“Everything I need is within me”

Pre-service teachers’ self-efficacy beliefs in Transnational teacher education programme

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Abstract.

Teachers are the professionals that assist others to acquire knowledge and before reaching the required amount of vocational knowhow to do so, they must be trained. Different transnational education projects bring students to attain university degrees beyond the borders and educational policies of their country. This thesis presents a glimpse of the process of becoming a teacher in European context, in a transnational teacher training programme tailored for a Sub-Saharan African client.

Scholars have been interested in pre-service teachers' professional development for they face the same challenges as in-service teachers right from the onset of their careers. Their problem-solving skills and critical thinking are contested together with the command of instructional strategies, classroom management, and student engagement. Sound teacher's self-efficacy beliefs (TSE) indicate successful implementation of the above-mentioned skills, which is why this approach has become rather popular when studying pre-service teachers. Mixed method approach was used to encompass the studied phenomenon as thoroughly as possible when the sample remained small. The Ohio States Teacher Efficacy Scale (OSTES) questionnaire was used to collect the quantitative data which also served as the base for questions for focus group interview. A combination of statistical analysis and grounded theory was adopted to find out the pre-service teachers' level of TSE, what are the factors impacting it, and how the level of TSE could be enhanced if needed.

The results indicated generally relatively strong self-efficacy beliefs among the studied pre-service teachers. The factors impacting their TSE seem to be connected to their lack of teaching experience and vocational knowledge, realities in their home country, and their individual differences in character. Both pre-service teachers and teacher educators indicated in their interviews that possibilities to enhance TSE in a transnational education programme not only adding elements to the study programme, but also preparing teacher educators for a group of students that represent different culture.

Key words: transnational education, teacher education, teacher's self-efficacy

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List of abbreviations

CC	Client country
CM	Classroom management
IS	Instructional design
OSTES	Ohio State Teacher efficacy scale
SE	Student engagement
SPC	Service provider country
TNE	Transnational education
TSE	Teacher’s self-efficacy

1 Introduction

Teachers are an important group of professionals working for the benefit of the individuals and the entire society. They are the "middlemen" who turn curricula, designed by educational authorities, into suitable learning goals for individual learners. Such important duty requires thorough introduction to this profession, provided in teacher training programmes. Subject knowledge is not the only goal written in curricula of these programmes but also to teach learners how to learn, to master everyday social skills and to obey rules of the surrounding society, just few to mention. Particularly the classroom teachers play a significant role as they are the first instance taking care of all that by choosing the correct instructional strategies, managing children's behaviour in classrooms, and engaging them into schoolwork. These goals challenge daily the experienced teachers.

Hence, it is fascinating to see how pre-service teachers view these needs with the newly gained theoretical knowledge without much of teaching experience. Challenges the pre-service teachers encounter when stepping into the working life has been attempted to describe e.g., through concepts of motivation (e.g., Chan & Koul, 2021) attitude (e.g., Li & Cheung 2021; Lee & Lee 2014; González-Gómez et al 2019), and self-efficacy (e.g., Gonzalez et al, 2018). The last approach is implanted to this study as well. Teachers' self-efficacy (TSE, Bandura, 1997) has been widely used as it includes a variety of beliefs regarding their professional capabilities, efforts, goals, and investments, as well as persistence and resilience. Strong self-efficacy beliefs have been linked with positive teaching outcomes (Bandura, 1997). Thus, this approach provides a chance to gauge pre-service teachers' progress and success in the future classrooms. Levels of self-efficacy while obtaining classroom teacher training is a particularly interesting topic when the teacher education is attained in a foreign university, within a different school system.

From the 1950s, international competition in the field of education has led universities to found international campuses and study-programmes which has evolved into two-way mobility of students and educational products. In the early 2000s, terms such as offshore, cross-border, and borderless education have been used to describe educational mobility. Lately, the term transnational education (TNE) has prevailed as it is described by Knight (2016, p.36) as "the mobility of an education program or higher education institution (HEI)/provider between countries". TNE can be understood either as foreign universities providing a study programme in the host country or as a TNE project in which the host country is not included at all (Knight, 2016). Transnational teacher education has received

attention in Western Pacific region due to the extensive volume in transnational education of universities in Australia and New Zealand (see e.g., Knight 2016). Contrasting to that, and to the volume of TNE projects of American and British universities, TNE endeavours of smaller European countries are still in their infancy.

Transnational education has been a professional and academical interest to me for some time. Having personally experienced implementing Finnish educational knowledge in domestic and foreign contexts helps to assess the practise of transnational education. I have studied local transnational endeavours in another master's thesis (Haukilahti, 2021), which focused on promotional aspects of transnational education through a linguistic text analysis. This study is a case study of transnational teacher education as it depicts the self-efficacy of African pre-service teachers attending a classroom-teacher training in a small European university. In this programme, an African programme participant (later Client country, CC) sent the students to study in a European country (later Service provider country, SPC). The participants are considered here as "countries" because a vast network of stakeholders, from individuals (students, teachers) to authorities in the ministry level, are included in the project.

Nevertheless, it is only one group of stakeholders that successfully organized programme touches on the personal level – the students of the teacher training programme. This thesis aims to find out how high the pre-service teachers assess their self-efficacy beliefs to be, what are the factors affecting those, and how the level of TSE could be enhanced based on the gathered information. The thesis does not aim to provide any definitive evaluation of the TNE project per se but provides an outline of challenges the students assess themselves having. As the research was conducted halfway of the theoretical training, the results are only a first indication of the possible outcomes.

The theoretical framework consists of two chapters. In the second chapter, teacher's self-efficacy beliefs (Bandura, 1997) and their relation to pedagogical domains of instructional strategies (IS), classroom management (CM), and student engagement (SE) will be discussed. These will be described and presented through adjacent research that aims to depict how multifaceted topic the pedagogical knowledge and skills can be for pre-service teachers. Few possibilities to enhance their self-efficacy are presented in the end of the chapter. The context of the research is depicted in the third chapter, which discusses transnational education in general, followed by a comparison of the similarities and discrepancies of educational systems in CC and SPC. To understand the scope and actions prior and during the training programme, teacher educators and administrative officers were interviewed. Based on the information gathered, this thesis provides a process description

(Chapter 3.3.) of how the TNE project was initiated, planned, and executed both to the point of research and what are the future stages of the project. The initial product of the TNE project was a ready-made curriculum that provides the students with a bachelor's degree of Arts in Education. The implementation of the purchased curriculum was organized by SPC participants first in SPC and later in CC.

Fourth chapter clarifies the used methodology. The selected method must cover both quantitative and qualitative aspects as the small student-sample provides only a glimpse of the reality. A mixed method approach was chosen for this purpose. In the quantitative section, the self-efficacy of pre-service teachers is studied here by using the OSTES scale (Tschannen-Moran et al, 1998). In addition to the questionnaire, a focus group interview was organized to provide more information about the reality. The quantitative results were analysed with SPSS statistical tool and the qualitative results were coded according to the joint guidelines of Corbin and Strauss (2008), and Charmaz (2006). The findings of the analysis are presented in the fifth chapters, after which the results are discussed in sixth chapter together with the information gathered from TNE project participants. Possible lines for future research are presented before the final remarks.

2 Being a Pre-service Teacher

Studying pre-service teachers and teacher education has induced interest among international scholars for decades and the attention seems to constantly grow. Different aspects, e.g., motivation (e.g., Klassen et al, 2011), attitude (e.g., Sharma & Loreman, 2008), identity construction (e.g., Haghighi & Heidari, 2020) or the process of decision making (e.g., Mitton-Kükner & Murray-Orr, 2018) has shed light on what happens in the minds of the pre-service teachers during their teacher training and early years in the profession. As described earlier, this thesis aims to provide new information about the self-efficacy of pre-service teachers in the context of transnational education. This chapter provides a theoretical overview of the concept "teachers' self-efficacy", its domains in classroom pedagogics, and a glimpse on the research of how the self-efficacy levels of pre-service teachers could be enhanced.

2.1 Teachers' Self-efficacy

Scholars use various terms regarding the same phenomenon: self-efficacy, perceived self-efficacy, self-efficacy beliefs, efficacy beliefs, etc. This applies also for domain specific terminology within teaching. In the theory section of this work, the terminology of each researcher will be used, but later in this thesis, a joint definition based on Tschannen-Moran and Hoy (1998, 2001) will be adopted: Teacher's self-efficacy (TSE) reflects teachers' judgements and beliefs about their capabilities, efforts, investments, persistence, goals, and resilience regarding teaching. Bandura's (e.g., 1997) concept of self-efficacy has its origin in the social cognitive theory. It is based on human action: people make decisions about their life based on beliefs about their personal competence to create, organize and complete actions when pursuing goals. Self-efficacy is often confused with self-esteem, but as Bandura (1997) distinguishes them, self-esteem refers to the judgement of self-worth, whereas self-efficacy is the judgement of personal capabilities. Self-efficacy is more of a future-oriented perception of one's personal capabilities rather than actual realization of a competence in a given situation. Self-efficacy beliefs enable people to pursuit their goals, to persist when facing challenges and setbacks, and have overall control over their lives. Strong self-efficacy beliefs predict better outcome for actions we take; as Bandura (1997, p. 37) states:

> "Different people with similar skills, or the same person under different circumstances, may perform poorly, adequately, or extraordinarily, depending on fluctuation in their beliefs of personal efficacy. – Skills can be easily overruled by

> self-doubts, so that even highly talented individuals make poor use of their capabilities under circumstances that undermine their beliefs in themselves."

The theory of self-efficacy consists of four main pillars: enactive mastery experiences, vicarious experiences, verbal persuasion, and somatic and emotional states, of which mastery experiences are apprehended as the most reliable evidence of how a person will succeed in each task. To grow resilient self-efficacy beliefs, a pre-service teacher must encounter, persist, and overcome obstacles. The three last mentioned pillars are assumed to impact stronger on the pre-service teachers' self-efficacy, whereas mastery experiences are the guiding factor for teachers who have gained experience in practice. (Bandura 1997.) In a context of teaching practice, sources of TSE could be as follows: students attain mastery experiences when their practice lessons happen as they planned. The following three components act as support and from their own part they lead to mastery experiences: (1) Vicarious experiences are gained e.g., when a preservice teacher observes when someone else performs a task. An instance in which pre-service teachers receive feedback on their capabilities serves as an example of (2) verbal persuasion. (3) Somatic and emotional states are when pre-service teachers are anxious or excited and which can be interpreted in two ways: either incapability or capability to perform a given task.

Scholars have been interested in the TSE of pre-service teachers in the past years. One of the reasons might be that a pre-service teacher seems to have established a set of efficacy beliefs, they are reluctant to change (Tschannen-Moran et al., 1998) and that TSE of pre-service teachers declines when they enter the working life (Hoy and Woolfolk, 1990). Weinstein (1998) suggests that the complexity of teacher's work overwhelms pre-service teachers which might lead to lower teaching standards, just to narrow the gap between the self-efficacy and real-life requirements. George and colleagues (2018) showed with their sample of 74 novice teachers that the reality shock described earlier, is not necessarily a common occurrence. What their research results propose is that there is a difference between the TSE of elementary and secondary school teachers. Elementary school teachers had throughout higher TSE in classroom management and student engagement than their secondary level colleagues. TSE in instructional strategies did not differ between the two school levels.

In their definition of TSE, Tschannen-Moran and Hoy (2001) included already the conclusion of TSE having a positive impact on student engagement. They present research evidence to support the claim that TSE has shown to have a positive effect on students' achievement, motivation, behaviour, and self-efficacy. Tschannen-Moran and Hoy (2001)

admit that measuring TSE is debatable and requires development but present a 12 and 24 item scale (OSTES) in which the components are TSE in classroom management, student engagement, and instructional strategies. A decade later, results are still under debate. Klassen and colleagues (2010) criticize that although a positive change has happened over 30 years in teacher self-efficacy research, any clear linkage between student performance, and teacher efficacy are not yet found as what scholars have earlier suggested. Mahler and colleagues (2018) noted similar results as Klassen et al. (2010) but added that student performance is positively and significantly related to teacher's subject-specific enthusiasm. In a recent dissertation, Thayer (2020) studied the relation between TSE in instructional effectiveness and student's math engagement and performance. The results indicated that TSE do not have any relation to student's engagement or performance. Despite these debatable research results, research supports the hypotheses of TSE implying higher competence in selected areas (e.g., classroom management, student engagement and instructional strategies) when OSTES scale (Tschannen-Moran & Hoy 2001) is used.

Studying teacher's self-efficacy provides views to understand teacher's decision making in the classroom. Tschannen-Moran and colleagues (1998, p.227-228) state that TSE is bound to a situation and context: "Teachers feel efficacious for teaching particular subjects to certain students in specific settings, and they can be expected to feel efficacious under different circumstances. Therefore, in making an efficacy judgment, a consideration of the teaching task and its context is required.". Holzberger and colleagues (2013, p. 774) propose another view to TSE, that "examining teachers' self-efficacy not only as a cause but also as a consequence of educational processes". Their finding suggest that TSE is not a stable set of beliefs even for the experienced teachers but rather an adaptable feature that is impacted by time and instructional experiences. Results of Gibson and Dembo (1984) has been vastly referenced to, as their evidence show that high TSE in instructional aspects give better support and guidance for challenging students, have more positive take to different instructional strategies, and overall classroom management. Bandura (1997) concludes that teacher efficacy is much more than just knowledge how to transfer subject knowledge to learners: it covers vast range of activities around teaching such as keeping the classroom in order, managing resources and handling teacher-student- and teacher-parent-relationships. These aspects are included in the categories of classroom management, student engagement and instructional strategies presented later in the following chapter.

2.2 The pedagogical domains of Teachers' self-efficacy

Within teacher profession, it is not only the subject knowledge and pedagogical awareness, but factual pedagogical skills must be put in use every day in the teaching profession. Teachers must manage the classroom at hand, gauge students' attention to the topic as well as utilize different strategies in their instruction. Knowledge of these domains are included in the teacher training and the pre-service teachers are also expected to know how to employ this knowledge when they arrive first time to the classroom. This sub-chapter concentrates on the three pedagogical domains included in the OSTES scale: instructional strategies, classroom management, and student engagement. Together with these domains are presented different pedagogical strategies and classroom practises which are included in the teacher training of SPC.

2.2.1 Instructional strategies

Teachers play the outmost importance in employing national curriculum and course descriptions into meaningful units. Courses, lessons, and individual tasks must be planned beforehand so that they serve the purpose they are meant for as well as function as a part of a bigger unit. When a general plan for a lesson is set, it is time to plan the strategies used in instruction. Instructional strategies are here understood as the practises and techniques teachers use in the classroom to guide learners towards the pre-set goals, to assess levels of learning, as well as to support pupils' personal growth. Some instructional strategies might be more suitable to younger learners and other more mature individuals, and here teachers' assessment of the overall situation is crucial.

Developmental stage greatly affects the selection of instructional strategies and how to employ them to the classroom. Learners are individuals and differ from their skills, preferences, and motivations not only across developmental stages but also within them. Differentiated instruction is to accommodate students in each developmental stage with individual differences in learning styles, prior knowledge, social or special needs just some aspects to mention. Benjamin (2014, p.1) states that "differentiated instruction practices help to get students there, while at the same time teaching them how to learn in a meaningful way". Benjamin (2014) discusses differentiated instruction from different perspectives and highlights one essential aspect in teaching minorities. Additionally, Alford and colleagues (2016) concluded that pupils, who have been taught with developmentally appropriate instructional strategies, are more on-task and answer teacher-initiated questions. Pupils taught

by teachers with lower skills in aforementioned strategies, seem to be less engaged in classroom activities. This child-centred approach guides teachers towards using a variety of instructional strategies simultaneously in the classroom environment. (Alford et al, 2016.)

2.2.2 Classroom management

Classroom management (CM) is a complex phenomenon of which several researchers have provided frameworks to understand how it can be developed and implemented. Perspectives to this topic have evolved over time from strict behavioural management and behaviouristic sense of learning and teaching masses to more individualistic approaches.

Traditionally teachers have been the main characters in a learning context in which the teacher provides information, and the learners are expected to absorb it while seated in silence. Nowadays teachers are more of instructors in different learning environments where students acquire skills and knowledge in cooperation with other students – a context in which silence is not an essential feature of learning. In the modern CM, teachers can focus on supporting their students' individual growth. According to Evertson and Weinstein (2011), an essential feature of CM is to create a suitable environment for students' academic and social-emotional learning. Successful creation of such environments provides the student a safe place to acquire skills like reading, writing, and counting but also a place to test and evolve social and emotional skills. These two goals include several aspects highlighting e.g., positive teacher-student relationships, proactive efforts towards students' self-regulation, and teachers varying their instructional strategies on student's developmental or cultural characteristics. (Evertson & Weinstein 2011.) Wearing (2019) highlights instructional strategies (well-planned lessons, engaging activities and tasks in different levels) as motivational factor in the classroom management within adult education. This line of thought could be extended to teenagers as well. Clarifying the learning objects, linking the objects to personal gains, and expectations of behaviour and productivity impact positively the student behaviour (Wearing, 2019). These practices can naturally be used for younger students but for older students, highlighting importance e.g., for further studies or vocational benefits is a possible method to evoke wanted behaviour.

Emphasis on behaviour management (restrictive procedures and disciplinary actions) is still prevalent and carried out globally. For example, Garrett (2014) sees discipline and silence in the classroom as the best presentation of successful CM. A rule can result different kind of actions whereas procedure is a single action, whereas disciplinary actions are then taken if rules and procedures are violated (Marzano 2005). They create the structure and

predictability to lessons and set expectations for students' behaviour in the classroom. Disciplinary actions are not only to punish students for disobeying the code of conduct in the classroom, but also to reward individuals or groups when following it (Marzano 2005). From a wide angle, rules and procedures are part of society and as the school systems are supposed to prepare students to become dutiful members of the society, we cannot ignore the disciplinary aspect. Establishing classroom rules is proven to be one of the most effective and frequently used classroom management methods. (Malone & Tietjens, 2000).

One focal point in CM is interpersonal relationships. Well-functioning teacher-student relationships enhance the student's sense of self-esteem and belonginess in the school society. Indeed, the school is not the only environment where CM can be practised as it could also extend to student's homes. Teacher-parent relations are important part of supporting student's school path. Manzano (2005) specifies parents to be an asset in monitoring the progress of their child(ren) and intervening in case of low performance. Their involvement is important for general support and wellbeing of the student regardless the academic performance. In maintaining good relations to both students and their parents, teachers need strategies to manage their emotions. Negative emotions (anger, anxiety, or frustration) are reflected in the pupils in different ways. Gross (1998) divided emotion management strategies into two categories: antecedent- and response-focused. In the first category, emotions are regulated before anything has happened and the latter when something has occurred. Antecedent-focused regulation suits better the classroom environment. Suppressing the emotions does not bring as good results as reappraising them (Jiang et al 2016). This means that teachers should evaluate the triggers of negative emotions so that they can regulate them better in the future. Jiang and colleagues (2016) suggest that teaching pre-service teachers about emotion regulation strategies should be included in the teacher education and advocating empathy belief could help the pre-service teachers to understand their students and events happening in their classrooms better.

Emotions are also included in the research by Martin and colleagues (2016), who provide pre-service teachers a cross-section on antecedents to approach CM. One aspect is to view a classroom is to comprehend it like a small-scale community. By accepting oneself of being an emotional individual, teachers can control their emotions and at the same time teach it to their students. Teacher is expected to be at the same time caring, guiding, and if necessary, disciplining authority in that little society in which understanding teacher's own belief system about cultural responsiveness as well as child development is crucial. (Martin et al. 2016.) Following the similar path of thought, Gettinger and Fisher (2015) state that in the

early childhood education, it is important to manage challenging behaviour and support pupils in their socio-emotional growth. According to them, effective behavioural management predicts positive impact on child's academic path when these measures are taken early. Effective CM strategies are hoped to be incorporated in the teacher training, and especially feedback and counselling on-site would benefit teachers reaching to better understanding of CM (Gettinger & Fisher, 2015). In case of a challenging pupil, teachers can choose how to encounter them. Caldarella and colleagues (2020) conclude that if disruptive pupils are reprimanded by the teacher, problematic behaviour might pause for a while just to reappear later, and reprimanding does not enhance the student engagement either.

2.2.3 Student engagement

Regardless of school level, geographical location, or student demographics, every school has students who are either committed to their studies or disengaged from them. The concept of student engagement (SE) emerged first in the discussion about school dropouts and how to prevent them (Finn, 1989) and definitions of SE have changed over the decades. For instance, Klem and Connell (2004) give the attributes to engaged students: they perform well academically but also enjoy challenges and learning, regulate their own behaviour and goal-orientation – all in all, put more effort in their studies. Other models describe SE with different components. Finn's model (1989) compounds of behavioural engagement and affective engagement which was then broadened by Fredericks and colleagues (2004) with the cognitive engagement. Behavioural engagement includes features such as class participation, persistence on a task, completing homework and complying the classroom rules. Emotional engagement covers sensing belonginess to the school society, valuing the school and enjoying the activities and the third component refers to e.g., self-regulation, flexibility in problem solving and having goals in learning (Fredericks et al, 2004).

Student engagement is also connected to the concept of motivation. Both terms have been defined in different ways over the decades: One of the prevailing definitions of motivation includes a division of intrinsic and extrinsic motivation. People that are naturally interested in something or enjoy thoroughly participating in some activities are intrinsically motivated to do so, whereas external motivation drives us to actions that might not be enjoyable but provide a wanted outcome (Ryan & Deci, 2000). This theory is used by several scholars at the field of education although critical voices has been uttered towards this division e.g., by Reiss (2012). Motivation is essential for learning but not necessary for engagement: a student can be motivated but does not engage actively in a given task. From

the teachers' perspective, intrinsic motivation is not something to fully rely on. Thus, understanding extrinsic motivation would alleviate the challenges teachers face with the classroom activities. Ryan and Deci (2000) describe two types of extrinsic motivation: Pupils might participate in the classroom although they feel resentful, resistant, and not interested about the activity. They could also have a good attitude and a will to do so because they understand the usefulness or a value of the activity on hand. In other words, pupils could be externally driven to the task by a teacher, or the volition to participate is advocated by pupils themselves. This serves the possibility for teachers that learners' engagement in school can be enhanced through external incentives, e.g., scaffolding during the lessons, including the students in decision making or rewarding individuals or a whole group for reaching a short-term goal.

To cater different motivations in a classroom, teachers have in their use a selection of supportive strategies. One of the recent instructional notions is joint construction of knowledge in which pupils and teachers together in a dialogue discuss about a topic, preselected, or immersed, and in this meaning making process different strategies of scaffolding can be used. Pol and colleagues (2010, p. 274) defines scaffolding to be "construed as support given by a teacher to a student when performing a task that the student might otherwise not be able to accomplish". As Sharpe (2006) states, scaffolding is a hazy concept that does not construe straightforward strategies. Communication and a dialogue between teachers and students are in the centre of scaffolding. Any assisting measures taken in the classroom could be seen as scaffolding, from understanding a student's capabilities and including this to lesson plans, to instantaneous communication with the student during a lesson (Sharpe, 2006).

In the early years of childhood, children's learning environments are their homes and e.g., kindergartens. The focus lies on developing the basic skills. When they grow, the schooling turns into more formal and it will direct the concentration more towards academic advancing. The familiar classroom is a meaningful learning environment in which the learner can participate actively and learn group work skills. According to Mahatmya and colleagues (2012), children began to participate activities outside of the school and thus broaden the learning environment during this development period. Skills in operational reasoning, self-evaluation, self-regulation, and self-direction develop which later enhance self-efficacy, intrinsic motivation and mastery orientation. Development happens within social skills as well, as children have positive relationships with their friends as well as teachers and other adults at school. (Mahatmya et al 2012.)

2.3 Enhancing TSE of pre-service teachers

The previous sub-chapters underline the positive implications of which a high TSE on aforementioned three domains have for work of pre-service teachers. The domains are embedded in the teacher training, but as the importance of the high self-efficacy levels during the teacher training has been noted in during the past decade, also new affecting dimensions are discovered. As mentioned in the beginning of this chapter, there are several factors (e.g., motivation, attitude, identity construction) that lay the foundation for successful teaching experiences. In addition to this, different ways to enhance the TSE of pre-service teachers during their teacher training have been studied and some positive remarks could be drawn from the following findings.

Motivation and particularly attitude plays a significant role in how self-efficacy develops in each pre-service teacher. Indubitably they need theoretical and practical knowledge on classroom practises, but for them to reach wanted outcomes, a positive attitude seems to provide convincing assistance. For example, in the study of Li and Cheung (2021) about pre-service teachers and their implementation of inclusive education, they found out that positive attitude towards both inclusion and classroom management had a clear connection to higher TSE. Similarly, González-Gómez and colleagues (2019) provided evidence of how positive attitudes among pre-service teachers increased their TSE while learning about science teaching through flipped learning. In both cases the positive attitude played a role when implementing something new in the classroom – when pre-service teachers TSE is high, the implementation has higher possibilities to succeed.

Regarding the training content, it seems to be fruitful also in connection to TSE to integrate wanted classroom strategies and practises already in the training process and not only presented as theoretical knowledge. Lee and Lee (2014) discovered that TSE among pre-service teachers increased largely due to the amount of lesson planning practise in a technology integration course. Together with a positive attitude towards computers, the lesson planning practise indicated high levels of TSE (Lee & Lee, 2014). Lesson planning is one of the basic tasks, that teachers must repeatedly carry out. Lesson planning includes the selection of suitable instructional strategies for each pupil group and preparation of additional activities for instance, for special needs or talented children. Lesson planning can include different approaches and thus, it is good for pre-service teachers have experience on different approaches already from their teacher training period. For instance, Saputro and colleagues (2020) suggest that problem-based learning could be one possibility to enhance both TSE and

critical thinking skills. Hence, it should be included as a learning method already during the teacher training. As with Lee and Lee (2014), problem-based learning is also a classroom practise which the pre-service teachers could utilize in their own classrooms. Having experienced oneself of how a certain learning method works, it is easier to implement it later.

Teaching methods, that are embedded in the teacher training, play an important role. Chan and Koul (2021) discovered that the way how teacher educators behave and instruct pre-service teachers impacts the pre-service teachers intrinsic learning motivation and overall TSE. These findings highlight the importance of integrating those instructional behaviours and classroom practises into the teacher education which are wanted to be then conducted in the future classrooms. Additionally, Gonzalez and colleagues (2018) discovered that the way how pre-service teachers perceive support, control, and structure during their teacher training from their teacher educators, significantly predict the levels of TSE of the pre-service teachers. Hence, the teacher educators are one key asset in supporting the personal growth as well as improving the TSE of pre-service teachers.

As teacher educators are one of the key figures impacting TSE beliefs of pre-service teachers, the training of teacher educators impacts the outcome as well. Tran and colleagues (2021) researched teachers, who participated on a TNE project, but instead of students moving, they moved to another country to teach. Tran and colleagues (2021) discovered three approaches that benefit a TNE project: First, the teachers would need enough practise and education how to teach across cultures, and to integrate the information into local systems. Secondly, they should also learn to reflect the constrictions between students' needs, intended curriculum, and used pedagogical methods. Thirdly, the teachers should also be able to reflect their own emotional wellbeing and resilience in a foreign surrounding. These aspects should be reflected before arriving to the country as well as constantly re-evaluating them during the programme. (Tran et al, 2021). If teachers can understand and relate themselves better to their students, the amount of support could increase and from there, enhance TSE.

As a conclusion, firm self-efficacy beliefs anticipate better outcomes in different actions, them being anything from daily activities to academic pursuits. Overcoming obstacles and challenges are a normal part of life giving us mastery experiences. Observing others (teacher educators or peer students) is another way of achieving (vicarious) experience that is needed to build-up a strong set of self-efficacy beliefs. During those periods pre-service teachers can combine all the information and experiences they have gained in the training schools, which provide a safe environment for pre-service teachers to test themselves. In order to survive amidst the inevitable challenges of the working life, pre-service teachers need to

experience themselves the methods and practises (instructional strategies, classroom management and student engagement) they are presumed to use in their own classroom. The elements of enhancing the TSE among pre-service teachers are their own motivation and attitude, methods and practises used during the training, but possibly the most importantly, the code of conduct of their teacher educators. As much as pre-service teachers need support and training, so do teacher educators to excel in their work. These aspects will be reflected further in the chapter 6.

3 Educational knowhow across borders

The chapter is divided into three sub-chapters, starting with a presentation of theoretical aspects to transnational education (TNE), followed by a brief description of the educational environments of the service provider country (SPC) and the client country (CC), and finally a closer description of the TNE project at hand. The product of this education export project is a ready-made curriculum of bachelor's degree of Arts in Education with the specific content in classroom pedagogics. The SPC located in Europe, whereas CC is in the African continent. The locations of the stakeholders bear certain indications of their cultures, history and society which impact the all-over communication and co-operation as well as the adaptation of the acquired skills of the incoming students in this project.

3.1 Transnational education

Transferring educational knowhow, teachers, programmes, or equipment (Schatz 2016), across the borders, is not a new phenomenon in the global scale. The idea of transnational education (TNE) got its origin in the 1950s, when an interest towards students willing to study abroad rose. They became a target group for universities that offered scholarships to fund their studies and stay in a new country. (Knight 2016.) International competition has produced different forms of TNE over the years, from locking students to study abroad to build sub-campuses and twinning programmes across national borders.

Along the seventy years of this mobility of educational knowhow, terminology has also expanded. From theoretical point of view, terms such as cross-border, borderless or offshore education differ from transnational education but also from each other. Nevertheless, these terms are being used as synonyms when it comes to practice. The term "transnational education" used in this thesis is defined by Knight (2016, p.36) as "the mobility of an education program or higher education institution (HEI)/provider between countries". From the perspective of a hosting country, there is two prevailing categories: a) collaborative TNE when the foreign educational organizers co-operate in the hosting country or b) independent TNE when foreign universities do not include the hosting country in the transfer of educational knowhow (Knight 2016). A new viewpoint to the TNE research was provided by Lönnqvist and colleagues (2018) who highlight element of transfer in the TNE process. They propose that intellectual capital transfer could be a tool to understand the different aspects of TNE: it could help to formulate goals and expectations each TNE partners have, to determine hidden crucial practises and processes in educational activities, as well as to recognise

development possibilities, context-related reliabilities. Intellectual capital transfer could also be used as a tool to analyse how well an TNE programme is adopted and adapted in the new surroundings and what are the impacts of it. (Lönnqvist et al 2018).

Another term, education export, has been adopted used vastly in the English-speaking world. Great Britain in the West, and Australia and New Zealand in the East have been prominent educational importers globally. Funding of the education systems in these countries is at least partially based on non-governmental financing. Thus, borrowing a word from the world of economics is not too improbable. Economical thinking becomes clear in Adams' (2007, p.410) definition of education export as "an educational services approach based on a public–private partnership with market driven services that may provide a surplus to the institution, high quality educational and pastoral services to students, and export income to the nation, within a strong national regulatory framework". Schatz (2016) provides another description that highlights the transferrable elements. Her definition includes trading educational knowledge, knowhow, equipment, and products, such as programmes or degrees, to foreign countries. In this thesis, the term transnational education is used in a broad sense covering both knowledge transfer as well as the marketing aspect.

Knowing one's customer helps selling any product to its end user. Therefore, several aspects must be observed to ensure a well-functioning project in the field of TNE as well. Xing's (2019) concluded in his dissertation that TNE organization providing services must carefully reflect the differences in the other educational system and practises, so that the needs of the host organization could be understood and met. Thorough reflection could also provide solutions to the challenges in the implementation in the host country. Still, one sided reflection is not enough to ensure successful outcomes. According to Chung (2017), the knowledge transfer could succeed, if decisions about the TNE project are not done under political pressure and both TNE partners co-operate in the localization process. This co-operation is highlighted by Chiang (2012) as well, who argues that "for institutional capacity building, the institutions of importing countries should involve themselves more in curriculum design and assessment that are the soul of the programmes and closer to knowledge production" (p. 186). This indicates that in order for TNE project to meet its goals, organizers need to analyse educational differences, and must be included in all stages of the TNE process.

3.2 Basic education and teacher training in different continents

The educational system in the service provider country (SPC) has been evolving to its current form since the nation's independence around a hundred years ago. The nation overcame the times of poverty and structural inequality several decades ago and is now enjoying a peaceful and prosperous phase in history. Educational systems surrounding the country and social circumstances have impacted to the creation of the current educational system. In SPC, the responsibility to organize basic education is given to municipalities within guidelines given by the state. The compulsory basic education (compulsory preschool grade and grades 1-9) is fully state funded, which means that the state provides municipalities funds based on the number of students. One of the general agreements is the national core curriculum, issued by national education authorities, which is the main document to guide schoolwork. Other general agreements include e.g., that schools must provide school meals and in most cases school transportation free of charge, in addition to the otherwise free education. From historical perspective, SPC had few ethnic groups. Different linguistic and cultural features are denoted in the national curriculum, although the current multiculturalism is present mainly in the biggest cities. The increasing multiculturalism is also one of today's challenges in SPC. Medium of instruction one of the official languages, but in some specially aligned schools, it can be one of the big international European languages. Schools in urban and rural areas are assessed similarly and given the same amount of support by the state.

The teachers in the SPC are highly trained. Universities around the country provide both classroom and subject teacher training in co-operation with the national agency in education. In primary school (grades 1-6), they are required to have a master's degree in class education which indicates that these classroom teachers instruct all the subject for their class. Subject teachers in lower secondary school (grade 7-9) hold a master's degree in the subjects they teach. Requirements always include teacher's pedagogical studies that are either included in the master's degree or as separate minor studies. The freedom given to municipalities to adjust the core curriculum extends to teachers as well, as they can adapt the core and local curricula in their own classrooms regarding the methods and materials they want to use.

The basic education in CC resembles the system in SPC. Primary education in CC lasts seven years (grades 1-7) after which students continue to junior secondary school for three years (grades 8-10). Transition from grade to grade is based on the acquired level of knowledge and skills. In the school regulations is stated that the compulsory education lasts ten years and it ought to be free of charge. In reality, the imposed tuition fees prohibit

especially children with modest backgrounds from going to school. Inequality is similarly visible between different school districts which have notable differences as e.g., rural schools do not have similar physical possibilities as schools in urban areas. The language of instruction in lower primary schools (grades 1-4) is one of the local languages spoken in the surrounding tribal society. From the grade 5 onwards, the medium of instruction is English. Diversity in the classrooms is one of the greatest challenges for teachers. Diversity is also a matter that has been requested to be embedded in curricula. Especially urban schools are heterogenous as they include students from different socio-economic and ethnic groups.

The Client country is a relatively young independent nation in Sub-Saharan context and battles still with the challenges caused by the circumstances prior to the independence. The young democracy struggles with nation-wide challenges such as poverty, inequality, and social exclusion. The nation has yet to heal from the pre-independence circumstances in which education is seen as one of the main influencing powers to improve them. Thus, the state grants yearly from the national budget to the basic education more than many other Sub-Saharan countries. The teacher education has evolved alongside the nation. There have been several actors who participated in supervision, development, and coordination of the teacher education for basic education. In the beginning of post-independence era, teacher education was organized by colleges of education from where it has evolved also into university faculties that currently provide four-year bachelor's degrees in education. National education authorities are currently working on improving the quality of the provided education in CC, which has been also the major reason for them to attain educational knowhow abroad through a transnational education project with SPC.

3.3 Bachelor's degree programme in Class education

This sub-chapter is divided into five parts to present different stages and actors of this TNE project between SPC and CC. The project started in SPC by the university organizers, and after signing the contract with national education authorities in CC, new actors came into this project. The project curriculum was a result of co-operation between both partner countries. The first implementation part of the project was conducted in SPC. At the stage of data collection for this thesis, the implementation of practical training in CC was still to come.

3.3.1 Administrative stakeholders

The initial planning stage began in early 2015. The development of this product was initiated by the Faculty of Education and the Rector of the organizing university and development work continued for 1,5 years. There was not a vision of the future client in the planning stage, thus the goal was to create a curriculum for education export for various target groups. Planning was overtaken by the project board which was nominated by the dean of the Faculty of Education. The purpose of this board was to gather representants of teachers and coordinators who would participate in this project. Location for the project was one of the first decisions. The organizing university has different campuses and the selected one could be described as a boutique campus: It is small, has its special features and provides suitable premises to organize and invite groups for special projects.

The campus teaching staff were presented the idea of an upcoming project in education export and teachers were requested to provide plausible course descriptions within their field of expertise based on volunteering. In a short time, around 40 teachers from the campus staff got involved. When the courses were planned and submitted, it also indicated a will to teach these courses. The general mediating language at the university is the national language and for some teachers, this was the first time in teaching in English. Teachers' language levels were not assessed before the courses, but there was a possibility to participate on a language course to support conducting lectures in English. The language support was provided by the university. When the bachelor's degree in education got finalized as an educational product, it was marketed to potential customers through connections of the university consortium. This consortium of four universities serves as an independent education partner for other institutions that provide a variety of educational services which range from commissioned master programmes to training courses, e.g., in teacher education. By the help of this available network, the client was found relatively quickly compared to the time of planning the product.

The main customer in this project is a scholarship fund, which provides local students possibilities to study abroad by providing scholarships and supporting otherwise their studies in new countries. It finances the project and provides selected students with scholarships that cover their stay for the whole duration of their studies in SPC. The fund participated actively to the planning stage as they sent a delegation to SPC before the beginning of the programme to get to know both the country and the university better. Other stakeholders from CC are the qualifications authorities, whose main purpose is to accredit the degrees attained abroad, and

the national institute, which is responsible of the curriculum development and learning material production in the receiving country. Both the qualification authorities and the national institute work under the ministry of education. They participated actively in adjusting the curriculum to ensure that the content and structure suits their own education structure and legislation. Additionally, whenever new connections are established between two countries, the effort and importance of the embassies must not be forgotten. The embassies do not have an official role in the project, but they positively affected the wellbeing of the students, supported their stay in SPC in several ways, and ensured that the project proceeds well.

After the partner was found, it took three active months to finalize the curriculum and certain changes in the courses and course contents were made. The content and the duration of the training was planned and managed by the organizing university so that incoming foreign students would have a realistic possibility of graduating in three years. Possibly the biggest discussion covered the discrepancy in the educational systems. In SPC, the classroom teacher qualification (M.A in Education, 5 years of studies) allows teaching in the primary school (grades 1-6) where most of the subjects are taught by the same teacher. In the lower secondary school (grades 7-9) subject teaching is conducted by separate subject teachers. In the CC, the primary school extends until the grade 7. Classroom teacher qualification (B.A in Education) lasts four years of which the last year is spent deepening knowledge in two selected subjects which qualify the student then to teach in the grades 4-7. This discrepancy led to modifications that product now includes extra courses in English, Mathematics and Natural sciences that could compensate the advanced courses in CC classroom teacher curriculum. These additions led to reduced number of studies in music and religion.

The degree students were selected in two stages. The preliminary selection criteria were provided by the organizing university, and those included a high school diploma, basic education conducted in English and a letter of motivation. These criteria were given to the fund which used that and their own criteria in the application screening. The additional criteria included ethnic, societal, and geographical background. According to the educational coordinator, selecting students from different tribes and parts of the country would suggests the equal consideration of applicants. The educational coordinator added that there are slightly more students from the north of the CC, potentially due to the less developed areas in the society and school system located in the north. A primary wish of the CC authorities is that the students would return to their hometowns to work. The fund provided eventually a list of suitable students to the university for further elimination. The final selection included 25 students, from which one student quit the process before departure.

The SPC university consortium has another project together with CC in which they provide a master's degree in Education. Part of the evaluation process of this project is to cooperate with the master's degree project by exchanging good practises and remarks. The organizing university reported the progress every quartal to the fund, which had selected a contact person for this project. Supervision and possible reporting happened also through the CC embassy in SPC, which has been in a close contact to the students before and after the arrival. According to the administrative coordinator, the presence of embassy has been valued both by the university and the students and the feedback from CC has been generally positive.

Evaluations are done also at the programme level. Projects at the organizing university have attracted academics as well and for this degree programme two researchers were employed. The research results are based on qualitative material where the students have reflected the teaching and some terminology on which they have put attention in this SPC environment. The research studied foreign language acquisition and the socio-cultural aspects on living in SPC. Constant internal evaluation is a common practise in the SPC universities. This project included gathering feedback from the students and the teaching staff regularly. Feedback has ensured that the communication flows well in both directions between the students and staff members, and that any issues could be solved efficiently. Discussions led the students to select a representative among themselves to convey thoughts and ideas towards the staff and coordinators.

3.3.2 Curriculum

The curriculum for B.A. in Education in SPC includes basic and intermediate studies in Education, that are aimed to study within three years. Pedagogical knowledge and skills for classroom teaching are taught intermitted with multidisciplinary subjects for classroom teaching (e.g., Math, Science, English). This served as the basis for the education product. The product provides the general right for higher university level studies as any other bachelor's degree in SPC, but the incoming students do not have a readymade path to the master's degree programmes in SPC. The B.A. in Education in SPC includes minor studies for, but two reasons have led to the elimination of minor studies from this curriculum: the export partner should know clearly from the beginning which courses are surely available for the students and the university cannot provide all the minor courses in English. A fixed set of courses is easy to coordinate and carry out. On the other hand, this elimination denotes that foreign student cannot modify their degree according to their interests in the same way than the students of SPC. The teacher training in SPC includes elements such as scientific and

critical thinking, the model of lifelong-learning, child-centred methods, and functional learning environments. In a broader perspective, the curriculum aims to provide communicative, pedagogical, intellectual, and ethical competences which initiates to develop well-qualified and supportive teachers for future schools. These skills are aimed to be transferred to the future students and they are promoted through different activities over the course of these studies. These skills were included in the selected courses and the following examples provide a viewpoint to how university staff approached this challenge.

To support foreign students in their academic path in a new country, a specific set of orientation studies is planned to this curriculum. Researcher, who had several years' experience in living in a new country and working in a different school system, created an orientation course about living and studying in SPC and another course about safety issues at schools. Similarly, based on extensive experience in the field, Lecturer created a course about inclusive pedagogy in connection with early childhood education. Inclusiveness is already part of classroom teacher training and kindergarten teacher training in SPC; thus, it would be a logical component to the product curriculum as well. Understanding children and youngsters with special needs, is thought to be essential to all teachers in SPC, thus this cannot be excluded.

One of the central elements in the product curriculum is the amount of classroom training. Training Coordinator was responsible for the overall training period and thus planned all contents, implementation methods and evaluation for this project. The proposed training period consisted of three training phases: an observation, teaching in pairs and teaching alone. This step-by-step approach is to support the transition from being a student in becoming a teacher and gaining the professional self-confidence in the process. Observation is a method to provide an idea of working in a classroom. These observation exercises were planned to take place in different schools and day cares near the campus. In the second part students would have their first teaching experiences in the teacher training school. By teaching in pairs, students can support each other in front of any kind of insecurities. In the last stage of the training, students are given more lessons and responsibilities regarding the teaching. Observations were set for the first year of studies and pair exercise for the second year. From both experiences, they would write a portfolio to reflect what they had learned and observed.

The amount of contact teaching was reduced in the product due to shortened time frame. The final year concentrates on the training, training reports and finishing the studies altogether. During a couple of intensive weeks, the students can show and submit their

projects to the visiting SC teachers. This is one way for the students to present their progress even without active supervision in between. The students will not return to SC after the training phase as the graduation is planned to happen in RC. Regarding the training period, one main adjustment concerned the assessment of the training. The fund required a numeric evaluation for the training, like for any other courses. In the SPC teacher training, numeric evaluation had not been used in decades, which meant that the evaluation criteria were to be created for this project. After signing the final form of the curriculum, other changes were not made to it.

3.3.3 Implementation in SPC

The final product got the following structure: First two calendar years the students will study in SPC to study theoretical aspects in classroom teaching and gain their first teaching experiences in local classroom environments. They are expected to complete the basic and intermediate studies in Education including the extra courses in Mathematics, English, Natural sciences. The main emphasis is on the pedagogical skills in several of the subject (e.g., History and Geography) rather than the subject content itself. What comes to the contents of individual courses, the teachers responsible for the realization of the courses took care of them. The CC curriculum of the teacher training programme was given to the SPC teachers so that they can compare and possibly implement appropriate content to their own courses, such as topics suitable for each grade. According to Educational coordinator CC curriculum presents the same elements of phenomenon-based teaching and learning which are prominent in the SPC curriculum. By contrast, the emphasis on subject contents in the curricula of SPC and CC are different: In CC civic education plays an important role by reflecting environment and health related issues e.g., the ways of saving water in the areas with lacking water supplies. In SPC, each curriculum reflects its own time and society with different focus points.

English language support course for teachers started before the students arrived and continued after the arrival for some of them. Additionally, the staff was trained and prepared for different scenarios outside of teaching. Incoming students needed assistance with everyday questions such as what to do when the glasses break, how to ride a bicycle or where to seek medical help. In the beginning of their studies, the students got support and guidance in the study skills and academic writing. During these courses there was also a possibility to even the academic differences that were present in this group. The orientation course and the course about school safety provided not only the content knowledge for the incoming students

but also served as a platform for the students to reflect and discuss the differences between SPC and CC. Researcher stated witnessing a clear difference between the school history of SPC students compared to CC students. Unfortunately, the CC student were not able to participate on courses together with the SPC student for the project curriculum courses were only conducted in English.

The local educational system got familiar to the incoming pre-service teachers through field trips and other activities outside the campus area. These trips were a possibility to witness teaching methods and learning environments in action e.g., during inclusive pedagogy course, the pre-service teachers had additional chance to visit a school and a day care which provided inclusive teaching. According to Lecturer, some of the students got inspired about special education after witnessing how the methods, i.e., picture cards, could be implemented in their future classrooms. These students also pondered about the importance of recognizing skill and language levels, the meaning of a play for a child and ways of assisting everyone to work and communicate with each other. Some pre-service teachers felt more hesitant towards the actual possibilities to implement the SPC methods in CC.

Discipline and order are not the focal point in the SPC classroom management skills, in the opposite, directness and system without hierarchy and addressing teachers and higher officers by first name basis were completely new for them. This and child-centred learning were the most discussed topics between the students and teachers. Students often noted how the classroom teachers treated their pupils as their own children. The close relationship between the student and the teacher was highly appreciated by the students as well as the trust upon the pupils. Clearly the way how an individual and a child are encountered in SPC was special. They reflected this notion with their own experiences from the schooldays when the teacher had a strong authority, gave a lecture in front of the class and maintained a strict discipline in the classroom. None of these notions were visible in the classrooms they were visiting in SPC in which closeness and informality are central aspects. These natural and straightforward relations between the students and teachers took place also at the university. Some of the teachers maintained a connection with the students even outside of the lessons. According to the staff members, such immediate connections fostered the safety for valuable conversations regarding general coping in a new country but also specific questions about hazardous animals or alcohol consumption culture in SPC.

The practise part of the degree included training seminars in which the students were presented their goals, training contents and guidelines how to make the most of these trainings. In the regular classroom teacher training in SPC, the observations are conducted in

the teacher training school. In order to provide vaster view to the incoming student, local primary schools and day-cares served as training locations for the observation phase. For this purpose, selected classroom teachers from the city schools were prepared for the observation exercises. The students were to observe the teaching and then discuss with the classroom teacher about different situations. According to the educational and training coordinators, students were mostly taken by how teachers were able to scientifically justify their selection of methods. This give a hint how the teacher training in SPC transfers skills, such as scientific thinking, and how it can be utilized in real life teaching activities.

The second phase took place in the teacher training school as the pupils are already accustomed to the teacher trainees. All the compulsory education in SPC is organized by using the national languages, some schools have specialized in providing teaching by using English as medium of instruction, the training school being one of them. Therefore, it can be assumed that pupils have the chance to learn any subject in English taught by a foreign teacher student. The students planned and taught for certain number of hours the given subjects in pairs. The classroom teachers, whose lessons the students were practising in, are called mentoring teachers and they are responsible for the feedback as well. The student pairs were asked to send their lesson plans to the mentoring teacher in advance for feedback so that the plans can be improved before the actual teaching. Each teaching session were followed by a quick feedback session of a mentoring teacher who encouraged them to practice the new methods they have learned. These feedback sessions were needed as the educational coordinator remarked that the excitement of having their first experiences in front of a classroom led the students to use methods which they remembered from their own school days. According to Training and Educational coordinator, encouraging the students to use the new teaching method worked and this kind of feedback method was appreciated among the students. In the end of the training period, the mentoring teachers assess the student's performance. The final grade for the training consists of the mentoring teachers' feedback and of the written portfolio. Officially the grades are administered by the training coordinator.

3.3.4 Implementation in CC

At the time of data gathering for this thesis, the third year of the project was still in the planning stage. All the interviewees admit that the students have a huge adjustment task in front of them. One of the main concerns was the distance studying. The theoretical studies were planned to teach remotely while pre-service teachers are already in CC. Teachers were pondering this as the remote teaching and learning might present a challenge. The question of

accessible internet connections might present a challenge as the students are to return to their hometowns and cities. Training coordinator stated that possibilities to include IT in teaching in CC vary greatly. Some private schools have accessible IT systems but the schools in the countryside might lack electricity and premises altogether. Smartphones are in use if the telephone connections work and the students are accustomed to use them. The mentoring teachers that use IT in their teaching have been aware of these challenges in CC and have been discussing about the level of adjustment with the students. The students had the possibility to practise with all available technology in SPC so that they can themselves decide the level of adjustment in their own teaching environment and possibly impact the amount of technology in the classrooms in the future.

Another concern was the utilisation of the newly gained information. Adaptation is important and direct copying of the system is not going to be a solution nor possible in many ways. The staff members predicted that students would encounter prejudices when using SPC methods, e.g., everyone sitting on the floor instead of chairs. The skills the students would possibly transfer are the groupwork method and constructivist thinking. The training school in CC were informed about the training phase of the project as clearly as possible: how the training is going to be organized, what is the role of the school and the students. SPC staff wanted to ensure as long as possible that the students have the best possible chances to practise the skills and knowledge gained in CC. They hope that the schools would trust the students and give them space to show and explore what they have learned.

The project agreement does not include clarified plans for the students after the graduation. The task of adaptation is then transferred to the students and the future employers as the fund and the organizing university are not part of it any longer. The SPC side is committed to provide the service mentioned in the agreement, all the rest is left for the CC and its institutions. The administrative coordinator added that the university would also like to support the RC actors in finding best solutions for the students in their integration so that the gained expertise would be used effectively. This thought was resonated by the training coordinator, whose responsibilities included planning the actual training phases for both countries.

4 Data and method

The purpose of this study is to assess pre-service teachers' self-efficacy beliefs and possibilities of enhancing them. As this case study aims to find out both the levels of self-efficacy beliefs and the factors impacting it, a thorough approach understanding the relations of people, their actions, and the context in which the surrounding events take place. An individual cannot reach the full picture of the reality, but this kind of research can widen the understanding of how the surrounding world works. Hence, the grounded theory was selected.

Few initial assumptions of grounded theory (Corbin & Strauss, 2008) present the spectrum which is relevant for this case study: the importance of going to see what really happens in the field, reflecting the complexity and versatility of events and individuals, and the knowledge of the relations between circumstances, processes, and consequences. Thus, the grounded theory underlines the understanding of individuals being active participants and problem solvers, whose actions are based on meanings which are (re)defined by interactions. The core idea of grounded theory is developing a theory from empirical data and the methods proceed in stages from conceptualizing the data to creating the theory. The stages include conducting the research based on data, proceeding from description via conceptualizing to theorizing, collecting and analysing data simultaneously, the principle of constant comparison, theoretical sample (which does not present the whole group), analysis proceeding in stages, and finally, initial and selective coding.

Although the analysis includes interpretations of the researcher, it is based on systematic data-analysis. (Corbin & Strauss, 2008.) The method of grounded theory by Corbin and Strauss (2008) has axial coding as the initial part of the coding. Charmaz (2006) states that axial coding does not provide any greater results for the analysis and hence, the initial-selecting coding method (Charmaz, 2006) would provide suitable range of coding. Also, regarding the small data provided by the selected pre-service teachers, the initial-selective coding method is selected for this thesis.

The study consists of two consecutive sections. A mixed data collection method was used in this research which included collecting and analysing quantitative and qualitative data. This sequential quantitative to qualitative design was used to both study overlapping and separate phenomena. Mixed method approach provides a possibility to widen the understanding of the research object (Creswell & Plano Clark, 2018). The quantitative part of this study included a questionnaire which was adopted for its suitability regarding the participants. The qualitative data was gathered through a focus group interview in which the

used questions were based on the results from the quantitative section.

The data collection phase started in early 2018, after the second teaching practise period the pre-service teacher had. First stage (questionnaire) was carried out in February 2018 and second stage (focus group interview) in March 2018. The two stages were conducted five weeks apart, which reduces the possibility for maturation to influence the results. During the research period the studies of the pre-service teachers concentrated on theoretical knowledge and subject matters. Any other major changes in the studies were not reported during the research period, so the external affect may be excluded.

Sampling for the participants for both parts of the research was based on convenience but also purposeful for the idea of trying to reach the specific idea about this particular programme for future endeavours. The intended sample for the quantitative analysis was all students of this project (n=24) but the final number of participants was lower (n=20). For the qualitative part, six students participated on voluntary basis in the focus group interview. Some aspects can be granted to shed light for the whole group of students. As described in the previous section, students come from the same country from Sub-Saharan Africa. Due to the admission requirements, they have similar educational backgrounds (upper secondary diploma) and belong to the same age group (19-22 years of age). Gender distribution as well as representation of rural/urban background is relatively equal in this group due to the selection process from the Client country. The sample size being limited, the results of this study cannot be generalized but it can give ideas regarding similar programmes.

The selected instrument for the quantitative section covers a broad range of teacher capabilities with a stable factor structure. The Ohio State teacher efficacy scale (OSTES) that includes a set of 24 items (long form) and twelve items (short form) was chosen as the instrument. The OSTES scale has three factors, efficacy for *instructional strategies, classroom management,* and *student engagement*, in which each factor has eight items in the long form and four in the short form. (Tschannen-Moran & Woolfolk Hoy, 2001). Theoretical background of these factors is discussed in chapter 2. The long form of OSTES is reported to have high reliability (0.94) and it is also recommended to be used for preservice teachers who are yet to have real classroom experience (Tschannen-Moran and Woolfolk Hoy, 2001). Thus, the 24-item form (Appendix 1) was chosen to ensure the reliability of the results due to the small sample size (n=20) within this teacher training project. High construct validity of this instrument is verified by Tschannen-Moran and Woolfolk Hoy (2001). Items were kept in the original form the better comparability in case of later use. The original instrument has Likert-scale 1 to 9 anchored at *nothing, very little, some influence, quite a bit* and *a great deal* which

was reduced to 1 to 5 with same anchoring. This change was done in pursuance of having the respondents to choose a clearly defined option for each item.

The interview guide (Appendix 2) for the qualitative section was created based on the results from the quantitative analysis. Ten items did not follow standard deviation and thus, where selected for further analysis. These items produced nine questions that follow the guidelines from Stewart and colleagues (2007). According to them, the questions should advance from general to more specific and the most important questions should be presented first and lesser significant later. These guidelines may conflict each other. (Stewart et al, 2007.) The order of the questions follows these guidelines but also the order of the questionnaire (Appendix 1).

Quantitative data was collected in a class meeting at the university premises. The 24-item questionnaire was distributed to all the student simultaneously and the students were given 20 minutes to answer. Demographic data was not gathered to ensure the full anonymity of the answers. An invitation for a focus group interview was presented in the same meeting. Steward and colleagues (2007) underline the importance and difficulty of participant recruitment. Hence, the pre-service teachers were given a possibility to interview me as a fellow student and in-service teacher after the submission of the questionnaire. This was intended to bring me as a researcher familiar to them so that the pre-service teachers would be more open to participate in the interview. Stewart and colleagues (2007) suggest that a suitable group size for focus group is 6-12 people. After the first meeting, six volunteered participants were suggested few time slots before the interview from which they selected one that suited all of them. Communication with the participants was conducted through emails.

In general, focus group interviews are described as discussions that allow selected individuals conversated informally about a pre-set topic (e.g., Vaughn et al, 1996). This focus group interview was semi-guided through the interview guide. Everyone was not expected to answer all questions and the discussion was allowed to deviate from the original question. Questions were presented in the order of interview guide and some clarifications and follow-up questions were presented along the discussion. The focus group interview was arranged in the university premises five weeks after the first meeting with the participants. The discussion was timed to take one hour during the first half of a day when the group did not have any lessons. The students were asked permission to record the discussion.

Additional interview data was collected for the theoretical framework. The information presented in chapter 3 was gathered during five interviews from active employees in the transnational education project. To protect interviewees' anonymity, they are presented

according to their work tasks only by the following titles: Administrative Coordinator, Educational Coordinator, Training Coordinator, Researcher and Lecturer. Interviews of pre-service teachers and organizing personnel of SPC were conducted between January 2018 and January 2019. In general, the process description is based on shared knowledge of the interviewees, but in a case of singular source, it is mentioned separately. The respondents are part of the project stakeholders.

Quantitative data was analysed first by using IBM Statistical Package for the Social Science (SPSS) software to determine the reliability of the instrument as well as the three-factor solution for pre-service teachers. The results are compared to the study of Tschannen-Moran and Woolfolk Hoy (2001) all though the amounts of participants vary greatly. No demographical information was gathered as absolute anonymity was promised for the participants, demographic differences within the data cannot be studied. The questionnaire data was analysed based on each item. The focus lies on the item means and individual means. The results of the questionnaire answer to the first research question of what the level of the pre-service teachers' self-efficacy is. The items that have either low mean or do not follow normal distribution were selected to be observed qualitatively in the second section.

Qualitative data was first transcribed, followed by initial coding and finally by selective coding. Initial coding happened through reading the interview data diligently which was followed by the selective coding in which the categories were reduced. The main aim was to identify the factors that impact their level of TSE. An overarching code was created based on the deducted codes which leads to the discussion about possible ways to enhance pre-service teacher's self-efficacy beliefs.

5 Analysis

The analysis aims to find answers to the following research questions:

1) What is the level of self-efficacy among pre-service teachers?
2) Which factors contribute to their self-efficacy?
3) How their self-efficacy levels could be enhanced?

Research hypothesis is that there are some differences among the studied group and the differences are based on the amount of teaching experience. The hypothesis will be discussed further in the end of the chapter. Due to the size of the sample, generalizations cannot be done, bu the results might benefit programmes of same scope. This chapter is divided into two subchapters that present first quantitative findings and then qualitative findings. This division also follows the process of the study, following the guidelines of grounded theory (Charmaz 2006). Both sections shed light on these questions, hence the initial findings will be concluded and clarified regarding both research questions in the subchapter 6.3.

5.1 Quantitative findings

The study began by collecting data with the OSTES questionnaire, whose long form was used in this research. The questionnaire was answered by 20 pre-service teachers of which three attendees left altogether five items unanswered. To include all the items into the quantitative analysis, the missing values were replaced with participant means. After adding the missing values, the reliability for the whole instrument was 0.917 and it stayed over 0.90 even if any of the items with modified values were deleted. By Friedman's T-test, significance between items was 0.001.

The questionnaire consists of three factors: *instructional strategies, classroom management*, and *student engagement* of which are theoretically further described in chapter 3.2. According to Tschannen-Moran and Woolfolk Hoy (2001), the created factors work well for in-service teachers but for analysing answers from pre-service teachers, they suggested a single factor. A confirmatory Principal Component Analysis (PCA) with Varimax rotation (Kaiser Normalization) was performed to see whether the collected data set can provide the three factors also for the pre-service teachers. PCA yielded seven factors with Eigenvalues bigger than 1.08, but the intended three factors had Eigenvalues bigger than 2,51, cumulative percentage 60.80. These values resemble the results of Tschannen-Moran and Woolfolk Hoy (2001, p.300) (Figure 1). The one factor solution for pre-service teachers, as Tschannen-

Moran and Woolfolk Hoy (2001) suggested, accounted only 35.78% of the variance in the data. Reliabilities for each factor are relatively high: 0.86 for *instructional strategies*, 0.87 for *classroom management* and 0.63 for *student engagement*. Similarly, the factor bound Eigenvalues are high (8.78 for instructional strategies, 3.30 for classroom management and 2.50 for student engagement). This disputes their earlier suggestion and therefore the three-factor solution will be used in this research. Thus, this quantitative section will utilize all three factors in the analysis.

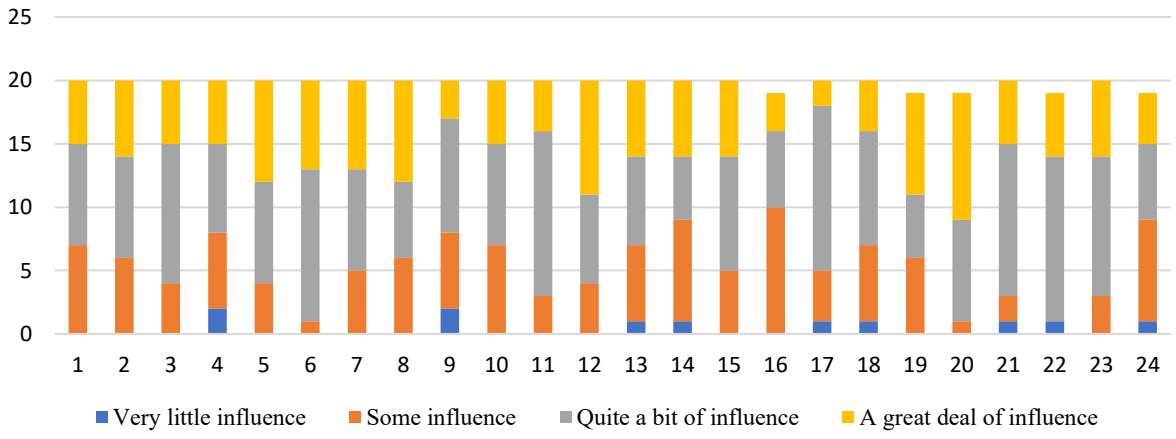
Figure 1: Comparison of Eigenvalues when using OSTES scale

	Tschannen-Moran & Hoy (2001) Inservice and pre-service teachers		Haukilahti (2022) Pre-service teachers	
	Eigenvalue	Cum %	Eigenvalue	Cum %
Factor 1 (IS)	10.38	43.25	8.78	36.59
Factor 2 (CM)	2.03	51.72	3.30	50.35
Factor 3 (SE)	1.62	58.47	2.50	60.80

After confirming the usability of the factors, an overview analysis was done based on how the participants answered to each item (Figure 2). The questionnaire items (24) are numbered and stand in their full form in Appendix 1. The mean analysis has been done without missing values, which is visible as shorter columns in Figure 2. The mean of all results is 3.99 which indicates a quite high self-efficacy among the sample group. Means of separate factors follow the overall mean: the mean for instructional design is 4.05, for classroom management 3.91, and for student engagement 4.03.

As the Figure 2 shows, there are visible differences among the items´ means,

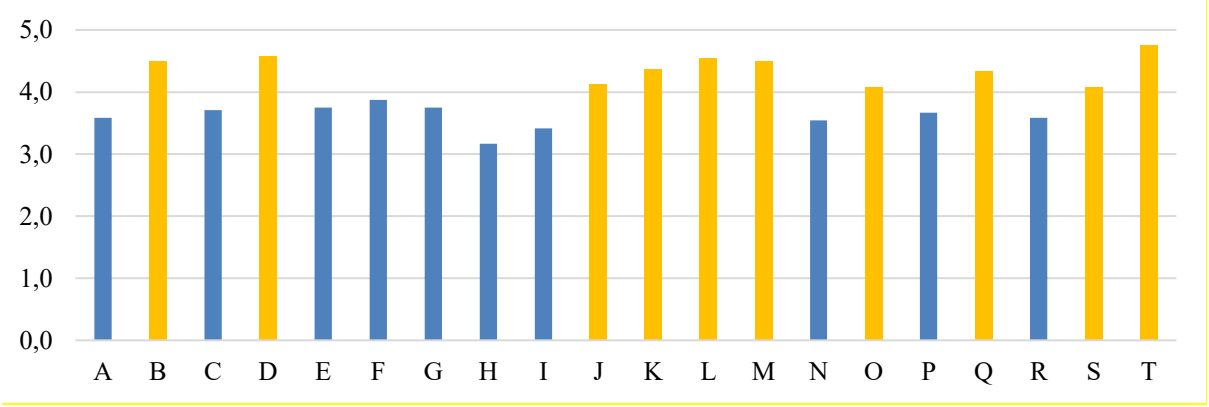
Figure 2: OSTES item means



especially when looking at items 6 and 24. Item 6 belongs to the factor *instructional design* and indicate a high self-efficacy among most of the pre-service teachers, whereas the item 24 demonstrates rather hesitant uptake to *student engagement*. These results called for a closer look at individual answers, which revealed a variation between 3.33 to 4.80.

An overview of the participants´ means (Figure 3) showed clearly that ten participants have the mean higher than the average (3.99), stating that they feel having quite a bit of influence overall in the teachers' skillsets implemented in the questionnaire. In the Figure 3, the participants (20) are alphabetized. Another notion was that pre-service teachers did not present as strong self-efficacy when indicating a lower TSE than the average.

Figure 3: Means of each participant, 1-factor solution



To confirm this division, a cluster analysis was conducted for both one-factor and three-factor solution separately. Both uptakes affirmed that two groups can be identified within the sample group, although each component had a slightly different cluster construction. The colours blue and yellow represent those clusters, in which the participants of the yellow cluster perform slightly better. The clusters for *instructional strategies* (Figure 4) consists of individuals A, C, F, G, H, I, J, N, P, and R, in the first one and the other the individuals B, D, E, K, L, M, O, Q, S and T. In the cluster of *classroom management* (Figure 5) the individuals E, J, and O belong to opposite clusters. Other members of the IS group stayed the same. The third component *student engagement* (Figure 6) which shows that a singular pre-service teacher, individual H, creates an own cluster. This individual has also the lowest overall mean which. Student engagement had the overall lowest average mean, which is now cleared as even those individuals, that have been having a mean closer to 5 (*a great deal of influence*), have now means closer to the answer 4 (*quite a bit of influence*).

Figure 4: Participant means in Instructional strategies, individual factor

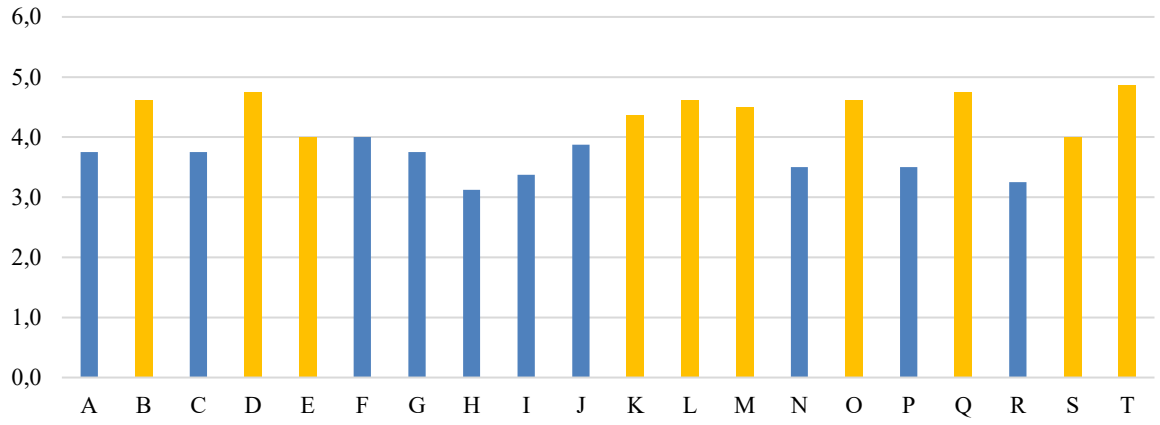


Figure 5: Participant means in Classroom management, individual factor

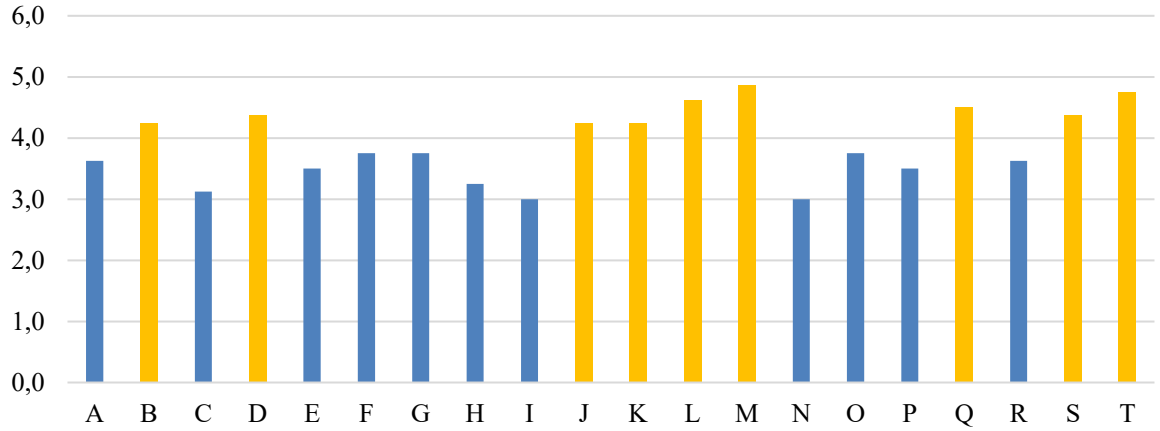
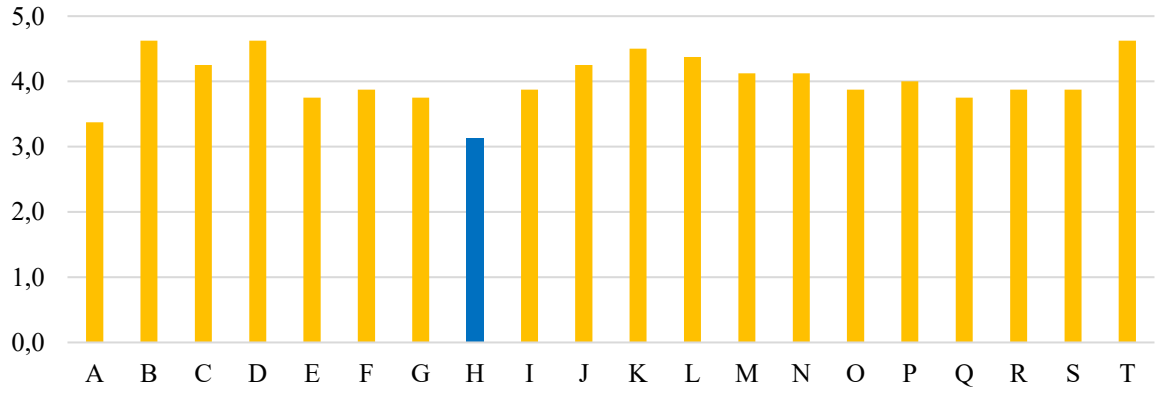


Figure 6: Participant means in Student engagement, individual factor

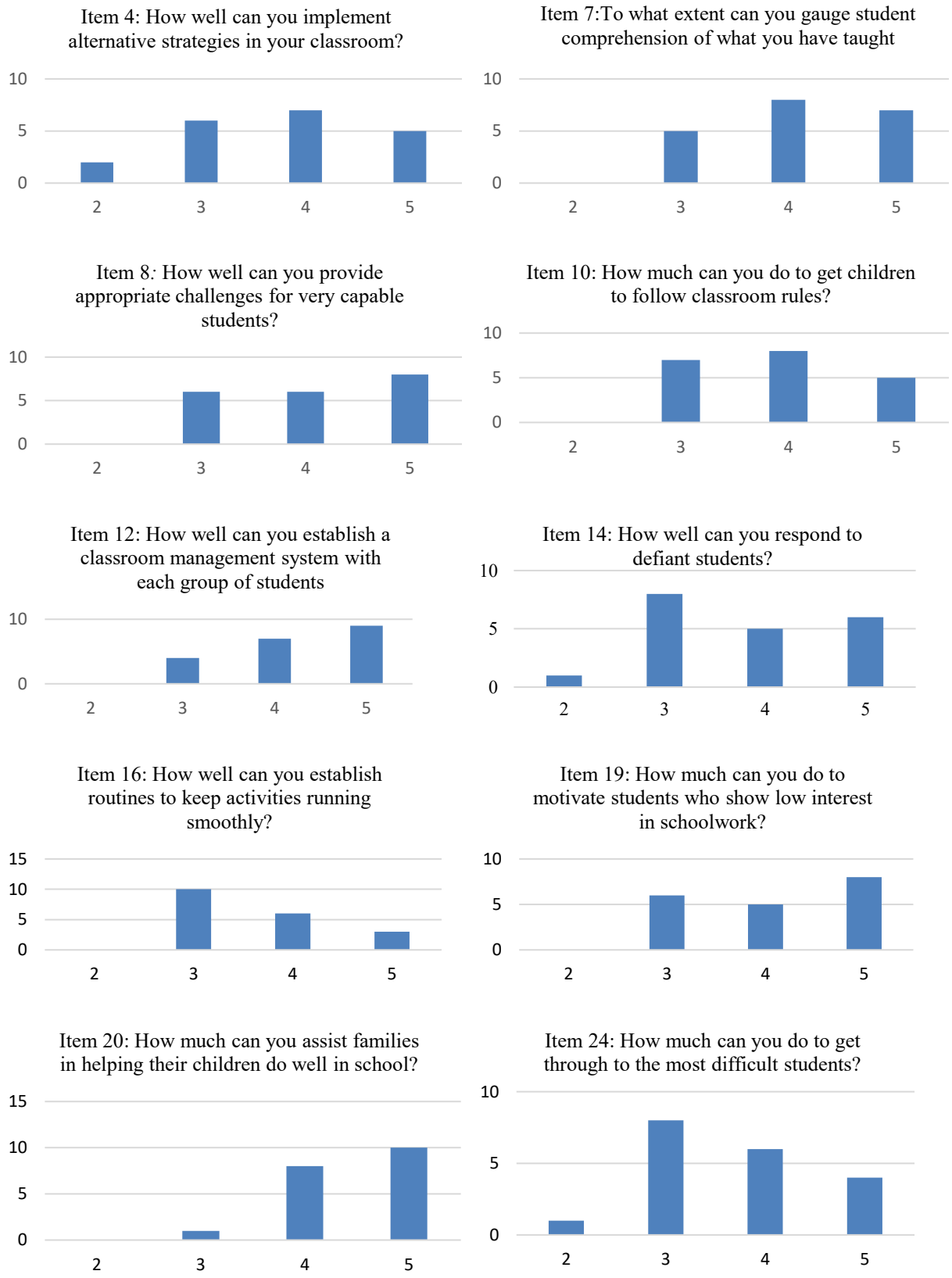


All figures presented so far in this section promote the idea of two separate groups among the participants and as the cluster analysis showed, the differences are not only based on the means. A way to get more information about the division is to study some of the items closer. Ten items (Figure 7). did not follow standard deviation or otherwise showed an intriguing contrast towards other items were selected as the base for the interview. For reading the table S, the item questions are above each Likert scale, and the numbers represent the following options: 2 as *very little,* 3 as *some influence*, 4 as *quite a bit,* and 5 as *a great deal.*

The selected items 4, 7, and 8 (Figure 7) represent the factor of *instructional strategies*. These items concern teachers' pedagogical strategies, and assessment and evaluation skills. Answers in item 4 indicated some level of hesitation in implementing alternative strategies in the classroom. Two respondents had *very little* self-efficacy regarding these different strategies and six respondents *some influence* on this topic. The item 7 that concerns about the level in which the pre-service teachers can assess their pupils' learning. Five students indicated that they have *some influence* in gauging, eight told they have can do *quite a bit* and seven respondents stated having *a great deal* of TSE in assessing their students. The question of assessing the students is visible also in the answers for the item 8, which concerns about differentiated learning for the more capable students. To this questions, eight pre-service teachers had high TSE, meaning 40% of the participants felt that they know how to provide suitable challenges for pupils.

The selected items 10, 12, 14, and 16 (Figure 7) derive from the factor *classroom management*. When observing the CM items of this questionnaire, three themes can be identified: classroom rules and routines, managing disruptive behaviour, and communication. The item 16 with the lowest mean of 3,63, concentrates on the classroom routines and how well teachers can set them to ensure smooth classroom activities. In this item the answers are especially interesting as this is the only item which indicates relatively strong hesitation about this topic. Ten preservice teachers estimated having some skills in setting the routines, whereas seven students had quite a bit self-efficacy. Only three students stated having high TSE in this topic. An intriguing opposite to the previous results is present in the item 12 that has the highest mean of 4,25, and the highest number of pre-service teachers with high TSE as well. The topic embedded in the item 12 is the question how well teachers can create a classroom management system for pupils to follow. Nine pre-service teachers assessed that they could impact a great deal on this matter. Seven pre-service teachers had quite a bit of influence on this topic whereas only four indicated moderate level of self-efficacy.

Figure 7: Selected questionnaire items



The first two items presented the creation of routines and CM systems and the third item to this theme covers the question how well teachers can make their pupils to follow those rules and routines. In item 10 (Figure 7), five students indicated high self-efficacy, eight students were a bit more hesitant, and seven students stated having some influence over this topic. The last selected item 14 (Figure 7) concentrates on the consequences in the form of responding to challenging pupils. Six of the students had high TSE, when five students stated having quite a bit of skills to respond in a suitable way to disruptive behaviour. Half of the students showed hesitation in this topic for eight students indicated having only moderate and one student very little self-efficacy to manage themselves in such situation.

The final items 19, 20, and 24 selected from the factor *student engagement*. The overall theme of the chosen items is entangled with the earlier items: how to motivate the pupils who are unmotivated (item 19, Figure 7) or having challenging behaviour (item 24, Figure 7). In both of the items pre-service teachers did show hesitation, but especially in item 24 in which half of the group felt having only some influence on the matter. As an interesting comparative function, item 20 was chosen as well. It concerns the teacher-family relation and how teachers can in co-operation with parents or other caretakers assist their students. The selected items gave an idea, what are the challenges right now for the student. A focus group interview would possibly give some more information of the discrepancy between the students and which factors are contributing to it. An interview guide was created based on these items and then presented in the focus group interview.

5.2 Qualitative findings

The aim of the focus group interview was to shed light on the quantitative results with the interview questions (Appendix 2) that target first the opinions about the skills and characteristics a teacher must have, their assessment strategies, classroom management skills, and ways to motivate their pupils. Interview questions were created so that they would target the most contrasting findings of the quantitative analysis. Essentially the aim is to find the answers how the pre-service students explain these topics and how do these explanations vary. The baseline for the qualitative findings was to understand what kind of factors contribute to pre-service teachers' self-efficacy.

The qualitative data was first transcribed and then coding them according to the guidelines of Charmaz (2006). Due to the compact size of the interview data, the data was first coded line-by-line (e.g., Charmaz 2006) of which the resulted lines were coded again by using focused coding (e.g., Glaser 1978) as this coding method requires already more

selective and conceptual approach to the data. This step was essential in finding the key concepts in memo-writing. Figure 8 provides an excerpt of focused coding in which one of the interview participants thoroughly explains what is important in teaching profession. The student's statement is cohesive as it explains the key concepts that compound a teacher. With comparison to other professions, the interviewee clarifies how subject knowledge is important to all professions, but it does not suffice teachers. Competent teachers are well trained and know how to accommodate their teaching according to different needs and goals of their pupils.

Figure 8: An excerpt of focused coding

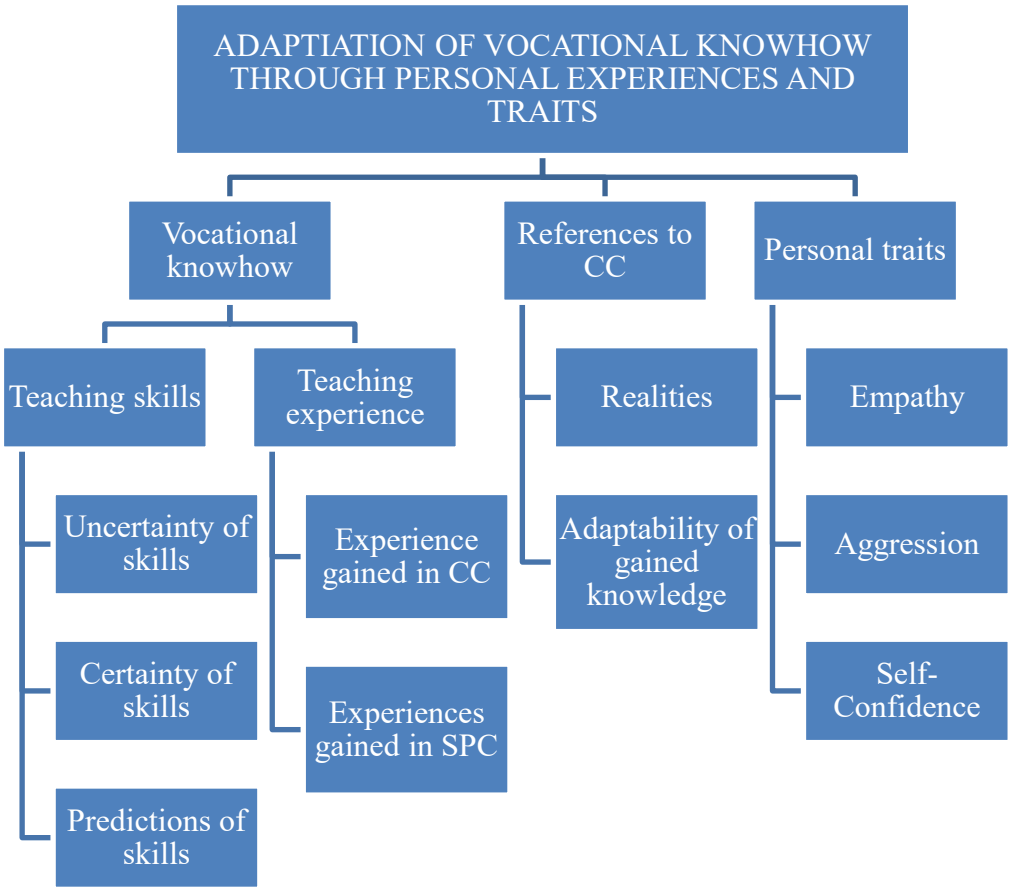
Gained subject knowledge is important but it is not the only requirement. Teacher training (pedagogical principles and learning theories) is what separates teachers from other professionals Factors above produce together a competent teacher. = *certainty of skills*	*For me I would say that the things make me or contribute to become an effective teacher is first of all knowledge ability. You need to be knowledgeable in the field you are teaching the kids. But then the knowledge ability cannot be the only requirement because a nurse is knowledgeable in the practises of the hospital, an engineer is knowledgeable in the engineering field and mathematics for that matter but they don't qualify to teach because they don't have the key pedagogical principles and they are not trained in how to interact or maintain a class or they are not aware of some ideas of the educational sciences but as a teacher you have had training in educational sciences, you are aware of different learning theories and different approaches in dealing with the class or how to deal or accommodate students so that makes you stand apart from everyone else. I think those are for me the key principles that qualify to be a teacher.*

Focused codes of the data were then processed and refined through memo writing. Nine initial categories emerged which were then manually clustered in Figure 9, which presents the connections between the codes. The value of the data lies in literally between the lines as the attitudes and opinions were revealed, which are presented later in the individual examples. The categories and their content overlap and the attempted division is purely for the sake of research. The given examples are direct quotes from each interviewee including typical elements for spoken languages. The implications of the transcribed interview material

are backed with the interview notes made simultaneously.

Three main categories are *vocational knowhow*, *references to CC* and *personal traits*. Vocational knowhow covers both vocational knowledge and skills as well as teaching experience. References to CC conclude the participants' thoughts regarding realities waiting for them after graduation and views of adapting the learned in a new context. Fewer, but not less significant, notes were made about the personal traits of interviewees and how they might impact them using their newly gained skills. The discovered codes are gathered under a main code, which is here called *Adaptation of vocational knowhow through personal experiences and characteristics* (Figure 9), albeit Charmaz (2006) indicated that a main code might not be necessary in all the cases. Adaptation of the pedagogical knowhow was one of the codes appearing in the focus group data. The created main code will be further discussed in Interpretations (chapter 6.1).

Figure 9: Clustered codes



5.2.1 Vocational knowhow

First main cluster is *Vocational knowhow*. This cluster includes subclusters *Teaching skills* and *Teaching experiences*. From the nine initial categories, three (Uncertainty, Certainty, and Predictions of skills) fell under subcategory *Teaching skills* and two initial categories (Experiences before and after participation) under *Teaching experiences.* Here the skills refer to the practical applications of the three pedagogical domains presented in chapter 3.2. General notion of vocational is that most of the personal experiences shared were primarily examples of teaching situations in which they have excelled. Simultaneously students pondered the skillset required from a teacher.

Three selected examples provide an overview of the different views towards teaching skills. One of the students demonstrated uncertainty (example 1) whether they would have attained the needed skills as the main target for them would have been to produce high grades. Uncertainty referred throughout the interview on the expectation of university lecturers. Linguistical elements for the uncertainty were ambiguous words (e.g., necessarily), and modal auxiliaries (e.g., might). Uncertainty was also present in the questionnaire responses. Two pre-service teachers had the mean below 3.5 which indicates them having only some influence on the situations relating to instructional strategies, classroom management, and student engagement.

1. Uncertainty of skills — *You haven't necessarily obtained the skills because sometimes you are focused on achieving the learning objectives so as to pass and produce a good grade at the end of the course, but you might find yourself lacking the skills.*

2. Certainty of skills — *I first give activities that are same for everyone or once I see somebody finishes this in faster speed than others so what I usually do is I give them much more challenging tasks not unnecessarily difficult but just some tasks that are challenging, that challenges their thinking, they can get to feel like that they are using the full capacity of their minds.*

Contrarily, experiencing certainty presented naturally when reporting about the teaching experiences (later in this subchapter), but mainly in examples that concentrate on a particular pedagogical situation. The given examples represent mastery experiences (in chapter 3.1.) they have had in the classroom. The example 2 presents not only that the pre-service teachers have the skills to produce tasks that challenge pupils adequately but also pedagogical skills to assess the cognitive levels of their pupils. The sense of certainty is

linguistically presented through verbs in active present mode (e.g., give, do, can get, are using), words of repetition (e.g., usually) and clear reasoning of why something is done. Certainty of skills within the studied group of pre-service teachers was relatively high as half of the sample had the mean higher than 4, aka they felt having quite some influence on the studied skills.

3.	Prediction of skills	*I think I'll find that motivating enough as long as I give positive feedback for improvement not for giving feedback achievement for higher grades but for improvement from what they were before and after they have actually learned the skills.*

Third example referring to skills is a snippet of a longer speech and presents a prediction of skills as this interviewee did not have teaching experience yet, which is not clarified in the snippet, but it was stated earlier in the interview. Regardless of the lacking experience, this person feels that he has the required skillset suitable for the challenges awaiting in the future. In such situations personality plays an important role (discussed later). The previous personal experiences have modified the individual views of themselves and the readiness to approach challenges. This interviewee stresses the importance of evaluating the individual learning process and progress rather than the levels of learning outcomes.

Differences between the self-efficacy beliefs were present throughout the discussion. Although these students were given same education in SPC, they had different ways of assessing their skills, as they reflected gained knowledge with the work experiences they had. As discussed in chapter 3.1., interpreting the TSE levels is not straight forward. Tschannen-Moran and colleagues (1998) state that pre-service teachers might get fixated on the self-efficacy beliefs they have and even the pre-service teachers with high TSE could get discouraged by the real-life challenges. If the fixation would still be a clear issue among the new teachers, that would be a topic to address in the teacher training. Luckily, two decades later George and colleagues (2018) provide evidence against it and state that particularly elementary school teachers do not have a drop in their TSE levels, and they top their secondary school colleagues in classroom management and student engagement skills.

As presented in the Figure 9 (p. 43), the focus group interview revealed the pre-service teachers' vocational knowhow also from the practical point of view. Some of the interviewees had teaching experience prior participating the studies abroad, maximum of one study year. The examples presented in the discussion were either contrasted or compared with the practises observed in SPC. The biggest contrast was created between the ways of maintaining

peace or order in the classroom as the pre-service teacher expressed that it is a common practise to excuse a pupil from the class due to unobservant or disobedient behaviour (example 4). This experience described the practises in the final class of elementary school. The example shows a change in attitudes towards this practise as it is defined as "the most drastic measures", a mitigating linguistic device "if I would put it that way" and provided sort of a generalized excuse "we have this thing. This creates an image of a common practice in CC which does not necessarily seem like a suitable option for the interviewee anymore. In addition to the perception of different classroom management styles, the same interviewee provided an uptake in instructional strategies that enhance motivation.

What comes to the skills the pre-service teachers present having before arriving to SPC, the example 4 follows the guidelines given e.g., by Garrett (2014) who triumphed silence in a classroom to be the sign for successful classroom management – a contrasting statement among the current views prevailing in education (e.g., Evertson and Weinstein 2011). If this traditional view of classroom management is vastly prevailing in CC, the pre-service teachers will face challenges if they want to introduce the new ideas within this practice.

4.	Experience gained in CC (negative)	*Back then I would employ, it would the most drastic measures if I would put it that way, we have this thing that you could actually chase someone out of the class if not paying attention, you could do that, you could tell someone to excuse the class and be outside until the class is done*
5.	Experience gained in CC (positive)	*I used to encourage that through class projects or any sort of tasks in which these children excel... if I can give an example, I had a child on the grade 7, he was so into science and you know, when it came to the science projects, many children had basic science experiments but he decided he is going to do the black holes in sciences, so pass his intellectual capabilities.*

In the example 5, the pre-service teacher describes a pedagogical situation in a science class. The pre-service teacher had given a project work for the class and one of the pupil's showed a great interest in a matter (black holes) that the pre-service teachers assessed to be more demanding than an average topic for that age group. This snippet is part of the discussion in which the participants discussed the ways of motivating their pupils. The words "personal" and "interest" appeared several times. This indicates that the fostering inherent interest seemed to be important for them as well as good teacher-student relations. The example 5 provides an image of a young teacher who already has witnessed the importance of

intrinsic motivation (e.g., Ryan & Deci 2000), a tool to enhance student engagement.

Half of the participants stated not having any teaching experience before participating the study programme in SPC. Hence, it was intriguing to hear experiences of the focus group as their first classroom experiences are from another country and culture. An interviewee depicted the first self-taught math lesson of the training period (example 6). The lesson included a short teaching moment in which the pre-service teacher presented the topic and showed how it is worked through. After that the learners were expected to try themselves to solve the given tasks, which the teacher supervises. This depiction presents a typical teacher-led instruction strategy which is used in all age groups. In the interviews of project teachers and other participants, anecdotal information suggested that teacher-led instruction is the prevailing method used in the classroom in the Client Country. This method has its perks, but current research provides other procedures and strategies for teachers to use. As Alford and colleagues (2016) state, child-centred approach combined with variety of instructional strategies would increase both on-task and general student engagement.

6. Experience gained in SPC	*I had math lesson all I did was I give them an example and then I let them do the work based on example while I walk around the class and check how they are doing the work and then I pick up if they understood or not*

One of the pre-service teachers provided an example of assessing the pupils and using it as the base for instructional strategies was given (example 7). In this excerpt, pupils have been taught a topic and the pre-service teacher has assessed that everyone has not yet comprehended it. Therefore, the teacher asked more talented pupils to explain with their own words how they have understood the topic. This pre-service teacher indicated earlier in the interview of not having any teaching experience but had already seen a possibility to utilize the student's own knowledge in teaching. Pre-service teachers' own positive experiences can encourage them to employ this method. Similarly, pupil characteristics and classroom's social environment define how well this method functions in each group. There is plenty of aspects to consider for a teacher to choose a suitable method and these pre-service students of this group have still plenty of theoretical studies and practical training ahead.

7. Experience gained in SPC	*What I did for the peoples maybe who understand the topic better I ask them to explain it to their peers just to help them because as a teacher you see the students sometimes ready to explain and they would understand better if they talk to their peers.*

5.2.2 References to the Client country

Second main category that arose in the focus group interview formed from different references to the client country. The students identified realities that connected to education and school, simultaneously discussing the adaptability of gained knowledge in CC (Figure 9, p. 43). The country of the origin was a natural part of the comparative settings, e.g., when the pre-service teachers presented what they had learned in the current location, or when they recalled a suitable answer from the past experiences. In the example 8, an interviewee describes how one could approach an unruly pupil in the classroom. The first part of the excerpt is presented in conditional form, although the speech before and after is presented in past tense. It might indicate that earlier actions that have had positive indications, are likely to be repeated in the future classrooms. This mastery experience (see chapter 3.1.) of getting to know pupils and their background would help pre-service teachers to solve issues in the classroom also in the future. As in the example 8, "one-on-one meetings" are a method to clarify issues and find out the root causes of reluctance to study and as Caldarella and colleagues (2020) state, reprimanding pupils rarely solves any of the underlying issues.

8. Realities	*Back in "Client country" I would, those problem kids that I had, I would spend some time alone with them, I would invite them to a one-to-one-meeting with me --- In most cases I found out that some of them had problems at home and there were so many issues in their lives and that is why they saw school as waste of time or something like that.*

Another interesting notion arose when the participants discussed the ways of motivating pupils. The base line was that how a teacher could motivate and foster the interest of a pupil when there is not, according to the pre-service teachers, enough time to act as the teacher. The modern times seems to be the same everywhere, both in CC and SPC when teachers have got a lot more supportive and administrative work to do. In the example 9, the participant describes the working environment in schools "stressful" and that teachers in CC "lack motivation" due to the immense amount of work.

Teacher training programmes can provide tools to survive in the actual working life only to some extent. Theoretical training includes instructional strategies and motivation theories which are then put into trial during the practise periods, first planning and then executing the lesson plans. Such exercises increase self-efficacy believes within the classroom work (e.g., Lee & Lee 2014) but there is very little preparations for the administrative and

supportive work (teacher-parent meetings, school events and trips etc) that awaits all teachers. These tasks are only observed during the training session and when the pre-service teachers' transit to working life, they are already expected to know how to manage administrative supportive tasks just like rest of the staff. If the notion made in example 9 would be taken fully out of the context, it could be interpreted as a complaint. The surrounding context portraits the opposite – excitement of the profession and a will to work with children.

9.	Realities	*Back home teachers are not necessarily teachers anymore. They have become administrators or policemen. It is like a rat race basically. They are running around parents they are running around new stuff meetings I mean moderating papers. It has become quite stressful environment for the teachers themselves that many times they just to say they lack motivation. It is not on their priority list anymore, it is just teaching the content and getting on with your job.*

Challenges of realities in CC were reflected also directly in connection with the newly gained pedagogical knowhow. An interviewee highlighted interactive game-based learning tool called Kahoot![1] as a "brilliant" way of activating shy pupils into participating classroom activities. This online tool suits all school subjects requiring either a personal laptop or mobile phone. This pre-service teacher was already seeing how to adapt this online teaching tool in CC, which indicates that in the school or schools in this person's mind would have possibility to provide suitable smart devices for the students. This was one of the issues the teachers of the programme raised the concern in the background interviews whether the pre-service teachers would be able to fully utilise particularly the pedagogical technology similar what they are using in SPC. Technology embedded in the learning environment is a way to suit individual learning styles as well as differentiated instruction (e.g., Benjamin 2014).

10.	Adaptability of gained knowledge	*One thing I learned in "service provider country" which compensates the shy students. They like game-based activities as they use this app called Kahoot which I think is such a brilliant concept of reinforcing knowledge.*

Technological challenges are not the only ones to conquer. Group sizes was one of the topics, which seemed to create a hinder in adapting learned practises, particularly related to motivation and interest. The example 11 includes the notion of big classroom sizes (40 students in one class) which demands quite a bit from the lesson planning, classroom management, and instructional strategies. Big classrooms can also affect the study motivation

[1] www.kahoot.com

and as e.g., Blatchford and colleagues (2011) state, particularly student engagement at the elementary classrooms would benefit from smaller group sizes. This is not something a singular teacher can impact, rather the decision must come from the head of the school or town level decision makers. The adaptation process falls still on the teachers, regardless of the group sizes. Motivation, which was discussed in several points during the interview, was connected to the number of students as well (example 11). One of the pre-service teachers saw motivation as a "self-enforced" quality of an individual that is supported by the parents and other surrounding society. Here catering motivation and interest is seen rather impossible and as something that the participant had not witnessed during "my school life". It was not clear whether this notion refers only to the elementary school, or also other stages. Selecting suitable instructional strategies for a group of 40 pupils of any age is a challenge. When the lesson structure and different tasks for individual learners are well planned, it could impact positively to the pupils' motivation as well (e.g., Wearing 2019).

11.	Adaptability of gained knowledge	*After all it is 40 students, 1000 in a school and catering for individuals' motivation and interest is not something I have seen throughout my school life. The school where I come from, I would rather say, people see motivation as something that is self-enforced, it is not mostly teachers' responsibility that you are motivated in your schoolwork through your parents other than that.*

The last challenge, in adapting the gained knowledge, concerns presenting the course criteria and expectations to pupils. The interviewee compares between university level studies and elementary school studies, which is one way of seeing the adaptation process in a pre-service teacher (example 12) more as adjustment of the knowhow to suitable level regarding the learners. As Martin and colleagues (2016) state, a teacher is the one taking care and guiding of the little society of pupils. As stated in the example 11, course criteria could "insinuate fear" among younger pupils, so one way of informing about the learning goals could be e.g., to presented in smaller scale, e.g., on lesson or weekly basis.

12.	Adaptability of gained knowledge	*Some lecturers do here they give the criteria and what is expected in the beginning of the course, you know exactly what is expected from yourself, but I think there needs to be a balance in keeping children in check of what is expected instead of insinuating fear because they aren't working hard.*

5.2.3 Personal traits

Third main category contains few examples of personality traits. Teaching is a public profession that includes performing for different audiences and taking different roles (a trusted adult, colleague, employee etc.) All teachers bring to the work their personal characteristics and emotions. In the example 13, understanding the various backgrounds and needs of pupils is the key to solve issues. The participant described this understanding as "sympathy". Sometimes even feeling sympathetic does not solve a situation, particularly when one's patience has been tested. One of the pre-service teachers described the line when the patience would exhaust (example 14). These two preceding examples describe the polemic that takes place in the minds of everyone who works with people that show disruptive behaviour. It is important that the teachers know their limits and emotions because suppressing the emotions is not a solution for longer period (e.g., Jiang et al 2016). By evaluating the possible triggers, as in example 14, the pre-service could prepare for these situations and support the child better.

Another personal trait is to have a strong sense of confidence. It has been manifested in different ways in this study, for example, the participant 20 had mean 4.8 (Figure 3, p. 37), which means that most of the answers were 5 indicating that this person had a great deal of influence on the questions presented to them. This seems rather high TSE from a pre-service teacher who might have only few weeks of teaching experience. Similar confidence is present in the example 15, in which a pre-service teacher describes already having all skills one needs to work as a teacher. Statements of this kind call for further analysis, but regarding the scope of this study, here it will be only voiced that confidence can be strategic, either consciously or unconsciously processed, particularly when it is beneficial for the speaker (e.g., Charness et al, 2018).

13. Sympathy — *You need some sympathy; you need to really look at the situation at where is what is happening you know many times these children they come from homes where things might not be going to so well.*

14. Patience — *If it is plain seeking attention or you are being disruptive on purpose, I don't have patience for that, quite honestly.*

15. Confidence — *For me I am the skills that I need because in the end I am utilizing myself to accommodate everyone in my surrounding and trying to adjust to others' skills. --- I am the teacher so, everything I need is within me.*

6 Discussion

In this chapter the analysis results will be interpreted further in the light of theoretical framework and the background information given by the interviewed teachers and administrators. The interpretations connect the quantitative and qualitative findings in order to answer the research questions about the extent of TSE beliefs these pre-service teachers have, what could be the factors affecting their TSE and what are the ways to enhance these self-efficacy beliefs providing that an external impact on them would be possible. These findings are also reflected through lenses of the TNE programme. A few possible implications are presented subsequently as well as lines for future research approaches, which conclude the chapter.

Some factors limit generality and further analysis of the data. The specificity of the studied group and tailor-made teacher training curriculum does not promote generalizing, but the results provide view that might help similar programmes in the future. Another limiting factor was the lack of demographic information. Due to the full anonymity granted to the participants, the demographic information was not gathered strategically at any point. Any information about their background is either from the focus group interview data, or secondary source information from the teacher educators or administrative personnel. Demographic data would have given some guidance on the creation of the two groups, which could have been useful for the overall analysis. Another way of improving the analysis would have happened through thoroughly targeted interview questions, which would have also given more detailed information about the deviating results of the questionnaire. Also, during the interview, it would have been beneficial that all the participants would have answered all the questions so that the coverage would have been more condensed.

6.1 Interpretations

The level of TSE

The statistical analysis confirmed that the questionnaire used in this study is reliable by all three factors and therefore the analysis can be based on it. Overall, the students of this programme reported a fairly high mean average (3.99) in TSE, which indicated that the pre-service teachers feel generally competent and content regarding the knowhow what is expected from them. The focus group interview data supported this idea, as the pre-service teachers were able to provide examples to support their views on how they would have in the certain situations. However, a closer look at the individual means proposed that the students

can be divided into separate clusters, one having a higher mean average than the other group. Only the cluster for student engagement does not follow this idea to the similar extent. Ten out of 24 items were selected for closer inspection for they had a somewhat deviating distribution of answers, but the collected data did not indicate anything that could explain the detected two groups.

When these findings are looked from the programme point of view, the spread of TSE levels can be interpreted in different ways. It must be emphasized that the programme is generally providing means for these pre-service teachers to succeed. The relatively high TSE is one important indicator in it. The structure of the programme also has an impact on the TSE. This study was done in halfway of the theoretical study period in SPC, when the pre-service teachers only had had their first observation exercises and teaching practises. They were still having eight months of theoretical and practical training in SPC (see chapter 3.3.3) but what could truly have impacted the TSE is the last year of studies organized in CC (see chapter 3.3.4). Regardless, it must be stated that it is unrealistic to expect that one can learn everything within the study time, as the university level studies provide only the basic frame for the profession in the future. Tricks of the trade are learned first in the actual work in which they can receive support from new colleagues, former study time peers, or basically from anyone who knows about the profession and the school life.

Contributing factors

By the time of the interview, the pre-service teachers had been studying around 14 months, and they still had 20 more months awaiting. They did not have any prior teacher training before coming to the SPC. Half of the interview participants indicated during the interview that they had some teaching experience already from home. Therefore, the reflected examples could relate to experiences as teacher, but also as pupils and students, which detected at least in the example 11 (p.50). As the selected excerpts from the interview show, the pre-service teachers can present pedagogical knowledge and practises with their examples, based on their experiences and studies. The identified factors (vocational knowhow, teaching experience, realities, and personal traits) and their impact on pedagogical domains (chapter 2.2) will be discussed here further in connection of the factors of OSTES scale: instructional strategies, classroom management, and student engagement.

Results from instructional strategies showed that parallel strong self-efficacy beliefs were detectable in connection to the pedagogical guiding material. Curricula are natural backbones of all teaching, but particularly in the beginning of the career, the selected study

and exercise books support new teachers. A possible cue to understand the level of certainty about checking if the pupils have understood the taught content and providing with suitably challenging exercises could emerge from the fact that in both countries teaching is commonly based on text and exercise books suited for each class and developmental level. These study books also act as guidelines what and how to teach. Commonly there is a teacher copy with answers. As these pre-service teachers work with pupils on elementary level education, meaning the amount of new knowledge and how it is presented is rather uncomplicated. Creating exercises from the beginning to different learners can be falsely easy looking task, as it requires understanding of the content, task format, and the ways of evaluating the successful accomplishment of it as well as assessing the pupil's skills correctly. To assess the earlier mentioned aspects of instruction, a pre-service teacher would need vocational knowhow, teaching experience, and problem-solving skills.

The amount of hesitation in choosing and changing instructional strategies indicates limited knowledge in instructional strategies and how to utilize them. If a teacher does not want to solely rely on the traditional teacher-led approach, using alternative instructional strategies requires not only knowledge of the possible options, but also premeditation and planning even from an experienced teacher. The first year of teacher training covers the basic pedagogical topics and strategies in the theory courses which the pre-service teachers first observe and then practise in pairs in the teaching practise school of SPC. The observed and experienced instructional strategies from CC can differ from the ones used in SPC too. Individual characteristics impact on the development of teaching styles and preferences regarding used learning strategies. Thus, all these aspects of vocational knowhow could explain the low TSE among some of the participants.

Classroom management, particularly behaviour management, is culturally and socially bound (see chapter 2.2.2). Additionally, the frame of classroom management is often decided by the local school board, e.g., how the disciplinary actions are carried out. Classroom rules and routines are the most common ways to improve classroom management (Malone & Tietjens, 2000), so they are likely to be included in the teaching practise and be transferred to the pre-service teacher as vocational knowhow in some form. The teacher educators reported that these pre-service teachers are accustomed to relatively conservative way of classroom management which was also presented in the example 4 (p. 46). The strong sense of creating classroom rules could stem from either personal experiences or from the theoretical teacher training they had had before participating in this study.

Lower self-efficacy levels concerning classroom management could be explained with limited classroom experience. The pre-service teachers have observed the ways how SPC teachers create the routines in classrooms, but they also have their own personal experiences impacting their TSE. Vocational knowhow will help them in the beginning, but then they must begin to decide how they want to adapt, combine, or discard what has been learned in SPC. One challenge could be to adapt same routines which have been used in a classroom of 20 children in SPC to classrooms of 40 children in CC, as in the example 11 (p. 50). Adaptability of the learned knowhow was evaluated generally, e.g., one of the technological advancements evoke positive emotions (example 10). References to pupils' troublesome backgrounds would also tell something about the context in which these pre-service teachers could work after graduation. The references are naturally detectable for the research but cannot be analysed due to lacking background information.

The high levels of self-efficacy beliefs were detected in the factor of student engagement. Pre-service teachers indicated high self-efficacy beliefs in fostering pupils' motivation on studying, which needs assessment skills, vocational knowhow as well as teaching experience. Fostering pupils' motivation and interest aroused several arguments for and against. Providing pupils with tasks that serve their interest (and intrinsic motivation) was seen important. Simultaneously, teachers' methods to foster intrinsic motivation (e.g., example 11, p. 50) were seen as more or less redundant, which could be either only an individual view on the topic but could reflect something about attitudes towards motivation and agency of learning in CC. Ryan and Deci (2000) state, general motivation is crucial for learning so fostering motivation will also set the path to attain new knowledge. Understanding the individual background including motivation and interest requires assessment and communication with the student – skills which the participants indicated in examples 5 (p. 46) and 13 (p. 52).

The highest TSE among this sample group reflected their human relation skills within education, particularly when including families to schoolwork. Including families to the schoolwork is guided to some extend by the school policies (teacher-parent meetings, letters, and emails, etc.) which are part of teachers' work. These external guidelines can influence positively when it comes to implementing vocational knowhow before having a lot of working experience. As Manzano (2005) states, parents are an asset when supporting and monitoring pupils progress. Teachers are required to keep the parents up to date with any progress (or decline) in pupils' academical or social development. The interviewees indicated that they haven't been in contact with the parents in SPC meaning the high TSE originates

from experiences in CC. Personal experiences and characteristics dictate how we approach different tasks, and these pre-service teachers seem to have the required skills to effectively communicate with the parents.

An intriguing discrepancy was revealed within the factor of student engagement in reference to the way how the pre-service teachers feel about working with defiant pupils. This topic was addressed by two questionary items, resulting generally low TSE. Yet in the interview data, the participants present several notions how they have solved a problematic situation with a pupil (example 8, p. 48 and 13, p. 52) in a constructive way by having a one-to-one conversation and getting to know the pupils. According to the interviewees, these conversations also helped to solve disrupting behaviour. Such conversations follow Evertson's and Weinstein's (2011) conception that teachers are to create a learning environment that supports pupils academic and socioemotional development. The examples provided by the pre-service teachers fall into the second category, and by doing so, they have a change of improving their pupils' academic engagement as well. Every new teacher will need to find their own way to work with defiant pupils as it is essentially taking care of human relations. It needs both knowledge on how to approach such pupil, working experience, but also understanding of their own personal and emotional limits.

Ways of enhancing TSE

Reflecting the findings, this TNE programme seems to provide the required teachers' self-efficacy for the studied pre-service teachers, which is naturally the goal of the whole programme. Clearest signs of successful delivery of the programme is the increased awareness of problems and themselves among the pre-service teachers. The title of this thesis carries one of the clearest statements of this grown awareness of teachership (in example 15, p. 51): Everything I need is within me. Both quantitative and qualitative data showed that some of the pre-service teachers have already changed their views of what it is to be a teacher, what are the possibilities within the profession in connection to the realities waiting for them in CC. This is also the good start for the adaptation process. Although some of the students are still not showing similar progress, it is perfectly normal from the programme point of view, particularly when we consider the amount of study time they have had before participating in this piece of research.

The detected points of hesitation in this chapter are not intended to scrutinize these positive findings, but rather to raise the topics for discussion of improvement for future programmes. Naturally, before making any changes concerning the whole programme, it must

be understood that the ones, who do not perform as strong as others cannot be the only reason to make the changes. Additionally, each pre-service teacher also has a different agenda in life. Some of them might not end up teaching at all but use this degree only as a steppingstone to another career path, which is a natural collision of agendas in CC, SPC, and the pre-service teachers. It could have an impact on general motivation of some of the pre-service teachers to study, and then in turn appear as lower TSE in this study.

In relation to the teacher training content, the pre-service teachers participating in this study indicate having high self-efficacy beliefs about their pedagogical skills. However, they still expressed hesitation in topic, which reflected not only the lack of teaching experience but also the uncertain adaptability of the new knowledge. As discussed in chapter 3.3, some ways of enhancing pre-service teacher's TSE have already been detected: adding lesson planning practices (Lee & Lee, 2014), problem-based learning (Saputro et al, 2020), and positive attitudes toward new pedagogical approaches (Li & Cheung, 2021; Gonzalez-Gómez et al,2019).

Good critical thinking and problem-solving skills, which are embedded in SPC teacher training programme already, predict higher self-efficacy beliefs for teachers (e.g., Cansoy and & Türkoglu, 2017). Thus, implementing this throughout the course of studies would have a strong impact on pre-service teachers TSE. Similarly related to the content of the teacher training, the focus group participants stated that they have not been in any contact with the parents in SPC, although one of them had held parent-teacher-meetings in CC. This reflects the quite common situation that the pre-service teacher does not communicate with parents during the training, but they must learn it by doing during their first work. Gisewhite and colleagues (2021) suggest adding this as part of the teacher training "to encourage healthy and advantageous exchanges of information between teachers and parents to promote educational success for each student." This would certainly also increase the level of TSE in including parents to schoolwork although to this group it was not a challenge to involve the parents.

Instructional strategies lie in the core of adaptation process as it creates the biggest portion of pedagogical information learned while studying in the programme in SPC. Adapting the learned skills or knowledge from any training is the challenge each pre-service teacher will face. The context of adaptation may notably vary, and, as for these pre-service teachers, they face the challenge of adapting knowledge gained from another continent and culture. After one year of studies, the pre-service teachers compared two education systems already not only on the macrolevel, but they began to ponder whether the new knowledge is adaptable outside of SPC. Similar contemplation appeared when interviewing the teacher

educators. According to them, non-adaptation of the new knowhow would mean that teachers, and the programme, did not provide enough tools for the pre-service teachers for their future work.

Student engagement is one central factor when they enter in their own classrooms: Pre-service teachers need to have the feeling of control over the situation but also knowing how to engage their students. Hence, it is gratifying to see that most of the pre-service teachers feel content regarding this factor. A factor that could provide some benefits if paid more attention to is classroom management although the results can be explained with the one year of studying and training. The level of TSE in this factor could then be possibly enhanced through the final practise period in CC (see 3.3.3). Pre-service teachers are from different parts of CC, some from urban regions and some from rural districts. The context of teaching (location, available material, private / public school) will impact both on their own background but also to the ideas what they have on their future classroom: where are they going to be teaching after the programme.

Each teacher does their work with their personal touch, which was present in the focus group interview as well. Some individuals may be more susceptible to new information and more eager in front of the challenge of adaptation of practises not being witnessed back home. Personal characteristics and feelings, such as sympathy, patience, and self-confidence affect the decisions teachers make for and in front of their pupils – regarding anything in instructional strategies, classroom management, and student engagement. Particularly a teacher working with disruptively behaving pupils needs all the mentioned qualities and the vocational knowhow as well. Some feel more confident already from the beginning (examples 2 (p. 44), 3 (p. 45) and 15, (p.51)) whereas some are more hesitant (examples 1 and 12). As Jiang and colleagues (2016) suggest, teacher education programmes should include learning and training about emotion regulation strategies as this could help the teachers-to-be to communicate and regulate the events in their classroom more effectively.

Teacher educators play a key role in the development of pre-service teachers TSE levels and vocational knowhow. The way how the teacher educators teach (Chan & Koul, 2021), support, and create structure for the pre-service teachers (Gonzalez et al, 2018), impact the TSE outcomes. Particularly, when the teacher educators represent a completely different cultural and linguistic background than their students, it would be impertinent to assume that there would not be any misconceptions between teachers and students of such TNE project. Teacher educators presented already their impression of individual differences among pre-service teachers which they reported to be based on societal and cultural structures.

Particularly gender, ethnicity and social class structures affect the behaviour of the pre-service teachers. The interviewed teachers wished they would have known more about the culture and system of CC before starting the lesson with them. More information about pre-service teachers (culture, educational background, life in CC etc) beforehand would have given teacher educators the sense of being able to connect with the pre-service teacher better and providing such training to teacher educators about their students could be an additional way to enhance pre-service teachers' TSE levels (e.g., Tran et al, 2012).

Teacher educators, and teachers in general, always want the best for their students and see them to succeed. Nonetheless, not everyone succeeds in their studies, no matter who excellent teaching those students would receive. Each teacher and student will do their best and see where that leads them. In the frame of this TNE project, the teachers have reached the goal given to them, but as the interviews already hinted, they had indicated themselves a possible way to enhance their teaching and in the light of this study, subsequently find a possibility to enhance the TSE levels.

6.2 Implications and suggestion for future research

As stated earlier, the pre-service teachers seem to have a relatively high self-efficacy beliefs as a group already at this early stage of their training. Although two separate groups were able to being identified, the other doing slightly better than the other, the overall TSE stayed close to 4.00, meaning the participant felt that they had quite a bit of impact on the pedagogical skills. The factors that affect their TSE vary between the realities in CC, new knowledge provided by the vocational training in SPC, and their individual characteristics (emotions, goals, interest etc.). Teachers' self-efficacy beliefs of pre-service teachers can be enhanced e.g., by highlighting emotional regulations, problem-solving skills, and critical thinking together with various instructional strategies. Furthermore, teacher educators seem to need training and information about their students before starting to work with them. One option for further programmes could be general cultural training for the teachers that could be joined with the language course already provided for the teacher educators. Also, conducting a study by using a TSE questionnaire and including demographic information could help to identify students that feel they are lacking behind. This could give the programme organizers and teacher educators information about the assistance needs before entering the teaching practise periods.

Studying teachers' self-efficacy among pre-service teachers studying abroad is still a relatively new field and it will keep providing new research topics. Connecting self-efficacy

beliefs into adaptation processes of the learned content within TNE projects could contribute teacher training in general. Hence, studying sustainability (economic, social, environmental, or cultural) of transnational education programmes would add a critical view to this field. Another field of interest is to study more about teacher educators. This approach would broaden the understanding about the ways to support teacher educators to excel in their work, which could then in turn improve the results among the pre-service teachers in similar TNE projects.

7 Conclusion

As the global connections increase, different forms of transnational education are most likely going to keep growing in number and size. There will be several stakeholders interested on the successful delivery of a programme - teacher education being one example in which the impact of the TNE project would conceivably have a great impact on local communities. Thus, the organizers of such projects have a huge responsibility on assuring that everything works as planned and that the eventual learners attain the skills and knowledge intended.

This thesis aimed to give a glimpse of how such a TNE project is providing the means for pre-service teachers to succeed in their future teaching careers and the results seem promising. The findings indicate that the programme supports the general teacher's self-efficacy level of the studied group although a slight separation into two clusters were detected, the other performing somewhat better than the other. The pre-service teachers felt confident about instructional strategies and classroom management styles on the knowledge level but hesitated when it concerned the implementation in the classroom. On other words, they have already attained vocational knowhow on pedagogical methods, but due to the lack of teaching experiences are not able yet to perform confidently. Highest self-efficacy beliefs in student engagement already state, that these pre-service teachers have already means to motivate and engage their students to the schoolwork.

Although this study presents only a glimpse of a learning process, it could be stated that these pre-service teachers have tools to adapt the newly gained knowhow, although the application can be challenging: They must process the knowhow from SPC in connection to the realities of CC, and then find their own personal way of implementing it in the classrooms – they should have the belief, that they have everything within them. This task lies still in the future, but the relative high TSE indicates good results already at this stage of their studies.

It seems that this TNE project has now successfully provided a reasonably secure foundation for these pre-service teachers for their future careers. The rest of this TNE-programme, particularly the last year in CC, will show how they adaptation process of the pedagogical knowhow will be achieved in different regions of CC. For similar projects in the future, it could be proposed that teacher educators would get more information about their students, to further enhance and facilitate the adaptation process wherever in the world it would take place.

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Appendices

Appendix 1: OSTES Questionnaire questions

1. To what extent can you use a variety of assessment strategies?
2. To what extent can you provide an alternative explanation or example when students are confused?
3. To what extent can you craft good questions for your students?
4. How well can you implement alternative strategies in your classroom?
5. How well can you respond to difficult questions from your students?
6. How much can you do to adjust your lessons to the proper level for individual students?
7. To what extent can you gauge student comprehension of what you have taught?
8. How well can you provide appropriate challenges for very capable students?
9. How much can you do to control disruptive behaviour in the classroom?
10. How much can you do to get children to follow classroom rules?
11. How much can you do to calm a student who is disruptive or noisy?
12. How well can you establish a classroom management system with each group of students?
13. How well can you keep a few problem students from ruining an entire lesson?
14. How well can you respond to defiant students?
15. To what extent can you make your expectation clear about student behaviour?
16. How well can you establish routines to keep activities running smoothly?
17. How much can you do to get students to believe they can do well in schoolwork?
18. How much can you do to help your students value learning?
19. How much can you do to motivate students who show low interest in schoolwork?
20. How much can you assist families in helping their children do well in school?
21. How much can you do to improve the understanding of a student who is failing?
22. How much can you do to help your students think critically?
23. How much can you do to foster student creativity?
24. How much can you do to get through to the most difficult students?

Appendix 2: Focus group questions

1. What are the main skills that a teacher needs?
2. What characteristics would you need to have to be a teacher?
3. How do you let your pupils to know what is expected from them?
4. How do you check if your pupils have understood your teaching?
5. How do you support a talented child?
6. What kind of classroom rules do you enforce in your classroom?
7. How well do you manage with a defiant pupil?
8. How do you motivate your students?
9. How do you include pupil's parents in the schoolwork?