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Using Digital, Universal, and Intercultural Didactics to Improve Higher Education—A Project Protocol for a Norwegian Interactive and Collaborative Improvement Study Concerning Master's Level Courses in "Theory of Science, Research Methods, and Research Ethics"

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Digitalization in higher education is rapidly increasing and there is a need for an increased focus on digital didactics. At the same time, there is a crucial need to focus on inclusivity in higher education to ensure equal possibilities for students to attend and complete successful higher education. The objective of this manuscript is to describe the protocol for the project: Digital, universal, and intercultural didactics in a master course "Theory of science, research methods and research ethics." The project is interactive and collaborative and uses improvement tools to test innovations to enhance digital, universal, and intercultural didactics. The follow-up research on the project's process and outcomes will be performed with document analysis. The intention of the project is to learn through collaborative reflections and dialog and to test digital and universal design innovations for promoting intercultural and democratic competences in higher education. When optimizing a course from the three perspectives of digital, universal, and intercultural didactics, there may be conflicting perspectives or priorities that need to be resolved. Therefore, the findings from this project may provide important learning outcomes which can be of use for future pedagogical projects intending to improve digital, universal, and intercultural didactics.

Keywords: digital, improvement theory, intercultural didactics, universalization in higher education, pedagogics in higher education

INTRODUCTION

Any higher educational institution strives to offer high-quality courses and meet various expectations and changing needs from students and society. As part of the general quality work of our institution, academic and administrative staff regularly follow up courses with course evaluations and discuss their validity with students. The courses are also regularly evaluated by external examiners. However, when making major changes in courses and ensuring that those changes are not merely changes but lead to real improvement, more didactic reflection is essential. The objective of this paper is to describe the protocol for the ongoing project: Digital, universal, and intercultural didactics (DUoID) which seeks to improve the content and teaching of a specific course at master level: “Theory of science, research methods, and research ethics.” This course is an obligatory and key teaching module ahead of the master thesis. The aim of the course is for the students to learn about what can be considered valid and reliable knowledge in research, and the course provides key methodological considerations anchoring knowledge into contradictory and supplementary traditions of sciences and methodological approaches which may be used by the students later in their master theses. In DUoID, there is collaboration between two master’s programs, where one program focuses on citizenship and collaboration and the other on intercultural work. The teachers in the programs thus have competence in universal design and intercultural work, which can be useful for the project and for competence-sharing between the programs. Research competence for students is essential (Helgøy et al., 2021), which motivates the choice of the course “Theory of science, research methods, and research ethics” for this project. One of the programs is primarily taught online (one campus-based seminar per course) and the other program is taught through blended learning, including both online and campus-based teaching. The previous courses in the master’s programs took different approaches to the format of teaching, ranging from campus-based teaching to an asynchronous and text-based approach with brief instructor videos, to narrated PowerPoint slides. The previous layout of the courses is one of the reasons for different levels of competence and experience in digital teaching among teachers. Therefore, it was an advantage to collaborate also concerning digital didactics for teachers in the two involved master programs. The intention of the project is to learn through collaborative reflections and dialog with stakeholders involved in reference groups while testing digital and universal design innovations and discussing how to improve the content of intercultural teaching practices.

Thus, the researchers also aim to analyze and improve intercultural didactics within the course of “Theory of Science, research methods, and research ethics.” Intercultural didactics has not been extensively researched (Bucharadt and Fabrin, 2019). In the research project, the reference framework of competences for democratic culture (RFCDC) developed by the Council of Europe (2018a,b,c) will be used as an approach for promoting intercultural didactics. The Council of Europe developed research-based descriptors and concrete guidelines

for the implementation of intercultural competences in higher education which also we believe are beneficial in our efforts for concretizing intercultural didactics in our project (Council of Europe, 2018b,c). All Norwegian universities are obliged to work with quality improvement of higher education (NOKUT-The Norwegian Agency for Quality Assurance in Education, 2003), and regular evaluations of courses are part of the university quality systems and processes for quality improvement and course/program adjustments. The DUoID project will use quality improvement tools in addition to follow-up research on the project process and outcomes.

Digitalizing Higher Education

Traditional didactics in higher education is challenged by the accessibility of educational content online (Ossiannilsson, 2019). Digital didactics is not only concerning the practical use of digital tools in teaching but also understanding how the digital format can be a barrier or a promotor for learning. The development of digitalization in higher education increased rapidly during the COVID-19 pandemic and led to new experiences of digital teaching. For many teachers and students, this global event represented a drastic change from physical teaching to online education, and it seems that limited available time and resources reduced opportunities to ensure the quality of online material and didactics in the process. This affected the overall quality of teaching, social networks, and achievement of learning outcomes for Norwegian students in higher education (UNIT, 2021). Despite the rapid change, there have also been positive experiences of increased digital teaching, such as less traveling time for students, and better access to courses online compared to physical access for some student groups. However, there have also been other negative experiences of digital teaching, such as losing contact with peers, technical problems, and insufficient digital literacy (Erlam et al., 2021). Many students today have grown up using digital devices and these devices have become essential not only in formal learning but also in leisure time and work (Ossiannilsson, 2019). However, the diverse level of digital experience among students and teachers should be addressed more thoroughly to improve digital didactics in higher education (Ugur, 2020). Digital literacy also needs to be strengthened for both groups in Norway (Innovativ utdanning og fremragende forskning. Digitaliseringsstrategi for universitets- og høyskolesektoren (2021-2025), 2021). By better combining digitalization, learning spaces, and pedagogical practices, the empowerment of students both as learners and citizens is enhanced (Ossiannilsson, 2019). As such, raising the competency of digital skills both for students and teachers requires to research concrete didactic choices and the use of innovations in teaching practices (Ugur, 2020).

It is essential to understand the principles and activities that facilitate learning in a digital setting (Ossiannilsson, 2019). At the private university where the project takes place, an evaluation of didactic digitalization has been performed and an action plan in accordance with the results was developed. More specifically, there was criticism regarding the teachers’ insufficient time to learn new digital tools for teaching, together with insufficient learning support and incentives for teachers wanting to improve

their digital teaching skills in addition to traditional teaching. Digital access is a challenge demanding support and education of teachers concerning universal design and the inclusion of all (Chen et al., 2018). This leads to our next issue, improving universal didactics.

Inclusive Universal Didactics

Universal didactics must be related to universal usability which is defined by Vanderheiden and Tobias (2000) as “a focus on designing products so that they are usable by the widest range of people operating at the widest range of situations as is commercially practical.” The main principles of universal didactics are to provide multiple means for engagement and representation, together with action and expression (Hägglom, 2020). Key recommendations are to start educational development projects with inclusion and full access, as the learning spaces are created and used by people (Ossiannilsson, 2019). Teachers in higher education need to ensure that the teaching is inclusive and meet students’ diverse needs, including those of minority students and students with special needs. Universities thus must be self-critical and actively work to ensure the use of universal didactics to increase the ability of students with special needs to complete their education (Perera-Rodríguez and Moriña Díez, 2019).

Changing in teaching practices to more digitalized learning contexts may challenge previous power positions of students. Often, the teacher’s competence is based on individual teaching experiences from interactions with single students, more than a systematic approach based on inclusive teaching practice in higher education (Svendby, 2020). As such, academic staff need training in dealing concretely with diversity and reflecting on inclusive teaching practices in order to improve access for all in higher education from the very start of their career (Svendby, 2020). In addition, they also need to develop their skills by continuously updating their competency when using the latest available useful digital solutions in order to promote better inclusion for all. In this project our intention is to go beyond particular teaching situations, where the student brings to the fore her particular needs, to a collaborative didactic reflection where several teachers, students, and stakeholders seek to find more systematic didactic strategies of inclusion in digital teaching. To ensure enhanced learning outcomes, researchers and educators need to focus on measuring the learning outcomes for universal design for learning on both primary and secondary beneficiaries (Edyburn, 2021). Primary beneficiaries could be students with learning and/or emotional/behavioral disabilities, but also students with mild learning disabilities such as those with below grade level reading skills, or students with minority backgrounds; all experiencing different challenges in pursuing education. Secondary beneficiaries would be all students in the class (Edyburn, 2021). Used interventions and learning devices beneficial to most of the students in a class or classroom, can be seen as universal learning applications (Edyburn, 2021). While a solution is used only by the primary beneficiaries, it should probably be considered assistive technology. Digitization in higher education thus puts demands on teachers’ knowledge of digital tools, but also about how those tools should be used to

ensure universal didactics and design in higher education and to promote learning for both primary and secondary beneficiaries.

Creating inclusive universal didactics is a key feature of this project. Our aim is to enhance the potential for all students to gain from universal solutions, and to reduce the focus on individual needs of students by providing better solutions for the whole group of students instead. Improving universal didactics needs a systematic approach to be sustainable. The shift from being based on the individual teacher’s competence to a shared competence in universal didactics among staff is also crucial for creating sustainable changes in didactics at the institutional level, and the course will be one example of doing so. Universal didactics is inclusive, but there may be conflicting interests among needs from students, where it would be useful to experience having alternatives in teaching to meet diverse needs. By building in pedagogical choices for all students, teachers can elevate students’ learning experiences. Through the three principles of engagement, representation, and expression (Hägglom, 2020) and by focusing on multiple and flexible approaches and digital tools, the teachers can provide diverse options for learning. More specifically, how students may take up information (usually referred to as representation), how they practice the new content (engagement), and how students present what they know (expression) (King-Sears, 2014). Working on better strategies for representation, engagement, and expression in inclusive universal didactics can be a key factor for empowering students with special needs (Svendby, 2020). In multicultural classes, inclusive universal didactics also must encompass an intercultural reflection where empowerment for minority students with diverse backgrounds is promoted (Brossard Børhaug and Harnes, 2020). Inclusion is defined as real opportunities for experiencing community, meaningful participation, and belonging; it is based on individual differences and valuable contributions of each citizen to the learning community (Brossard Børhaug and Reindal, 2016). It thus requires the promotion of intercultural didactics in higher educational settings.

Intercultural Didactics

Intercultural didactics is under-researched (Buchardt and Fabrin, 2019), whereas there is more focus on intercultural/multicultural education in research publications (Banks, 2009; Skinstad van der Kooij, 2014; Brossard Børhaug and Reindal, 2016). We argue that working on intercultural didactics is crucial in teaching practices as it may help to draw better attention to what promotes epistemic equality in class and further in the multicultural society. Based on the reference work of Fricker and her concept of epistemic injustice (Fricker, 2007, 2015), the project seeks to discuss with students how the course can provide a critical intercultural reflection about cases where the capacity of those with knowledge is wronged, and it aims to encourage the students to reflect on how to develop alternative justice-oriented counterstrategies directed toward social transformation in multicultural societies (Gorski and Dalton, 2020). These strategies require a thorough reflection about knowledge, values, attitudes, and skills, and how to promote better inclusion for all. The two master studies where

the particular course is taught are directly connected to the students' various multicultural work practices. Therefore, many questions about unfair practices in students' own working contexts are raised during the course and these represent a crucial opportunity to reflect on knowledge and epistemic giving (Harlap and Riese, 2021). To promote knowledge, values, skills, and attitudes, which support the development of a democratic culture, the RFCDC is a key element (Council of Europe, 2018a,b,c). By developing the content of intercultural competences through specific knowledge, values, skills, and attitudes, the Council of Europe offers a valuable opportunity to concretize intercultural didactics. More specifically, it developed a model of intercultural competences (Council of Europe, 2018a), descriptors for intercultural competences (Council of Europe, 2018b), and guidance for implementation (Council of Europe, 2018c) which are extremely relevant in order to assess the quality of epistemic giving in the two courses. Furthermore, the framework has also been adapted to higher education (Council of Europe, 2020). Thus, the RFCDC framework lays a solid intercultural basis for discussing critically epistemic injustice where individuals or groups are delegitimized as knowledge givers in the wider society. Epistemic injustice is also important to address in higher educational settings as it profoundly destabilizes the belongingness of members in academia (students, administrative staff, and academic staff) (Harlap and Riese, 2021).

Intercultural didactics in this project thus implies an explicit focus on pedagogical practices that include critical questions often referred to as “the five Ws” – “why, what, when, who, where,” and how (Bucharadt and Fabrin, 2019). These questions are also crucial in the promotion of intercultural competences. As such, intercultural didactics can be seen as a transformative pedagogy where the traditional focus on “the cultural other” is expanded to the development of democratic and critical teaching with a reiterative critical spotlight on “us”/majority privileges (Banks, 2009; Brossard Børhaug and Harnes, 2018, 2020; Gorski and Dalton, 2020). By implementing the concept of epistemic giving [epistemic (in)justice developed by Fricker (2007, 2015), the critical reflection (Gorski and Dalton, 2020) and the RFCDC framework (Council of Europe, 2018a,b,c; Barrett, 2020)], we add a further layer to inclusive digital and universal didactics in higher education for promoting a culture of democracy. Even if the project seeks to concretize intercultural didactics in the specific course of “Theory of science, research methods and research ethics” we hope that this project can also be a possible contribution toward further defining intercultural didactics as a field of research.

Internationalization

Strengthening of internationalization in higher education was challenging during the COVID-19 pandemic, but it also encouraged innovative approaches to virtual mobility and digital internationalization. Thus, new ways of digital internationalization are important future components in higher education [Innovativ utdanning og fremragende forskning. Digitaliseringsstrategi for universitets-og høyskolesektoren (2021-2025), 2021]. The inclusion of virtual internationalization

in this project is to provide a greater variety of perspectives and enhance intercultural competence. Facilitating students' international participation without the need for travel and the additional expenses that accompany a period abroad promotes equality in higher education, as students' socioeconomical status does not affect their ability to take part in virtual internationalization activities in the same way as traditional international exchange activities. Virtual internationalization is a concept used in previous courses in the included master programs, and it will be tested further in the project. Virtual internationalization is described as enabling academic development between universities through facilitation of internationalization at home, and internationalization of the curriculum and internationalization can be used as a tool for academic development where a range of approaches to virtual internationalization can be applied (Tjulin et al., 2021). Research within the area of internationalization in higher education emphasizes the need to promote intercultural critical competencies for students and stimulate global knowledge exchange regarding different subjects (Stier, 2003; Morong and DesBiens, 2016; Gorski and Dalton, 2020).

Sustainability and Higher Education

Higher education institutions have a shared responsibility to work toward sustainability (Ferguson and Roofe, 2020). In the UN's Sustainable Development Goals (SDG), SDG4 has a specific focus on inclusive, equitable, quality, and lifelong education (United Nations, 2015) and the three key areas in the project (digital, universal, and intercultural didactics) are related to this focus. Target 4.3 is particularly relevant to the project as it refers to equality of access to education, including higher education (United Nations, 2015). Target 4.3 states that “By 2030, ensure equal access for all women and men to affordable and quality technical, vocational and tertiary education, including university.” Through digitalization of the courses, together with universal and intercultural didactics the accessibility of the courses is intended to increase and thereby assist in reducing barriers to higher education. Equally, the project will work to promote other targets under SDG 4, such as the elimination of gender disparities in education and equality of access for persons with disabilities and for vulnerable and indigenous groups (target 4.5), along with the promotion of cultural diversity and global citizenship (target 4.7). Target 4.5 states that “By 2030, eliminate gender disparities in education and ensure equal access to all levels of education and vocational training for the vulnerable, including persons with disabilities, indigenous people and children in vulnerable situations” and target 4.7 states that “By 2030, ensure that all learners acquire the knowledge and skills needed to promote sustainable development, including, among others, through education for sustainable development and sustainable lifestyles, human rights, gender equality, promotion of a culture of peace and non-violence, global citizenship and appreciation of cultural diversity and of culture's contribution to sustainable development” (United Nations, 2015). The higher education sector has the potential to teach knowledge, skills, attitudes, and values associated with SDG 4 through inclusive lenses, and must therefore develop policies to ensure inclusivity

in higher education (Ferguson and Roofe, 2020). Through taking part and fulfilling higher education and widening their knowledge base, people will strengthen their ability to demonstrate agency and active citizenship (Boje, 2017).

Another way to reach the sustainable development goals is through continuous improvement work in different contexts, including higher education, where collaboration in interventions can be tested in practice. Changes have a better potential of success if they are brought forward together in the organization, with staff and students, as the changes then better meet the needs of those involved. To effectively and successfully attain SDG 4 outcomes, collaborative partnerships are needed between individuals within and outside higher education, within and across disciplines, and within and across countries (Ferguson and Roofe, 2020). Collaborative processes and working together with the reference groups are important parts of the DUoID-project. Dialogic processes and collaboration, which enable shifts in thinking are essential according to research on effective co-production (Knowles et al., 2021). From a practical standpoint of project management, the project also aims for sustainability as the project is planned to have all meetings and material online, thereby reducing traveling and printing, and increasing accessibility. However, despite its benefits for sustainability, the internet use also has an environmental impact (Hurst, 2014). Collaboration with stakeholders (students, teachers, representatives from organizations in health and welfare) throughout the entire project can increase the effectivity of the changes in the project and meet the expectations of the project (Ossiannilsson, 2019), which is another reason related to sustainability and effective use of resources for why the reference groups are ongoing during all the phases of the project.

In addition to overarching digital strategies at university level, there is also a need to ensure digitalization of high quality in programs and courses. The plan is that digitalization in the courses will be used together with the flipped classroom, an approach with positive learning outcomes, for example, by using online discussions, quizzes, and group activities (Maristuen, 2020). Those activities need to be designed to incorporate universal and intercultural didactics in this project.

AIM

The objective of this paper is to describe the protocol for the project: Digital, universal, and intercultural didactics in a master course “Scientific theory, research methods, and research ethics.” The intention of the project is to learn through collaborative reflections and dialog, test digital, universal, and intercultural didactic innovations in a collaborative improvement project in higher education.

METHODS AND ANALYSIS

This is an improvement project with follow-up research and the manuscript is structured according to protocol paper presentation recommendations (Cameli et al., 2018).

Project Setting

This project takes place at one of the largest private higher education institutions in Norway with approximately 500 employees and more than 5,000 students in the fields of health and social sciences, educational science, leadership, diaconia, and theology. The university has approximately 50 study programs from bachelor to Ph.D. level, which are run at the university's five campuses. The project is conducted at two campuses in south-west Norway from August 2021 to June 2024. This project focuses on master's level courses in scientific theory, research methods, and research ethics in two different master programs: a master's program in intercultural work and a master's program in citizenship and cooperation. The master's programs are currently at two different campuses but will be at the same campus from autumn 2022. Both included master programs have a compulsory course of 15 ECTS “Theory of science, research methods, and research ethics.” The project is conducted in these compulsory courses, but there will also be a spreading of new didactic practices to other courses in the master program through teacher collaboration within the master programs.

Many of the students on the included master programs, especially those who have been absent from the academic context for some time, describe the course on scientific theory, research methods, and research ethics as especially challenging both in terms of content and concerning digital resources. In the digital context, the students state there is a lack of arenas for interaction with other students or with teachers, which can make the learning process a lonesome one and less active than if engaged in a physical learning context.

The action plan for the university where the project is situated shows the intention of the university to enable all students to have the best possible opportunities to study at the university, by using a universal design and trying to find special solutions when needed. The action plan covers physical access, information, and pedagogical access. Elements of universal didactics are also incorporated in the university's pedagogical access action plan, where one of the actions is to increase the staff's competence in universal didactics and ensure accessibility to information concerning courses and exams. Part of the pedagogical access plan is also to increase digital teaching and digital learning resources.

Participants

Students participating in the involved courses will be informed that the courses will be part of the improvement project DUoID. Approximately 20–35 students will participate per course in the respective programs each year. As the courses are part of the master program that the students are attending, there will be no reward for the students for studying the courses. However, students participating in the reference groups will receive pay for their time being at reference meetings and connected pre- and after work to the reference meetings. Data collection through online course evaluations from students would have been collected even if the project had not taken place. The data will be presented on group

level from the student administration, and it will not be possible for the research group to trace it back to any individual student.

Recruitment of students for the reference groups will be done through advertisements on the master programs' learning platform, where interested students can send their contact details to the program leader. Broad participation with regards to age, culture, gender, and professional background is intended. Involving students in the development of courses provides an opportunity to include the students' perspective, strengthen the students' participation, and develop the students' knowledge of learning strategies and learning progress (Bovill et al., 2009; Martens et al., 2019), as well as to enable expectations to be met, and innovations to be realized with maintained or better educational quality (Mathiasen, 2020). In addition, collaboration with students in course development increases student engagement, provides a better student experience, and increases the efficiency of learning activities (Martens et al., 2019).

Recruitment of participants for the professional reference group was done during the planning of the project, and the participants have been informed of the objectives of the project. This group was also intended to be diverse, with a broad range of participants.

Interventions

The project has three intervention areas: competence development of the teachers in the included master programs and the courses in "Theory of science, research methods, and research ethics" in the two master programs which the project targets. The courses in the project will be taught three times in each master program, providing an opportunity to create not only an improved course but also a learning environment for the development of courses in higher education by the collaborative process of the project. The time plan for the activities in the project is shown in **Table 1**.

The planning and designing of activities to test will be co-created together with the reference groups. The intention is that there will be activities focusing on universal design (as for example ensuring the universal design of all online material), focusing on intercultural didactical practices (as for example workshop with teachers on intercultural competences and how to teach these competences) in addition to activities focusing on improving digital didactics (such as working with new digital tools or in new ways with existent tools). The project is interactive, collaborative, and uses improvement tools [for example Plan-Do-Study-Act (PDSA) (Reed and Card, 2016)] to test innovations to enhance digital, universal, and intercultural didactics. Innovations to be tested in the project will be designed and decided through collaborative processes in the reference groups and the steering group and administered by the working task group. To promote dialog and creativity, for example, "Liberating Structures" (McCandless and Lipmanowicz, 2014) will be used. The intention of PDSA is to learn from improvement work, and the PDSA is a cyclical iterative process (Langley et al., 2009). Each cycle will be reported on with information from each step of the PDSA process. The PDSA cycle assessment

TABLE 1 | Time plan for project activities in the three intervention areas.

Time period	Project activity	Intervention area for project activities
Autumn 2021	Planning and designing activities	Competence development of teachers, course innovations, and delivering courses in both master programs
Spring 2022	Performing competence development activities and designing innovations	Competence development of teachers, and course innovations
Autumn 2022	Testing innovations and sharing learning experiences	Courses in both master programs
Spring 2023	Performing competence development activities and designing innovations	Competence development of teachers, and course innovations
Autumn 2023	Testing innovations and sharing learning experiences	Courses in both master programs
Spring 2024	Research and project evaluation	Competence development of teachers, and course innovations

will depend on the type of innovation and will cover learning from the improvement cycle, process outcomes, and results outcomes. In the PDSA cycles, both qualitative and quantitative data may be used; this is to be decided when planning the tests of the planned improvement cycles. The learning process in PDSA encourages critical thinking (Reed and Card, 2016). Increased critical thinking about one's own pedagogical practice will support development in universal and intercultural didactics (Brossard Børhaug and Harnes, 2020). Transformative reflection, where opportunities to develop as a teacher through being stimulated to see opportunities for increased teaching quality through one's own development, will be used, as it has a positive effect on students' learning (Biggs and Tang, 2011).

Outcomes

Challenges and mitigating strategies occurring during the course development and implementation of innovations will be documented by the working task group, as well as preconditions affecting the collaboration of the course.

The project will collect data on the tested innovations and the outcomes of those innovations, following the PDSA cycles.

There will be no specific data collection for the follow-up research project, which instead will be based on agendas, meeting notes, working plans from the steering group, working task group, and reference groups, along with student and teacher surveys and course evaluations.

The educational outcomes of the project will be measured continuously by regular course assessments with closed and open-ended questionnaires in online surveys after each course. Those surveys will be administered by the study administration and results will only be available on group level. As a current routine those student surveys will be discussed with the faculty dean, elected students from the course, and the course responsible teacher prior to a short report of the survey being made public to all students in the course.

Quantitative data concerning the number of students applying for the courses, finishing the courses and level of grades from external examiners will be assessed. This data will be administered by the study administration and continuously collected project for all courses at the university.

The follow-up research on the project's process and outcomes will be performed with document analysis (Bowen, 2009) based on documents from the process (agendas, meeting notes, working plans, test protocols) and course evaluations. The preliminary results from the follow-up research will be presented to the reference groups to provide a broader perspective of the results, prior to finalizing the result presentations. There is an intention to enable co-researchers from the reference groups to take part in the follow-up research.

DISCUSSION

Critical reflections, questions, and lessons learned are part of the project, as they in themselves create opportunities for further improvement and form the basis for coming steps within the project. The collaborative process of the project will create challenges in assuring progress of the project, as there is a need to make decisions regarding which of the suggested changes to start with and how to ensure the technical competence to include those changes within the learning platform. There may also be discussions on the priority of suggested innovations, which needs to be decided on. The intention is to take decisions collaboratively, but there is a limited time resources available by the reference group participants, which may lead to decisions being taken in the steering group. There may be requests for rapid changes or changes in ongoing courses, which may be difficult to meet; therefore, dialogues on expectations in the reference groups are needed. The intention is for the project to find new activities that promote appropriate learning for the students, but it is not foreseeable which parts of digital, universal, and intercultural didactics the reference groups consider most important to focus on, or if the reference groups will present new areas of importance to focus on. The project needs to address the potential limitations of flexibility among students and teachers concerning changes in how the courses are taught. This highlights the importance of time for dialog in the reference groups and easy access for students and teachers to the steering group and working group. At the same time, when conducting changes, one must ask when and how it is relevant to begin to test the changes. How much do we need to know prior to making a test and what are the risks of waiting before testing the innovation? In this project, the PDSA cycles are intended to show us if the changes are in the right direction of what we want to achieve, prior to making larger changes within the master programs. With new research, new technology, and global changes, the need to ask if now is the right time to act is tempting, but should be followed by the question, if not now, when?

“Space to talk” and “space to change” are brought forward by Knowles et al. (2021) as important in co-production in healthcare, and the concepts are also considered as highly relevant in collaboration in higher education. In this project, the

plan includes digital meetings and digital contacts as the primary option for “space to talk,” which can be both an asset and a barrier for the project.

The “space to talk” includes meetings within the courses with students to discuss new changes within the courses, but also meetings with teachers in the programs to present and discuss planned and performed changes and their outcomes. As digital teaching can be experienced having less contact with peers (Erlam et al., 2021), the “space to talk” can provide opportunities for increased peer contact, but this needs to be assessed during the project to ensure the value of those digital meetings. The intention is to use digital tools to enable participation; however, those with less digital literacy or preferring other means of contact may not be sufficiently heard. This will be discussed with the reference groups to seek for ways to improve “space to talk.” All planned meetings with the reference groups will include both a set agenda (sent out at least a week before the meeting) and time set for open dialogs during the meetings, to enable creative, reflective, and learning dialogs, while at the same time ensuring the progress of the project. To further enhance open space within the project, a shared digital platform will be used for project documents (Microsoft Teams) for the steering group and working groups, together with an open access project webpage. The use of an enhanced project webpage, with updated shared information, has a number of advantages, such as the ability to present written, audio and visual information and offer links to additional in-depth information (South et al., 2021). There is a risk of participants experiencing too much of the participatory dimension; therefore, it is important the steering group actively takes the responsibility to decide which participation is helpful for the progress of the project, as it is not a user-driven project (Lid, 2021). There is also a risk of not finding enough students willing to participate in the project, as there may be participation fatigue (Lid, 2021) if the students are asked to be involved in several projects.

The iterative plan of the project and the use of quality improvement tools such as the PDSA enhances possibilities for “space to change.” Since the project will cover three rounds of the course, there is room to test suggested improvements, evaluate them and optimize or develop additional changes. This project follows the obligation to work with quality improvement of higher education in Norway (NOKUT-The Norwegian Agency for Quality Assurance in Education, 2003) and the changes are being tested for all students in the courses. The choice for testing the changes in the whole courses, and not only for a smaller group of students, is made to ensure that all students in the courses receive the equal opportunities within the courses. However, this project gives the opportunity to research how those changes have been experienced by students and teachers in the courses. The reference groups will be able to give continuous feedback on both suggested changes and the evaluation results, and thereby influence the project and the learning from the project. The intention of the project is to enhance digital, universal, and intercultural didactics and it is possible that one of the perspectives may gain more focus than others. However, by the project being performed in two different master programs, where one is focused on intercultural issues and the other on universal

issues it is assumed that those perspectives will gain equal weight in the project. However, digitalization is slightly different as this is an ongoing change in higher education, where fast progress is likely to happen in higher education, which the project needs to take account of. The participation of a representative from the university's pedagogical learning center is seen as an important means of ensuring that project innovations get access to the latest digital techniques and the results of testing those innovations are disseminated to other courses within the university. As the triple focus of the project may provide a challenge, the steering group aims to actively ensure all three perspectives are included in the project innovations, which may lead to a need for additional meetings with the working group and reference groups. As there may be interventions where different aspects of digital, universal, and intercultural didactics can be in conflict, the plan is to discuss those issues with the reference groups to reach consensus on how to act in each case and to learn from this process.

Even if the focus of the course in scientific theory, research methods, and research ethics is not primarily to develop high digital competencies, it is highly probable that a well-designed and developed digital course will also develop profitable digital competencies since the course provides opportunities for learning by using the digital technology in meaningful situations. Previous studies have shown the development of digital competencies when studying digital courses (Øvreås et al., 2021). Digital collaboration can support the establishment of national and international peer groups even when the participants are placed in different geographical areas (Øvreås et al., 2021). Digital technology presents opportunities for new learning spaces and interactions, which differ from physical interactions and traditional learning spaces (Ossiannilsson, 2019).

Universal didactics can be seen as a concept for developing wider participation (Hägglom, 2020). However, there is a need to increase competence in universal didactics among teachers in higher education. It takes time to implement universal didactics, even if the changes may save time in the end (Hägglom, 2020). Therefore, this project has a longer time frame, giving the teachers time to test new universal ways of teaching, evaluate the changes, and assess them with peers and students in reference groups. We believe that the ability to test at a small scale first, and the ability to analyze and discuss the results together will enhance sustainable changes and improve the use of universal didactics. In addition, the project will have learning activities for teachers in the master programs, which will provide an arena for discussion of potential opportunities, barriers, and solutions with experts and peers.

The follow-up research will focus on how the process of the project has worked and how the process may have influenced the outcomes of the project. The documents from the project will be analyzed through the lens of the theory of citizenship and quality improvement theory to enable an understanding of how and why the outcomes occurred related to the process and progress of the project. Document analysis is efficient, cost-effective, and non-obtrusive, however, it also has limitations, such as the risk of insufficient detail and biased selectivity (Bowen, 2009). To address the potential limitations connected to the use of document analysis, the steering group will ensure that a set

part of the agenda at each steering group meeting addresses the documentation of the project's development and progress.

COMMITTEES

The project has a steering group, a working task group, and three reference groups. The steering group is led by the project leader (first author) and includes the authors of this paper. The working task group is led by the project leader and consists of the program leaders of the included master programs, the course leaders of the included courses and a representative from the university pedagogical learning center. Both the steering group and the working group have participants that are non-native Norwegians, but there are no international collaborators in those groups. The professional reference group is led by the project leader and consists of students, teachers with experience of digital, universal, and intercultural teaching, an international collaborator (a teacher at Swedish university), representatives from an organization representing the national digital development of education, and from a regional development center for nursing homes and home services. The two student reference groups will have a variety of participants: one group consisting of current students, and one group consisting of students who have participated in the most recent course. The reference groups will be led by one of the working task group participants on each occasion.

Each of the groups has their set tasks and responsibilities, which will be followed up at the regular online meetings. The steering group will have monthly online meetings. The working task group will have planned monthly online meetings, but this may vary due to planned tasks. The reference groups will have online meetings four times per year.

ETHICS STATEMENT

The studies involving human participants were reviewed and approved by the Norwegian Center for Research Data (NSD) approved the collection and storage of data during the project and decided that the processing of personal data in the project was in accordance with Norwegian privacy legislation (Project reference number 545642). The patients/participants provided their written informed consent to participate in this study.

AUTHOR CONTRIBUTIONS

KAJ conceived the study, initiated the study design, drafted the manuscript and was the grant holder. All authors contributed to the development and refinement of the study protocol and approved the final manuscript.

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