about videos: charts with text that was too small, too many short videos, one student preferred single, ten-minute videos, some Finnish-speaking videos were distracting even though they were subtitled. There were also comments about spelling mistakes, wrong details in quizzes and broken links. Some students commented on the technical features of the Moodle platform, such as waiting time on quizzes.

#### *Students' feedback on implementation*

Course implementation raised many developing proposals. Many students wished for written materials and PowerPoint slides in addition to the videos. They commented that quizzes were too easy, some wanted more multiple-choice questions, different kind of quizzes and reflective assignments. Some wished for an exam at the end of the course, more information or reading materials, more discussions, shared assignments, and interaction with guest speakers.

#### *Course content*

There were ample comments on the course content. Students wanted more interviews with pupils, examples from the practices of schools, including schedules and student counselling. Some students wanted more information and knowledge concerning the problems and differences between Finnish schools.

### **3.2 Students' learning experiences**

We wanted to explore the students' experiences when learning about education in Finland. Based on the students' responses we identified three main categories which characterise their learning. Next, we introduce our child- and student-centred approach, equal opportunity and collaboration-based pedagogy.

#### **Teaching in Finland is child and student centred**

Students paid attention to the following aspects. Teachers create a good environment for children to learn. Every child has their own individual learning plan made by the teacher and needs for each child can be met. The students were surprised by the child-centred nature of the education and how extensive it was, as can be seen from the following example.

At the school level, the wellbeing of students is the focus of the education. The students participate in all parts of the learning process. Students have agency over which courses they take, how personalised and flexible their education is and the fact that they receive training in career management. The curriculum is flexibly organised and personalised. If a student has a learning disability or learning difficulty, that student will not need to feel helpless, because there is always at least one person helping the student at each level.

In Finland, the teaching method is to learn through play. Especially in ECEC, children learning is based on playing and exploring. In Finnish ECEC, teachers use play to make learning more fun and to have the children interact with each other. Some students were critical of the emphasis on play, especially during the pre-primary period of education. They agreed that play is undoubtedly a crucial aspect of a child's socioemotional development and that it should have a stronger place in ECEC internationally. They mentioned that Finland

should not forget the value of knowledge-based learning. However, it must be emphasised that the focus is learning to learn and develop social and emotional skills for better fitting in the society, not only academic skills. At the school level, teaching is more about conveying competence through joy and play. In addition to that, Finnish teachers prepare their students to participate and contribute to an ever-changing world. The phenomenon-based curriculum, in particular, teaches the underlying principles of how to solve problems and how to be creative and cooperate, rather than just focusing on specific subjects.

### **Assessing the pedagogy**

The Finnish education system focuses on assessing pedagogy not by learning outcomes but through the teachers assessing their relationship with the child. This allows the child to grow in a healthier manner, rather than forcing them to take assessment exams or to measure themselves against their classmates, which can cause undue stress and anxiety. The meaning of assessment is not to assess children's skills or abilities, but to assess the way of teaching and teachers' acting. They know what their responsibilities are, what they should teach, and they feel confident because their professionalism is trusted. They always try to work for the best of students, not to catch up with the curriculum or to achieve high ranks in tests. This allows teachers to focus on only students' learning.

### **Autonomy of teachers and students**

In Finland, both teachers and students have significant autonomy. Teachers must adhere to the local curriculum, but they can teach it in the way they think is best. Teachers have the autonomy to organise the class and lessons depending on the group needs in every case. Students also have autonomy from a very young age, and they can work in an independent way as the main characters of their own learning process. Another especially important point is the open-endedness and freedom of the Finnish education system. One decision does not affect the entirety of one's life, but each person has the freedom to change their career and education paths at any point in their lives. Furthermore, the educational leaders have autonomy as the head of the institution. This point has significant meaning when it comes to the power to lead a team which is following the leader. Autonomy as a leader means decisiveness, responsibility, and the ability to care for other people who follow the leaders. Concretely, the head teacher can give other teachers great autonomy in their work but still support them when they need help.

### **The Finnish education system is equal and free of charge**

The Finnish education system is equal and free of charge. For example, the tuition is free and there are free meals for students. The Finnish education system emphasises on the equality of education by maximising the quality of education throughout the nation to minimise the differences of students. The core curriculum of Finland is really to keep equality in all students and still it gives options to students to choose any field as their career. Free and equal access to education ensures that no student falls through cracks and lets students pick their own learning goals. The Finnish education system has no dead ends. General upper secondary school and vocational school can lead to higher education, even though each has different targets and strategies.

### **Finnish education is based on collaboration**

The Finnish education is based on collaboration. For example, in the Finnish early childhood education, an ECEC teacher, a special education teacher, nurses, and assistants work together as a team. Parents are also closely involved in planning and assessing their child's education. Moreover, Finnish education emphasises teamwork among young children, and focuses on the development of young children's ability to succeed in the future society. At the school level, teachers work together and integrate each other's practices to better teach their pupils. Thus, teaching in Finland is cooperative than competitive. The educational leader should have good communication and leadership skills in order to convey educational ideas to various departments

of the school precisely, coordinating the operation of the school. The head teacher must communicate with teachers, students, their parents, and many professions engaged in the education field.

### **3.3 Teachers' experiences**

The blended Education in Finland course was offered in the autumn of 2019 and 2020. Due to the Covid-19 pandemic, the course was offered fully online in the autumn of 2020. When considering the teachers' experiences, we identified three main categories: students' participation and interaction, pedagogical implementation, and co-teaching.

#### **Students' participation and interaction**

The cultural background of the students affected their participation behaviour. It demanded careful pedagogical planning before the course started. In 2019, it was easier to encourage students to participate and cooperate, because teaching happened in face-to-face settings. We had enough time to use different pedagogical icebreaker exercises, such as pictures and games, in order to group students. In 2020, online meetings lasted only 45 minutes, which prevented us from using any icebreaker exercises. This meant that in online meetings there was less interaction between participants. In the autumn of 2019 all students completed the course, but in the autumn of 2020 some inactive students dropped out.

#### **Pedagogical implementation**

Both courses demanded careful pedagogical planning. In the autumn of 2020, teachers had to rapidly move the blended learning course online. To do so, they created an extra Moodle site for a fully online course. This site included guidelines, PowerPoint presentations, and recordings of synchronous online meetings. In the autumn of 2019, the teachers received several email messages when a student was absent from the face-to-face meeting, which was time-consuming for the course teachers. In the autumn of 2020, teachers created a discussion board where students could ask questions about unclear issues. This decreased the number of emails sent to teachers.

#### **Co-teaching**

Teachers found co-teaching to be a positive experience. They viewed working together as fruitful and joyful, with the different teachers complementing each other's work. When one did not know how to continue, the other one jumped in and continued the teaching. While one teacher was teaching, the other could observe the students' reactions. If it seemed the students did not understand the issue being taught, another teacher could clarify it using concrete examples. In a fully online course, teachers worked together the same way as in face-to-face teaching, but the co-teacher could not read the students' body language, so she could not react to it.

## 2. Conclusions

In this study, we examined students' and teachers' feedback and experiences of a blended learning course. The feedback was positive and constructive. In this blended model of studying MOOCs, the students were interested in the Finnish education system and many of them said they were inspired by it. Some of them thought they could later develop their own countries' education and their own work as a professional in education or other vocational branch. Students obtained new ideas and saw the possibilities of a different kind of educational system. What this feedback shared is the students' eagerness to learn more and gain a deeper understanding of the issue being studied.

The teachers were satisfied with the fully online version, but they would like to develop it further. Teachers found that including face-to-face meetings supported student participation better than synchronous online meetings did. Online, icebreaker exercises are needed to make the interaction more fluent. Based on teacher experiences, this blended learning course needs thorough pedagogical planning. Co-teaching was a wise use of resources because it enabled teachers to concentrate on the students' needs.

We asked students to share their thoughts and ideas about Finnish education. The students were most surprised by the child and student orientation of the Finnish education system as well as the teaching methods based on play and joy. Students mentioned that teaching in their home country remains very teacher led. They also mentioned that in many countries school management is rigidly organised from the top down. Therefore, the great independence of the Finnish teachers aroused surprise and interest. Although students commented that the Finnish education system sounds like some kind of a fairy tale, face-to-face meetings offered a possibility for critical discussion.

One limitation of the study was that we had no available feedback on all of the MOOC courses because we did not collect feedback consistently from the start. Moreover, the number of responding students was small. In the future, we will standardise the feedback questionnaire and use it for every MOOC and in face-to-face meeting.

This study helped us evaluate and develop this blended course. The feedback and students' experiences allowed us to concentrate on essential content as we developed the course further in the autumn of 2019. After changes were made, student satisfaction increased in the autumn of 2020. Students gave us excellent developmental ideas, such as what happens after upper secondary education. At the moment, we are updating all the MOOCs based on student feedback and the latest information. The blended course will be updated accordingly next spring.

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