



## **Development of key competences for teacher educators**

### D 2.3.3. ITELab Case studies

Authors: Eli-Marie Danbolt Drange and Kjerstin Breistein Danielsen, University of Agder, Norway

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# 1 INTRODUCTION

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Teacher Educators (TEs) play an important role in the development of a high-quality education for both pre-service and in-service teachers. This role requires a broad range of competences, including pedagogical digital competence. The present case studies describe how Østfold University College in Norway and The Polytechnic Institute of Santarém (IPSantarém) in Portugal work with the development of Teacher Educators' pedagogical digital competence.

These case studies are part of work led by University of Agder in the ITELab project, aiming to identify key competences required from a Teacher Educator to ensure adequate ICT training for student teachers. This research question is answered through a mixed-method design including an open TE-survey published on the ITELab website and distributed to ITELab partners in November 2018. The aim of the present case studies is to go deeper into some of the findings from the survey first to investigate how institutions work and, second, listen to the Teacher Educators' voice.

## 2 CASE STUDY 1: ØSTFOLD UNIVERSITY COLLEGE

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### 2.1 BACKGROUND AND CONTEXT

In the new 5-year Teacher Education programmes in Norway, implemented from autumn 2017, a requirement of pedagogical digital competence is mentioned explicitly in the National Curriculum Regulations<sup>1</sup>. In order to work on the development of pedagogical digital competence at institutional level, the Ministry of Education and Research allocated about €90,000 to five institutions offering Teacher Education Programmes. One of the projects that was funded, was the DigiLU project<sup>2</sup> at Østfold University College, who received € 18,000 for a period of 3 years.

At Østfold University College, Teacher Education is organized under the Faculty of Education<sup>3</sup>. The Faculty of Education is placed on the campus in Halden and they have 2 000 students enrolled in their Teacher Education Programme.

On the faculty's webpage, it is clear that they have an ongoing strategy with a focus on pedagogical digital competence in TE through the project "DigiLU". The link to the project website is easy to access and the project is mentioned in the description of the Primary and Secondary TE programs online. Note that the information is not available in English.

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<sup>1</sup><https://www.regjeringen.no/contentassets/c454dbe313c1438b9a965e84cec47364/forskrift-om-rammeplan-for-grunnskolelarerutdanning-for-trinn-5-10---engelsk-oversettelse.pdf>

<sup>2</sup> <https://www.hiof.no/lu/om/prosjekter/digilu/om-digilu.html>

<sup>3</sup> <https://www.hiof.no/lu/english/>

On the project website, there is information about funding (from government), the main goals, the plan for achieving the goals, the people involved and project activities. There are also links to relevant courses related to the project.

## 2.2 DEVELOPMENT OF PEDAGOGICAL DIGITAL COMPETENCE AT INSTITUTIONAL LEVEL

In conversation with one of the Project Managers for the DigiLU project, Ilka Nagel, she tells us that the institution and the DigiLU project has not developed their own definition of Teacher Educators' digital competence. Instead, they use the framework for the Teacher Education Programme which is built on the national Professional Digital Competence Framework for Teachers <sup>4</sup>. The motivation for using the framework for teachers is that Teacher Educators need this competence to be able to guide Student Teachers in their competence development. When asked about what she considers key competences for Teacher Educators, Nagel highlights that Teacher Educators should develop digital judgement. This means that a Teacher Educator needs to have digital literacy and know how to use digital tools responsibly, including knowledge about privacy and data, how to follow GDPR and how to apply privacy and copyright rules. But most importantly they need to have a broad knowledge of digital methodology and be able to critically assess how to apply these methods in their subjects as role models for their student teachers, she says.

With the DigiLU project, the institution has been able to establish a compulsory Programme for Competence Development for all Teacher Educators. The programme is organized in Modules and they currently have 65 participants. The programme doesn't have credits or certificates. However, the programme is viewed as part of the Teacher Educator's ongoing professional development.

A unit, called ICT in Learning, which is part of the Faculty of Education, is in charge of developing and running the programme. They are also in charge of following up the Teacher Educators. The competence development programme is supported by the Faculty leaders and the heads of study also follow up if necessary. The institution facilitates competence development by giving staff dedicated time to participate in the competence development programme.

The competence development programme follows the requirements in the Teacher Education Programmes at the University College. When for example student teachers are supposed to learn about flipped classroom, the Teacher Educators learn about this in the preceding semester.

The institution has also opened a Learning Support Centre for Faculty staff, which is part of the Centre for Teaching and Learning. At the Support Centre the Teacher Educators can find support and help for both technical and pedagogical questions.

The feedback from the Teacher Educators enrolled in the programme is mainly positive. However, Nagel mentions time as one of the main roadblocks. Even though Teacher Educators are given dedicated time in their work schedules for this

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<sup>4</sup> <https://www.udir.no/in-english/professional-digital-competence-framework-for-teachers/>

competence development programme, it can be challenging for them to prioritize the activities required.

To meet the challenge of prioritizing time, Nagel emphasises the importance of having an open dialogue with the Teacher Educators and the Faculty leaders. Open dialogue is important in order to find solutions and possible adaptations when necessary.

## 2.3 DEVELOPMENT OF PEDAGOGICAL DIGITAL COMPETENCE AT INDIVIDUAL LEVEL

At Østfold University College we discussed the development of pedagogical digital competence with Virginia Lockhart-Pedersen representing the Teacher Educators. In her opinion, it is important that a Teacher Educator has both practical knowledge about how technology works, and more theoretical knowledge about how digitalization influences society and the role of the teacher. It's also important to reflect together with the Student Teachers on how technology can contribute to learning, not simply how applications work technically.

The TE at HiØ commented on the complexity of the notion of pedagogical digital competence. She emphasises the importance of having different competences; including technical competence, theoretical competence, ethical competence and knowledge about how to use these competences to enhance learning.

Teacher Educators involved in the DigiLU-project have access to online resources, workshops and other activities, and also to staff in the Resource Centre who can assist if needed when trying out new digital resources or methods, which she sees as positive. In addition, the institution has allocated time to Teacher Educators in order to work on the development of their pedagogical digital competence during their work hours.

Among colleagues, there are different points of view regarding this programme. Some have participated with enthusiasm and collaborate a lot, while others participate because they have to, not because they want to.

The Teacher Educator feels that it is important to work collaboratively with colleagues and try out digital tools together and reflect on the learning involved. She suggests that for Teacher Educators with less experience in the use of ICT, it could be helpful to have a buddy where both have allocated time to work together. She also suggests that to get everybody to continue developing their own competence after completing the competence development programme, it is important to have someone who follows up and monitors individually, for example by asking about what the TE has been working on or trying out lately.

In reflecting on digital competence, the TE at HiØ, feels that it is important for Teacher Educators to develop a mindset where TEs are open to explore digital teaching methods they may not completely master. In addition, it's important to be able to critically and theoretically reflect on the use of this technology.

When talking about her own experiences with technology, the TE says that she likes to try out digital technology herself, as well as in class with the Student Teachers. When they become teachers, the Student Teachers may not have any support when trying

out new resources, so she can be a role model for them to see how their teacher educators' also experiment with technology in teaching.

When asked about the main challenges, the TE mentions three: lack of time, lack of skills and technical issues. When asked about how she thinks the institution should work with further competence development, she suggests that one way of engaging all colleagues would be to include more concrete ICT competence aims in the descriptions of learning goals in the courses in Teacher Education. She says that:

*“In teacher education it is important to bear in mind that there are ICT skills required for student teachers, and we must provide opportunities for the students to learn these skills.” Teacher Educator, Østfold University College*

Lastly, she reflects on how to encourage Teacher Educators to prioritize time to develop their own digital competence. She says it can be challenging because digital competence is not valued from a professional point of view as much as, for instance, research. Teacher Educators have many responsibilities and expectations: research, teach, follow up students, and so on. If the institution wants to continue the work with digital competence development, making digital competence more valued may encourage further engagement.

## 3 CASE STUDY 2: THE POLYTECHNIC INSTITUTE OF SANTARÉM (IPSANTARÉM)

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### 3.1 BACKGROUND AND CONTEXT

In Portugal the Ministry of Education has issued the 'National Promotion for School Success' as well as a new student profile framework for students when completing Upper Secondary Education. Both measures focus on innovative practices in schools where the use of ICT plays an important part.

In the work of supporting the change in the educational system in Portugal, The Polytechnic Institute of Santarém (IPSantarém) is playing an important role by offering innovative teacher training programs and hosting one of ten regional ICT Competence Centres in Portugal. The ICT Competence Centre (CCTIC) supports the development and training of pedagogical ICT skills to in-service. As a teacher training institution in a system of change, the skills of the Teacher Educators are important, and IPSantarém supports the development of skills through working with flexible learning spaces.

## 3.2 DEVELOPMENT OF PEDAGOGICAL DIGITAL COMPETENCE ON THE INSTITUTIONAL LEVEL

IPSantarém Director of the School of Education, Susana Colaço, describes teacher educators' key competences to include knowledge about how to use ICT in the classroom, to be able to learn from colleagues and work collaboratively as well as being lifelong learners. In addition, Teacher Educators must be researchers. This idea of competence development is implemented in the institution by organizing teacher educators to work in teams, trying new methods and learning from each other both in virtual spaces and in the classrooms.

The institution does not have a specific framework for digital competence for Teacher Educators, but they work with a framework for Primary School students developed by the Ministry of Education both in the development of the competences of Student Teachers and Teacher Educators. The framework is divided into four competence areas: digital citizenship, research, communication and collaboration, innovation and creation. The institution works with these areas to enhance both Student Teachers' and Teacher Educators' competences.

To address the development of teacher educators' competences, IPSantarém started to develop new learning spaces, assuming that by changing the environment, the practices could also change. Teacher Educators are organised in teams working on different projects, for example with the implementation of the modules and MOOCs in the ITELab. Three or four teacher educators work together in teams created through a bottom-up approach, led by Teacher Educators.

To support the competence development of TE, the institution has three different units: the CCTIC, which depends on the Ministry of Education and organizes sessions and modules; a technology centre in charge of training in-service teachers, but also offers training for TEs; and an e-learning unit developing best practice models for e-learning environment and MOOCs.

IPSantarém works with national competence frameworks and in close cooperation with schools. To develop Teacher Educators' competence, the institution has worked actively on the development of learning spaces encouraging Teacher Educators to work together and develop new practices trying out and learning together.

In addition, the institution has units that support the Teacher Educators in their development, although the work is not systematized. The main challenges and roadblocks to develop new competences are time and funding. Regarding time, Teacher Educators must do research, attend conferences and follow up their professional development, as well as teaching and following up the in-service teachers. Even when Teacher educators are interested, it is difficult both to find and try out new resources and to find time to engage in deeper discussions related to the implementation of new methods.

Not all Teacher Educators are interested in developing their pedagogical digital competence, and when asked why some teachers do not want to use ICT in their

teaching, Colaço says that it may be because they do not feel comfortable with using new technology. One way to help these teachers is by offering co-teaching:

*“Sometimes we do co-teaching, we go there and we say I can go to your class and I can experiment with you.” Susana Colaço, Director of the School of Education, IPSantarém*

### 3.3 DEVELOPMENT OF PEDAGOGICAL DIGITAL COMPETENCE ON THE INDIVIDUAL LEVEL

At IPSantarém we talked to two Teacher Educators about the development of their pedagogical digital competence as individual TEs. When asked to define the Teacher Educators' key competences, they responded that Teacher Educators need to be open-minded, innovative and be able to work collaboratively. The work in teams is important: team members can share expertise and ideas with each other.

A Teacher Educator must be open-minded and search for new resources and strategies, be open to try new things and in this way be a lifelong learner. The TEs interviewed also underline the fact that Teacher Educators must be researchers by doing research on methods and practices with technology.

It is also important that the Teacher Educators involve Student Teachers in discussions about classroom practices and how new ways of teaching affect students learning, this way the Student Teachers will develop their critical thinking.

*“Technology is always in the classroom. We don't think about teaching and learning without technology in this moment. We can't prepare our student teachers without technology today because in the schools they already have the technologies.”  
Teacher Educator, IPSantarém*

The institution has a centre that offers courses and sessions to develop Teacher Educators' competences, and they also support the Teacher Educator if he or she wants to implement new practices in the classroom. The sessions are not organised regularly, but when there is a need to learn something new or share a new idea.

It is a challenge to find and explore new resources that would be good to use in schools. It is also a challenge to get Student Teachers to reflect about how to use and implement good resources in class.

To develop their own digital competence, the interviewed Teacher Educators like to experiment and try out new resources. They also think it is important to participate in projects like ITELab to be exposed to new ideas and collaborate with more people. They also work with colleagues and learn from each other, conscious of the need to be lifelong learners. The main roadblocks they encounter are time to explore new resources and do research on the resources. It is also difficult to find time to work collaboratively and to be able to link resources with methodology. A Teacher Educator has many responsibilities: to prepare teaching, do administrative work, follow up student teachers in placements, do research and so on, so finding time is a challenge.

Regarding evaluation, IPSantarém has an evaluation system that follow up different competences and values the development of digital competences. The institution intends to be a reference point in the area of innovation and wants teacher educators to be examples in this field.

To summarise, teacher educators do not mention specific competences related to technology when reflecting about key competences needed for teacher educators. Neither do they talk about specific frameworks and a systematic and planned competence development.

## 4 DISCUSSION

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There are some similarities and some differences in the two case studies, which together give a broad view on the development of Teacher Educators' pedagogical digital competence. In both cases, national initiatives and plans are an important driving force for the institutions' work, and institutional leaders prioritize and follow-up the development of pedagogical digital competence in the staff. Neither institution works with a framework developed at the institution or developed for Teacher Educators; both use national frameworks developed for Student Teachers or pupils.

In the TE-survey mentioned in the introduction, the Teacher Educators reported high levels of self-confidence in their own competence, and the Teacher Educators we interviewed in both case-studies also consider that they have a high level of professional digital competence. These findings suggest that there are many digital competent Teacher Educators across Europe, but of course less confident Teacher Educators may not have responded to the survey.

When discussing the topic in both cases, the picture is more varied. Each institution reports that some of Teacher Educators are not interested in developing their digital competence, and others do not feel enough confidence in their abilities. The Teacher Educators interviewed agree that it is important to change mindsets: a Teacher Educator should have an open mind and try out new things. This view also emerged as a key issue in discussions about Teacher Educators' competences at the School Innovation Forum in Brussels in June 2019. There, it was stressed that Teacher Educators are still learners and they need to improve their skills and keep up with technical innovation. In the following sections, three important issues emerging from the case studies: factors contributing to competence development; definition of Teacher Educators' competence and changes in the role of the Teacher Educator.

### 4.1 FACTORS CONTRIBUTING TO COMPETENCE DEVELOPMENT

Having the funding and being able to prioritize dedicated time in the TEs' schedules for Professional Development are important factors in ensuring a large-scale commitment at the University College of Østfold. A third factor is having a resource centre, a space where the TE's can go to get support and help.

The programme at Østfold University College is led by the head of studies and if someone is falling behind, he or she will be followed up by his or her line manager. The individual Teacher Educator has time and support to develop their skills, but as competence development is time consuming, other measures such as a system for accreditation may be necessary as mentioned by the TE interviewed in the case study.

At IPSantarém, developing and using innovative learning spaces to help with TEs' Professional Development is a key success factor. Through the use of these spaces, the TEs are 'forced' to change their practice. IPSantarém has also ensured that TEs have support to make those changes. And, like UC Østfold, a support centre for TEs has been created.

There is little doubt that TEs are pressed for time, and they find that technical issues are a challenge, issues mentioned by all three TEs interviewed in the two case studies. Having funds to ensure dedicated time for CPD and ensuring a solid support system for TEs, as in these case studies, can alleviate the challenges of time and help with the technical issues.

The challenges with having enough time for their own competence development is influenced by all the other pressures the TEs face as academics. They are expected to do research and publish articles etc., which is time consuming. Being published is a qualifying measure more than teaching merits and having digital competence. TEs are also expected to be experts and continue to develop their competence and knowledge in their subject field, which often is not Teacher Education. So how can TEs be expected to prioritize developing their pedagogical digital competence, in competition with so many other expectations?

## 4.2 DEFINITION OF TEACHER EDUCATORS' COMPETENCE

How concrete skills and competences needed by TEs differs from one institution to another, and a broader discussion about key competences may be needed to arrive at an agreed set of common competence areas. One topic discussed on the School Innovation Forum was the need for a shared framework for teacher educators, at a time when many frameworks are in use. The institutions in our case studies use several different frameworks, none of which is specifically made for Teacher Educators, but for teachers and students in schools and educators in general. This suggests that the aim of competence development for TEs in the case studies is related to giving the TEs the competence they need to keep up with developments in schools. So, instead of being the driving forces for change in Teacher Education, the focus is on developing necessary competences to use the technology already implemented in schools. This raises the question about the role of Teacher Education and TEs. Shouldn't Teacher Education be a place for innovation and critical use of technology? With TEs being exemplary role models?

When considering the frameworks used and the skills developed, the TE from University College Østfold emphasised that TEs need to have both theoretical and practical skills and competences. There is a need for technical skills, but they should be combined with knowledge about how technology influences schools and society as well.

As seen, Østfold University College has decided to use funding to establish a compulsory competence development programme for all Teacher Educators. The programme is structured and includes specific competence aims, and Teacher Educators are followed up if they need support. The programme builds on what is regarded as important competences for Student Teachers, and do not address specifically the role and competence needed for Teacher Educators. The aim of the programme is to give all Teacher Educators a basic knowledge about how technology works, as well as practical competence they can use with their students.

The Polytechnic Institute of Santarém (IPSantarém) has a strong focus on developing teacher educators' key competences through the development of new learning spaces and support from special units in charge of supporting the development of pedagogical digital competence.

At the same time, engagement in this development depends on each individual TE. They are encouraged to try out new practices and develop new competences, but they can choose to not participate. Further, competence development is not systematized through the use of a framework to define specific competences or through a planned competence development of all teacher educators.

When responsibility for their own competence development is left to the individual Teacher Educator, as in the case of IPSantarém, the TEs with less interest in developing pedagogical digital competence are less likely to devote time to their own development, and in turn are more likely to lack the competences required. At UC Østfold the TE interviewed also raised the question about what will happen when the programme is finished. At one point, TEs will have a certain level of competence, but then it will be up to each individual if he or she wants to continue to develop his or her competence.

Important questions to follow up in further work are: Is it possible to define what professional competence Teacher Educators must have that is different from other educators? Is it a problem that in the end the competence development depends on the individual TE's interest and engagement?

### 4.3 CHANGES IN THE ROLE OF TEACHER EDUCATORS

The director of IPSantarém talked about TEs co-teaching and helping to support each other in their Professional Development. Traditionally, teaching staff at Higher Education Institutions, including TEs, are seen as experts in their field. There may not have been a widespread tradition for collaborating when it comes to teaching, but when developing their own pedagogical digital competence and the use of technology in their own teaching, the TEs in these cases all agreed on the importance of close collegial collaboration. The TE from UC Østfold even suggested using a buddy system.

The same TE pointed out the importance of experimenting in her own teaching, so that the Student Teachers see that it's acceptable to try new things. This also challenges the expert role that traditionally associated with HEI teaching staff. Perhaps

there is a need for a shift or a change in how we view the TE's role in educating future teachers? Perhaps there's less need of an expert role and more need for an experimental or innovative approach to teaching in Teacher Education, with and without technology? Two important questions then are how this aligns with other demands TEs face in their academic field, and how to ensure that the development of TEs' pedagogical digital competence is made a priority.

The two case studies outline a number of good ideas for how HEI can make pedagogical digital competence a priority and underline the importance of leaders in prioritizing funding and other facilitators, such as dedicated time, in the competence development of their TEs.



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