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Online Degree Programme Network Supporting Flexible Online Education

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Abstract

Digitalisation and changes in society have created the need for developing new ways of learning. Disruptions in education are caused by various unexpected situations, such as the lock-down during the recent pandemic. Also working life is changing and remote work is placing new expectations to higher education, where new study modes are necessary to create even more flexible and continuous learning paths. Students are also interested to study online and utilise the more flexible approaches to learning from the pandemic.

Online degree programmes are Higher Education (HE) study programmes that lead to a degree, and where education and support services are offered online the entire duration of the degree. They differ from blended study programmes where some parts of the studies are offered on campus.

The purpose of this paper is to present the concept of a national online degree programme network that is currently being developed in Finnish HE as part of a ministry-funded project. The project FONE (Flexible Online Education) aims to create a national online degree programme network in Finland that creates the framework and practices for offering flexible education responding to the needs of the working life. The network offers a possibility to achieve wider degree-leading study opportunities in collaboration with HE partners in digital context. Needs and expectations for online degree programmes through qualitative interviews with various stakeholder groups are presented.

The project FONE also aims to support pedagogical development of HE education by creating practices and models for online degree programmes. Online degree programmes as a new mode of study in HE can support the needs of continuous learning as part of future working life. The work is based on four visions for implementing online degree programmes in national collaboration in the future. In addition, future scenarios and examples of using the visions for online degree networks are presented.

Keywords: online degree programmes, networks, higher education

1. Introduction

Digitalisation and changes in society have created the need for developing new ways of learning. Disruptions in education are caused by various unexpected situations, such as the lock-down during the recent pandemic, causing many educational institutions to move their teaching and learning online full-scale (Naidu, 2021). Students wish to have flexible opportunities to combine study and work. Working life is also changing and remote work is placing new expectations to higher education (HE), where new study modes are necessary to create even more flexible and continuous learning paths. Online degree programmes can offer new solutions to future education (Joshi, 2022).

As a flexible possibility, online degree programmes enable achieving a HE degree in a way that is not tied to a physical location. Online degree programmes are HE study programmes that lead to a degree, and where education and support services are offered online the entire duration of the degree. They differ from blended study programmes where some parts of the studies are offered on campus, even though the definitions of online and blended degree programme are sometimes used interchangeably (Joshi et al., 2022). In online degree programmes, online learning is defined as “real-time, interactive, instructional and community-based” (Joshi et al., 2022, p. 10). They are especially attractive as a study option for those students whose life situation makes it difficult to attend classes on campus due to work, family, travel or other personal reasons. Completing a degree online consists of both independent and collaborative study with guidance from teachers and other professionals of the educational institution. It can strengthen the students’ digital skills but also give possibilities for professional development of teachers in both national and international contexts.

The purpose of this paper is to present the concept of national online degree programme network that is currently being developed in Finnish HE as part of a ministry-funded project. The work is based on future visions of online degree programmes developed as part of a previous national ministry-funded project (Joshi et al., 2020) that aimed to create a year-round national online study platform for universities of applied sciences in Finland (Scheinin et al., 2017). The project FONE presented in this paper continues the future foresight work and presents possible scenarios for online degree programmes in the future. In addition, results of the preliminary analysis of the needs and expectations for online degree programmes through qualitative interviews with various stakeholder groups are presented. Online degree programme networks as a field-specific approach are presented. Also, online degree programmes as a new mode of study in HE to support the needs of continuous learning as part of working life is discussed in the context of national collaboration.

1.1 The project FONE

The project FONE (Flexible Online Education) aims to create a national online degree programme network in Finland that creates the framework and practices for offering flexible education to the needs of HE and working life according to the principles of sustainable development and continuous learning. The network offers a possibility to achieve wider degree-leading study opportunities in collaboration with HE partners in a digital context. In addition, it aims to support the pedagogical development of HE education by creating practices and models for online degree programmes.

More specifically, there are three main objectives for the project (TurkuAMK, 2021):

1. To create an online degree programme network and strengthen the national collaboration for offering online degree programmes and conducting research on them in the future.

2. To create guidelines for ways of working and implementing national online degree programme networks together with partners, e.g., development of online pedagogy and supporting the students' engagement and wellbeing with new technologies and innovations.
3. To identify the need and subject areas for new online degree programmes, either already existing or yet unforeseen, that could be offered in national collaboration for both Bachelor and Master level higher education, e.g., to answer the needs of sustainable development and internationalization.

In Finland, there are two different types of higher education institutions (HEI), universities of applied sciences and science universities, which both offer Bachelor and Master level degree programmes. The universities of applied sciences are multidisciplinary HEIs that focus on work-life oriented learning and provide education for professionals for the benefit of the local region, whereas the main task of science universities is to engage in scientific research and provide the highest level of education it in (Ministry of Education and Culture, n.d.). In some parts of Finland, regional university groups have been established to provide education in networks.

The current project partners are five universities of applied sciences in Finland that represent different various geographical locations, size, degree programme offering and expertise in terms of online degree programmes. During the project, other universities of applied sciences and science universities are invited to participate in the national network or utilise the outcomes of the project.

2. Future Visions for Online Degree Programmes

The visions for online degree programmes in the future (Joshi et al. 2022) were created in a previous ministry-funded project where a platform for year-round online studies for flexible and accessible higher education was created in national collaboration amongst all universities of applied sciences in Finland.

The four visions are (Joshi et al., 2022):

1. Freely formed online degree within the network
2. Moving from campus to online degree within the network
3. Creating new online degrees in collaboration in the network
4. Offering existing degrees jointly in collaboration in the network.

The current project FONE continues to work with the visions by focusing on the following new questions that are relevant for the project and national network: What would be the role of the national online degree network in each vision? What are the opportunities and challenges for the national online degree programme network? For each vision, the perceptions found in the project FONE are combined with the original vision work (Joshi et al. 2022, 45-53). The results of this qualitative work are presented below.

In terms of Vision 1 (Figure 1): A Freely formed online degree programme, the project FONE found the following important aspects to be considered for the national network. The student is not dependent on the study option or selection of a specific higher education institution. In contrast, the student can select studies freely from all higher education institutions in the network. When the required number of studies has been completed, the degree is applied for from any higher education institutions in the network. This vision is the wildest and freest of four visions, and its challenges are traditional education structures, operational practices, funding, and legislation. The degree is based on the student's interests and what kind of studies are relevant to them. The network should offer centralized career guidance and support services for students. Artificial intelligence can be used in recommending and selecting studies and compiling the degree parts. It can utilize the open university and open university of applied sciences studies, specialization studies, micro degrees, or other

partial attainments. The network can play a significant role in cooperation with and training competence for working life.

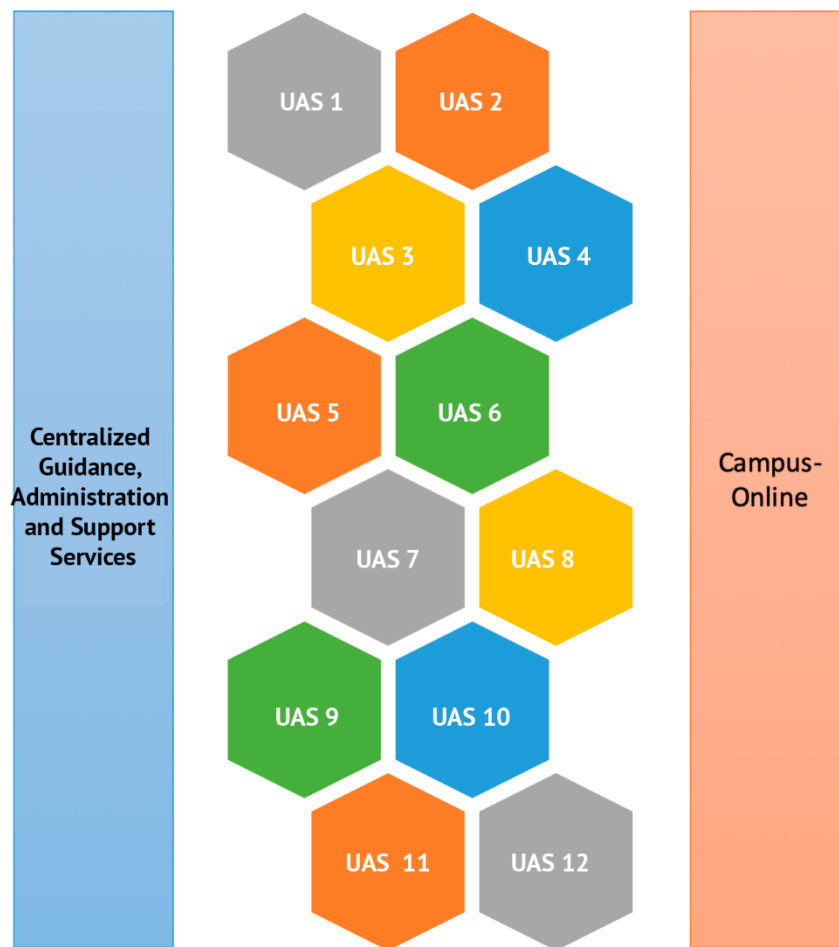


Figure 1. Vision 1: A freely formed online degree programme (Joshi et al. 2022, p. 47)

In terms of Vision 2 (Figure 2): Moving from a traditional degree programme to an online degree programme, the following aspects were determined important in the project FONE. The opportunity for an online degree programme is offered to students completing regular degree programmes. The basic studies of the degree are completed on the campus of the home institution, and the remaining part of the degree is entirely online. Studies can be selected freely from all the higher education institutions in the network. The degree is applied for one's own university. The student gains experience on-campus and online studies and enables moving to working life after basic studies. This vision permits locality and cooperation in the network enabling specialisation and profiling for students, teachers, and higher education institutions. This is especially important for specific fields of study or degrees implemented in only few universities. Trusting each other's expertise and sharing good practices is important.

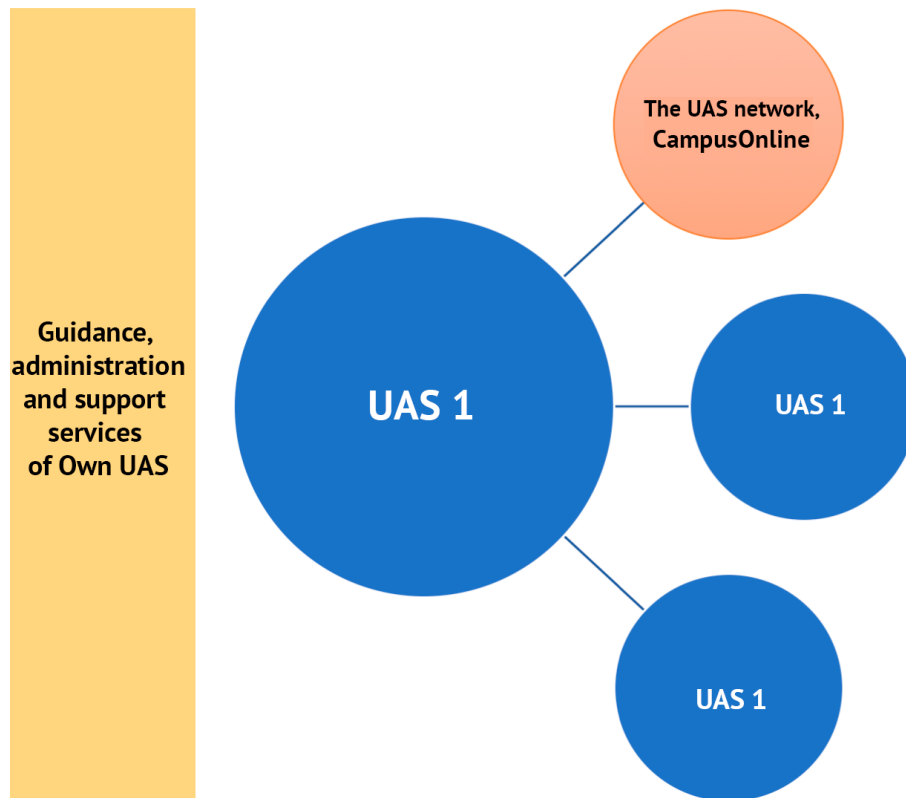


Figure 2. Vision 2: Moving from traditional to an online degree programme (Joshi et al. 2022, p. 49)

In terms of Vision 3 (Figure 3): A new, joint online degree programme, the project FONE found the following key points to be considered. The network, in cooperation, creates a new degree programme and competence-based curriculum. There needs to be forecasting and analysing of the environment to build an up-to-date and attractive degree for the network. It also enables micro degrees or other different types of completion methods. The joint degree programme is implemented by a cooperation network of higher education institutions and other operators like an international or working life partner. Students take studies from the higher education institutions in the network and receive a degree from the network. The network should have centralised administration, students' career guidance and support services. Active cooperation between operators is central, and development responsibility and methods must be agreed upon in the network.

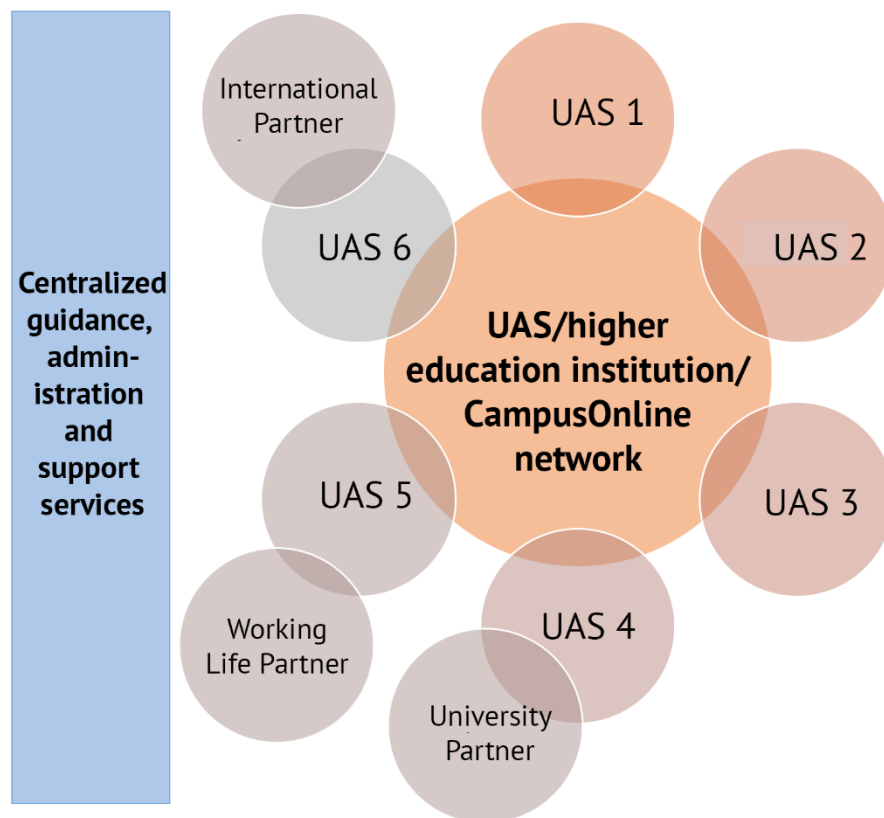


Figure 3. Vision 3: A new, joint online degree programme (Joshi et al. 2022, p.51)

In terms of Vision 4 (Figure 4): An existing, joint degree programme, the project FONE found the following important points. The network consists of universities that already have online degree programme and offer it jointly. The student applies for a degree in their home institution, which is implemented in cooperation with the field-specific or degree-specific network. This vision enables an extensive study offering, and profiles universities and teachers according to their expertise. In addition, contents can be jointly produced and offered. Small entities towards a broader online network degree can be produced, thus increasing resource efficiency. Time and resources for coordination, pedagogical cooperation, and national competence-based curriculum development are required.

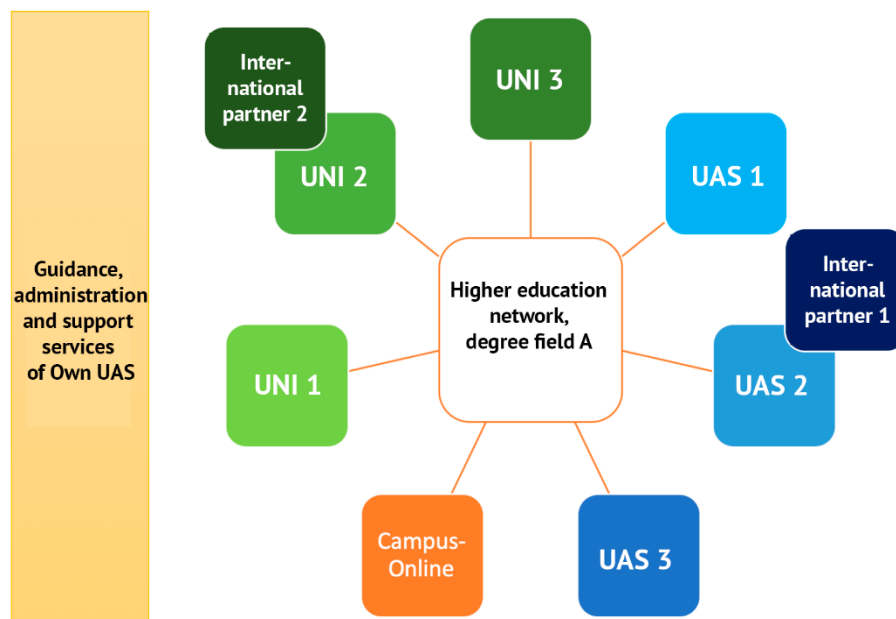


Figure 4. Vision 4: An existing, joint degree programme (Joshi et al. 2022, p.53)

The afore-mentioned visions can be used in many different ways, by applying one vision or a combination of different visions, to create new online degree programmes in HE.

2.1 Using future visions to create a pilot model

In Oulu University of Applied Sciences, two visions were combined to create a unique model to be piloted in nursing education (Mäenpää et al., 2022). This model (Figure 5) would partially combine the visions 2 and 4, where students would create their own individual study plans and get guidance from their own HEI. They complete basic and professional studies from the online degree programme network and study the clinical exercises included in the nursing degree at their own HEI or agree on their accreditation of studies. The student completes practical training and on-the-job learning in accordance with the guidance practices of their own HEI. Theoretical studies and clinical exercises are completed according to the study requirements, and competence is ensured on a competence-based basis. The student completes the thesis in accordance with the degree requirements of their own university of applied sciences. Students apply for a degree from their own university of applied sciences.

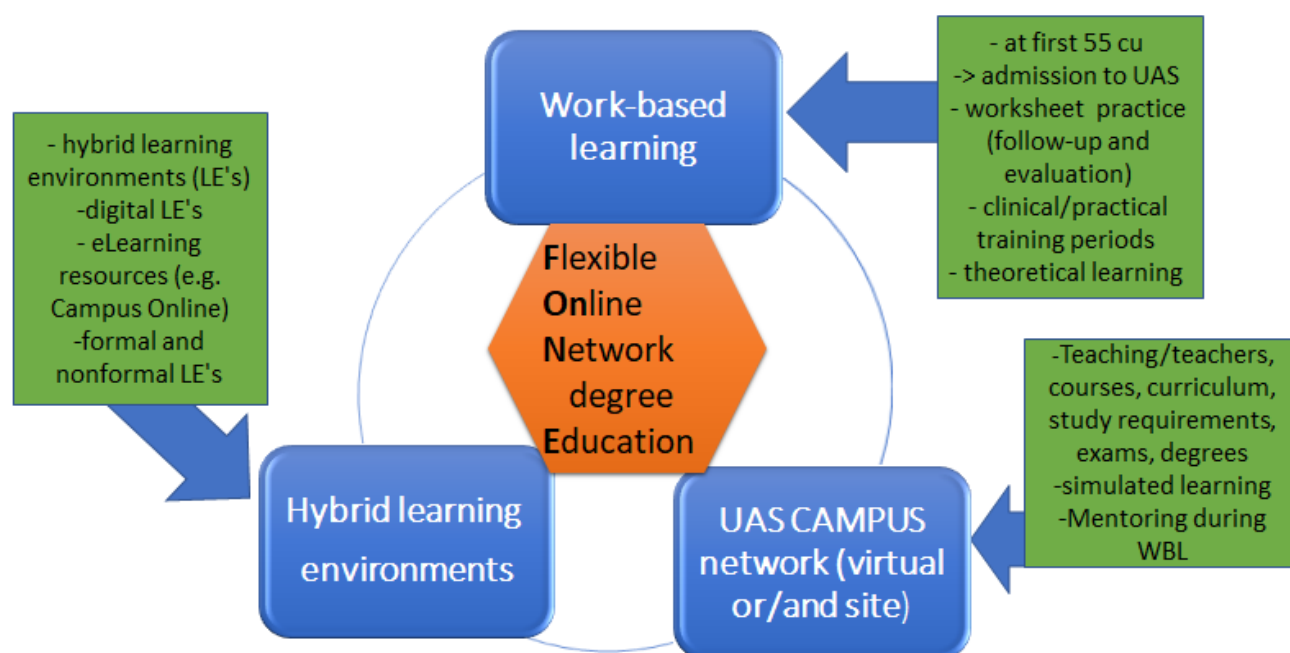


Figure 5. Mixed work-based learning and hybrid learning model in undergraduate nurse education, Oulu University of Applied Sciences (Mäenpää et al., 2022)

Currently, this flexible e-learning model is being developed and piloted in cooperation with the health services of a local city. The pilot model utilises online studies and accreditation of learning. The studies take into account the needs of working life and competence-based approaches, as well as digitalisation.

2.2 Scenarios through future foresight

Through foresight methods of observing weak signals, trends and phenomena, followed by enquiries and discussions with expert groups, different future scenarios can be created. These scenarios can be used to create future competence descriptions for various professional clusters, as well as for curriculum development to develop degrees that answer the future working life needs. The Southwest Finland Foresight Academy is a collaboration network that connects professions and industries for forecasting and foreseeing the regional competence and educational needs (The Southwest Finland Foresight Academy, n.d.)

A workshop by the Foresight Academy was held with the FONE project group to determine what kind of future scenarios could be identified for online degree programmes through these methods. The background variables for the scenarios were: pedagogy, changing working life, development of professional clusters, development of wellbeing society, digitalisation and automatization, AI, digital footprint, population growth, HEI ownership models, availability of teaching staff, and regional development.

Four main scenarios were created as a result of the foresight work: Responsible pedagogy, Regional Business as Usual, Centralised future and Working life oriented HEIs. The results for each are presented below.

In Scenario 1, Responsible pedagogy, the following key aspects were identified. The working life has come to a turning point where digitalisation and technological advancements have created a green transition as a reaction to challenges created by the climate change. In addition, HEIs have a pedagogical leadership that have

pedagogical degrees and competence. Online degree programmes produce graduates that have digital competence, and this has been noted. Digital carbon footprint is measured, and it is influencing the choices in the organisations. Ethical algorithms are a focus of discussion. There is close global collaboration amongst HEIs in co-creating and offering international online degree programmes as well as new joint blended degrees. All degrees can be offered also as an online version. There are efforts to have the entire country inhabited and HE studies can be accessed from any location. The Finnish language still holds its place as the main language. Continuing education as a principle enables the use of education vouchers. Ecosocial civilisation and culture as part of wellbeing are important. External funding is used to benefit degree-leading education.

The following aspects were listed as key elements in Scenario 2, Regional Business as Usual. The regions become more separated and different regions use different solutions. Health and social services reform has an influence on the regional development, and the change is ongoing. Pedagogical leadership varies depending on the region, where some have a rector, others have a team or another leadership solution. Online degree programmes are produced outside of capital area or larger cities. Technology or trade are not affected as business fields. There is a possibility to study online and collect the study credits to gain a degree if there are no suitable degrees on offer in one's own locality. People want to take their online degree in their own local HEI. New HEIs that offer education in different languages are formed. International HEIs set up offices in Finland.

In Scenario 3, Centralised future, the key aspects were the following. Science universities and universities of applied sciences have merged. The total number of HEIs has decreased significantly. One science university leads the pedagogical development, others follow. A digital university produces online degree programmes. The speed of study is a key criterion for selecting the study place. Amazon Edu is a main partner.

In Scenario 4, Working life oriented HEIs, the key aspects identified are as follows. Pedagogy in HEIs is led by a joint team formed by representatives from companies and HEIs. Companies define things, and private HEIs are formed. Economic growth is the basis. Digital inequality defines the society but also enables. Climate issues are not defining actions. Employment rate/employability defines. Continuous learning is done together with the working life of the region. Dividing degree education into micro credentials is a key phenomena. International universities become more common in Finland.

Scenarios can be used to anticipate changes or new directions for online degree programme networks. The project FONE continues to utilise the scenarios in the development of national online degree programme networks.

3. Needs and expectations for cooperation in online degree programmes

A preliminary analysis of the needs and expectations for cooperation in online degree programmes through qualitative themed interviews with various stakeholder groups was held in the project. The aim was to investigate experiences and perceptions of the needs and expectations for online degree programmes network.

The participants were stakeholders from field-specific or multidisciplinary networks between higher education institutions nationally and internationally and business life. The interviewees already had experience with online degrees or online teaching. The method for collecting data was the thematic interview, and the themes were online teaching practices, student guidance, used technology, online degrees, and the operation of the network. The project's actors conducted nine interviews. The results of the interviews were presented and

analysed thematically together in project meetings. The questions regarding the operation of the network and the need and expectations for online degrees are presented below.

Some of the networks are more informal, for example, higher education actors of a previous joint project or those created based on the teaching staff's joint activity. Some are more official networks, organised and managed through cooperation agreements between HEIs. During the pandemic, the course offerings of the networks and the network's meetings were mainly moved online. It increased the need for online teaching, especially the development of field-specific solutions. Regular network meetings and cooperation in the development of digital pedagogy were perceived as important. The networks organised for example, Digi Café events, published blog posts, and tested software and devices. In addition, guides or instructions were created for the teaching staff to help design and implement online learning. The networks also agreed on pedagogical approaches and quality principles.

The networks offer field-specific, multidisciplinary, and generic skills studies for students. There are individual courses, study units, professional specialisation studies and whole degrees. It is possible for teachers or higher education to divide the implementations into smaller sets of responsibilities or the course's responsibilities based on special expertise. Some of the teachers have also done innovative online teaching experiments together where joint project was used for collaboration. In addition, teachers have agreed upon which tools and platforms to use in the network. Unfortunately, there is no certainty that successful implementation will become a permanent practice after the end of the funding of a joint project.

The results indicate a need for both multidisciplinary higher education networks and field-specific networks. Networking is an opportunity to succeed in the future. It is possible to offer entire online degrees, parts of the degree and individual courses in national networks. In addition, micro degrees, MOOCs and specialisation studies were mentioned, especially for the need to create more opportunities for continuous learning and professional development. The interviewees felt that HE curricula and offerings often respond slowly to the competence needs of working life. Field-specific online degree networks should therefore work in close cooperation with working life.

National cooperation in competence-based curriculum development and similar structures in the curriculum facilitates collaboration between higher education institutions. The profiling and specific expertise of the higher education institutions function as an enabler of synergy between the institutions in terms of course offerings and research and development. A joint online degree programme implemented by a cooperation network of higher education institutions and other operations can be useful in new competence areas, such as sustainable development or competence gaps caused by structural changes. Online degree programmes can offer students competence that cannot be achieved by participating in the studies offered by a single university only.

The interviewees experienced that participation in the networks develops the teacher's professional competence, the field of education and the world of work. Building networks and joint course offering take a significant amount of time, as shared operating models, administration, and structures are needed. The joint programme of Finnish higher education institutions, Digvisio2030, was felt to support the networking and the building of joint offerings in the future. Digivision 2030 (n. d.) is a joint programme of all 38 Finnish higher education institutions, and it aims to produce national digital service platform to enable the compatibility of digital services between HEIs, improve the compatibility of actors' information management, digitalise study administration processes, establishes artificial intelligence solutions as a guidance tool and lowers the threshold for utilising national solutions.

According to the interview results, also collaborative methods and collaborative pedagogy are seen as an important part of online degree education (Lundbom & Timonen, 2022). The aspects of collaborative work that seem to raise discussion are related to the definition of collaborative learning, group-based processes organising collaborative entities and evaluating teachers' role in the collaborative process.

3.1 Setting up field-specific national networks

One example of a field-specific online degree programme network that has started during the project FONE is social services. The network is called eSosionomi (Bachelor of Social Services Online). The work started with the FONE project's aim to create national networks for online programmes, and the idea for a subject-specific network was approved in the Finnish National University Network for Social Work. An invitation was sent to all universities of applied sciences who provide degree education for social service to take part in the network. In total, seven universities of applied sciences expressed interest. A questionnaire was sent to the interested parties about the project FONE aims and key themes. The first meeting of the network was held at the end of 2021, with the aim to decide on the aims of the collaboration, to discuss the benchmarking results and to agree on a joint workshop.

The specific aims of the new network are:

1. To create a social services online degree programme network
2. To develop online pedagogy and ways of working for social services field, focusing on working life connections, with the aim to create more current and flexible degree education
3. To involve students of social services field in developing wellbeing and utilising new technologies in digital learning environments.

The first student project set by the new subject-specific network started in the spring of 2022. The student project focuses on student wellbeing in online degree programmes by bringing in the view of the online degree programme students. The main research question focuses on how the digital environment and teaching supports the wellbeing and engagement of the online degree programme students. The preliminary findings show that online degree programme students seem to have similar needs to campus-based students in terms of wellbeing. They seem to find the support of other students and student tutors (older students) very important. The students expressed several ideas for developing wellbeing and collaboration. Some students seem to have a need for meeting in physical premises and face-to-face, whereas others were fully satisfied with online only. Based on the results, comparative research on the effects of different implementations online on student wellbeing are needed.

Another example of the beginning of a field-specific online degree programme network is found in music education, where there is a need and desire to do national and international cooperation (Korhonen, 2022). Collaborative projects, such as MUSE and New Time Music 2.0, have promoted the ideas of sharing responsibilities in the area of expertise, multidisciplinary arts projects, flexible study paths for students, and a view of a new kind of music profession. In Finland, music education units are small, and cooperation in the network is seen as an opportunity.

Work to develop international networks is also ongoing. A good example of these are the European University alliances, e.g., Regional University Network (RUN-EU) and Ulysseus European University. These networks develop joint study offers and degrees or double degrees and promote research activities.

4. Conclusions

Changes in the world outside the walls of higher education institutions, combined with the experiences of remote learning during pandemic, promote the development of new flexible study models. Cooperation between higher education institutions has increased in recent years, and regional, field-specific, national or international networks offer more online study opportunities for degree students and continuous learners in Finland. The results of the interviews show that the networks offer mainly smaller entities and courses online, but in the future there seems to be an interest in offering complete online degrees or larger study units in cooperation.

Participation in the national Digivisio2030 (n.d.) network was seen very important, as it develops the teacher's professional competence, the field of education and the world of work. The aims of these two projects coincide and support each other, and the project FONE collaborates with Digivisio2030 to reach these aims. As an example, the project FONE is creating a webinar series in collaboration with Digivisio 2030 to share good practices for setting up new online degree programme networks and engage participants to develop online degree collaboration.

During the project, other universities of applied sciences and science universities are invited to participate in the national network or utilise the outcomes of the project. In addition, HE actors nationally and internationally are invited to join the ongoing discussion about developing online degree programmes in HE.

National collaboration in offering online degree programmes can enable joint development of online pedagogy and curricula, create new possibilities for specialisation paths, bring new resource-efficient solutions, and enhance internationalisation through shared platforms and the use of new technologies. For students, national collaboration offers flexible study opportunities with wider course selection and engagement to study in a programme designed to support the competences for the future career and society.

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