

# Swedish and Dutch Pre-service Teachers' Understandings of Equity and Preparedness to Promote Equity Through Their Teaching

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## Abstract

Equity is an important topic in school context globally because international migration is rapidly diversifying schools and classrooms across the world. Teacher quality is seen strongly related to student outcomes than demographic characteristics of students, and therefore important for achieving equity. This explorative study investigates the extent to which Swedish and Dutch pre-service teachers (PSTs) understand equity and are prepared to implement equity in their practice. Qualitative method was conducted in the study. Data from semi-structured interviews with 15 PSTs from Sweden and the Netherlands was thematically analysed to examine teacher knowledge about equity in education and related dispositions. The results showed that, while Swedish pre-service teachers had more theoretical knowledge in relation to teaching for equity, Dutch pre-service teachers had more practical knowledge and were therefore more prepared to implement equity in their lessons. The study recommends that teacher professional development for both in- and pre-service teachers needs to pay more attention to how equity is taught and how teachers embody equity principles in their practice.

**Key Words:** Equity, pre-service teacher, primary education, secondary education, teacher education

## Introduction

Globalisation and international migration are rapidly diversifying schools and classrooms across the world. As a result of this diversification, there is a moral and demographic imperative to improve education by better addressing the needs of students from various backgrounds (Howard, 2010 in Carey, et al., 2018; Williams, 2017). The purpose of this study is to contribute to the development of teacher education programmes, so that they can better prepare future teachers to teach for equity in classes with an increasingly diverse student population.

Inequities in education are often perceived to be a direct result of students' personal backgrounds. Socio-economic circumstances, cultural and migration backgrounds, and gender differences are well-researched factors which supposedly affect student outcomes (e.g. Heath et al., 2008; Jensen, 2013; LaRocque et al., 2011; McGregor & Mills, 2012; OECD, 2012). Meanwhile, it has been argued that teacher quality is more strongly related to student outcomes than the beforementioned demographic characte-

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ristics of students (Darling-Hammond, 2000), since teachers have a direct opportunity to recognise and reduce educational disadvantages and promote equity in education (Cochran-Smith et al., 2016; Grudnoff et al., 2017; Schleicher, 2014). However, teachers' beliefs and biases have been found to either directly or indirectly affect student outcomes (e.g. Archambault et al., 2012; DeCastro-Ambrosetti & Cho, 2011; Jussim & Eccles, 1992; Ross & Gray, 2006; van den Bergh et al., 2010). Examples of such biases are colour-blindness (Fergus, 2017; Kreamelmeyer et al., 2016) and deficit thinking (Barker, 2019; Clycq et al., 2014; Fergus, 2017). Teachers are not always aware of their biases or the effect they have on equity in the classroom (Battey & Franke, 2015; Fine-Davis & Faas, 2014; Morrissette et al., 2018). While teachers are generally interested in issues of inequities and diversity, many feel they lack the knowledge or training to deal with these issues (Campbell & Sanders, 1997; Fine-Davis & Faas, 2014; Toms et al., 2019).

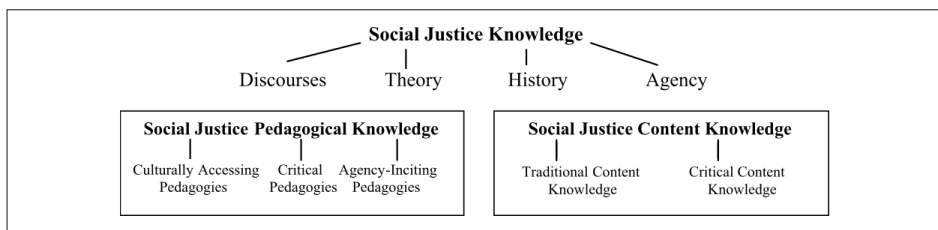
### ***Teaching practice for equitable goals***

For decades, researchers have been investigating what it means to make teaching and learning relevant and responsive to students from diverse and (in)equal backgrounds (Paris, 2012). Their efforts have resulted in various landmark pedagogies, among which culturally relevant pedagogy (Ladson-Billings, 1995), culturally responsive pedagogy (Gay, 2002) and more recently, culturally sustaining pedagogy (Paris, 2012). Central to these pedagogies is culture as an asset rather than a limitation. Deficit discourses are rejected as culturally responsive teachers believe all students to be capable of academic success, regardless of their background (Ladson-Billings, 1995). Cultural scaffolding and a constructionist orientation to teaching and learning are encouraged (Gay, 2002; Vavrus, 2008, p. 55). Cultural scaffolding is often used to shape classroom climates that are welcoming and inclusive and that foster equitable educational experiences (Boaler, 2002; Dyches & Boyd, 2017; Gay, 2002; Grudnoff et al., 2017).

Teaching from a constructionist point of view allows students to have their opinions and backgrounds incorporated into curriculum and instruction, which fosters identity development and promotes educational success (Boaler & Staples, 2008; Gutierrez, 2002; Vavrus, 2008, p. 55). Teachers must navigate curriculum that is often rigid and likely to avoid controversial issues such as racism, historical atrocities, and power structures (Carey et al., 2018; Gay, 2002). Responsive teachers need to be equipped with the skills to deal with these controversies directly by addressing injustices and including different perspectives in lessons and instructional materials (Gay, 2002; Grudnoff et al., 2017). Beside skills, teachers also need knowledge of the accepted truths and controversies within a discipline and a commitment to make those controversies transparent to students (Dyches & Boyd, 2017). Research suggests that understanding power relations and challenging them is a key component of equitable teaching practices (e.g. Sleeter & Grant, 1987 in Grant, 2014; Gutierrez, 2007). When

teachers understand how knowledge has been constructed and which perspectives are dominant within their own culture, they can begin to comprehend the various cultures and perspectives that have shaped their students' lives (Carey et al., 2018; Gay, 2002; Vavrus, 2008).

The abovementioned dispositions, skills and knowledge are important if teachers are to teach effectively and responsively in order to promote equity (Cochran-Smith et al., 2016; Dyches & Boyd, 2017; Vavrus, 2008). They are in line with the Social Justice Pedagogical and Content Knowledge (SJPACK) framework (see Figure 1), which is Dyches and Boyd's (2017) elaboration of Shulman's (1986, 1987) Pedagogical Content Knowledge (PCK) framework and attempts to capture the kinds of knowledge teachers need to teach towards equity goals. To teach for equity, we argue that teachers need both social justice content knowledge and social justice pedagogical knowledge (skills).



**Figure 1.** Social Justice Pedagogical and Content Knowledge (SJPACK) theoretical framework (Dyches & Boyd, 2017, p. 479)

### ***Research aim and questions***

In this study, Swedish and Dutch pre-service teachers' (PSTs) understandings of equity and knowledge of teaching practice that embodies equity principles are investigated in an attempt to understand how these two countries, which have among the most equitable education systems in the world (OECD, 2011), prepare their teachers to promote equity in education. Further, this study explores to what extent Swedish and Dutch PSTs are prepared to implement equity goals in their future teaching practice. The research questions that guide the study are:

1. What is the extent of Swedish and Dutch PSTs' knowledge about factors that influence equity?
2. How do Swedish and Dutch PSTs understand the practice of equitable teaching?
3. How prepared do Swedish and Dutch PSTs feel, to promote equity in their classrooms?

## **Method**

This explorative study is grounded in a social constructivist ontology, in combination with an interpretivist epistemology. Consistent with this epistemology, an inductive research approach and qualitative research strategy were adopted. The study followed a cross-sectional and comparative design with 15 semi-structured interviews conducted in March 2020 with pre-service primary and secondary education teachers in Sweden and the Netherlands. The reason to choose the participants in these two countries is that equity is highly esteemed in both Swedish and Dutch education systems. Teacher education programmes in both countries include at least an educational science core and workplace learning. Within this educational science core, student teachers learn about pedagogy and didactics, and presumably, about how to create stimulating and equitable learning climates (Eurydice, 2018; Lärarförbundet, 2020; Ministry of Education, Culture and Science, 2017).

The participants were selected through purposive snowball sampling by asking one PST in Stockholm and one PST in Nijmegen to suggest a student colleague who suggested another. This was done to ensure that participants had enjoyed equal amounts of education and had followed comparable education programmes. Most participants were in their last year of studies while two participants had graduated no more than six months prior to the interviews. Seven of the participants (five Dutch and two Swedish PSTs) were studying to teach primary education, while eight of the participants (three Dutch and five Swedish PSTs) were to be qualified to teach secondary education. It was an interview study with the participants aged between 20-30 and informed consents were signed by the participants. For this kind of non-interventional study, ethical approval is not required, and it has been granted an exemption by an ethics committee in the affiliated institution.

**Table 1.**  
*The participants' backgrounds*

Participant no.	Participant Code	Gender	Country	Teaching level*	Current semester	Age group	Work experience
01	ST1	Female	Sweden	Upper secondary	8 of 10	20–30	No
02	ST2	Female	Sweden	Upper secondary	10 of 10	20–30	No
03	ST3	Male	Sweden	Upper secondary	10 of 10	20–30	No
04	ST4	Male	Sweden	Upper secondary	10 of 10	20–30	No
05	ST5	Female	Sweden	Upper secondary	9 of 10	20–30	No
06	DT6	Female	Netherlands	Primary	Graduated	20–30	Yes, qualified
07	DT7	Female	Netherlands	Primary	10 of 10	20–30	No
08	DT8	Male	Netherlands	Primary	8 of 8	20–30	No
09	DT9	Female	Netherlands	Primary	10 of 10	20–30	No
10	DT10	Female	Netherlands	Primary	8 of 8	20–30	No
11	DT11	Female	Netherlands	Upper secondary	9 of 10	20–30	No
12	DT12	Female	Netherlands	Upper secondary	10 of 10	20–30	Yes, qualified
13	DT13	Female	Netherlands	Upper secondary	Graduated	20–30	Yes, qualified
14	ST14	Male	Sweden	Primary	6 of 8	20–30	Yes, unqualified
15	ST15	Male	Sweden	Primary	6 of 8	20–30	No

\* Primary education = grades 1–6; Lower secondary education = grades 7–9; Upper secondary education = grades 10–12

\*\*All pre-service teachers were Swedish or Dutch natives, except for one pre-service teacher from the Netherlands who is a first-generation migrant with a Moroccan-Berber heritage.

The semi-structured interviews were conducted via Skype due to Covid-19, with an average of 25 minutes per interview based on the interview guide shown below.

1. Can you tell me a bit about your education background?
2. Can you describe, in your own words, what equity in education is?
  - a. In which way did you learn about this? In which subjects? Could you choose or was it embedded (in the programme)?
3. Do you think that some children have more difficult study conditions\*, and thus fewer opportunities or worse educational outcomes than others? What characterises them?

(\*Swedish: *sämre förutsättningar*. Dutch: *slechtere studieomstandigheden*)

4. Has your education prepared you to deal with discrimination, prejudices, and

stereotypes? In what way?

a. Has your education prepared you to teach students from different backgrounds? In what way?

5. Do you know if equity is addressed in the primary school curriculum? If yes, do you know how?

a. If no: In which way do you think equity should be embedded in schools? E.g., as a subject in the curriculum or as an overarching concept in the school ethos?

6. Who do you think is responsible for making education more equitable? (e.g., government, school, teacher)

a. Is there anything a teacher could do?

The interviews were transcribed and analysed thematically with NVivo (NVivo 1.0, QSR) following Braun and Clarke's (Braun & Clarke, 2006) six-phase framework for thematic analysis. Respondent validation was used to ensure the credibility of the analysis while the reliability was achieved between the three researchers based on the formula for interrater reliability developed by Miles and Huberman (1994). Respondent validation was used to ensure the credibility of the analysis while the reliability was calculated at 70% between the three researchers, using Miles and Huberman's (1994) formula for interrater reliability.

## **Results**

The data analysis was centred around the categories: understandings of equity, factors influencing equity, and preparedness to implement equity goals in teaching practice. The results led to the identification of nine main themes shown in Table 2. The detailed descriptions and the related sub-themes are presented in Appendix 1 (Table 3a, 3b, 3c). It is important to note that the themes are not mutually exclusive as quotes sometimes fitted under different, overlapping themes.

**Table 2.**

*Main themes related to equity in education and exemplary quotes for each theme*

Theme (Description)	Exemplary quotes
<b>RQ1: Examples of understandings of equity</b>	
1. Equality	[DT9] “It is a bit about equal chances for children. Whether everyone can achieve the same thing with education. [Whether everyone has] the same opportunities for a successful future.” [ST3] “I think it’s quite like how to teach equality in everyday lessons. So, I can provide and teach an equal opportunity and an education about equality.”
2. Inclusion	[DT13] “I think some teachers already fill it in for students if they read in the student file that says that a student has autism or has a certain background that teachers are already going to fill in: then this student can probably... And if they are biased, they do not look very closely at the student and who he or she really is...” [ST2] “The A-student has a right to as much time as you give the student who is barely passing because everyone has a right to a challenge.”
<b>RQ2: Factors influencing equity</b>	
3. Student characteristics	[DT9] “I also think that whether students speak the Dutch language at home or not... I think that also has to do with the opportunities they can get. And this is related to socio-economic status, the level of education of parents and what is done at home about literacy and numeracy... some parents read to their children, but some parents cannot read Dutch themselves, so they obviously cannot guide their children in that.” [ST1] “The first thing you notice is that the level in every class is... they are on a different level, every single one.”
4. Teacher characteristics	[ST15] “...it’s a lot about personality. Being open and kind yourself... To lead by example.” [ST1] “To be a good teacher you have to have a certain type of personality... you have to adapt, adjust, and make the best of the situation.”
5. External characteristics	[DT6] “It is not necessarily that you have to finish the entire book by the end of the year, but you must be able to demonstrate to the inspector that you have spent enough time to pass the curriculum, that pressure is certainly there.” [ST2] “...in the steering documents you are generally supposed to have equity and equality in a classroom... but they don’t tell you what it means...”
<b>RQ3: Knowledge of equitable teaching practices</b>	
6. Differentiation	[DT7] “Well, for example, when giving instructions... if you think: I know this child needs a lot of help to get to the same level or to make the same sums so I will give them extended instruction.” [ST1] “...sometimes you just have to structure the task differently for students.”
7. Conversation	[DT8] “Children of about 7–8 years of age do not build up their own opinion about a certain race... gender... religion... if you talk about it with the children, asking them: ‘What do you say and what do you mean? Are you saying that everyone with that characteristic has that same trait?’ Then they often come to the conclusion that it is actually not the case...” [ST1] “I learned it is important that you let them have the discussion and lead the discussion. You cannot be the one to tell them what is right and wrong. Only when it goes too far and it is discriminating, then you have to tell them what’s right and wrong.”

8. Inclusion (practice)	[ST5] “We talked about it [student’s names] and that you don’t pronounce it wrong because that can lead to social exclusion.” [DT11] “...in the old [teaching] methods you always see stereotyped pictures But you can also add things yourself.”
<b>RQ4: References to the content of teacher education</b>	
9. Teacher education	[ST14] “So, often it is mostly experience and if you get lucky with a good mentor and if you are lucky with a good school...but they leave it to you to discover for yourself. And I wish it wasn’t...Like, in math we only have one didactics course. One. And that was, like, a joke.” [ST3] “What I think is the real problem is that we don’t get the appropriate education about real-life experience and real-life situations. What am I supposed to do if I want to teach about transsexuality and one of my students yells out a really offensive word and I say, ‘stop it’, but the student keeps on going?”

### *Understandings of equity*

The findings showed that the PSTs connected equity to equality and inclusion. Fairness was not explicitly mentioned, but most of the PSTs made some reference that could be connected to fairness or social justice. The PSTs understood equity to be equality of educational opportunities. Regarding their future role as teachers, the PSTs talked about equity in education both as a way of teaching and as a subject to be taught. Many of them talked about the diverse needs of students and how they had to adapt their teaching to meet these needs. To them, meeting these needs meant teaching “equally”, although, as some of the PSTs specified, teaching equally did not mean giving everyone the same treatment. One Dutch PST and one Swedish PST clarified this as follows:

*[DT10] Every child should have the same opportunities but adjusted to the level of the child. Equity does, in that respect, not mean exactly the same. Because if you offer every child the same education, the children who need more do not necessarily get more. So, education should be adapted to the child.*

*[ST14] Everyone should have the same opportunity. Like get the same chance as everyone. But that’s a tough thing to do because everyone has such different needs... It might not be equal [treatment] if someone with dyslexia gets more help. But yea... you try to flatten the playing field so that everyone has the same opportunity to do well.”*

The PSTs also connected equity to inclusion. When asked what could influence the way students were included in education, all participants referred to certain personal or social characteristics students had. PSTs understood that students’ diverse characteristics could lead to the students being discriminated against, which would affect their inclusion in education. They said that prejudiced attitudes were present among students as well as teachers, and these were often related to specific student characteristics:



*[DT11] Descent also plays a role. Now I speak from my own experience and what I see in the educational field ... in primary school the final advice a teacher gives still weighs heavily [in deciding what level of secondary education a student can attend], that it is usually estimated a little lower for students of non-Western origin.*

Besides ethnicity, other student characteristics such as socio-economic status, culture and gender came up as factors that could influence equity. Guidelines for teaching and the resources available to teach in a certain way were mostly named as external factors, and were, at times, provided as excuses for why teaching could not be equitable. Parents and the home learning environment (HLE) were identified as the most well-known extrinsic student characteristics, and these were often connected to students' cultural backgrounds:

*[DT9] ... this is related to SES, the level of education of parents and what is done at home about literacy and numeracy... some parents read to their children, but some parents cannot read Dutch themselves, so they obviously cannot guide their children in that.*

### ***Knowledge of equitable teaching practices***

In relation to equitable teaching practices, PSTs mainly discussed differentiation, conversation, and inclusion practices. Differentiation was often used as method for teaching equitably, whereas conversation was used to teach about equity. Most common, PSTs referred to differentiating instruction and teaching according to students' didactic level because they learn about this in their education.

*[DT6] Especially with math you see very well whether a child can do something or not. And based on that, children are divided into level groups. Only then have we [pre-service teachers] learned from education that you have to look per subject to see what they are and are not good at. So children can always have a different level group, but in practice that happens quite little, those different level groups".*

Compared to their Swedish counterparts, Dutch PSTs exemplified differentiation practices in more detail in relation to their workplace learning experiences:

*[DT9] ...we take certain children who are about the same level in the language area - we then give them a custom task or instruction... we also do that with children who are ahead...but the children who are behind get more instruction and have more contact moments with the teacher than children who are ahead.*

Conversation practices included having open discussions, talking about differences, and talking about difficult subjects. Especially among younger students, instances of bullying or prejudice in the classroom were used by PSTs to discuss more equitable behaviour.

*[DT12]...when that [discrimination and bullying] happens you want to show the student that you saw it and you will do something about it, but you don't want to make it worse either. So I mention it briefly and I also discuss with student how it affects them and what they would like me to do with it.*

Among inclusive practices such as language help, theme days and extra tools, changing the teaching materials was most known to the PSTs.

*[ST3]... you should look in the book who is represented. Is it only Swedish names or also Arabic, Asian and African names? What family images are present there in the books and everything like that. That's easy to do as a teacher to widen the representation by presenting different examples.*

Swedish PSTs seemed to know more about inclusive practices, especially related to (norm)critical education.

*[ST3]I made my own cases that I gave to my students in religion...Some cases we discussed were 'homophobia and racism in Christianity', 'trans-and homosexuality in Hinduism'... it is topics that most students are aware of and have an opinion about so something that could really start a discussion... Talking about different representations in society and how the image about religion connects to these representations.*

*[ST4] The thing I could do is kind of enlighten the students about the norms that there are. So, I could talk about the differences that are there and discuss what comes of these norms. As for example the tendencies of low educated men to end up single and lonely.*

Overall, the PSTs agreed that the teacher's ability to adapt was crucial for teaching a diverse group of students and the importance of teachers having a democratic attitude was highlighted, since teaching students how to be good citizens through leading by example was understood to be part of the job. Some of the PSTs touched upon the need for teachers to be reflexive about their own beliefs and how these beliefs shaped the teacher's presence in the classroom.

### ***Preparedness to teach equitably***

The PSTs connected their own understanding of equity and knowledge of equitable teaching practices to the teacher education programme in which they were enrolled. Although they were enrolled in different education programmes in different countries, most teachers reported a lack of content about equity in their teacher education. Courses that did cover equity or related principles such as diversity were often referred to as "uninformative" or "too theoretical":

*[ST3] I had one course that was norm-critical education and there I learned how to present sexuality, gender, ethnicity and ethics into our everyday lessons...I felt like they gave us this course because it would look good that all teachers get some norm-critical education...I would have liked more*

*about how to implement it into education, into the lesson. But this was just: okay these are the problems, be aware of them. Now you know them, go out and try not to mess up.*

Both the Swedish and Dutch PSTs commented on the importance of workplace learning within their programmes. This was strongly related to their feelings of preparedness to promote equity in their teaching practice.

*[DT6] Sure it is important that you have the [theoretical] knowledge, but... you have to go out and experience it. You could have made a super lesson preparation...but then...a child's hamster has died. Then you can follow your lesson plan but that really makes no sense. You will have to do something with it. That is not to say that you cannot achieve your goal...you have to be able to improvise and you don't learn that in theory. You learn that when you stand in front of the class.*

Most of the Dutch PSTs felt confident to start teaching and to a certain degree implement equity values into their teaching practice. Except for two, the Swedish PSTs seemed a lot less confident, especially about teaching in an equitable manner and dealing with inequities such as discrimination in the classroom.

*[ST4]...at my last workshop we had a kid who said that if he found out his friend was gay that he wouldn't be friends anymore. And I have no idea how to handle that. I mean what can I say besides that.... I don't know.*

While nearly all of the PSTs felt some responsibility for promoting equity in education, half of them felt that their government and school administration also played a part in terms of provision of sufficient resources to accomplish equity goals at school, and two of them mentioned parents as being at least half responsible.

### **Discussion and conclusion**

This study examined Swedish and Dutch PSTs' understandings of equity and preparedness to promote equity in education. Although the PSTs' understandings of the concept of equity in education were in line with general understandings of equity, their knowledge about factors that influence equity was average at best. Swedish PSTs were able to mention only three or fewer factors that influenced equity, while Dutch PSTs could name six factors on average. However, awareness of these factors did not necessarily mean that the Dutch PSTs had a thorough understanding of how these factors influenced equity. Few were aware of how students' socio-economic status, their parents, and the home learning environment impacted equity. The predominantly native Swedish and Dutch teacher sample found cultural factors hard to explain. This is an important finding, as cultural knowledge is a key component in teaching for equity (e.g. Carey et al., 2018; Gay, 2002). Considering these findings in relation to the SJPACK framework, the PSTs in this study lacked a certain level of social justice knowledge (Dyches & Boyd, 2017). If equity was the subject matter, the PSTs in this study knew

the facts of the domain but lacked a deeper understanding of why they were true and how they related to alternative perspectives. With reference to the SJPACK framework, the PSTs lacked at least some theoretical and historical social justice knowledge or more general cultural knowledge (e.g., Gay, 2002; Sleeter & Grant, 1987 in Grant, 2014). They did not seem fully aware of how dimensions of power in society and in the educational system limit certain students' educational opportunities (Gutierrez, 2007). Many of the PSTs, however, understood they lacked knowledge in this area.

When PSTs discussed who was most responsible for equity in education, two of them denied their own responsibility by placing the responsibility for student success solely on the students' home environment. These findings are similar to those of Clycq et al. (2014) who suggested that teachers probably shift this responsibility because they feel under-equipped to teach their diverse student population equitably. They unanimously agreed that equity is an important goal, but most of them, even those who exhibited reasonable knowledge of equitable practices, felt that they lacked practical knowledge of how to facilitate equitable teaching.

Thus, the PSTs not only exhibited deficit thinking towards their students, but also questioned their own abilities. The curriculum and guidelines for teaching were brought up as factors that influenced teachers' ability to promote equity. Just as Carey et al. (2018) commented on the rigidity of curricula as an obstacle for teachers to teach in an equitable manner, a number of teachers in the current study talked about the limitations which curricula, guidelines, learning goals and a lack of educational resources posed to their teaching capabilities. These findings raise concern: in both Sweden and the Netherlands high numbers of novice teachers are leaving the profession (e.g. Parelissen et al., 2019). Feeling unprepared or under-equipped to teach a diverse student population could have something to do with this. Combating deficit views is thus not only important to ensure equitable teaching, but possibly also to retain novice teachers after they have entered the workforce. Either way, it would be beneficial for teacher educators and curriculum designers to pay some attention to deficit views and how to combat them in initial teacher education.

From the interviews with the PSTs, a dichotomy regarding equity in teaching became apparent. Teachers could either teach to achieve equity through techniques like differentiation, or teachers could teach about equity through conversation. While it can be argued that both differentiation and conversation techniques are examples of general pedagogical knowledge rather than PCK, some of the conversation techniques that PSTs referred to can be understood within the social justice pedagogical knowledge domain of the SJPACK framework. For example, encouraging students to think about and discuss their behaviour, especially their inequitable (discriminating or otherwise negative) behaviour, can be understood as a combination of critical pedagogy and agency-inciting pedagogy. The examples given by PSTs might not go as far as to help students understand "how strategies for social reproduction permeate society" (Dyches

& Boyd, 2017, p. 68), but they do help them understand how their own behaviour can be socially unjust, and it offers them the possibility of advancing ideals of equity or social justice in their future behaviour. Some of the techniques grouped under the theme of inclusive practices such as the adaptation of teaching materials can be understood in a similar manner. Adapting materials touches upon the notion of identity (Gutierrez, 2007). In complementing their teaching materials with less dominant examples and perspectives, these PSTs exhibited emerging responsive teaching practices, or what Dyches and Boyd (2017) in their SJPACK framework refer to as culturally accessing pedagogy. The differentiation techniques which PSTs in the current study exhibited were often based on students' didactic level. Therefore, these techniques can be understood as exhibitions of general pedagogical knowledge (Shulman, 1987). Some of the PSTs did comment on their aspirations to start differentiating differently, for example, based on students' learning styles. This enables opportunities for those PSTs to incorporate more culturally accessing, critical, and agency-inciting pedagogies. It is clear that the PSTs in this study lack the social justice content knowledge to take their pedagogies to the next level.

A paradox emerged from the analysis: Based on their account of the content of their teacher education programmes, Swedish PSTs seemed to have more courses about equity or related topics such as norm critical education and therefore more emphasis on theoretical knowledge than the Dutch PSTs. The Dutch, on the other hand, appeared to have had fewer courses about equity, but were more prepared to implement equity in their lesson practice. These findings are in line with Reid's (2011) suggestion that practical experience is a crucial component of teacher education, since learning values, theories, and beliefs are alone not enough to produce effective teachers. However, whether this paradox really exists and which of the PSTs were more prepared to promote equity in education was hard to determine, as there was limited information available on the content of the educational science core in teacher education, and the study did not include an evaluation of the specific programmes that teachers were enrolled in. Investigating this apparent paradox could be an interesting topic for further research, especially if the SJPACK framework is going to be used as a guide for implementing equity goals in initial teacher education.

What has become apparent from the current study is that improvements need to be made in both Swedish and Dutch teacher education if future teachers are to teach equitably. Overall, the PSTs from Sweden and the Netherlands knew a lot about equity in education, factors that influence equity in education, and teaching practices that could be employed to promote equity in education. However, when assessed individually, most Dutch PSTs lacked the critical insights needed to challenge existing power structures in education and provide all students with the responsive teaching they deserve. Swedish PSTs, while having a reasonable amount of theoretical knowledge about equity and critical perspectives in education, lacked a practical knowledge which left them

generally unprepared to implement these perspectives in the classroom. The SJPACK framework can be a useful aid for teacher educators to develop and reflect on in their education programmes. The framework is complex, but comprehensive. As Cochran-Smith et al. (2016) admit, putting equity at the centre of initial teacher education is a big task. But as the findings from this study have indicated, at least in Sweden and the Netherlands, the foundations for this mission are already in place in teacher education programmes.

When it comes to promoting equity in education, both Swedish and Dutch PSTs recognise that the needs of their student populations are diverse. They know they need to adapt their teaching to meet these needs and they know that to do this, they need to create safe and stimulating learning environments. What many of them lack are practical mechanisms to turn this knowledge into effective teaching. To do this in an equitable way, PSTs need to (1) be instilled with a critical mindset that helps them to recognise and combat inequities in the classroom, the school, and society; (2) be reflexive about their own beliefs, prejudices, and practices; (3) connect their teaching to students' everyday lives and socio-cultural realities; and in order to do all of this, they need to (4) be passionate about expanding their knowledge of other cultures. Teacher education programmes can help PSTs on their way not only by giving them opportunities to start learning about the different contexts that have shaped their students' lives, but also by instilling in them a critical mindset and giving them practical mechanisms with which to incorporate these contexts into their teaching practice. Additionally, teacher education programmes need to include sufficient workplace learning for PSTs to put their theoretical knowledge into practice. Only by producing confident teachers who are devoted to making a positive change in society can inequities in education be eliminated and future societies become more socially just.

Finally, some limitations to this study must be acknowledged. This is an explorative study with a small sample. The study focusses solely on teachers' perceptions of equity at one point in time and not on the actual content or knowledge gained from the teacher education programmes. We believe this study provides valuable insights into PSTs' preparedness to promote equity in education. However, to paint a more holistic picture of how PSTs are prepared for promoting equity in education, further research into the knowledge gained by PSTs throughout their teacher education programmes is required.



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**Appendix 1. The main themes and subthemes identified, related to the research questions of the study.**

*Table 3a*

Themes regarding the meaning of equity in education—Research Question 1

	Sub-themes	Description	Codes included in sub-themes
Equality	Equal opportunities	Any statement that mentions equality	Awareness
	Equal treatment		Consequences
	Teaching practice		Limited chances Intersectionality
Inclusion	Acceptance	All statements that have to do with including or not including individuals in education	Stereotyping
	Prejudice		Bullying
	Oppression		Teacher prejudice Student rights

*Table 3b*

Themes regarding factors influencing equity—Research Question 2

	Sub-themes	Description	Codes included in sub-themes
Student characteristics	Extrinsic student characteristics	Surrounding factors that can influence students' lives	Classroom student composition, home learning environment, parents, peer groups
	Intrinsic student characteristics	Factors that are inherent in students that can influence their lives	Culture, learning disorder, gender, learning style, level (advanced, lagging), personality, SES

Teacher characteristics	Teacher qualities	Personal qualities that help teachers teach equitably	Flexibility, personality, role model, self-reflection
	Teaching practice*	Teaching practices that promote equity in education	(see table 3c)
External characteristics	Guidelines	Rules, guidelines, learning goals, and other regulations that influence teaching practice	Guidelines, prerequisites
	Other external factors	Structural/contextual factors that influence both students, teachers, and teaching practice	Criticism of education system, school segregation, multiculturalism, society. Integration

Table 3c

Themes regarding teaching practice—Research Question 3

	Sub-themes	Description	Codes included in sub-themes
Equitable teaching practices	Differentiation	Examples of differentiation in the classroom	Instruction, teaching according to level, other ways of differentiating
	Conversation	Practices connected to talking about equity and inequity	Critical education, conflict resolution, discussion, open conversation, talking about difficult subjects
	Inclusion	Practices focussed on including individuals in education	Inclusive practice, materials, preventing social exclusion.

Table 3d

Additional themes related to preparedness to teach equitably—Research Question 4

	Sub-themes	Description	Codes included in sub-themes
Teacher education	Courses and course content	Descriptions of courses and course content in teacher education	Course content, diversity, norm-critical education
	Course quality	Opinions on the quality of teacher education and courses	Limited information, limited experience, theory versus practice, critical opinions regarding training
	Teaching experience	Practical teaching experience gained both as part of the teacher education and previous personal experiences	Practicum, personal experience, difficulties, limited authority, experience, supervision