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Teaching practice in the training of special education teachers in Finland

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ABSTRACT

The aim of this study was to explore the core of teaching practice as a part of the curricula for master's degree in special teacher education. The data consisted of the curricula of teaching practice of all six universities in Finland that offer this program, along with the results of an electronic questionnaire administered to students. The curricula were obtained from the internet and the questionnaire was delivered to special education students at two of the six universities. Content analysis was used as a method. According to the results the curricula could be compressed into eight key elements, main of which were basic special education competence, advanced methods, collaboration, and interaction skills. Unfortunately, just 54 students responded to the questionnaire. However, they considered teaching practice a relevant part of their studies. They were satisfied with the supervision although, they commented, it could have been more frequent. The results are discussed using a four point frame of curriculum, pointing to the rare possibilities of students to negotiate or to feel empowered.

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Curriculum; special teacher education; teaching practice; Finland

Introduction

Teaching practice is often an essential part of teacher education. In some studies, teaching practice has been called 'field studies', 'field experiments' or a 'practicum' (Al-Shudaifat 2020; Brownell et al. 2020; Ergül, Baydik, and Demir 2013). Teaching practice can mean the work done at school (Töre 2020) or simply the everyday teaching that happens in a class (Heaysman and Tubin 2019) or in a kindergarten group. In this paper we use the term 'teaching practice' to describe the period of teacher education, during which students practise the knowledge and skills taught at the university. This practice takes place at kindergartens, schools, or sometimes at other locations.

Current thinking of the form of teacher education highlights the combination of an advanced university-level degree and either simultaneous or sequential professional education and clinical experience (Robinson 2017). Teacher education in Finland can be

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seen as an example of this system, with theoretical input in lectures while simultaneously practising at kindergarten or at school.

Teacher education has been offered as a master's degree in Finland since 1979, with most programmes taking five years to complete (Jakku-Sihvonen and Niemi 2006; Ministry of Education and Culture 2016). The combination of a three-year bachelor's degree (180 credits) and a two-year master's degree (120 credits) qualifies class teachers, teachers of specific subjects, and special education teachers (Jakku-Sihvonen and Niemi 2006). All schoolteachers, despite the degree, are responsible for giving general and intensified support to pupils, with special support being the form of support given by special teachers (2010).

The content of teaching practice varies. Some countries have a more practice-based model of education, while others are concerned that such an approach might lead to too 'technical' teachers (European Agency for Development in Special Needs Education 2011). Swedish special teacher education, for example, does not include teaching practice as a separate part of the studies (Takala, Nordmark, and Allard 2019). In some countries, there are specific schools for teaching practice, while in some others, student teachers are allowed to find their own placements. (European Agency for Development in Special Needs Education 2011). For example, in Norway, the amount of teaching practice in special teacher education varies from institute to institute, and some of them do not have any practice (Research Council of Norway 2014). In several countries, like Ireland or England, inclusion is the written educational policy. This sets demands on teacher education and education at schools. (Kenny, McCoy, and Mihut 2020)

The Finnish Decree on Qualification Requirements for Teaching Staff (1998) states that universities must have connections with teacher training schools where students can engage in teaching practice (also Sahlberg 2013). However, not all teacher training schools are able to organise a sufficient teaching practice experience for special education students while they do not have special education classes. This means that special education students must do their teaching practice at other schools in the community.

The aim of this article is to examine the goals and contents of the teaching practice curricula for the five-year master's degrees in special education at all the six Finnish universities offering this education. This degree qualifies the students to work as special education teachers. In addition, this paper focuses on the supervision offered during teaching practice. This study fills a gap in existing research, as there has been very little research on teaching practice in special education programmes.

Curricula as a starting point for learning

Teacher education curricula have traditionally emphasised competence in theoretical educational subjects and disciplines (Blömeke and Kaiser 2017; Toom 2017). This suggests that teachers are expected to turn their theoretical knowledge into skilled classroom interactions (Pantić and Wubbels 2010; Toom, Husu, and Patrikainen 2015). Blömeke and Kaiser (2017) talk about competences as teachers' personal traits but emphasise their situational side and realisation in social contexts. They state that when a basic level of professional knowledge exists, practical experiences and practical education may be sufficient to increase situation-specific skills and performance.

A curriculum is always connected to the power relations in the society where it is implemented (Annala, Lindén, and Mäkinen 2019). In their meta-study, Annala, Lindén, and Mäkinen (2016) conceptualised a framework of four different approaches to curricula in relation to ownership and knowledge, reflecting the agency of a student in relation to the curriculum. The approaches will be used as theoretical lenses and frames in the present study (see also Takala et al. 2021). The approaches are: 1) *Controlling content* which involves conceptualising knowledge as content and as something worth transmitting to the next generation. The selection and control of curricular content reflects institutional and educational policies. 2) *Producing competencies* which refers to desired student outcomes, which are linked to evaluations. This idea highlights changes in student behaviour according to defined objectives. 3) *Negotiating potential* includes the idea of a curriculum as a process. This approach includes stakeholders' participation in the design process and creating a curriculum through interaction. In this approach, both knowledge and ownership can be negotiated. 4) In *providing empowerment*, emancipatory power relations are key issues, addressing the questions of what and who are included in or excluded from curriculum development, and who defines the power relations around knowledge that is included in the curriculum.

Teaching practice and supervision

In the Finnish five-year teacher education programme, most students participate in several periods of teaching practice and meet a variety of supervisors (Pursiainen et al. 2019). Scholars have problematised what teaching practice should include (Leko et al. 2012), while the importance of the practice is underlined in several studies (Leko et al. 2015; Singh et al. 2015). Recent graduates indicate that teaching practice was a particularly important part of their studies and had a greater impact on their preparation than any other aspect of their education. (Conderman et al. 2013) In a study by Caires, Almeida, and Vieira (2012), student teachers considered teaching practice a time during which their professional skills increased quickly and intensively, but for some it was also a stressful period. Teaching practice can also function as something that integrates learning. (Leadbeater 2021).

In Finnish teaching practice, the student receives two kinds of supervision: from an experienced teacher (hereinafter: a school mentor) at school as well as from a lecturer at the university (supervisor). The mentor observes all lessons, discusses observations with the teacher student, and provides feedback. The supervisor visits usually once the school where the teaching practice takes place, following some lessons and having a coaching session with the student (also Lavonen et al. 2019; Takala et al. 2020). According to previous research on teaching practice, the students have appreciated receiving enough support, positive feedback, and an overall good cooperation with the mentor. (Hasari 2019) International research shows that good mentoring and supervision include giving opportunities to develop own teaching methods, flexibility to adapt to students' learning styles, high level of student autonomy and a positive relationship formed between the supervisor and the student. (Frith 2020; Izadinia 2015; Turan 2019).

The supervisors' role in relation to teacher students varies between countries. In the USA, for example, the focus is on the evaluation aspect and written lesson plans (Kolman 2018). The Finnish supervisor's role consists of continuous feedback and discussions

during the teaching practice period (see Teacher Student Union of Finland 2020). The recommendations made by Teacher Student Union of Finland (2020) underline that teaching practice is not only about teaching; in addition, student teachers need to practice administrative tasks, student welfare team tasks, and collaboration with colleagues. Finnish teaching practice is no longer evaluated with grades to allow the student to try different methods and practices without worrying about assessment. The practice is evaluated simply by using a pass/fail scale. In many countries, such as Turkey (Aksoy, Çavuşoğlu, and Kalayci 2018), student teachers receive a grade for their performance during teaching practice.

Aims and methodology of the study

The goal of this study is to examine the design of teaching practice in Finnish university curricula and to study students' experiences of teaching practice. The study addresses two research questions: 1) What are the aims and contents of special education teaching practice curricula in six Finnish universities? 2) How do students of special education experience, a) teaching practice and b) supervision of teaching practice as part of their studies?

The data consist of two parts: 1) *the curricula* of teaching practice from all six universities in Finland that offer a five-year special education teacher programme, and 2) the results of an electronic *questionnaire* delivered to special education master's students in two Universities.

Data

The *curricula* were collected from the websites of these six universities (the University of Helsinki, 2020; University of Turku 2020a, 2020b; University of Jyväskylä 2020; University of Oulu 2020a, 2020b; University of Eastern Finland 2020, EF; and University of Åbo Akademi (2020, ÅA) in Vaasa). The data consist of course names, number of credits, the length of teaching practice, and the goals and contents of teaching practice. The goals and contents are separated at the documents of each university. First the goals were compared, and the focus was put on verbs used for each teaching practice period. As theoretical lenses, for both data, the four approaches found by Annala, Lindén, and Mäkinen (2016) were used.

The electronic *questionnaire* (see Appendix, available as Supplementary Material) comprised 12 closed Likert-type questions addressing the meaning of teaching practice and issues related to teaching practice supervision. The questions in the questionnaire were designed based on the authors long experience in teacher education. There were also four open questions of teaching practice addressing positive aspects, areas for potential improvement, the importance of practice for university studies, and the quality of supervision. Three demographic variables were elicited in the questionnaire: the participant's age, years of study, and whether the student had experience teaching children with special needs before their teaching practice.

The questionnaire was distributed to all special education students in two universities, together to about 100 students/university through email mailing lists. One university was chosen from Southern and one from Northern Finland; in addition, the authors of this article worked in these universities at that time, which made it easier to reach these

students. The mailing lists consisted of groups of students who had started their studies at a specific year, without any individual names of students. First year students were excluded while they had no experience of teaching practice yet. After the dean's permission for the study the mailing lists were received from the administrative staff. In the email message, there was a link to the anonymous electronic questionnaire which the respondents filled in. After the first message, 35 responses were received. Two reminders were sent, each after two weeks period. These led to 19 additional responses.

Methods

The contents of the curricula were analysed using qualitative content analysis (Schreier 2012) to look at the used verbs and to provide a systematic, comprehensive description of the content. The aims and contents of curricula were first read by all the authors. The verbs were easy to pick and compare for each practice period at a time. The contents, however, were analysed in more detail. The research questions formed the basis of the coding frame for the analysis of the curricula. Then two researchers independently read the data again, searching for issues that were present and specified relevant aspects of the data. Attention was paid to similarities and differences in the goals and contents of the various curricula. The concepts in the data were collected and compressed into subcategories and finally into main categories. After this the results were compared and discussed with the other two researchers. Only some minor differences were observed in the discussions. These included thoughts about should collaboration at the school (with teachers) be separated from collaboration with outside school staff and parents. Or can a learning environment be more than just a physical environment? A broader concept was always chosen, and peer review was used among the four researchers to guarantee the trustworthiness of the analysis (Creswell 2014). Altogether eight main categories were found, and the result was agreed by all four researchers. Quantitative responses in the questionnaire were analysed using means and frequencies.

Participants

A total of 54 Finnish students of special education at two universities responded to the questionnaire. Their median age was 29 years (min 20 and max 53 years). Most of them ($N = 32$) had worked with children with special needs before beginning their studies in special education (Table 1). This experience ranged from one week to ten years. Most respondents were in their second year of studies, but they ranged from second year to fourth-year students.

Results

The goals and contents of teaching practice

The length of one teaching practice period in Finnish universities (=U) varied from two weeks (U of Jyväskylä) to three months (U of Helsinki); the mean length per period was five weeks. The numbers of credits for each period ranged from three to ten credits. The total amount of credits from all the teaching periods ranged from 20 to 22 credits.

The names of the teaching practice periods described their main goals; the *first* teaching practice period had names like 'Orientation Practice' (U of EF), 'Introductory Practice' (U of ÅA), or 'Teaching and Educating 1' (U of Turku). The *final* period had names like 'Final Teaching Practice' (U of Oulu), 'Applied Practice' (U of EF) or 'Practice II' (U of Helsinki).

Goals

The verbs used in the curricular goals for each teaching practice at the six universities differed. With most universities having four teaching practice periods, we point to the verbs used in the aims of those four periods (Table 2).

The verbs listed in Table 2 show the role of the teacher student; first just watch, see and observe to get familiar with the profession. Towards the last teaching practice periods, the student receives more responsibility and must start to act as an independent professional. In U of Oulu 1st period goals started like 'can observe', 'participates', but in the last period: 'can analyse', 'can adapt special education knowledge' (U of Oulu) or 'can reflect on one's own actions' (U of EF). The list of verbs also is inline with the gradually increasing goals of teaching practice given by the Teacher Student Union of Finland (2022). The verbs can also be considered as artefacts that 'mark' policy directionality and reinforce what is to be done (see Ball, Maguire, and Braun 2011). In addition, verbs show action and are, as such, directly related to the goals.

The number of goals and contents written into the curriculum for a single practice period varied. In some universities, there were eight broad goals for one period, while in some others, just three or four goals for one practice period were named.

Contents

With regards to the contents, the curricula addressed multiple aspects of students' professional development, including knowledge, skills, and values (also Stabback 2016).

Table 1. Work experience as a teacher before starting to study in special teacher education.

Years working at school	N
>0–2 years	13
3–5 years	7
6–10 years	6
11–15 years	3
16–20 years	2
more than 20 years	1

Table 2. The verbs used most in the goals of teaching practice in six universities in Finland.

Teaching practice period	Verbs used most often
1	knows, observes, compares, inspects, describes, receives, wants to act, appreciates
2	is able to observe, plans together with, can use, evaluates, can adapt, learns to know
3	is able to plan, analyse, compare and evaluate, acts in a responsible manner, can reflect, develops, can describe, can lead
4	develops further, analyses, can plan and act independently, is aware of, is able to adapt, develops and deepens

In our content analysis of written goals, altogether eight categories were identified. They are 1) *Basic special education competence*, 2) *Advanced special education methods*, 3) *Collaboration*, 4) *National and local framework*, 5) *Diverse learning environments*, 6) *Social impact of education*, 7) *Professional growth* and 8) *Interaction skills*.

Basic special education competence

This category includes the basic skills for a special education teacher. The teacher needs to be able to observe and recognise special educational needs, and to plan, execute and evaluate the lessons. The teacher student also must be able to evaluate pupils' development. These obligations were seen in goals like: 'Plan and implement targeted support based on different theoretical approaches, considering the pupil's overall well-being and special educational needs' (U of Jyväskylä) and 'Can plan and implement teaching of enhanced support at school for students of different ages' (U of Oulu). It was most typical to have a goal like: 'Can use and apply the different forms of support'. Evaluation goal was written in all universities' curricula: 'Can assess/evaluate pupils' progress in a reliable manner showing respect for the pupil' (U of Helsinki).

Advanced special education methods

This category included special methods and elements related to special needs, like reading and mathematical difficulties and their rehabilitation. Familiarity with three-step support and various responsibilities in it were identified in this category along with research-based methods, although specific methods were not named. 'Know and apply appropriate methods for learning difficulties' (U of ÅA). 'Research-base in pedagogical planning, evaluation and development' (U of EF).

Collaboration

The main elements of this category were networking and collaboration at schools and outside school with various stakeholders, also including home-school collaboration. Consulting colleagues at school is part of this category. Examples of this include: 'Understands what consulting expertise is and where expertise is needed' (U of Oulu) and 'Can introduce their professional skills as a member of various multidisciplinary work communities' (U of Jyväskylä).

National and local framework

This category includes regulations and documentation concerning education at national level, such as the national curriculum, laws, and requirements of the support system, as well as local documents, such as forms used for individual education plans or other pedagogical documents. They were expressed for example like this: 'Knows the municipal and school-specific curriculum derived from the national core curriculum' (U of Helsinki), 'Be able to make visible the curriculum's goals, areas of competence and intentions in planning and teaching' (U of ÅA), 'Can guide and prepare multidisciplinary (pedagogical) documents for the individual needs of children and young people' (U of Jyväskylä).

Diverse learning environments

Schools have varied environments today. They can consist of different spaces, like open-learning spaces, multiculturalism regarding pupils, teachers, learning materials and

environments as well as getting familiar with diverse working cultures. These were written like: 'Is able to utilise appropriate learning environments' (U of EF), 'Can systematically observe learning environments' (U of Jyväskylä), 'Can work in a multicultural/language aware school environment' (U of Turku).

Social impact of education

The impact of education, inclusion, equity and ethics was expressed in goals guiding the whole educational profession, like: 'Can analyse the ethical questions and normative obligations related to teacher profession' (U of Jyväskylä), 'Learns to understand their growth as a teacher, the goal of which is a teacher who is aware of the importance of their own work and its development, who thinks critically and strives for ethically sustainable solutions' (U of Turku), 'The student is aware of the pedagogical expertise as a part of social-cultural entity'. (U of EF).

Professional growth. This was a common goal in every teaching practice, expressed for example like this: 'Analyses the formation of one's own professional identity and pedagogical needs of development' (U of Jyväskylä), 'Understands the importance of continuing professional development in the work of a teacher' (U of Turku), 'Have developed and deepened their professional role as a special needs teacher' (U of ÅA).

Interaction skills. These skills were included in most of the previous categories, often in between the lines. When consulting, collaborating, communicating with different stakeholders or being in contact with diverse pupils, excellent interaction skills were needed (see also Bhroin and King 2020). These skills were present on several occasions in goals of various teaching practice periods: 'Focusing on interaction skills' (U of ÅA) or 'interaction skills' (U of Oulu).

These eight categories form the teaching practice of the special teacher education curriculum. They are present in all the six curricula; however, some areas are more underlined in some universities, and they all have a somewhat different profile. Elements of these eight categories could be detected in several practice periods.

Participants' teaching practice experiences

Based on the content analysis of the responses to the questionnaire, all students appreciated teaching practice a great deal. The quotes below are from the questionnaire data.

Relevance and development of teaching practice

Teaching practice opportunities were considered a 'positive experience'. The phrase most often used to describe teaching practice was 'learning by doing'. Students also mentioned several times that teaching practice allowed them 'to see what the work is really like'. They considered it valuable to observe different work environments and to see and experience how pedagogical documents are planned and implemented. 'Learning to interact and work with children' was considered important. In addition, teaching practice allowed participants 'to develop a professional identity and various pedagogical skills' like 'learning new teaching methods' and 'putting theory into practice'. One student commented:

Teaching practice combines theory and practice. Without it, your development as a future teacher would be inadequate as you would not be able to try out your own teaching skills in practice. (Student 19)

Participants also highlighted the opportunity to do exactly what they were studying, combining all elements together. One student commented:

Practicing the many dimensions of the work of a special teacher: In addition to teaching also consultation and documentary work, discussions and sessions with the mentor. Great amount of practicing: learning to teach. (Student 10)

Students' concrete experiences during their teaching practice led to new knowledge. Teaching experiences also helped them to draw conclusions and develop new pedagogical ideas, which they then practised in new learning situations, like in Kolb's (1984) circle of experiential learning.

Participants' views on the importance of teaching practice as part of their studies were elicited with one quantitative question using a Likert scale of 1 to 5. The mean of participants' responses was 4.8 (range 3.5 to 4.9). Participants strongly indicated that teaching practice was important, both those who had and who did not have experience at school before studies.

Areas of improvements

Students also had suggestions for improving teaching practice. One suggestion was 'increasing the options and diversity' regarding where the teaching practice could take place. This would allow students to do their teaching practice at innovative schools or other locations besides university teacher training schools. These demands were most typical for students who had been working more than five years at schools before special teacher education studies.

... I would have wanted to practice for example at the ministry. (Student 27)

The participants would like to develop the content and tasks of teaching practice, which should include more co-teaching, consultation, and work with pedagogical documents. Students who had more than five years of previous experience working in schools complained that they had to meet the same requirements and complete the same tasks as those who had never worked as teachers before their teaching practice. Also, some critic was written towards compulsory teaching practice reports which were considered unnecessary.

Supervision and mentoring

Participants' experiences of *supervision* varied and could be divided into positive and negative experiences with regards to amount and quality of supervision: some said they had adequate supervision, while others indicated that it was not easy to obtain supervision.

I was really happy with my mentors (at school). I do not remember much about the university supervision. (Student 36)

Many participants indicated that they received too little information and feedback from the university, they wanted more time to personal discussions. However, the school mentors received mainly positive comments.

There was enough supervision at both places . . . I think we discussed the teaching practice at the university twice. In my opinion there should be more time to go through the situations at teaching practice both with the supervisor and with other students. (Student 15)

The main result from the survey was the great appreciation of teaching practice, regardless of the age or experience of the students. It was seen as an indispensable part of studies. The participants appreciated teaching practice as such and personal supervision and mentoring, considering them some of the best aspects of their studies. The teacher students wanted even more supervision, as well as clear instructions and positive, structured feedback. There seemed to be a need to both increase and develop individual counselling and feedback.

Discussion

Our analysis indicated that the aims and contents were specific to each teaching practice period, but the overall goals and contents had the same kind of elements in all six universities. At all these universities, teaching practice seemed to form a continuum that gradually provided future special educators with the necessary knowledge, skills, and values (Stabback 2016). According to the goals, students had less responsibility during their first teaching practice period than in later sessions, and for the last period, they had more and more demanding goals and contents. This indicates that students are guided to grow into the profession one teaching practice session at a time. The number of degree credits that teaching practice comprises also shows the importance of it.

The core elements of the special education curricula contents detected were: *Basic special education competence, Advanced special education methods, Collaboration, National and local framework, Diverse learning environments, Social impact of education, Professional growth and Interaction skills*. These can be described as starting from the basic special educational knowledge and skills needed at work, broadening to collaboration inside and outside the organisation, as well as in other learning environments. Finally, understanding the meaning of education in society at large was included in the goals. All these have effects on a student's own professional growth. In addition, to succeed in the profession, excellent interaction skills are needed. According to the students' responses to our questionnaire, the core contents were present in the teaching practice. However, missing collaboration received some critic. Also, the national or local framework as well as the diversity of learning environments were seldom referred to by students.

We looked our data for signs of the four curricula approaches: controlling content, producing competences, negotiating potential, and providing empowerment (Annala, Lindén, and Mäkinen 2016). The analysed curricula were designed to transfer the knowledge and framework of a competent special education teacher to the students. As such this can be seen as *controlling the content*. This can also be seen as social control or promoting the social good, such as equality and inclusion (see also Hausstätter 2014), which were mentioned in the analysed curricula. The curriculum as a way of *producing competence* was strongly present. The teacher students had to learn to teach, use pedagogical documents, collaborate, and use research-based methods. The teaching practice periods were designed to teach students specific competencies.

However, this study also revealed that students had few if any possibilities to *negotiate* individual goals for their teaching practice, which they complained about. The teaching practice seemed to be a ready-made package with minimal room for individualisation, even if the students already had experience from the field. The curriculum functioned as a tool for *providing empowerment* by enabling students to co-create knowledge when executing their teaching practice in pairs or when discussing their professional growth with their mentors and supervisors. It is also supported by earlier studies that professional identity reflection on teaching practice experiences with peers is crucial (Caires, Almeida, and Vieira 2012; Hasari 2019). Ideally, student teachers' foundation of knowledge should evolve from stable content to negotiated, empowering knowledge, and the ownership of the curriculum could move from control to emancipation (Annala, Lindén, and Mäkinen 2016). However, our findings indicate that students received a controlled content which was aimed to produce competence. Negotiating and empowerment were not so strongly present.

Participants rated teaching practice experiences mostly positively. They indicated that teaching practice combined theory with practice and formed a valuable part of their studies. However, the prior experience of the students could have been taken into consideration more. In addition, students would like more personalisation and more feedback from the supervisor and the mentor. These are essential while teachers' professional development demands coaching and expert support and benefits from feedback and reflection (Akalin and Sucuoğlu 2015; Darling-Hammond, Hylar, and Gardner 2017).

Based on our results, some criticism can be focused on the demands in curricula. Some universities had quite demanding goals from the beginning, which can be a challenge for students. Also, the goals and contents were not very specific, for example no intervention programmes or evidence-based methods (see Björn et al. 2016) were named. The only mentioned method was co-teaching. This gave freedom but also made the goals and contents somewhat blurred. The goals in the curriculum did not always meet the reality at school. For example, for some students, it was not possible to practice co-teaching or to meet diverse working cultures. In addition, the curricula text did not include tools for monitoring the fulfilment of the goals and contents. Interestingly, inclusive education was not something that formed a category, although it is a national trend in many countries, also in Finland. (Chong 2018; Holmqvist and Lelinge 2021)

This study has some limitations. Only 54 students responded to the questionnaire. A larger number of participants and interviews with students could have led to richer results about teaching practice experiences. Also, the questions in the questionnaire could have been designed better, keeping in mind that some questions could appear as leading. In addition, interviews could have been used. However, the findings align with those of previous Finnish and international studies (Hasari 2019; Young 2018), so they appear to be trustworthy. The curriculum data concerning teaching practice included all Finnish universities offering degrees in special education, so those findings are based on reliable data. However, it should be noted that some minor aspects that appeared in the teaching practice curriculum of only one university were ignored in our content analysis. Such points were important for those universities (see also Autti and Bæck 2021). Also, teaching practice forms only a part of the curricula concerning special teacher education. Thus, the results are an overview, and deeper analysis is needed of all the elements of the curriculum in relation to teaching practice.

Conclusion

The core categories of special teacher education were now elicited from curricula from 2018 to 2020. New ones will be written, and for them, there is a need to analyse the future work of special education teachers as well as future society. Based on this study, we encourage university professionals of special education and teaching practice mentors to consider – not *for*, but *with* their students and with each other (see also O'Neill, Donnelly, and Fitzmaurice 2014) —how the curriculum of teaching practice best serves the education of excellent teachers for all children. In today's complex society, future special educators face new demands and changing roles in their work, like new demands for digitalisation (From 2017) or the need to collaborate with various stakeholders. Teachers are not educated for lifetime teaching any more (Dolan 2017), which sets demands on continuous development of the curriculum and for teacher education.

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No potential conflict of interest was reported by the authors.

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