

Teacher students' expectations of working as professional teachers in school.

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Preface

This report describes the results of a questionnaire survey answered by students in the first cohort of the national five-year integrated master's degree programme for primary and lower secondary teachers established in 2017. The survey was carried out as part of the work in the Partnership [*for Sustainable Transition from Five-Year Primary and Secondary Teacher Education to Professional Teacher*](#)¹. The English title of the project is *Partnership for Sustainable Transition from Teacher Education to The Profession*, hereinafter abbreviated as STEP. The report is based on the collaboration in this project consisting of researchers from UiT- Arctic University of Norway, the University of South-Eastern Norway (USN) and partners from The Norwegian Association of Local and Regional Authorities (KS), the Union of Education Norway (UEN) and their student organization Norwegian Teacher Student Union (PS).

The report is mainly written by Knut-Rune Olsen (USN) and Elise Wedde (UEN) and is the first report from STEP. It addresses the teacher students' expectations of working as professional teachers in schools. In addition to Knut-Rune Olsen (leader, WP1) and Elise Wedde (assistant leader, WP1), the following participants have participated in developing the survey and analyzing the data: Yngve Antonsen (UiT), Eva Bjerkholt (USN), Tonje Harbek Brokke (USN), Gunn Gallavara (UEN), Heidi Gilberg (USN), Sissel Havre (UEN), Finn R. Hjordemaal (USN), Rachel Jakhelln (UiT), Janne Madsen (USN), Jorun Sandsmark (KS) and Anna-Maria Stenseth (UiT)

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Summary

The purpose of the survey was to map what expectations the first cohort from the five-year integrated master's degree programme for primary and lower secondary teachers have for the work as professional teachers in schools.

The empirical basis for the report consists of responses from students who had just started their last year of primary and lower secondary teacher education. The questionnaire mainly

¹ See website <https://www.usn.no/forskning/hva-forsker-vi-pa/barnehage-skole-og-hoyere-utdanning/veiledning-i-profesjon-og-utdanning/step/>

included questions with fixed answer options, but with an opportunity for the respondents to comment on their answers. The data collection was carried out in the autumn of 2021, during a period marked by the Covid19 pandemic with shutdown and extensive online teaching as a substitute for planned teaching on campus. It is also worth noting that the study was carried out before the students started working on their master's thesis, and their assessments of the education and the importance of the master's thesis must be understood considering this.

The results show that the students generally look forward to starting in the profession with anticipation and excitement. They feel well prepared to teach the subjects they specialize in from their education. At the same time, the comments show that many are unsure whether they are sufficiently equipped for the breadth and complexity of the challenges they expect to face in school. This uncertainty is primarily about two factors: First, they are uneasy about possibly teaching subjects in which they do not have specialization. This applies primarily to collaboration with parents, the contact-teacher role, collaboration with the school's auxiliary services and facilitation for pupils with special needs.

Students expect the transition from education to work in school to be demanding. They have an offensive and learning-oriented attitude to meeting these challenges. When it comes to their own need for facilitation and learning-supportive measures, they primarily point to expectations of collaboration with experienced colleagues, adaptation from the management related to work and teaching plans that they can master and participate in quality mentor programs in line with the national principles for mentoring of newly qualified teachers.

When asked what the students think they will be able to add to the professional community in the school, they point to enthusiasm and fervor for the pupils' learning and school environment and a willingness to stimulate student participation and understanding of democracy. The students also express that they believe they can contribute with a critical-analytical and exploratory approach to teaching and learning.

Both answers and comments show that many of the students primarily perceive the work related to the master's thesis as a further specialization and specialization in subjects.

1. Introduction

1.1 STEP's background

Initially, we will briefly present the background for the project STEP and the role of the partners involved in the work. STEP is a research and collaboration project financed through funding from the Research Council of Norway. The research period spans four years from March 2021 to March 2025. The partners in the project are researchers from the University of South-Eastern Norway (USN), the University of Tromsø (UiT) – The Arctic University of Norway, The Norwegian Association of Local and Regional Authorities (KS), Union of Education Norway and their student organization Pedagogstudentene (PS). The purpose of STEP is to develop research- and experience-based knowledge with a view to prevent dropouts from the teaching profession, stimulate debate and contribute to measures that enable the newly qualified teachers in school to use and develop their competence individually and in the professional community in the school.

The partners in STEP represent key actors and interests in the work to ensure that newly qualified teachers have the best possible meeting with the school as a workplace. We will briefly outline some historical main lines with emphasis on the roles and tasks of the participating organizations in this work. For a more in-depth description and analysis, we refer to Bjerkholt and Olsen (2020).

The first national mentoring programs for newly qualified teachers started in 2003 (Ministry of Education and Research, 2002). In 2009, the Ministry of Education and Research signed a letter of intent with KS (Ministry of Education and Research, 2009) with the aim of strengthening the work on mentoring for newly qualified teachers in schools, kindergartens and upper secondary education. With some minor adjustments, this agreement was in force until February 2017, when the Storting made the following unanimous decision (Innst. 182 S (2016-2017)):

- *The Storting asks the Government, in cooperation with the parties, to formulate a national framework for a mentoring program for newly qualified teachers that*

*ensures that all new employees are covered by the scheme and that allows for local adaptation*² (Ministry of Education and Research, 2021).

On this basis, the Ministry of Education and Research invited the relevant actors to collaborate on proposed principles and obligations for mentoring of newly qualified, newly employed teachers in kindergartens and schools. KS and the UEN with their student organization PS participated in this work. The UEN is the largest teachers' union with over 185,000 members and PS has over 20,000 members. KS is the municipal sector's interest organisation, development partner and the country's largest public employers' organisation. All Norwegian municipalities and county authorities are members of KS.

The results of the committee work was presented in 2018 in the form of [*Principles and obligations for supervision of newly qualified newly employed teachers in schools and kindergartens*](#)³. The purpose of the document was to ensure that "All newly qualified, newly employed teachers receive a good transition from education to profession through equal offers of good quality mentoring, in line with the principles of mentoring in this document" during the first two years of work as a teacher (Ministry of Education and Research, 2021, p.6).

In 2021, on behalf of the Norwegian Directorate for Education and Training, the consulting firm Rambøll presented the results of a national survey of the effect of the measures agreed by the parties in 2018. The survey included only graduates who were in their first year as a teacher. It showed that there was some positive development both in terms of quality and quantity of the mentoring programs for newly qualified teachers. However, it was also revealed that the programs were of very varying scope and quality, and that about 40 per cent of the newly qualified teachers were still without an organised and adapted mentor program (Rambøll, 2021). Against this background, a new working group was established in the spring of 2022 with representatives from the parties who will prepare proposals for further follow-up and measures on the basis of the Storting's decision from 2017.

² <https://lovdata.no/dokument/SF/forskrift/2016-06-07-860>; <https://lovdata.no/dokument/SF/forskrift/2016-06-07-861>

³ https://www.regjeringen.no/contentassets/0081e41fad994cfdbb4e0364a2eb8f65/veiledning-av-nyutdannede-nytilsatte-larere-i-barnehage-og-skole_oppdatert-2021_10.pdf

From the very first national programs for mentoring of newly qualified teachers started in 2003, teacher educators and researchers from the USN have played a central role, among other things, through the work of the [National network for mentoring newly qualified teachers](#)⁴ in school, kindergarten and upper secondary education. This academic network includes representatives from all universities and university colleges (the higher education sector) in Norway that offer teacher education and has been funded by the Norwegian Directorate of Education since the establishment of the network in 2003.

Furthermore, researchers at USN and representatives from UEN have led and participated in the Nordic cross-sectoral network *Newly Qualified Teachers and Induction: A Nordic cross-sectoral Network – NTI*. The network is financed through funding from the [Nordic Council of Ministers](#)⁵ and consists of teacher educators, researchers and representatives of teacher organisations in Denmark, Finland, Iceland, Norway and Sweden. In addition, representatives from teacher organizations in Estonia and researchers from Tallinn University participate. The background for the collaboration is a desire to share experiences and research-based knowledge about measures aimed at the transition from education to occupation for newly qualified teachers in the Nordic countries. In October 2020, this network published the scientific anthology [New Teachers in Nordic countries – Ecologies of mentoring and induction](#) (Olsen et. al., 2020) published in Open access by the publishing house Cappelen Damm Akademisk. The anthology analyses and summarizes a central part of the knowledge on which STEP is based.

In the autumn of 2010, UiT-The Arctic University of Norway started an integrated, professional and research-based five-year master's programme for the education of primary and lower secondary teachers. This was a pilot that envisaged many of the principles underlying the five-year primary and lower secondary teacher education, which from 2017 has been the main model for the education of primary and lower secondary teachers in Norway.

The first cohort from the education at UiT graduated in 2015. Through the research program *Relevant master's program for primary and lower secondary teachers (RELEMAST)*,⁶

⁴ <https://nyutdannede.no/>

⁵ <https://www.norden.org/no/nordisk-ministerrad>

⁶ <https://site.uit.no/relemast/>

researchers at UiT have interviewed a group of students during their studies and the first second, third and fifth year after they started working in school. Methodologically and empirically, this represents an important part of the knowledge base for STEP. Some of the research material from RELEMAST is incorporated into this report.

The collaboration between researchers and representatives of both the employee and employer side in primary and lower secondary school makes STEP an important project with a view to developing research and experience-based knowledge that prevents dropouts from the profession and ensures that newly qualified teachers get the best possible start to their professional careers.

2. Method

2.1 Issues and research questions

The research work in STEP is based on four overarching issues:

- What are the expectations of the students and their future colleagues, school leaders and owners to the newly qualified teachers' mastery of the challenges they face in school?
- How is the newly qualified teachers' professional competence and insight into their knowledge valued and adopted in school?
- What measures can help keep them in the profession and form part of a comprehensive strategy for career development and competence enhancement in schools?
- How can research- and experience-based knowledge contribute to developing the national framework for mentoring of newly qualified teachers?

Increasing the scope of primary and lower secondary teacher education from four to five years and master's level represents a follow-up of international standards related to master's level in primary and lower secondary teacher education. Furthermore, structural features of the teacher education reform introduced in 2010 have been continued in the 2017 reform. This applies, for example, to specialization in subjects and the two division of education one in one in some oriented towards teaching in primary and lower secondary school grades 1-7 and another against 5-10. The specialization in subjects has been further

reinforced in the 2017 reform by the fact that students in GLU 1-7 will normally have specialization in three to four teaching subjects and GLU 5-10 in two to three teaching subjects. Specialization involves at least 60 ECTS credits in two teaching subjects of 5–10 or one subject of 1–7. The remaining teaching subjects require at least 30 credits.

The programs are designed to professionalise professional practice by allowing teachers to link academic specialization and research and development work (R&D) (Ministry of Education and Research), 2017). Therefore, the importance of research-based knowledge and insight into the theory of science and methodology is reinforced and clarified throughout the five-year course of education, and there is a requirement for a research work in the form of a completed master's thesis in cycle two of the programme (4th-5th year of study). The students write a master's thesis in one of the subjects in the academic specialization or in *begynneropplæring* eller special needs education. The Regulations for the education state that work with the master thesis shall be professionally oriented, practice-oriented and relevant to the school (Ministry of Education and Research, 2016a, 2016b).

The work in STEP is organized into five work packages aimed at the project's purpose and the four overarching issues presented above. This group describes a questionnaire survey that is included as one of the elements of work package 1. The survey is based on the following research question:

What are the expectations of students in the last academic year of the five-year primary and lower secondary teacher education for themselves and the meeting with students, parents, colleagues, and leaders in the school?

The question is therefore aimed at *student expectations* represented by the first class of students (grades 1-7 and 5-10) who started in the autumn of 2017 in the new national five-year integrated master's degree programme for primary and lower secondary teachers. In a later survey, we will map the *recipient page*, i.e. future colleagues, school leaders and school owners' expectations, to the newly qualified teachers.

The research question on which the survey of student expectations is based is specified in the following research questions:

- *What do students assume will represent the biggest challenges?*
- *How do they assess their own prerequisites for meeting these challenges?*

- *What measures do they think may be needed with a view to supporting them in the transition from teacher education to the profession as a teacher?*
- *What do they think they can contribute to collegial cooperation and in the meeting with the students?*

2.2 Carrying out the survey

As part of the preparation for the reform, NOKUT, on behalf of the Ministry of Education and Research, established a panel consisting of international experts in teacher education. One of the clear advices given by the expert panel (NOKUT, 2020:3) was to give the teacher education institutions plenty of time to fully implement all aspects of the teacher education reform before implementing a national evaluation program aimed at the intended and unintended consequences of the reform, so that the programs would have time and room for local adaptations in order to evaluate and implement measures themselves in light of the national guidelines. Specifically, the recommendation was to wait until three cohorts have completed the programme before initiating a national "participatory and formative evaluation" of the results (NOKUT, 2020). It has not been our intention to anticipate such an evaluation, but it is difficult to map the students' assessment of their own assumptions in terms of the work in schools without it also being seen considering their assessment of the education they are about to complete.

In our survey, it was particularly important to highlight the elements of the 2017 reform that represent the largest renewals of the education. This primarily included increased academic specialization, greater emphasis on research-based knowledge, basic introduction to the theory of science and methodology, and the implementation of a research work in the form of a master's thesis. The renewal of the education reflects the last ten years' discourse around teaching as a profession. Gradually, it has crystallised into a broad consensus between researchers, teachers' organizations, and politicians on the principles on which the 2017 reform is based (Government, 2016; Lillejord & Børte, 2014, 2017).

There is no overall national overview of the population "graduates of the five-year master's program for primary and lower secondary teachers in the academic year 2021-2022". To reach the entire population, we would have had to organize the distribution of the

questionnaire through every higher education unit that offers this education. We considered this as potentially leading to logistical challenges, increased opportunities for a low response rate and potential bias in the range. We therefore chose to distribute the survey via the PS's member archive, which includes e-mail addresses of a total of 1986 members of the population. According to the PS, this corresponds to about 74 per cent of the population.

The survey was conducted as a web survey in the period 19. October–7. November 2021. It was sent to all members of the PS who were listed as potential graduates with a master's-based primary and lower secondary teacher education in the spring of 2022. Ten people reported that the information was incorrect. These were thus taken out of the survey as they were then outside the target group. With this, the net sample was reduced to 1 975 persons. 532 of these responded to the survey, which represents a response of 27 per cent.

The questionnaire consisted mainly of questions with fixed answer options. In addition, in connection with the various question batteries, it was possible to supplement with supplementary and in-depth comments. The respondents have largely taken advantage of this opportunity, which means that in addition to quantitative data, we have obtained a comprehensive collection of qualitative data in the form of student comments. In all, the comments include 35 typed pages in Times New Roman, font size 12 line spacing 1. This in itself represents a very interesting data material that will be encoded and analyzed for later publications.

When it comes to the survey's reliability, there will always be statistical uncertainty associated with a sample survey. In addition to the response rate, the size of the selection and the answer distribution have an impact on how accurate the results are. For example, a small selection where respondents answer mostly the same may have lower margins of error than a larger selection where respondents respond differently.

As for how representative the survey is, it must be considered that there are possible sources of error at two levels. We cannot exclude that the gross selection, i.e. students in the master's degree programme who are members of the PS, are not fully representative of

the population "the first cohort of students who started in the autumn of 2017 at the new national five-year integrated master's degree program for primary and lower secondary teachers". Factors that speak against this are that the percentage with membership in the PS is relatively high. This may be due to the membership being free and providing access to several member benefits such as cheap insurance.

The response percentage of 27 is relatively low, and this may have led to bias in the selection. Therefore, the results must be interpreted with some degree of caution and discretion. In our analysis, we have taken this into account by primarily highlighting and discussing impacts that we perceive as relatively safe and significant. We have also to some extent dealt with the large number of comments that in content and number support main findings in the statistical material.

2.3 Findings

2.3.1 Characteristics of the target group

The respondents were asked to state their gender and age. As stated in Table 1, overall, there are far more women than men in the selection. This shows that the graduates from primary and lower secondary teacher education 2022 contribute to maintaining the skewed gender distribution among teachers in primary and lower secondary schools.

Table 1 Sex (N:532)

	Percent
Woman	76%
Man	17%
Other gender identity	0%
Not specified	7%
N	100%

Furthermore, Table 2 shows that three out of four students were 25 years or younger at the time the survey was conducted.

Table 2 "How old are you?" (N:532)

	Percent
Age 25 or younger	69%
26-30 years	16%
31-40 years	6%
41 years or older	2%
Not specified	7%
Total	100%

The admission rules for primary and lower secondary teacher education have been the subject of debate in recent years partly because of the requirements for a minimum grade level in Norwegian and Mathematics. Another possible measure of intake quality is the to which extent students can be expected to be motivated for the education they are admitted to. Table 3 shows that nine out of ten students admitted to primary and lower secondary teacher education in 2017 had this education as their first choice when applying for admission to higher education.

Table 3 "Was teacher education your first choice when you applied for higher education?" (N:531)

	Percent
Yes	90%
No	9%
I don't know/don't remember	1%
Total	100%

All students who start in primary and lower secondary teacher education have a minimum of 13 years of experience as a student in the school. There is reason to believe that this helps shape their expectations for professional education and for the teacher role (Jordell, 1986). Furthermore, Table 4 shows that several people have worked as teachers prior to or during education, and that about three out of four students in our sample have experience from working in schools beyond the practical training included during education (minimum 110 days).

Table 4 "If you disregard the practical teacher training periods during your education, have you worked as a teacher in school before you started, or during your teacher training?" (N:532)

	Percent
Yes	74%
No	26%
Total	100%

We also asked students to estimate the extent of their experience from teacher work. Three out of four teacher students have gained more experience from the profession either before or during education.

Table 5 "Converted to 100 percent position, would you say your work experience as a teacher corresponds to ... » (N:392)

	Percent
Less than 3 months?	34%
Between 3 months and one year?	47%
More than a year?	19%
Total	100%

2.3.2 Students' assessment of their own prerequisites for working as a teacher

The starting point for the survey is phenomenologically oriented in the sense that the primary focus was to map the students' subjective assessments of their own prerequisites for the work in school considering the education they are about to complete. The basis for this includes several factors that the students themselves to some extent can influence the effect of through their own choices. For example, the students have considerable room for action when it comes to attending meeting places that allow for collaboration with fellow students, participate in teaching, lectures and mentoring in addition to their own general study efforts. However, the students' learning outcomes are not only about "responsibility for their own learning» but are also framed by structural frameworks and formal requirements related to teacher education as a professional education (Hatlevik & Havnes, 2017).

This report is essentially descriptive. Therefore, we have chosen not to go into a more in-depth analysis of the results based on research front and theory related to primary and lower secondary teacher education as a professional education. However, it is clear that these results reflect trends and challenges known from other research in the field

(Mausethagen & Smeby, 2017). In addition, NOKUT has conducted a national survey referred to as [Studiebarometeret](#) in 2018⁷. The survey reflects the students' assessment of quality in their own education and encompasses virtually all universities and university colleges in Norway. A total of about 1800 study programmes are included. Among other things, the data shows that the students in some of the professional education programmes are generally less satisfied than other students. This applies not least to the students in primary and lower secondary teacher education. Over the past 25 years, primary and lower secondary teacher education has undergone several reforms, and the relationship between the theoretical and practical part of the education has been the subject of discussion. Research shows, among other things, that the students generally express greater satisfaction with the practical training than the campus-based part of the education (Lillejord and Børte, 2014 and 2017; Raaen, 2017).

Furthermore, the research points out that tensions and heterogeneity are inherent and consistent features in all professional education programs and consequently also in teacher education (Mausethagen & Smeby, 2017). Hatlevik and Havnes (2017) discuss these challenges in light of Antonovsky's concept of "sense of coherence" which can generally be understood as a coping strategy in which the individual tries to create coherence in complex, conflicted situations. Based on this, the results presented in the table below largely reflect findings in other research and evaluation in the field.

Table 6 shows students' responses to the following issue: "Looking back at the teacher education you are about to complete – how important have the following areas been to your learning process?" In this question battery, the students were asked to rate the importance of several factors and learning arenas in education on a scale from 1 to 5, where 1 represents "irrelevant", 2 "little important", 3 "neither important nor unimportant", 4 "quite important" and 5 "very important". Meeting with students and the practical teacher training is considered the most important, whilst online teaching and work on the master's thesis are considered the least important.

⁷ <https://www.nokut.no/studiebarometeret/>

Table 6 "Looking back at the teacher education you are about to complete —how important have the following areas been to your learning process?" Average score

	Average	N
Meeting with students	4,8	497
Practical teacher training	4,5	497
Mentoring from the practical training teacher	4,4	497
Meeting with some practice teachers	4,3	496
Collaboration with fellow students	4,3	497
Own study effort	4,2	496
Teaching on campus	3,9	497
The meeting with some teachers teaching on campus	3,6	497
Mentoring from teacher educators in subjects	3,5	493
Work on the master's thesis	3,0	497
Online teaching	2,8	496

In the analyses of these results, it is also relevant to consider certain contextual assumptions that may have had an impact on the respondents' assessment. As a result of the Covid-19 pandemic, the students at the time they answered the questionnaire had been through about a year and a half of predominantly digital teaching in the campus-based part of the training. The results show that this part of the education is considered unsuccessful by many. The survey does not provide an answer to whether this is due to limitations of a technological nature, the absence of close contact with teachers and fellow students, or the didactic use of the teaching aids. One possible explanation for the average score of 2.8 in terms of online teaching may be that several factors have worked together and that the results must be seen in the context of strong limitations in terms of physical meeting places in the study program. It must be emphasised that the survey does not identify online and assembly-based study programs specifically in the places where the combination of different teaching methods have been carried out in accordance with the planned and predictable course of study that the students had chosen when applying for teacher training.

The results also show that students consistently rank the value of practical training and meeting with students significantly higher than the campus-based portion of the education. As regards the low score on the importance of the work on the master's thesis, this is reflected and justified in the students' comments on the test battery in addition to other places in the survey where this is mentioned. We will get back to this later in the report.

2.3.3 Students' expectations to encountering the schools.

As stated in Table 7, 76 per cent of the students say that they plan to work as teachers from autumn 2022. This is somewhat lower than has been found in similar surveys in the past (UEN, 2020: 12).

Table 7 "Are you planning to work as a teacher in the 2022–2023 school year?" (N:532)

	Percent
Yes	76%
No	8%
I don't know	16%
Total	100%

This means that 24 per cent of the respondents (N:125) either state that they do not know if they want to work as a teacher from autumn 2022 or have already decided to postpone the start of their career. There can be many reasons for this, and relatively few of the students have taken the opportunity to comment on reasons in their answers. Table 8 shows that 46 per cent of those who have not yet made up their minds or are unsure about starting a job state that they want to study further, while 28 per cent state that they want to work with something other than being a teacher.

Table 8 "What is the main reason?" (N:125)

	Percent
I want to study further	46%
I want to work with something other than being a teacher	28%
I'm going on leave	2%
I want to take a year off	10%
Other (please state):	14%
Total	100%

The proportion stating that they wish to study further corresponds to about 11 per cent of the students. One reason why they want to study further may be that they are uneasy about the fact that they have relatively few school subjects in their academic portfolio from their education, and that they expect to have to have to teach subjects they do not have specialization in. One student put it like this:

I'm afraid the students won't get the training they're entitled to. This is especially true in the subjects English, Music and Physical Education. I also see that these subjects are not given enough priority in schools, largely due to a lack of competence among teachers. It is very peculiar to take a master's degree, where I know that I must further educate myself in order to teach the subject (English).

Several studies have shown that the transition from a professional education to the respective profession can be perceived as demanding. Not least, this applies to the teaching profession (Bjerkholt, 2013; Caspersen & Raaen, 2010; Jakhelln, 2011). We refer to Table 9:

Table 9 "To what extent do you think the transition between education and profession will be challenging?" (N:496)

	Percent
To a very small extent	1%
To a small extent	5%
Neither large or small extent	11%
To a fairly large extent	58%
To a very large extent	25%
I don't know	0%
Total	100%

Furthermore, the students were asked to rate several statements on a five-part scale where the extremes were "completely agree" (score 5) and "completely disagree" (score 1). We emphasised that the statements allowed for expressing both positive and negative expectations regarding the start of the profession. The results are summarized in Table 10.

Table 10 "How do you agree with the following statements?" Average score

	Through section	N
I am prepared to work a lot in the first year	4,6	496
I think I'll thrive in my role as a teacher.	4,3	496
I can't wait to start working as a teacher	4,1	494
I think I'm still working as a teacher five years after I start my job	4,0	496
I'm sure I've chosen the right profession	3,9	496
I believe that the specialization I have in subjects will give me the prerequisites to become a better teacher	3,6	496
Through teacher training, I have been well prepared to start my job as a teacher	3,0	495
I think the work on the master's thesis will give me the prerequisites to become a better teacher	2,7	496

As shown, the students are aware of the perception that the start of the profession can be perceived as demanding. The statement *I am prepared to work a lot in the first year* achieves an average of 4.6 which means that most of the students completely agree with this statement. There are consistently high and positive average scores on the questions about expectations to satisfaction and generally positive expectations to meeting with the schools.

The claims *I believe that I am still working as a teacher five years after I start in the job*, and *I am sure that I have chosen the right profession* achieve scores of 4.0 and 3.9, respectively. The first must be characterized as distinctly hypothetical as it covers a relatively long-term perspective. The second shows that even though about 90 per cent had primary and lower secondary teacher education as their first choice as a basis for admission, many still indicate that they are unsure whether they have chosen the right profession.

As for the statement *Through teacher education, I have been well prepared to start my job as a teacher*, the average score of 3.0 must be considered low, particularly considering that the value of the practical teacher training part of the education is considered good. This is followed up in the further work in STEP. *I think the work on the master's thesis will give me the prerequisites to become a better teacher* achieves the average score of 2.7. This low score may be related to the time the survey was conducted, but the students' expectations and experiences with the work on the master's thesis must be subject to further examination in STEP.

Table 11 shows the students' assessment of their own competence in relation to some of the assignments in their work as a teacher. The question battery includes 11 assignments and roles that students can expect to relate to as a newly qualified teacher.

Table 11 "Based on the year levels in primary and lower secondary school that your education is aimed at: To what extent do you feel well prepared to..." Percent. (N: 496-497)

Statement numbered:	To a very small extent	To a small extent	Neither to a large or small extent	To a fairly large extent	To a very large extent	
1 Teach school subjects you have specialization in?	1 %	3 %	17 %	57 %	23 %	100 %
2 Teach school subjects you do not have specialization in?	9 %	31 %	41 %	17 %	2 %	100 %
3 Teach the levels covered in your education?	1 %	3 %	17 %	57 %	23 %	100 %
4 Teach at levels other than those covered in your education?	14 %	30 %	33 %	21 %	2 %	100 %
5 Provide adapted teaching?	2 %	12 %	26 %	53 %	8 %	101 %
6 Facilitate for students in need of special educational teaching?	10 %	34 %	26 %	25 %	5 %	100 %
7 Facilitate for students from linguistic minorities?	9 %	33 %	30 %	23 %	5 %	100 %
8 Have contact teacher responsibility?	13 %	27 %	30 %	25 %	6 %	100 %
9 Home/School collaboration?	6 %	30 %	32 %	26 %	6 %	100 %
10 Conduct various forms of student assessment?	3 %	15 %	27 %	46 %	9 %	100 %
11 Create a good learning environment?	1 %	2 %	14 %	62 %	22 %	100 %

Statements 1 and 3 are aimed at teaching at the year levels and in the subjects included in the specializations chosen by the students themselves. 80 per cent believe that they are quite or very much prepared to meet these tasks. The fact that these are areas that the students feel well prepared for is supported by the fact that only 4 per cent state that they feel well enough prepared for these tasks to a small or very small extent.

When it comes to teaching subjects and at year levels for which they are formally ineligible (statements 2 and 4), the figures testify to a greater degree of uncertainty and reservation. Statements 5, 10 and 11 are aimed at the students' general didactic competence, and as we see, a clear majority feel well equipped to meet these challenges. Statements 6 and 7 (special education and teaching of pupils from linguistic minorities) include assignments that require more specialized didactic competence. In the comments, several people are calling for more expertise in these areas. This applies to Special Educational Teaching in particular. These results find support in the study RELEMAST (Antonsen & Maxwell et al. , 2020) which is based on qualitative interviews with 43 newly qualified teachers after one year in the profession from the first three primary and lower secondary teacher cohorts with five-year integrated master's degree programmes for school grades 1–7 and 5–10 from UiT. The study shows that the newly qualified teachers experienced challenges in adapting the training for heterogeneous student groups, and especially for pupils in need of special education. The newly qualified teachers also found that they lacked the knowledge and skills to work with behavioural problems and specific diagnosis groups. They also lacked knowledge about how the external support systems work, and how and when to report the need for measures.

Statements 8 and 9 are closely related and cover contact teacher responsibility and home/school cooperation, respectively. The proportions who state that they are prepared to a small or very small extent for this responsibility are relatively high, and many comment that they wish for more focus on this both in the practical training and in the campus-based part of the training. The following quote from one of the students summarizes the main impression:

I can't wait to start working as a teacher, but I'm still nervous and a little afraid of how it's going to go. Through teacher education, we have been prepared to teach and have become better at forging good relationships with students. Everything outside of this, like collaboration with parents, meetings, documenting, etc. I feel is as big a mystery as before I started my education.

Others who point out the same emphasise that these topics are also to a limited extent reflected in practical training:

Through practical teacher training we get to try to teach, but this is only 30% of the teaching profession. We get little practical experience from the collaboration between school and home, follow-up of challenging students, and all other things that take time and energy. This is also one of the reasons why the "practice shock" is an actual reality.

With regards to the master's thesis, most student comments testify that the students primarily see this work as a continuation of the specialization in subjects:

I don't think you're going to be a better teacher by delving into one topic. I think you become a good teacher through experience and knowledge of how to behave when you are with children. My opinion is that you don't have to write a master's to become a better teacher. Rather, you'd be a better scientist, which I haven't trained to be.

This student expresses a negative attitude towards the role of researcher as a legitimate part of the teacher role. This is also reflected in the fact that very few of the student comments refer to insight into research and theory of science and methodology as an important part of the work on the master's thesis. There are exceptions, but the tendency and discovery are so clear that it will be followed up in the further research work in STEP.

2.3.4 What do students think they can bring to the professional community in schools?

The research perspectives in STEP are particularly aimed at the aspects of the education that distinguish the 2017 reform. As mentioned above, this includes a greater emphasis on academic specialization, research-based competence in key school subjects, basic training in the theory of science and methodology related to a researching work method in the master's thesis.

Table 12 shows students' assessment of what they think they can contribute to in the collaboration with their colleagues. Students were asked to select three out of eight options that best matched their own expectations of contributing positively to professional collaboration in school. Alternatives 1, 2, 4, and 5 include statements that represent general assumptions and competence that are relatively independent of the type of teacher education from which newly qualified teachers originate. The other alternatives (3, 6, 7 and

8) have been of particular relevance given that the students entered the last academic year of the new 5-year master's degree program.

Table 12 "Which of the following areas do you think can be your most important positive contribution to working with your future colleagues? Select the top three:" Percent

Statement numbered	Percent
1 Enthusiasm and fervor for students' learning and school environment	82%
2 Willingness to stimulate student participation and understanding of democracy	49%
3 A critical-analytical and exploratory approach to teaching and learning	44%
4 Competence on adapted teaching	26%
5 Updated professional digital competence	26%
6 Research-based didactic competence in your specialization subjects	25%
7 Research-based pedagogical and didactic competence	25%
8 Competence in how to carry out research-based development work	13%
N	491

As we see, more than eight out of ten students choose "*enthusiasm and fervor for students' learning and school environment*" as what they see as one of their three most important contributions in collaboration with future colleagues. Furthermore, about half emphasize "*a willingness to stimulate student participation and understanding of democracy*". 44 per cent mark option 3, "*A critical-analytical and exploratory approach to teaching and learning*". Statements 6 and 7 can to some extent be perceived as overlapping, and this may be part of the explanation for relatively few student choices.

Regarding option 8 "*Competence in how to carry out research-based development work*", this is chosen as one of three alternatives of only 13 per cent of the students. This may be related to the timing of the completion of the survey, and the findings are followed up in the further work in STEP. As mentioned, the teaching at the time the survey was conducted was predominantly digitally based. As a result, the start of work on the master's thesis may have been experienced as particularly demanding by many students. The teaching included, for example, introduction to strict genre requirements for scientific texts, challenges related to the choice of topic, formulation of thesis and research questions, and design of strategies for

collecting, processing and analysing data. This may be part of the explanation for the fact that many of the students express skepticism about the value of this part of the education and their relatively low expectations to the importance of competence in carrying out research-based development work in their comments.

In comparison, results from RELEMAST (Antonsen et al., 2020) show that graduates who teach subjects with specialization experience mastery and motivation and use different didactic approaches, especially in the subject where they wrote their master's thesis. Teachers who teach subjects without specialization in the subject spend time and energy learning professional knowledge and didactics, but experience inadequacy. Considering key target areas for the master's degree programme, this is a finding that is important to follow up in the further studies in the project STEP.

2.3.5 Students' expectations to mentoring and participation in collegial collaboration.

In "Principles and obligations for the supervision of newly qualified teachers⁸", a number of key concepts and activities are defined and provided with further explanations. For example, "qualified mentor" is defined as follows: "An educated teacher who has formal mentoring competence, necessary professional competence and at least three years of experience as a teacher. " Furthermore, "mentoring" is defined as "a planned, systematic and structured process that is carried out individually and in groups." The term "newly qualified new teacher" is clarified as "a teacher in the first two years as an employee in kindergarten or school after completing basic education, in a permanent or temporary position». Based on these clarifications, the students answered the following question: Do you want to receive mentoring from a qualified mentor during the first two years of working as a teacher? The answers are presented in Table 13.

⁸ https://www.regjeringen.no/contentassets/0081e41fad994cfdbb4e0364a2eb8f65/veiledning-av-nyutdannede-nytilsatte-larere-i-barnehage-og-skole_oppdatert-2021_10.pdf

Table 13 "Do you want to receive mentoring from a qualified mentor for the first two years of working as a teacher?" (N: 497)

	Percent
Yes	93%
No	1%
I don't know	6%
Total	100%

It is an almost unison desire from the students to access a mentoring program as defined in the document on principles and obligations when asked directly about this. One of the students commented on the question as follows:

"I would say that after both encounters and experience, everything depends on the mentor. ... But if it's a mentor that doesn't function, I'll be fine without it."

Another puts the question into a larger thematic framework:

It is nice if I, as a teacher, find that the teaching profession is a profession. Therefore, it is important to me that I am constantly developing as a teacher. At the same time, it is so important to be motivated and experience mastery. Without it, I won't be the teacher I want to be. It will also be hard to endure, I think. I also think it is important to find that what I have learned in my education is possible to use in my job as a teacher, and that the mentor also appreciates it.

Furthermore, the students were asked the following question: "The purpose of mentoring is to give newly qualified teachers a good transition from teacher education to profession.

Based on this, rank which three of the following areas are most important to you."

The results are shown in .

Table 14.

Table 14 "The purpose of mentoring is to give newly qualified teachers a good transition from teacher education to profession. Based on this, rank which three of the following areas are most important to you." (N:542)

	Percentage that has selected	Rank - percent of total		
		1	2	3
That you experience motivation and mastery in your work	59 %	24 %	18 %	17 %
That you become more confident in your role as a teacher	57 %	20 %	23 %	15 %
That you get concrete advice and tips	55 %	19 %	18 %	18 %
That you move forward in your professional development as a teacher	41 %	11 %	13 %	18 %
That you are challenged to reflect on your own teacher role	34 %	11 %	11 %	11 %
That you get support in practicing what you have learned in education	23 %	7 %	7 %	9 %

As we can see from the table, there is relatively even dispersion especially considering the top four options. One student comments on his/her choice of alternatives as follows:

I think that these three points are also connected and cannot be seen as free-standing. But perhaps more than any of the options you have set up, I want a mentor who helps me find a place in the collegium, is a support in the teaching work and who will share their experiences with me so I can learn from them. A mentor who gives me the experience of being welcome and a priority, as well as dare to challenge me if I step out of line, but also show support in the same situations. The way I want to meet all my future colleagues.

Table 15 requires an initial explanation. In English terminology, one often refers to the first period working as a teacher as "induction". In Norwegian, we do not have one embedded term that covers the same meaning as "induction". The closest thing is probably *introduction*

or *introductory measures*. In English, the term induction is used in several meanings. First, it appears as a general term for a specific *period* in a teacher's career, often limited to the first three to five years of work after graduation. The term is also used about the learning phase in which the graduates translate the professional qualification in teacher education into action competence as a teacher. Moreover, the term is used more specifically about different types of measures aimed at supporting graduates in the transition from newly hired graduates to becoming an experienced professional teacher, then often referred to as *the induction program*. In connection with such programs, mentoring is often included as one of the priority areas, and this is marked by the compilation "mentoring and induction" (Bjerkholt and Olsen, 2020).

From the first national programs for mentoring of newly qualified teachers were introduced in Norway about 20 years ago, mentoring as learning strategy and professional communication genre has played a central role. This is one of the reasons why the parties behind the document on principles and obligations for mentoring of newly qualified teachers have defined and limited the concept of mentoring. However, this does not mean that one does not see the importance of combining mentoring with other types of measures for newly qualified teachers. This is the background for the following questions for the students: "When you envision your first year as a teacher, which of the following areas will be most important to you? Choose up to three options." The results are shown in table 15.

Table 15 "When you envision your first year as a teacher, which of the following areas will be most important to you? Choose up to three options" Percentage

	Percent
That your closest leader considers that you are newly qualified in the allocation of responsibilities and work tasks?	51%
That you get close and good follow-up from the nearest leader?	41%
That you get support and help from your closest colleagues?	79%
That you get a mentor who can help you with practical things in your everyday work?	12%
That you receive mentoring from a qualified mentor who can contribute to your professional development as a teacher?	61%
That you get to teach the subjects you have in the specialization?	42%
N	497

The importance of getting support and help from your closest colleagues is ranked highest, followed by the need for qualified mentoring and support/adaptation from the closest

leader. Very few ascribe practical mentors' particular importance. The students' choices largely reflect what we know from research on what newly qualified teachers report has the greatest impact on their learning and well-being (Bjerkholt, 2013; Bullough, 2012; Greenfield, 2014). Research also shows that there are not individual measures, but the synergy between several different types of measures and conditions that seem to have the greatest positive effect for newly qualified teachers: a positive and supportive collaborative climate, competent mentoring, and adjustable management (Frederiksen, 2020).

3. Preliminary findings

The purpose of the survey presented here was to map the expectations of the students in the last academic year of the five-year primary and lower secondary teacher education and the encounter with the school as a workplace. The starting point was that it was primarily the students' assessment of their own assumptions that should be expressed in responses and comments. Nevertheless, it is not possible to avoid that the students' assessment of various aspects of the education they are about to complete is reflected in results and comments.

The overall problem for the questionnaire survey was formulated as follows:

What are the expectations of students in the last academic year of the five-year primary and lower secondary teacher education for themselves and the meeting with students, parents, colleagues, and leaders in the school?

The students express that the specialization in subjects has equipped them well to teach the relevant school subjects, although many are calling for more emphasis on subject didactics in teaching. What worries them is what they themselves perceive as competence they can expect to need in school, but which they believe is not covered/covered to a limited extent in the education they are about to complete. In terms of academic competence, they point out that they expect to have to teach school subjects that are not included in the academic portfolio they bring with them from their education.

Many also point out that they feel unprepared for several teaching-related assignments that are not limited to the direct meeting with students in the classroom. Many mention the role of contact teacher and collaboration with parents, Individual Education Plans (IEP's),

collaboration with Auxiliary Services, teaching and facilitation for students with special needs as tasks they know little about. When we see results and comments on tables 6, 10 and 12 in context, it is obvious that many students rank the importance of the work on the master's thesis relatively low. In the context of the expert panel's recommendations and advice, the master's thesis and their facilities are something that should be given attention in the further work on follow-up research and the implementation of the 2017 reform. It is interesting to investigate whether the students will be more positively tuned to the master's thesis after they have completed their work on it.

To limit the scope of the questionnaire and the number of perspectives it should include, the students' expectations for the meeting with the pupils and guardians were not mapped. Nevertheless, some possible responses can be derived from the results in Table 6 where it is stated that the meeting with pupils during the practical training periods is ranked as the most important positive single factor in the education. Furthermore, table 10 and 12 show that the students generally look forward to work in schools with positivity and enthusiasm. This allows us to assume that this is largely about expectations for the meeting with the students, although one of the students in her commentary writes that the most apt expression is that she "looks forward to this with both dread and anticipation".

When it comes to expectations for the meeting with colleagues and school leaders, it can be summarized in the role of a graduate in a professional working community. The national principles assume that being new to the profession and new to a workplace provides a legitimate basis for expectations of measures in the form of follow-up and facilitation. An important part of this is to have the opportunity to take part in a quality assured mentoring program as described in the principles and obligations for the supervision of newly qualified and newly appointed teachers. Table 13 shows that 93 per cent of students want such an arrangement.

Furthermore, Table Table 15 that four out of five students rank support and collaboration with their closest colleagues as one of the three most important factors for their learning and development. It is also evident that the students have positive expectations to leadership support. However, only 12 per cent choose a practical mentor scheme as one of the three most relevant alternatives. It can be perceived as a signal that the students'

primary expectations are more about measures aimed at professional learning and development than practical help, although these factors are closely connected to each other.

As for what the students think they are best equipped to contribute positively with (Table 12), it is worth investigating further reasons why only 13 per cent of students choose "competence in how to carry out research-based development work" as one of their three most important contributions. This may indicate that there is a considerable distance between vision and reality when it comes to the regulatory expectations of a teacher education where research competence and research-informed practice have a central place. The students' expectations related to their positive contribution to research-based didactic and didactics are also relatively moderate.

One of the clearest indications of the students' image of themselves is that more than four out of five students mark "*enthusiasm and fervor for students' learning and school environment*" as one of their three most important contributions to the professional community. It testifies to high motivation and willingness to engage.

3.1 The results in light of principles and obligations for mentoring of newly qualified teachers

As stated in the introduction to this report, one of the purposes of STEP is to contribute to research- and experience-based knowledge aimed at the implementation and development of the national principles for mentoring of newly qualified teachers. This survey represents a first step in the further research in the project where we will follow the same generation of students into the first two years of work as teachers in schools. The results will be of importance for the further work in STEP, among other things by providing a basis for mirroring the expectations of the students against the actual experiences they are making as new teachers in schools.

The main impression is that the students are looking forward to their debut as a teachers with anticipation and enthusiasm. Nevertheless, they state that they are unsure whether the education has equipped them with the necessary knowledge and skills to master parts of the work. More specifically, they call for more room both in practical training and in teaching on campus for parental collaboration, collaboration with auxiliary services, and reporting and formal routines related to pupils with special needs. STEP can contribute by

making these results known in the partnership in teacher education. It is also important to follow this up in the mentor training programs and in the mentoring of newly qualified teachers.

The students expect that the transition from education to work in school will be demanding and that the workload can be great. At the same time, they have a fundamental proactive attitude to continued learning and development in the encounter with the students and the professional community in school. Virtually everyone wants to be part of a quality assured mentoring scheme for newly qualified teachers. The students have great expectations for learning and development through participation in the work of the professional community.

A more challenging aspect of our results is that there is a low degree of satisfaction and identification with key principles and purposes in the new primary and lower secondary teacher education on the students' part. Both in the preparatory work and in the guidelines for the new primary and lower secondary teacher education, the professionalization of the teacher role through greater emphasis on research and research work is a paramount purpose. This is reflected in a relatively low degree in the new master-teachers' self-understanding, expectation of future professional roles and their contribution to the professional community in school. These results are in contrast to research from RELEMAST where the students amongst other things have pointed to action learning through the R&D thesis as an important basis for continuous learning (Antonsen et al., 2022). Students from UiT's piloting also highlighted that taking a master's degree gave them an investigative approach to the profession and tools to reflect and improve their teaching and other tasks (Bjørndal et al., 2020). It is outside the scope of this report to explore how best to handle work with the master's thesis in education, but the findings should be followed up in the planned evaluation of the reform. Considering the expert panel advice on teacher education, research and research-informed teaching is a joint responsibility for both practical training and teaching on campus. This is particularly important given the regulatory underlining that the work on the master's thesis must be professionally oriented and practice oriented.

Considering the purpose of STEP, it is important to analyse the implications of these findings for planning and carrying out further research work. Initially, the work will consist of examining the recipient side's expectations to the new teachers with a five-year master's degree. In the subsequent work packages, the focus shall be on the extent to which school

owners, school leaders, colleagues and mentors have captured and implemented measures in light of both the national framework for mentoring of newly qualified teachers in general, and [key intentions and guidelines in the new primary and lower secondary teacher education](#) (Ministry of Education and Research, 2017).

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