



**ProTed**

Senter for fremragende  
lærerutdanning

**Centre for Professional Learning in  
Teacher Education**

Annual report for 2019

## Vision

ProTed's vision is to promote innovative and relevant teacher education programs for future schools. The overarching goal for these efforts is to promote coherent, integrated programs. The centre is a developmental unit, a national provider of insights and an internationally recognized partner for the development of a knowledge base for teacher education. The centre is a catalyst for research and development through systematic interventions, analyses and dissemination.

In order to realize our vision, we build on the following principles:

- Research based development of teacher education
- Systematic work with coherence and progression in studies
- Systematic work with student active learning
- Development of partnerships between universities and schools
- Systematic work to integrate multiple knowledge domains

Together these principles provide a basis for educating professional teachers for the future knowledge society.

## Executive summary

2019 has been a year with many new developments within the ProTed institutions at UiO and UiT. As we plan for the last years of ProTed as an SUF, we continue planning for the continuation of innovation and research in teacher education after 2021. Program design will continue to be a major priority in ProTed as we prepare teachers for a changing society. In 2020 a new curriculum framework will be implemented in Norway, changing the way we think about teaching and learning. Our teachers will need to be prepared to take on these challenges. At the same time we know that we prepare teachers for a life long career in teaching. Our programs must provide teachers with the tool box they will need to adapt to change based on research based ideas. Recognizing the complexity of teacher education is what ProTed is all about.

ProTed continues to develop innovation practices in teacher education in close collaboration with university schools. Building bridges between campus programs and school based practice is an increasingly important component of quality teacher education programs. Processes of working together are constantly evolving as schools and institutions find ways to work together on development, research, advising of teacher education students and development of Master degree research projects.

“Teacher Education for the Digital Future” drives many of the innovative projects within ProTed. Students entering teacher education programs in 2019 must be educated with skills to meet a modern school. Professional Digital Competence (PfdK), knowing how to adapt teaching and learning using digital technologies, is an important competency offered in our teacher education. Innovation in the creation of digital learning modules, followed by implementation and research on the learning modules is an important element in teacher preparation. In 2019 we have continued to develop technological innovations for use in teacher education. The VIVA application continues its development at UiO together with implementation projects called DIVA. The MOSO application continues to be investigated at UiT. Both of these projects were successful in receiving DIKU funding.

Research projects continue to be important in the ProTed portfolio in 2019. The EU SEAS project at UiO will investigate how teacher education can play a role in educating teachers to work with issues related to sustainable development. The TED-NET project at UiT continues to compare teacher education in Norway, New Zealand and California, USA. After visiting New Zealand, the importance of aboriginal people has come into focus in Tromsø. The MiLenga project at UiO challenges teacher education to be concerned with multiple cultures and multiple languages in Norwegian classrooms. The LAB-Ted project at UiT is an important for understanding mechanisms for conducting school based research, especially with teacher education students. The Mentoring project at UiO is designed to develop tools for classroom teachers advising teacher education students. In all of these projects, ProTed has a role in making connections between research and development within teacher education programs.

As we look ahead to the last years of our SFU funding, we have started planning for a conference in June, 2021 called Bringing Teacher Education Forward 2021. We recognize the importance of exit strategies for the coming year(s), but also choose to think about how the SFU has allowed us to change as an organization. We received the SFU because of excellence within our teacher education programs. We have worked with many different types of innovations during the SFU period, and now look forward to telling that story.

Doris Jorde and Siw Skrøvset

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## Organization

ProTed serves as an experimental bed for innovation in teacher education through systematic interventions, analyses and dissemination. ProTed is a partnership between the University of Oslo (UiO) and The Arctic University of Norway (UiT), with UiO as the host institution. The ProTed board has members from both institutions, with Professor/Dekan (Faculty of Education, UiO) Sten Ludvigsen as the leader. The centre is managed through joint scientific leadership, with leaders at UiO and UiT.


<p><b>ProTed leadership teams at UiO and UiT:</b></p> <p><b>UIO</b></p> <ul style="list-style-type: none"><li>• Leader of ProTed/Professor Doris Jorde (UiO)</li><li>• Head of Studies Kirsti Engelién (UiO)</li></ul> <p><b>UiT</b></p> <ul style="list-style-type: none"><li>• Leader of ProTed/Docent Siw Skrøvset (UiT)</li><li>• Head of Studies Henning Marius Sollid (UiT)</li><li>• Adviser Silje Sivertsvik (UiT)</li></ul>	
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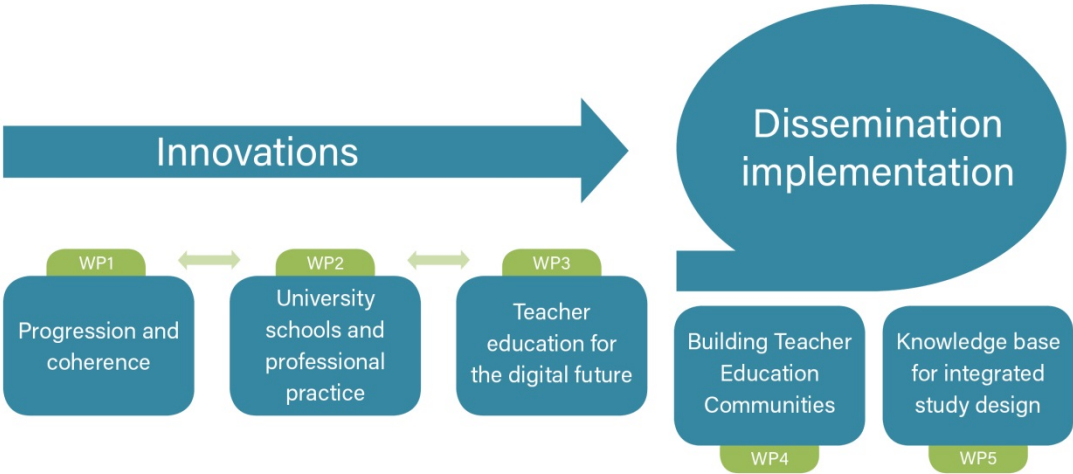
Photo: Siw Skrøvset and Doris Jorde.

The centre serves as a development unit together with the two universities and the hosting departments: Department for Teacher Education and School Research (ILS, UiO) and Department for Teacher Education and Pedagogy (ILP, UiT).

ProTed works with the development of quality in the integrated five year teacher education programs for levels 1-7, 5-10 and 8-13.

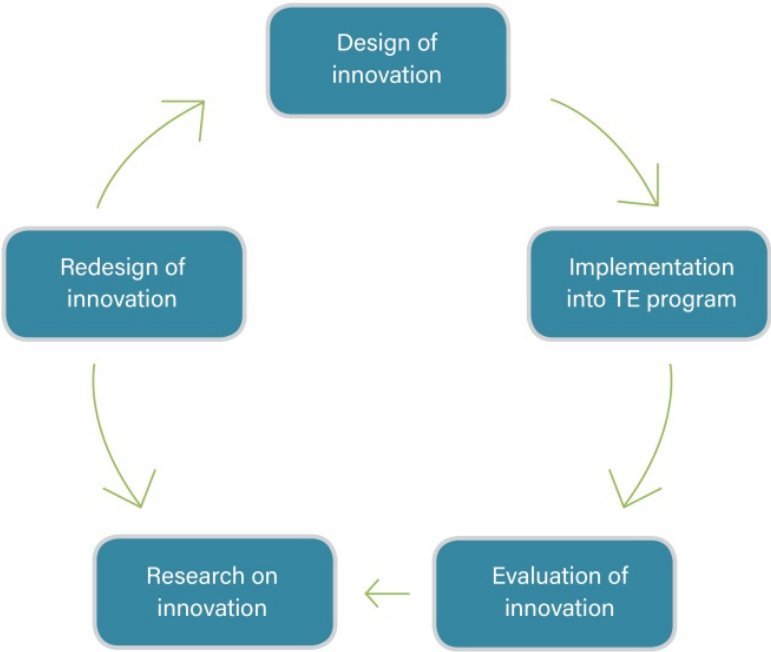
<http://www.uv.uio.no/proted/om/> and <https://result.uit.no/proted/>

ProTed is organized in work packages, each contributing to the design of coherent teacher education practices.



The organization of the ProTed work packages

The first three work packages highlight innovation in teacher education programs related to student centered study designs. A large body of development projects collectively generate a movement towards the future, experimenting with new design elements throughout the five-year course of the study programs.



The latter two work packages relate the experimental work in ProTed to the wider community of teacher educators locally, nationally and internationally. Implementing ideas into working models and evaluating the outcomes of new innovations in our programs locally provides a growing knowledge base for dissemination nationally and internationally.



## Research and development activities

In the following sections we highlight selected projects from the individual work packages in ProTed.

### WP1: Coherence and Progression in Integrated Teacher education

The overarching goal for WP1 is to promote coherence and progression in our programs by developing research-based, student-active and professionally relevant practices on campus. Innovations are related to different components in the program, with the intent to promote integration and progression between the different content areas. The project portfolio includes elements such as e.g. new assignment designs, developing integrative dialogue arenas and addressing subject-specific or subject-overarching themes. This work builds upon systematic, research-based interventions and innovations, stimulating new initiatives, e.g. through seed-money, and disseminating projects that have exemplary status.

Working with coherent models of integrated teacher education for grades 8-13 in the “Oslo Model” for teacher education involves the integration of academic subjects (2) together with professional courses (pedagogy and subject didactics) and 100 days of school practice (see attachment 1). Coherence and progression in the five-year teacher education program at UiO (Lektorprogrammet) involves close collaboration between five faculties. In this way, students are engaged with top academic research environments, while at the same time taking courses preparing them to become professional teachers. ProTed works continuously with the development of learning progression in: teacher professional identity, research and development expertise, professional digital competence (PfdK) and school practice.

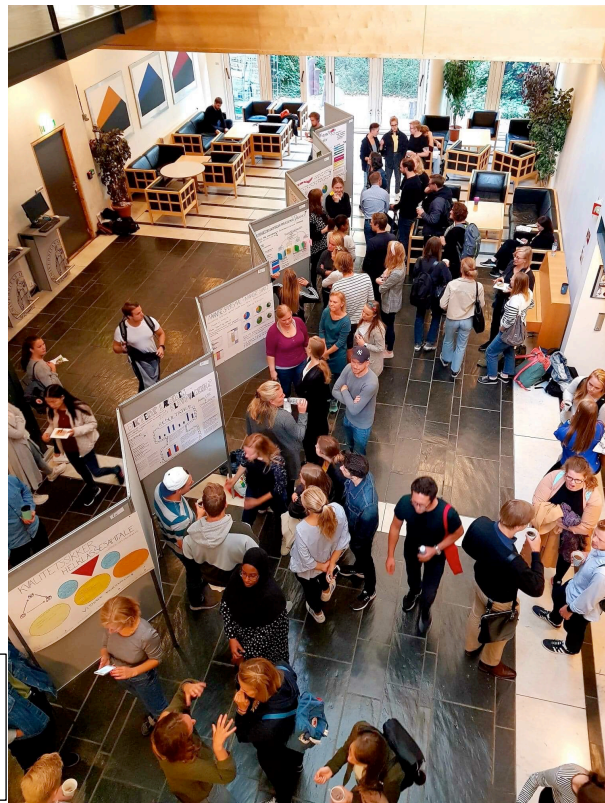
Models for integrated teacher education 1-7 and 5-10 involve 3-4 academic subjects, pedagogy, subject didactics and school practice as students work towards a Master Degree (see attachment 1). At UiT, the Tromsø “steps” (Tromsøtrappa) were introduced to show progressions in digital competencies, research development, school practice and multicultural perspectives.

### Model development at ILS

In the fall of 2014, ILS started a revised program for teacher education 8-13 based on new national guidelines. In our report for 2018, we reported on the PROMO project designed to connect practice teachers with students on campus. In 2019 we present information on the revised plans and student evaluations for the MA courses in semesters 8-10. The first lector students following the new plan began their master specialization in Spring 2018, delivering their Master thesis in the spring of 2019. ILS evaluated the implementation of the new programs in semesters 8-10.

15 days of practice were added to the 9<sup>th</sup> semester – an innovation allowing students to have a structured progression for the development of the master thesis. These practice days were added to courses either within ILS (fagdidaktikk MA) or at faculties (nordisk, fremmedspråk, engelsk, historie, realfag). The evaluations from each of these courses indicate that we are still in a process – some ideas worked better than others. What is common is that students appreciated the practice days, the closeness to the practice field and the progression towards writing the Master thesis. At ILS, students worked with video analysis of practice in multiple subjects, analyzing data sets from authentic classroom videos. In History, students worked with Museums. In Biology students worked with improving how they worked with students in the field and laboratory. In Norwegian students worked with ideas for teaching nynorsk. Overall we have much to learn about these changes and appreciate

how the student voice is an important part of course and program improvement leading to quality in our teacher education program.



Analysis of Practice – Group poster presentations from video analysis of authentic teaching



### 8-13 Lector Network (Analyseseminar lektorutdanning) (UiO)

ProTed and ILS took the lead in initiating a new network to connect a small number of institutions with long traditions delivering an integrated teacher education program for grades 8-13. UiO, UiT, UiB and NTNU are current members of the network in which we explore how each institution implements national guidelines for the lector program. Comparing models has been the emphasis of work done in 2019. In future meetings, the network will look closely at governing documents for 8-13 teacher education with an eye towards the development of comparative research projects needed to provide more insight into quality factors for teacher education 8-13.

In 2019 we continued to benchmark our work together with the University of Iceland. We had the opportunity to share models for teacher education and visit Icelandic schools. Connections to colleagues in Iceland are also found within the QUINT center in teacher education.

## **STIL project (Study intensive forms of teaching and learning in GLU teacher education)**

2017 was the beginning of the STIL project funded by the Department of Education and administered by ProTed Oslo. Five institutions were chosen to implement new ideas for strengthening the work and outcomes of students in 1-7 and 5-10 teacher education programs. The University of Tromsø (ILP and ProTed) was one of the chosen STIL institutions, together with Oslo Met, HiØstfold, HiVestlandet and UiA. Final reports from institutions were completed in June, 2018. A final consolidating report was delivered to KD in December, 2018.

The University of Oslo worked on the theoretical framework for the project, identifying factors that lead to increased student participation and learning. A literature review led to the development of a three-dealt framework, including student engagement, self-regulated learning and student approaches to learning. Together these ideas led to the idea of process quality as a concept including students' own work together the teaching, advising and study programs offered. In meetings with the participating institutions, we work on the development of the framework and its integration into the five projects.

With funding remaining in the STIL project, ProTed Oslo/ILS worked together with UHR to organize a dissemination seminar in March, 2019 for all GLU teacher education institutions. In addition a special number of *Acta Didactica* (2021) with the title "Teacher Education's teaching practices on campus" (*Lærerutdannings undervisningspraksiser på campus*) was started with the call going out in 2019. Participating STIL institutions are participating in the special issue. ILS (Inge Staal Jensen and Ida Hatlevik) have run a series of seminars for STIL institutions on academic writing in preparation for contributions to the special number of *Acta Didactica*.

## **STIL project (UiT) Becoming a teacher through processes of engagement and motivation**

The STIL-project (Student Intensive Learning Methods) is a project designed to increase and support first year teacher students' learning, through focus on engagement and motivation in the first phase of their teacher education program. One important aim of the project is to establish an early connection to the development of a professional identity as a teacher, so that this can serve as a motor for learning throughout the years of study. The first phase of the project was implemented at the start of the term in August 2017, and was a combination of activities including creative workshops on communication, drama and music, meetings with schools and teachers, social excursions, presentation of various subjects and programs, etc. The overall question during these two weeks of introduction was, "Why do I want to become a teacher?" "What kind of teacher do I want to be?" and "What is necessary in order to become this teacher?". In August 2018, the project was implemented again for new students, based on the experiences from 2017. A short film was made, with the aim of presenting the STIL-project so that other teacher educators and institutions could be inspired to introduce their students to a different start of their study-program (<https://www.youtube.com/channel/UCLe6sGAZPvC7vruF4pSHqcQ>). The start-up week project had its third iteration in 2019 and has now moved from being a project to a permanent part of the teacher education at UiT-GLU.

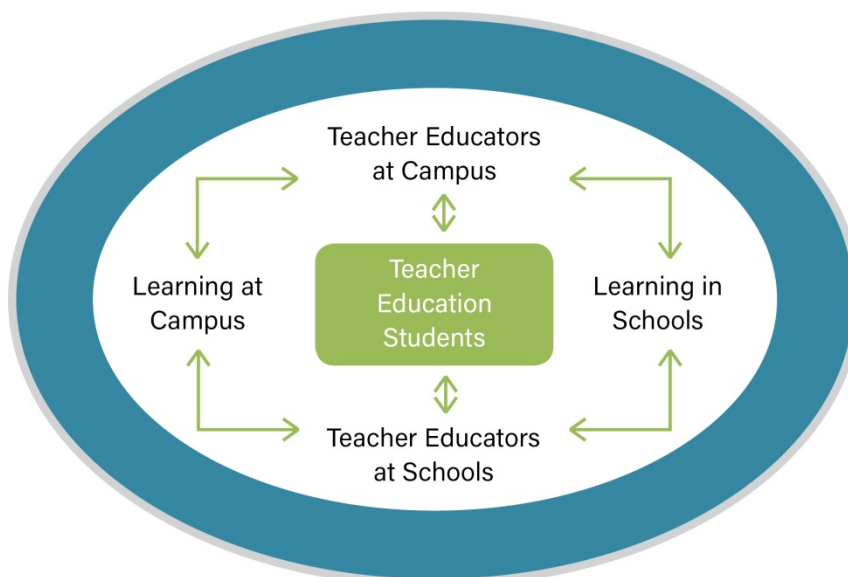


Photo: Introduction week at UiT – “Why do I want to become a teacher?”

## WP2 University schools and professional practice

ProTed works to integrate forms of knowledge through search for coherence between academic and experiential knowledge throughout a five year integrated study design. This work package develops more symmetric partnerships between stakeholders in teacher education at campus and in university schools by developing innovative models for professional practice. Developing the University School concept as a sustainable partnership model is a core task. There is great potential in further developing this concept, not least by involving university schools in joint research and development projects, mentoring practices, campus instruction and arenas for knowledge exchange.

### PROFESSIONAL LEARNING





Collaborative Model of Teacher Education (Developed further from Lillejord, 2014)  
<http://www.tandfonline.com/doi/abs/10.1080/02619768.2016.1252911>

UiO and UiT were the first institutions to professionalize the inclusion of partnerships with schools in their teacher education programs. The idea of “University Schools” has been developed since 2009 and is now found in The Department of Education’s strategy, Lærerutdanning 2025 stating that all teacher education institutions shall have partnerships with schools and barnehager to strengthen student practice as well as school based research. The key to development in this area is to continue to explore ways for campus and school to meet to exchange and build on their knowledge bases, especially since our students meet both environments during their teacher education.

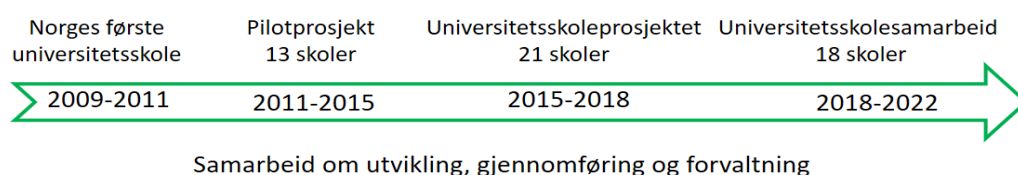
## University of Oslo

The University schools project at the University of Oslo is in its fourth period (2018-2022) with 18 schools: seven junior high, ten senior high and one combined 8-13. Associate Professor Ida Hatlevik is the coordinator and Jon Arild Lund the administrative leader. In this period, the role of the school owner is emphasized as well as the role of faculties at UiO. A new coordination committee consisting of representatives from schools, school owners, students, ILS, ProTed, faculties and FIKS was established to implement new ideas for university schools and strengthen ideas for successful partnerships. Tone Malmstedt Eriksen has started a fellowship to work on a doctorate (stipendiat stilling) connected to university schools and the Oslo model for teacher education. Tone was previously administrative leader of ProTed Oslo.

The revised working partnership agreement includes the following goals:

- Develop quality in schools and higher education with the aim of strengthening learning of pupils in schools and students in teacher education.
- Further develop teacher education and create good models for practice experiences for teacher education students.
- Strengthen research and development in schools.

<https://www.uv.uio.no/ils/forskning/prosjekter/universitetsskoleprosjektet/index.html>



Projects in 2019

## PROMO

PROMO is the name of UIO’s mentoring program for teacher education students. In their first week at campus, all students in the five year “Lektorprogram” are divided into groups by subject combination. Each group is paired with a mentor, who is a professional and experienced teacher, teaching the same subjects in school. Mentoring of teacher students contributes to a good start in teacher education by meeting challenges first-year students may have in becoming part of a study community, and to start

on their teacher identity formation process. The mentor groups meet routinely during the teacher education program, either on campus or at the schools where mentors are teaching.

Hatlevik, I. K. R., & Lejonberg, E. (2019). Mentoroppfølging i lektorutdanningen: Hvordan oppfølging ved en mentor kan bidra til en god studiestart for lektorstudenter. *Acta Didactica Norge*, 13(1), Art. 2, 27 sider. <https://doi.org/10.5617/adno.5485>

**University school visits** - ILS staff have visited university schools in 2019 with the intention of making better connections between school development projects and UiO research areas.

**Seed Funding of FOU projects** - Six projects were chosen to receive funding for research and development projects involving 10 schools and staff from ILS, IPED, Naturfagsenteret and HF.

**Research and Development (FOU) circles** – Four university schools were chosen to work with the project, “Makt og bærekraft” at ILS. The project has an interactive model for involvement of schools, students, teacher education students and university personnel.

**Newsletter established** - A newsletter with information on activities at schools and the university is sent out 3-4 times per semester.

<https://www.uv.uio.no/ils/forskning/prosjekter/universitetsskole-samarbeidet/nyhetsbrev/>

**University school lectures/seminars** - University schools were invited to a series of seminars in preparation for the new curriculum for schools. Topics included Norwegian, History, English, Mathematics, Social Studies and Sustainable Development. A longer seminar in December had a focus on giving schools time to share their strengths with other university schools.

<https://www.uv.uio.no/ils/forskning/prosjekter/universitetsskole-samarbeidet/Aktiviteter/Forelesninger%20og%20seminar%20for%20universitetsskoler/>

**Communication** - UiO/ILS has also participated in the newly established network for partner schools; a network for the exchange of knowledge about working with partner schools in teacher education. UiO's university school project was presented at a KD seminar in May and the model is presented as Prototype 1 in the report on “Partnerskap i lærerutdanning”. ProTed leader Siw Skrovset (UiT) and past ProTed leader Andreas Lund (UiO) are members of this committee (Faglig Råd for Lærerutdanning).

<https://www.regjeringen.no/contentassets/9969c3f46f0c4a4f95ed9eee70b3ed19/partnerskap-i-larerutdanningene---et-kunnskapsgrunnlag.pdf>

### **Research related to University Schools**

Hatlevik, I. K. R., Hunskaar, T. S. & Eriksen, T. M. (2020). Universitet og skole i samarbeid om lærerutdanning – Universitetet i Oslo sin modell for utvidet partnerskap. I. E. Eldstad (red), *Lærerutdanning i nordiske land*. (s. 277-295). Oslo: Universitetsforlaget.

Hatlevik, I.K.R., Engelen, K.L. & Jorde, D. Universitetsskolers bidrag til utvikling av lærerutdanningen ved Universitetet i Oslo. Publiseres våren 2020 i AdNo temanr: Forberedelse til lærerprofesjonen - partnerskap og relevans i lærerutdanningen.

## University of Tromsø

The University school project in Tromsø has entered phase 3 (2018 – 2012) with 10 university schools and a revised partnership agreement with Tromsø municipality. The goal of the project is to “develop a tight working partnership between the municipality, the university and schools with the aim of developing quality in teaching and practice in schools and teacher education leading to strengthening pupils’ learning. The program has four coordinators at UiT.

The revised goals for the project:

- The University school project will contribute to the development of a coordinated teacher education program working with the development of schools and kindergartens.
- The University school project will contribute to the development of partnerships and connections between areas defined within school development as well as research and development within teacher education (including the Bachelor and Master thesis).
- The University school project will contribute to a sustainable structure of coordination between partners leading to a permanent project after the pilot phase.

Projects in 2019

**Development of the Principal (rector) forum** - The forum has been an important meeting point between school leaders at university schools and those associated with the project at the teacher education institution (Project leader, practice consultant, study leader, ProTed leader). The group meeting six times a year. Actual research and development projects are presented so that schools will have ownership in the formation and implementation of the projects.

**Practice teachers in schools** – A practice teacher forum was established for working locally in schools. The forum meets 1-2 times per semester and is lead by the school’s principal. University school project coordinators attend meetings once per semester. The forum is important for giving practice teachers the knowledge that they too are teacher educators and a part of the university school project together with the university, municipality and other schools.

In a separate forum at the municipality level, information on practice teachers was evaluated. A prioritized area for the coming years will be to provide courses for helping classroom teachers with their practice teacher role (veiledningspedagogikk). A research and development project looking at practice-teacher teams working locally at schools was established in 2019. Current data show promising results.

UiT has participated in the NOKUT meetings with the international evaluation group looking specifically at GLU and the implementation of a 5-year MA program for teacher education. UiT’s work with school partnerships as well as their long standing MA program have been important sources of information for the NOKUT panel. UiT has also participated in the newly established network for partner schools; a network for the exchange of knowledge about working with partner schools in teacher education.

**Master presentations (mastertorg)** - 25 schools were invited to UiT in January to present their local development areas to teacher education students at ILP. This is the second time the event has taken place, providing a meeting ground for schools and potential candidates who might want to work in their schools for the Master degree.



## Alta

The Alta campus joined the Tromsø university school project with the addition of three university schools (two for grades 1-7 and one for grades 8-10) and one coordinator. Alta municipality is a partner in this project, working with the Alta teacher education program on improving student practice.

### **University School Practice teachers involved in teacher education.**

Year 1 students participated in a week long introduction to teacher education in which practice teachers from university schools are involved. Year 2 students taking science had the opportunity to participate in science week together with their practice teachers and researchers. Over 1000 students participated. <https://www.altaposten.no/video/article18481804.ece>. Year 3 students presented their Bachelor thesis using a poster format with university school practice teachers as respondents.

Practice teachers have been involved in the thematic week for students in which Democracy and Citizenship was the main topic.





## WP3 Teacher Education for the Digital Future

ProTed works to promote student-active learning in technology-rich environments. This requires designing activities and practices where net based and collaborative technologies are put to use in ways that enhance pupils' learning, that are relevant for practices in working life and further education, and that make it possible to go beyond and transcend constraints in time and space. All this requires assessment criteria and practices that take the use of technologies into consideration.

Innovation requires:

- Developing the use of technologies to enhance integration and professional learning in teacher education
- Promoting the understanding and development of professional digital competence by contributing to a conceptual understanding of digital competence and through interventions that promote the ability among students to design teaching and learning in technology-rich environments.
- Creating new, technology-enhanced affordances for transformation and learning, including the development of learning arenas and resources (including Canvas) that transcend current teaching practices.

### DIVA/VIVA

<https://www.uv.uio.no/ils/forskning/prosjekter/diva/index.html>

Digital Integretion of Video evaluation (DIVA) has previously been described by ProTed as VVPL and is an innovation project within ProTed. DIVA is a research and development project that uses VIVA (visual vocal application ) to take up information from classrooms and campus instruction. The DIVA project works with learning design for formative and summative assessment in teacher education. VIVA is the name of the app and is a parallel research and development project working on the development and refinement of the app. A large part of the VIVA development has concentrated on GDPR regulations, making security of data and individuals a high priority. Further development will include seamless transitions between secure data bases and the CANVAS learning environment used at ILS. It has also been essential to work on the the development of VIVA connected to a digital consent form (portal) to expedite and secure consent from pupils and parents. The DIVA project has been active in 2019 with further development of the “app” allowing for peer-evaluation, formative and summative evaluation in teacher education. The DIVA/VIVA project has received funding in 2019 from DIKU (2020 – 2021) and from the University of Oslo and from the Faculty of Education at UiO. Further funding has been applied for in 2020.

In 2019, four projects were established to pilot the use of the VIVA app as part of the DIVA project.

Diva 1 – development of new evaluation forms using video for up-take of authentic teaching situations in teacher education (dialog seminar, micro teaching, etv) within the Lector program at ILS.

Diva 2 – development of new forms of practice evaluation (påhør) using authentic video from long practice classroom teaching.

Diva 3 – development of new forms of evaluation using video papers within the Master program for educational leadership at ILS.

Diva 4 – development of new forms of evaluation in which students video taken during their practice is analyzed for use in “veiledningsutdanning”.



DIVA transforms formative and summative assessment in teacher education:

- Formative assessment dialogues with mentor at practice placement will no longer be based on divergent memory or lack of memory of what happened in a specific teaching sequence. The video recording will support a common understanding of the teaching sequence.
- Experiences in practice placement will merge with campus activities, as students bring their video recorded teaching sequences for common examination and assessment between themselves, peers and teacher educators at campus.
- Mentors from practice placement and teacher educators at campus will collaborate on providing formative and summative assessment to the students by making use of students' recorded videos of teaching sequences.
- Students can become more aware of their own professional development over time by creating a portfolio of their teaching sequences from the beginning to the end of their educational program.
- Teacher educators can bring practice placement into their teaching in lectures and seminars at campus, to

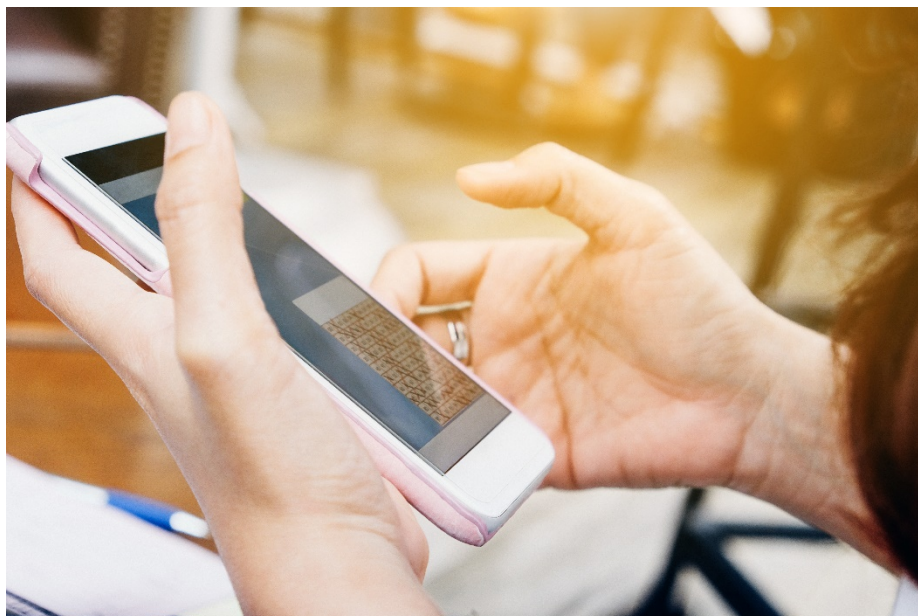
### **Digital learning modules in Professional Digital Competence (PfdK) (UiO)**

Digital learning modules in Professional Digital Competence (PfdK) involve the development of digital learning environment (in Canvas) integrated into student campus courses in Professional Subjects (integrating pedagogy with subject didactics) in the 3rd, 6th and 7th semester in the five year program. These courses are closely integrated in the students' other learning activities through a series of tasks encouraging students to explore how technology can help support pupil learning in their specific field of study, such as Mathematics or English. Students also learn strategies to ensure a successful learning environment in technology rich environments. In 2019 we have worked together with the computers in science SFU at UiO, connecting ideas of programming with didactics of programming.

### **MOSO in teacher education (UiT)**

MOSO (mentoring observation software) is a Norwegian developed program for use in practice advising. The product was developed by UiT, UiA and University of Halmstad, Sweden. MOSO provides a digital platform where plans, documents, and feedback may be exchanged and stored for later use. The platform has been in a development phase with the three universities for three years with formative evaluation in place. Results from the first period showed that students reported better quality in the advising they received from practice teachers.

Use of the MOSO platform in teacher education at UiT has received funding from DIKU (2020-2021). All types of teacher education will be involved in the new project where support for digital advising of students and feedback from practice will be in focus.



### **Teacher Education in the flexible and inquiry based classroom (lærerutdanning i det fleksible og utforskende klasserommet) (Alta)**

A book with this title is under consideration for the digital research group at UiT- Alta. In their research project, the group will look at the processes of change needed in classrooms to meeting the demands of the 21<sup>st</sup> century. Digital competencies are central to the project (PfdK) and must be present in all subjects within teacher education. The project runs parallel to the development of Alta's flexible teacher education model.

### **WP4 Building teacher education communities**

WP 4 is concerned with building learning communities of teacher educators locally, nationally and internationally. The goal is to integrate research and experience based knowledge on teacher education. All teacher education programs in Norway integrate multiple knowledge domains including academic subjects (science, Norwegian, mathematics), subject didactics (science education, mathematics education), pedagogy and classroom practice. Teacher education students navigate through these domains in their education, making it necessary for programs to follow their progression and increase internal coordination between those delivering courses in the programs.

Locally, UiT has been working with team-building seminars to integrate ideas from projects into teacher education. Student active learning forms was the focus of a two day seminar in February, while FOU competence from year one to completion of the MA degree was the focus of a seminar in October. UiO has similar network meetings and seminars to coordinate activities within ILS and also together with the other participating faculties participating in the teacher education program at UiO. Kirsti Lyngvær Engelen is responsible for both of these activities.

## **Mi Lenga project (UiO)**

Mi Lenga is a research and development project designed to strengthen multi linguilism in teacher education at ILS. Associate Professor Joke Dewilde leads the project. Students within the 8-13 lector program work together with university schools and other actors on the forming and writing of the Master thesis where multi linguilism is addressed in different academic disciplines found in schools. Partners/actors working with the project include all university schools, researchers in Denmark, Sweden and Norway (Nordisk) and Nasjonalt senter for flerkulturell oppl ring (NAFO).

The Mi Lenga project is a good example of how the teacher education program at ILS connects research and development from the academic level into classroom through Master students.

<https://www.uv.uio.no/ils/english/research/projects/milenga/index.html>

Aiding Cultural Responsive Assessment in Schools (ACRAS) is a similar type of project in which Master students are connected to research and development ongoing at ILS. ACRAS. Guri Nortvedt leads the project which has produced several Master thesis in 2019 and 2020.

<https://www.uv.uio.no/ils/forskning/prosjekter/acras/index.html>

## **Master Supervision Seminar (Veiledningsseminar) (UIT)**

Educating the Educators is an important way ProTed builds capacity among colleagues in other teacher education institutions.

The new framework for GLU teacher education requires all students to write a MA thesis. This requirement in turn means that many teacher educators, who previously were not involved in advising MA students, will now be engaged in this activity.

The first ProTed seminar on Master degree supervision for teacher educators working with GLU was arranged in 2018 in Oslo. A second seminar took place in March, 2019, also in Oslo. The purpose of the seminar was to share and disseminate experiences from MA supervision to build up supervising competency throughout all teacher education institutions in Norway. ProTed financed the seminar with participants funding their own travel costs.

The 2018 seminar concentrated on the new GLU Master education with much information coming from UiT on their "Pilot i Nord" Master project. In 2019 the seminar also included Master veiledning from the five year integrated lector program at UiO. The seminar has been successful in sharing experiences related to advising of MA students, choosing of thesis topics, working together with schools and research projects on the development of Master topics and evaluation of the thesis.

## **Learning, Assessment and Boundary crossing in Teaching Education (LAB-Ted) (UiT)**

Project leader: Rachel Jakhelln, together with Siw Skr vset (UiT); May Britt Postholm, NTNU; Viv Ellis, Kings College, London. Project duration: four years, financed by the Norwegian Research Council (2019 – 2023).

The new 5-year integrated teacher education framework for 1-7 and 5-10 (GLU) leads to a MA degree oriented towards the practice field and taking up challenges found in schools. The goal for teacher education is to prepare students for becoming research based teachers (FOU) through their work with a BA and MA thesis.

The main research question in the LAB-Ted project is: How can collaboration between universities, schools and student teachers be fostered in order to build capacity for professionally-oriented, practice-based research in teacher education as well as the development of teachers' professional practice in five school subjects within the context of the 2017 GLU-reforms?

The overall goal for LAB-Ted is to increase students' research competency in GLU through models of instruction and advising that help students with their BA and MA thesis. Students will work with teacher educators (campus), university schools (teachers and school leaders) in a partnership for development of a professionally-oriented, practice-based research competency. Teacher education students in English, Social Studies, Science, Mathematics and Physical Education are the target group of the study. The project will study student progression through their research development, looking at those factors that lead to progress or lack of progress. The project will develop new models for student advising towards the MA degree.

### **TED-NET project (Establishing a network for staff mobility and cooperation to develop research on teacher education) (UiT)**

Project leader: Ove Gunnar Drageset (UiT). Project duration: four years, financed by NOTED.  
Additional partners: University of California, Berkeley; University of Auckland

There are three main objectives with the network. The first is to develop the quality of all three participants' teacher education through yearly meetings and joint research on the quality of teacher education. The second is to establish staff and student mobility related to this joint research through scholarships for comparative studies. The third is to develop common courses for student mobility between all three partners. For UiT, the aforementioned objectives will be of great importance to our development of the teacher-as-researcher focus in our national teacher training programmes, as the activities involved no doubt will inform and inspire all participants.

The first meeting of TED-NET took place in Tromsø in November 2018. Participants from New Zealand and California scrutinized the GLU teacher education program at UiT, looking at three key thematic areas: Feedback and evaluation, Integration and Research at the Master level. Recommendations came as a result of group work and constructive feedback from all participants.

The second TED-NET meeting took place in Auckland, New Zealand in November 2019. At this meeting we expanded the scope of the project, looking also at secondary teacher education. Participants from the three countries studied models for teacher education, visited classrooms and talked with students to get an in-depth picture of how teacher education works at the University of Auckland. Projects between partners from the three countries have started in multiple subject domains. Student exchange is active between the three institutions.

The final meeting will take place at the University of California, Berkeley in 2020.

### **Tools for Mentoring (Verktøy for veiledning)(UiO)**

Project leader: Eli Lejonberg. Project duration: 2019 – 2022). Funding: The Norwegian Research Council

The project is designed to develop tools for mentors and new teachers working with mentoring in a structured and research-based manner. The tools are to help adapt mentoring to the individual student's individual needs and support mentoring in focusing on essential practices that teachers need to master.

Based on research on challenges and dilemmas in the teaching profession, we will develop a digital tool for screening preservice teachers' preferences based on:

- (a) self-assessment of preferences
- (b) a decision simulator introducing relevant challenges that teachers face

Other tools are designed to give student teachers feedback on what they should work with and are based on research on mentoring, teachers' work and the challenges facing novice teachers. These tools will provide feedback from learners, fellow students and from the students themselves. We are also developing a mentoring tool that enables and supports the use of feedback for creating learning goals, trying out new practices, structure filming and use video for mentoring purposes.

The project is represented in the DIVA project group (see work package 3).

### **QUINT – Nordic Centre of Excellence: Quality in Nordic Teaching**

The QUINT centre's vision is to systematically investigate teaching quality in the Nordic countries via video recordings taken in Nordic classrooms.

We aim to answer important questions like these:

- In what ways does teaching make a difference in student learning and engagement across subject areas?
- How does it make a difference in mono-lingual as well as multi-lingual contexts across the Nordic countries?
- How can classroom videos be used as effective resources for preparing teachers' pre-service and enhancing in-service teachers' professional development?
- How can video technology and other digital resources generate new forms of collaborative research between researchers and practitioners?

ProTed is a member of the centre, participating in the work package dealing with teacher education.

The QUINT center and ProTed Oslo have explored the possibilities of administering the CATE questionnaire on coherence in teacher education to Norwegian institutions. The questionnaire will be sent out in 2020 to teacher education institutions.

### **Educating the Educators (UiO)**

Educating the Educators is an important way ProTed builds capacity among colleagues in other teacher education institutions.

Teacher education in Norway is going through an intensive reform as all students beginning their studies in 2017 will work towards a Master Degree. The master thesis should be research based and connected to classroom teaching. These are exciting developments for transforming teacher education and classrooms.

Perhaps more important is the transformation that will need to go on for those working in teacher education programs. In a few years, large numbers of students will require supervision of staff who, in many cases, have never been involved in this type of work.

The National Center for Science Education (Naturfagsenteret) and ProTed took responsibility for educating science teacher educators from institutions throughout Norway. 30 participants completed a



30 point course over a period of two years in which participants developed their competency in science education (naturfagdidaktikk). Together, participants learned about inquiry based science teaching, how basic skills are related to science teaching, conceptual development in science and assessment in science. Participants conducted research and wrote articles for publication in science education journals. NORDINA has dedicated a special number to articles from this course, to be published in 2020.

[www.uio.no/studier/emner/uv/ils/NATDID4901V](http://www.uio.no/studier/emner/uv/ils/NATDID4901V)

Why is this course needed? Many of our colleagues working in science teacher education programs have doctoral degrees in science (Chemistry, Biology, Physics, Geology, etc). Conducting research in Science Education is an academic discipline many have little or no experience with. In dedicating time to this course, participants will also become qualified to supervise students taking a research based Master degree in science teacher education. We have started with Science Education. Our hope is that the model may be applicable for other disciplines in teacher education.

A second iteration of the course has started in 2020.

## **WP5: Knowledge base for integrated study design and quality indicators**

The overall aim for ProTed is to develop designs for high quality integrated teacher education. This work package synthesizes the knowledge produced through the developmental projects of WP 1-4, evaluates this knowledge in light of national and international research and develops models for study design and quality descriptions. WP5 cooperates with WP 1-4 to develop quality descriptions which are found in our models, in descriptions of progression and in research publications. As the knowledge base for teacher education continuously develops, work proceeds to bring forward a research base for the further development of teacher education.

In the first 5-year period of ProTed WP5 focused on developing a shared analytical perspective and understanding of core issues of ProTed projects and teacher education such as design, integration and quality (Vestøl 2016 <https://www.journals.uio.no/index.php/adno/article/view/2394> and Vestøl, Dahl & Hunskaar 2018 <https://www.journals.uio.no/index.php/adno/article/view/4447>).

As the new projects in ProTed's second 5-year period are maturing, WP5 is entering its second phase. We now begin to gather research documentation from colleagues studying our teacher education programs. At UiT, the implementation of a five year integrated program leading to a Master Degree has resulted in publications on the process as well as a report on the quality of MA supervision.

At UiO the ideas of progression and coherence have been central for working internally within ILS and also with the four faculties delivering academic subjects to the teacher education program. Focus has been on coordination and cooperation between academic subjects and professional subjects (pedagogy, subject education, practice) and between campus courses and school practice. The "Oslo Model" for teacher education has been shared nationally and internationally. We continue to conduct research on the implementation of the model as seen from analysis at the system level (faculties and schools) and the level of experience from students. Doris Jorde has served as leader of the research group, Teachers' Professional Development and Educational Change (TEPEC).

<https://www.uv.uio.no/forskning/grupper/tepec/index.html>

As ProTed enters its final years, the role of WP5 will be to structure, clarification and disseminate major contributions that have been developed across the many ProTed projects. WP5 will contribute to the development of exit strategies and the future continuation of the ProTed legacy.

## **WP 6: Externally funded projects and applications**

ProTed has been successful in partnering with colleagues at both institutions in applying for research funding locally, nationally (DiKU and NRF) and internationally (EU).

1. STIL project (Student Active Learning Forms) – Project financed by the Ministry of Education. ProTed Oslo is coordinating the overall project in which five teacher education institutions with 1-7 and 5-10 are working on projects to enhance student participation in the initial years. Project leaders: Inga Staal Jensen and Ida K. Hatlevik (UiO). Duration – 2017-2020.
2. Verktøy for veiledning - Prosjektet skal utvikle forskningsbaserte verktøy til bruk i veiledning, og undersøke hvordan verktøyene bidrar til nye læreres profesjonelle utvikling. Project leader: Eli Lejonberg. Duration 2019 – 2022.
3. Linking Instruction in Science and Student impact (LISSI) – Project financed by “Utdanningsdirektoratet” to improve the teaching of science in grades 1-10. The project is financed for three years and will be run jointly between UiO and UiT. Project leaders: Marianne Ødegaard and Marit Kjærnsli (UiO). Duration : 2018-2021.
4. Developing ICT in Teacher Education (DICTE) - ERASMUS+ project administered by HiOA and where ILS/ProTed is a partner with Greta Björk Gudmundsdottir. The three year project involves four European countries.  
<http://www.hioa.no/Aktuelle-saker/Om-laererstudenters-digitale-kompetanse>
5. QUINT - Nordic centre of excellence in education, Nordic Council on Ministries. ProTed is participating in the project. Project leader, Kirsti Klette (UiO). 2019 – 2023.
6. Bruk av video for økt engasjement, analytisk kapasitet og profesjonsrelevans i lærerutdanningen. Project leader: Inga Staal Jensen. Project application sent to DiKU program for studentaktiv læring. Project duration – 2019 – 2022. Project will start regardless of funding with support from ILS and ProTed.
7. Science Education for Action and Engagement Towards Sustainability (SEAS). Project leader: Erik Knain, ILS. Funding: EU: Science with and for Society Program. Duration: 2019 – 2022)
8. TED-Net Project (Establishing a network for staff mobility and cooperation to develop research on teacher education) (UiT). Project leader: Ove Gunnar Drageset (UiT). Project duration: four years, financed by NOTED. Additional partners: University of California, Berkeley; Univeristy of Auckland.
9. Learning, Assessment and Boundary crossing in Teaching Education (LAB-Ted) (UiT)Project leader: Rachel Jakhelln, together with Siw Skrøvset (UiT); May Britt Postholm, NTNU; Viv Ellis, Kings College, London. Project duration: 2019 – 2023). Financing: Norwegian Research Council.
10. Digital Integring av Videovurdering på ulike Arenaer (DIVA) (UiO). Project leader: Torunn Strømme. Project duration: 2020 – 2021. Financing: DIKU, program for digitalization for learning in higher education.
11. Design av digital støttet praksislæring i lærerutdanning (UiT). Project leader: Cato R. P. Bjørndal. Project duration: 2020 – 2021. Financing: DIKU, program for digitalization for learning in higher education.



## ProTed future plans ( UiO and UiT)

1. We will work on documentation of the “Legacy” of ProTed as we approach the conclusion of the SFU funding.
2. We will continue planning the International conference in 2021 (Bringing Teacher Education Forward 2021) together with the Quint center. We build on the success of the international conference in 2016, Bringing Teacher Education Forward.
3. We will continue our benchmarking activities together with other teacher education institutions.
4. We will continue the development of models for partnerships in teacher education.
5. The National Lector Teacher Education Conference (Nasjonalt Lektorutdanningskonferanse) took place in Tromsø in 2019. The theme for the conference was “fagfornyelsen i møte med 8-13”. The two day conference is an important arena for administrative and academic staff to meet and discuss topics relevant to this type of teacher education. The conference in 2020 will be held at UiO/ILS in November.

## University of Oslo (UiO)

1. We will continue to work with the STIL project (student active learning forms) initiated by the Department of Education (KD). In 2020 we will edit a special number of Acta Didactica (2021), providing the opportunity for STIL institutions to publish their results.
2. We will continue our work with the development of the VIVA“APP” to be used in filming of practice situations for teacher education students. We will use the VIVA app in the DIVA projects at ILS where formative and summative evaluation are central to student authentic classroom assessment.
3. Use of authentic video in teacher education has become an important innovation for ProTed Oslo. Video data from research projects has been categorized and is ready to use in campus courses.
4. Continued development of the Oslo model – ILS is responsible for the teacher education program at UiO, working together with four faculties. The Oslo model is dependent on good communication between ILS and faculties delivering academic courses. In 2020 will will continue to evaluation semesters 8-10 in the Master component of the 8-13 program.
5. We will continue to work with the newly formed 8-13 network for analyzing teacher education at this level.
6. We will continue development of digital competency modules for teacher education, and connect this work to the SFU, computers in science.
7. We will continue to work with the development of the University school model, improving connections between school and campus.
8. We will continue to work with the Norwegian Centre for Science Education (Naturfagsenteret) with the implementation of a national course for science teacher education in Science Education (Naturfagdidaktikk). We will discuss (with KD) possibilities of transferring this model to other subject areas as teacher education programs move towards a five year Master Degree program. .
9. We will engage in the work of the research group “Teacher Professionalism and Educational Change: Practices, Purposes, Policies (TEPEC)” as we combine innovation, evaluation and research studies within the teacher education program. Coordination of activities will result in research papers and conference presentations of the Oslo Model.
10. We will continue our work with QUINT, especially connected to the work package on teacher education.

11. We will work with research projects at ILS: SEAS, Mi Lenga, Verktøy for veiledning, VIVA, DIVA, LISSI, with an eye towards how they may improve the teacher education program.

## **The Arctic University of Norway (UiT)**

1. We will continue to work with the STIL project, implementing phases 1 and 2 as a permanent part of the UiT teacher education program and publishing articles from the project.
2. We will continue our work with the University school project, with an emphasis on sharing experiences between all levels including barnehage, GLU, and 8-13.
3. We will continue development of the “Mastertorg” to bridge the gap between the schools and students’ interests and needs, and will initiate research to evaluate this project.
4. We will continue the investigation of the MOSO application in GLU and expand to 8-13-students.
5. We will continue participation with the TED-Net project, together with Berkeley and Auckland.
6. We will continue work with the LAB-Ted project at UiT.
7. We will continue development of master thesis supervision by starting up a Professional Learning Community of academic staff, which will meet on a regular basis (monthly meetings in 2020).
8. We will continue development of the progression and coherence in the GLU master education, with a certain focus on progression of the students’ R&D-competence combined with relevance for the schools.
9. We will continue development of the Tromsø model for teacher education, especially related to a growing knowledge base related to new projects.

## **Dissemination**

Dissemination from the five work packages takes place at three levels:

1. Internally within our institutions as we work on improving our models for teacher education
2. Nationally
  - a. Working together with other teacher education institutions on their models either as critical friends or as mentors
  - b. Participation in conferences, seminars and workshops on teacher education
  - c. Participation in courses for teacher educators
3. Internationally
  - a. Publication of research papers on teacher education models and innovations in Norway
  - b. Presentations at international conferences
  - c. Networks and seminars with international partners

## **Student Engagement in ProTed**

Students are at the core of all ProTed activities, whether we are studying our teacher education programs or introducing innovations. Student feedback is highly regarded for evaluation and research on program development, driving the iterative process of redesign. Student participation in formal and informal arenas for teacher education provides the student voice in all activities related to teacher education. Students are always represented at national conferences in teacher education (Lektorutdanningskonferansen). The student voice is important and necessary for ProTed.

At UiO students are involved in the planning of teacher education progressions through academic faculties (SV, MN, TF and HF) as well as integration with teacher education programs. We see an increasing interest from faculties to include lector students in decisions related to courses, learning environments and social activities. At MN, lector students are using their professional skills from the teacher education program to lead seminars and introduce ideas of student active learning within the sciences. Lector students have several political and social platforms where students have direct contact with the leadership at ILS and ProTed. Lector students are involved in the development of modules for digital competencies, providing information on content, relevance and connections to Canvas as a learning environment. Lector students are involved in research projects at ILS as they build competencies in research and development connected to teaching and learning in schools.

As a result of an additional grant from NOKUT to promote student-driven-projects, UiO has initiated a collaborative project with the student organizations to create a web portal for all student involvement in study related and social activities. The project will continue in 2019.

At UiT, the STIL-project (Student Intensive Learning Methods) has been the key project for developing increased student engagement in 2017. All new students in the GLU 1-7 & 5-10 master programs are included. In addition, 14 students in their second year were engaged to welcome the new students (150) in August, during participation in round-table discussions about the teacher role and in arranging a rebus on campus. The second year students led by student representatives, planned and organized components of the introduction week activities for new students. The evaluation showed that the new students appreciated the engagement shown by older students in welcoming them to their teacher education study. Based on experiences from the pilot introduction week, the older students have already volunteered to repeat such an arrangement for new students in 2018 and 2019.

In Tromsø, the NOKUT-grant allows for students that are midway in their program, to be involved as partners in the evaluation and development of the program. Development of the STIL –project is a part of this work.



Photo: ProTed: Educating inquiring professional teachers, ready to become change agents in schools

## Attachments

1. Teacher education models at UiO and UiT
2. Personnel
3. Relevant Publications

Attachment 1

## Teacher education programs at UiO and UiT an national regulations

The teacher education programs are regulated by national regulations, one for each level:

Forskrift om rammeplan for grunnskolelærerutdanning for trinn 1–7:

<https://lovdata.no/dokument/SF/forskrift/2016-06-07-860>

Forskrift om rammeplan for grunnskolelærerutdanning for trinn 5-10:

<https://lovdata.no/dokument/SF/forskrift/2016-06-07-861>

Forskrift om rammeplan for grunnskolelærerutdanning for trinn 8-13:

<https://lovdata.no/dokument/SF/forskrift/2013-03-18-288>

The following models project how the programs at UiT and UiO are organized.

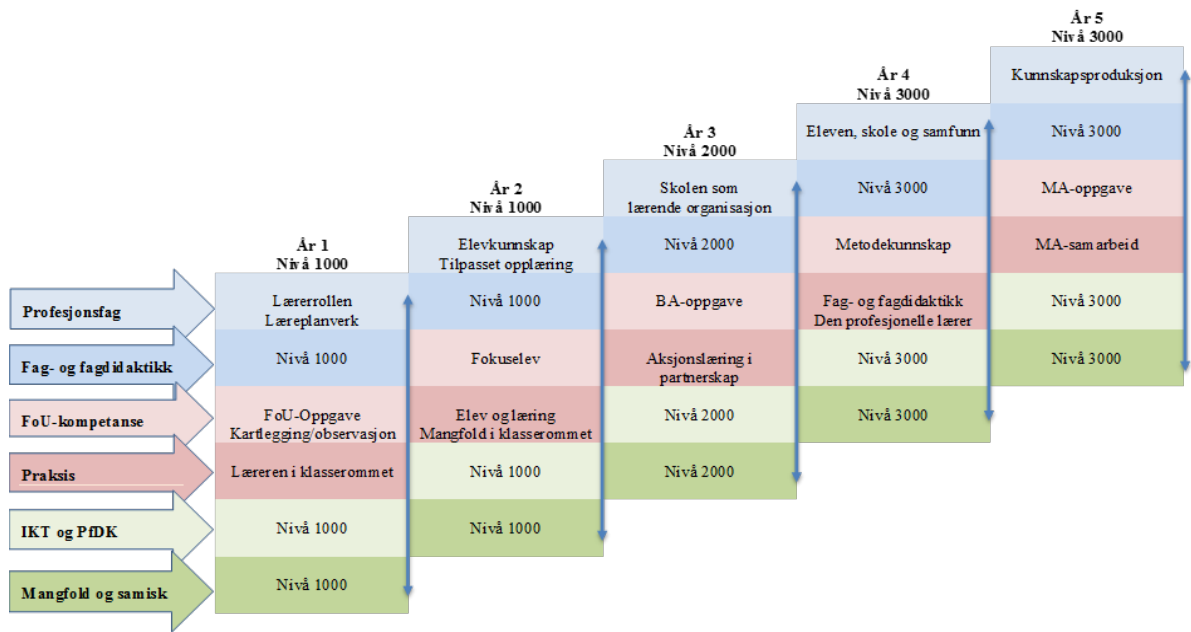
### UiT Tromsø model 5-10

	Høst	Vår	Undervisningspraksis
1. studieår	Fag 1 (15sp)	Fag 1 (15sp)	25 dager
	Fag 2 eller 3 (15sp) + PEL (10sp) + Praksis + FoU <b>fag 1</b> (5sp)		
2. studieår	Fag 2 eller 3 (15sp)	Fag 2 eller 3 (15sp)	30 dager
	Fag 2 eller 3 (15sp) + PEL (10sp) + Praksis + FoU <b>fag 2</b> (5sp)		
3. studieår	Fag 1 fordypning (20sp)		30 dager
	Fag 2 fordypning (20sp)		
	FoU-tema <b>fag 2</b> (5sp)	FoU-oppgave <b>fag 1</b> (15sp)	
	Praksis		
4. studieår	PEL (15sp)	Masteremne (15sp)	30 dager
	PEL (15sp)	Masteremne (15sp)	
	Praksis		
5. studieår	Metode (15sp)		
	Masteroppgave (45sp)		

## UiT Tromsø model 1-7

	Høst	Vår	Undervisningspraksis
1. studieår	Matematikk (15sp)	Matematikk (15sp)	25 dager
	Norsk (15sp) + FoU (5sp) + PEL (10sp) + Praksis		
2. studieår	Fag 3 (15sp)	Fag 3 (15sp)	30 dager
	Norsk (15sp) + FoU (5sp) + PEL (10sp) + Praksis		
3. studieår	Fag 4 (15sp)	Fag 4 (15sp)	30 dager
	Fag 1 fordypning (15sp)	FoU-oppgave (15sp)	
	Praksis		
4. studieår	PEL (15sp)	Masteremne (15sp)	30 dager
	PEL (15sp)	Masteremne (15sp)	
	Praksis		
5. studieår	Metode (15sp)		
	Masteroppgave (45sp)		

## Progression throughout five years: The Tromsø steps



## Teacher education program at UiO (8-13) “Oslo Model”

University of Oslo Study design – Humanities (8-13)				Dimensions throughout the five year, integrated study design			
				Mentor Program (Promo)	Teaching practice in schools	Research methodology	Professional digital competence (PfdK)
10	Master thesis ( Subject 1 or Subject didactic 1)			1 seminar + poster-conference	Poster conference with schools	Experience from scientific work Master thesis	Test mapping professional digital competence 3
9	Subject 1 or Subject didactic 1	Subject 1 or Subject didactic 1	Subject 1 or Subject didactic 1	2 seminars	15 days: Empirical data collection?	Data collection + analysis	Digital learning module 4 (integrated SPOC)
8	Subject 1 or Subject didactic 1	Subject 1 or Subject didactic 1	Subject 1 or Subject didactic 1	2 seminars	R&D in schools	Research design + method	Test mapping professional digital competence 2
7	Professional course (Integrated Educational Theory and Subject Didactics)			2 seminars	45 days : Assessment and differentiated instruction	Research methods + R&D exam assignment	Digital learning module 3 (integrated SPOC)
6	Subject 1	Professional course (Integrated Educational Theory and Subject Didactics)		2 seminars	25 days : teaching, learning and classroom management	Research in schools + R&D exam assignment + digital video case exam	Digital learning module 2 (integrated SPOC)
5	Subject 1	Subject 1	Subject 1	3 seminars	Visits to different learning arenas (museums etc.)	Bachelor thesis	Technology in subject areas and research
4	Subject 1	Ex.phil	Subject 1	3 seminars	Schools visits, university schools	Specialization in subject area + Analytical skills	Test mapping professional digital competence 1
3	Subject 1	Subject 1	Professional course	3 seminars	15 days : Pupils learning in different subjects	Systematic observation + Case analysis of pupils and teacher	Digital learning module 1 (integrated SPOC)
2	Subject 2	Subject 2	Subject 2	3 seminars	The role of the teacher	Professional insight in subject area + Critical thinking	Technology in subject areas and research
1	Subject 2	Subject 2	Subject 2	3 seminars	Schools visits, university schools	Professional insight in subject area + Critical thinking	Technology in subject areas and research
	10 ECTS	10 ECTS	10 ECTS				



## ProTed Personnel and Management 2019

ProTed is a collaborative partnership between UiT The Arctic University of Norway and The University of Oslo. A common center management is responsible for academic leadership. The two universities are represented at all levels of academic management. UiO is the financially responsible host institution.

### Board Members

- Dean Sten Ludvigsen (UiO), chair
- Pro-Rector Wenche Jakobsen (UiT)
- Dean Sonni Olsen (UiT)
- Dean of Studies Jon Magne Vestøl (UiO)
- Dean of Studies Ingjerd Hoëm (UiO)
- Head of Department Odd Arne Thunberg (UiT)
- Head of Department Rita Hvistendahl (UiO)
- Student Katrine Marie Håvik (UiT)
- Student Marianne Ingrid Finsrud Lien (UiO)
- Head of ProTed/Docent Siw Skrøvset (UiT)
- Head of ProTed/Professor Doris Jorde (UiO)

Secretary for the board is Kristin Flood Strøm (UiO).

### Management Team

- Head of ProTed/Professor Doris Jorde (UiO)
- Head of ProTed/ Docent Siw Skrøvset (UiT)
- Associate Head of ProTed, Kirsti Lyngvær Engeliën (UiO)
- Adviser Silje Sivertsvik (UiT)
- Magnus Heie, Communication (UiO)

### Work Package Leaders (status 31.12.2019)

WP1	UiO Professor Doris Jorde, Undervisningsleder, Kirsti Lyngvær Engeliën UiT Professor Tove Leming
WP2	UiT Project Leader Jan Fredrik Skogdal UiO Adviser Tove Seiness Hunskaar (until October)
WP3	UiO Associate professor Torunn Strømme UiT Senior Lecturer Lisbet Rønningsbakk
WP4	UiT Associate Professor Rachel Jakhelln UiO Associate Professor Inga Staal Jenset
WP5	UiO Associate Professor Jon Magne Vestøl UiT Head of Program 5-10/Associate Professor Ove Drageset

### Other Personnel

ProTed is tightly integrated in the teacher education programs at UiO and UiT, resulting in a large number of administrative and academic personnel involved in ProTed's research and development activities (approx. 150).

## Relevant Publications

ProTed is closely integrated into the teacher education institutions at UiO (ILS) and UiT (ILP). Faculty members at both institutions are identified as being a part of the ProTed SFU in their academic positions. The publications provided in this document represent those that are related to teacher education or to classroom research that is relevant to teacher education.

### Relevant Publications ILS/UiO 2019

**Aagaard, Toril; Lund, Andreas.**

Digital Agency in Higher Education. Transforming Teaching and Learning. Routledge 2019 (ISBN 978-0-367-07413-5) 124 s.

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