Diversity skills for future teachers: how transformative learning prepares pre-service teachers for diversity in Austrian schools

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Abstract
Purpose – Mezirow’s theory of transformative learning aims to evoke change on a deeper level of learning. This qualitative study with 38 pre-service teachers enrolled in a Master’s degree programme for teacher education in Austria used semi-structured interviews to explore how diversity skills can transform after diversity training applying Mezirow’s theory of transformative learning. In these trainings, a disorienting dilemma was placed at the centre of the diversity training from which transformative learning took its start.
Design/methodology/approach – In an increasingly diversified school system, diversity skills have become a pedagogical necessity for teachers in their future workplace. However, many teachers state not feeling adequately prepared for diversity within higher education and their attitudes towards diversity oftentimes remain unchanged despite diversity training.
Findings – The findings were deduced from structured content analysis. They show that the diversity trainings led to new cultural frames of reference for the study participants on a cognitive and social level, but to a smaller extent on an emotional level.
Originality/value – The study follows a different approach than “typical” diversity trainings through Mezirow’s theory on transformative learning contributing to making a real change to preparing students for their workplaces in diversified Austrian schools.
Keywords Diversity, Diversity training, Theory of transformative learning, Sociology of education, Teacher education, Mezirow
Paper type Research paper

Introduction
The need to prepare pre-service teachers for the reality of the workplace regarding diversity in schools has been widely acknowledged as a crucial element of contemporary teacher education (Guðjónsdóttir and Öskarsdóttir, 2020; Lambeth and Smith, 2016; Mills, 2008). However, in a cross-country analysis in six European countries, around 47% of teachers state that they were not adequately prepared for diversity in their initial teacher training (Fine-Davis and Faas, 2014, p. 1331). Teachers rate the “need for training” on their part as the most significant factor in managing diversity in their classrooms. Teacher education programmes still only expose pre-service teachers superficially to diversity (Anthony-Stevens et al., 2017). Pre-service teachers are frequently unclear about how to approach diverse students (Ryan et al., 2020) and may, for example, avoid “discussions about culture and race with students of colour” as a consequence of a lack of training (Lambeth and Smith, 2016, p. 1). The majority of
pre-service teachers feel that their teacher training lacks a focus on cultural and linguistic diversity (Hertel et al., 2012) and that they are largely unaware of their “white” privileges (Reiter and Davis, 2011). In addition, while pre-service teachers may receive specific diversity training in higher education, their attitudes remain unchanged (Mills, 2008). A possible reason for this is what Mezirow (2003, p. 59) calls “taken-for-granted frames of reference” including fixed cultural orientations or ideologies. In their culturally and socially diverse workplaces in schools, it is essential that pre-service teachers can transform their frames of reference. Teaching about diversity is not sufficient: Teacher education needs to raise fundamental questions about the origins of educational inequalities as teaching for diversity (Ryan et al., 2020). While diversity can be embedded within curricula on a systemic level, it can also be trained on an individual level in the form of diversity skills. Because the higher education sector has – in the last 20 years – undergone a paradigm shift towards a skills-based approach (Güneş and Söylemez, 2018), formats of teaching diversity skills have become a centrepiece of discussion in many study programmes. Nevertheless, it is still unclear, what diversity skills comprise and how they can be trained.

Most schoolteachers are white, middle class and female and have little experience with diversity (Lambeth and Smith, 2016; Mills, 2008; Reiter and Davis, 2011). For Austria, more than 85% of pre-service teachers in colleges of teacher education are female and only app. A total of 4% have a personal migration history (Statistik Austria, 2020/2021). This contrasts sharply with the rising numbers of diverse students in Austrian schools (Fine-Davis and Faas, 2014). Due to this mismatch and growing divide, teachers must expect to have to address diverse student populations whether they feel prepared to do so or not (Robertson et al., 2017). This shows the necessity of becoming critically self-reflective within initial teacher training involving the “assessment of assumptions and expectations supporting beliefs, values, and feelings” in either student groups or independently (Mezirow, 2003, p. 60). Teacher attitudes differ in their acceptance of ability, disability, immigration background or gender diversity, and in their roles and responsibilities for meeting the needs of their students. Diversity research stems from the debate on social justice and equal opportunities for minority students and explores different dimensions of diversity, such as gender, age, ethnicity or sexuality. Social inequality research, in turn, focuses mainly on socio-economic differences in students and how these shape student life and academic success. A distinction can be made between detectable (e.g. age, ethnic background) and non-detectable (e.g. nationality, religious diversity) attributes of diversity (van Middelkoop et al., 2017). There is evidence of differences in perceptions and attitudes of pre-service teachers towards migration and ethnicity (Glock and Kleen, 2019), disability (Feyerer et al., 2014; Raphael and Allard, 2013) and gender (Avramidis and Norwich, 2002). Pre-service teachers from rural areas tend to have fewer experiences with diversity than those from urban areas (Anthony-Stevens et al., 2017). Likewise, pre-service teachers who focus on studying inclusive education hold more inclusive attitudes than those whose education does not contain such a focus (Feyerer et al., 2014). Hecht et al. (2016) report that pre-service teachers’ attitudes towards disability transform during their studies. Transformative learning is hence based on critical reflection of experiences (Maged, 2014; Mezirow, 1990; Robertson et al., 2017).

The study at hand, thus, explores how future teachers can be prepared for managing diversity in their future workplaces in Austrian schools conducting semi-structured interviews and how their attitudes towards diversity transform after diversity training applying Mezirow’s theory of transformative learning.

Theoretical framework
The study follows Mezirow’s theory of transformative learning (1985, 1997, 2000, 2003) as a process of effecting change in pre-service teachers’ frames of reference on diversity. Frames
of reference can be defined as conceptions that frame our world, our thinking, our acting or our feelings. Mezirow differentiated two dimensions: habits of mind and points of view (Mezirow, 1997, p. 6). While habits of mind are broad conceptions of thinking, feeling and acting, they become articulated in points of view, such as judgements or attitudes. A habit of mind towards diversity might be “universalism”, a predisposition to apply values or beliefs to all cultures, regardless of the context or social interaction. A resulting point of view might be an open-minded opinion on marriage for all. Frames of reference are mainly the result of socialisation and culturalisation. Changing them is difficult (Mezirow, 1997). However, Mezirow does delineate ways to transform fixed frames of reference by for example elaborating one’s point of view, by establishing new points of view, by transforming one’s point of view and by becoming more critically reflective of generalised assumptions, bias or set frames of reference. In Mezirow’s theory, three learning types evolve: learning within existing meaning schemes, learning new meaning schemes and learning through meaning transformation (Kitchenham, 2008), while a meaning scheme is a “set of immediate specific expectations, beliefs, feelings, attitudes and judgements” (Mezirow, 2000, p. 18). He defines transformative learning as:

 [...] Learning that transforms problematic frames of reference – sets of fixed assumptions and expectations [...] – to make them more inclusive, discriminating, open, reflective and emotionally able to change (Mezirow, 2003, p. 58).

The responsibility of teacher educators in this context is to offer future teachers experiences that enable them to understand their own positioning towards diversity in transformative learning processes (Mills, 2008) and thus to be best possibly prepared for their future workplace. To facilitate transformative learning, teacher educators require the use of interactive and practice-oriented course designs to help learners become critical of their own frames of reference. “Learners need practice in recognizing frames of reference” (Mezirow, 1997, p. 10). Pre-service teachers should have sufficient opportunities in higher education to address stereotypes, learn about cultural-based norms and values and receive peer feedback (McInnes, 2017).

Teaching diversity is a complex, multifaceted task that educational research has widely acknowledged and articulated (Gay, 2002). It can take various formats, such as evidence-based teaching for diversity, working with specific learning materials and examples, reflective teaching formats for diversity, which contain elements of individual and collective reflection of experiences or event-based teaching, which encompasses intervention or action for diversity (Resch and Raschauer, 2019). Teaching for diversity contains raising awareness for cultural diversity, an understanding of critical multiculturalism and social justice (Enns and Sinacore, 2005). Denzin argues that culture is a verb rather than a noun, indicating a learning process and an on-going performance during education and working life, therefore neither culture nor diversity is static (Denzin, 2016). Diversity as a concept is multi-faceted and relational, and there are pitfalls and complexities associated with cultural difference and diversity, also associated with power and privilege. There is a strong tradition from research from a sociological perspective on culturally responsive and socially just pedagogy (e.g. Keddie, 1973; Nieto, 2017; Enns and Sinacore, 2005), however, teaching diversity in such a way that it evokes meaning transformation and specific preparation for the workplace remains a challenge.

Mezirow’s theory of transformative learning has undergone several revisions since the late 1970s to 2005 and has resulted in hundreds of academic papers and dissertations underlining the robustness of the theory for educational sociology. While originally defining meaning schemes based on Habermas’ theory of communicative action (Habermas, 1984), Mezirow’s later revisions stress the importance of affective and social aspects of transformative learning introducing habits of mind and points of view. The disorienting
dilemma, nevertheless, has always played a major role in Mezirow’s theory of transformation. Transformation can only then take place when the learner is confronted with a problem that cannot be resolved through present meaning schemes (Mezirow, 1985). Not being able to resolve the disorienting dilemma leads to immediate negative feelings, followed by a critical assessment and exploration. Kitchenham (2008) suggests straightforward reflection of content, process, and premise. Content reflection refers to thinking back what happened and which action was taken in the disorienting dilemma situation (e.g. a teacher not knowing how to address a transgender student). Process reflection requires the person to think about the origin or causes of actions (e.g. considering action and response) and premise reflection requires the person to consider the deeper meaning schemes operating within the person’s value system (e.g. own conceptions of gender norms). The aim of the study is to explore how future teachers can be prepared for managing diversity in their future workplaces in Austrian schools and how their attitudes towards diversity transform after diversity training applying Mezirow’s theory of transformative learning.

**Empirical study**

*Framework of the empirical study*

The empirical study took place in the framework of diversity training courses for pre-service teachers in Austria, which were taught by the author of this study. The diversity trainings aimed at preparing future teachers for the diversified workplace in schools and lasted for 12 weeks each and followed some key didactic principles: After key readings about diversity and transformative learning, the trainings started with a visual awareness-raising session using pictures to evoke underlying emotions connected to diversity (session 1). The pictures showed, for example, girls dressed as dolls for a competition representing the Western market orientation, Muslim women wearing niqabs when having to identify at an airport control representing religious diversity, or young Austrian men dressed up as “Perchten”, a pagan tradition to cast out evil spirits, wearing scary costumes, horns and metal drums representing diversity in urban and rural culture. With the use of these confrontational pictures, learners had to think about their own cultural frames of reference. The trainings continued with participants’ identification of a disorienting dilemma according to Mezirow (1997) and self-reflection about the experience in the framework of their current meaning schemes (session 2). Examples of such experiences included a pre-service teacher who was not able to detect a disability in a student, and a pre-service teacher who did not know how to handle a student who refused to complete her homework during Ramadan. This process was followed up by a six-week analysis of a disorienting dilemma in small groups (session 3 and 4). In this phase, continuous guidance counselling was provided by the teacher educator in the form of support when reflecting the dilemma in different steps. For the systematic analysis of disorienting dilemmas, participants were required to analyse a real case in a structured way and deduce action strategies for similar contexts. These seven analyses steps were as follows (Resch and Raschauer, 2019):

1. Narration of the disorienting dilemma by the narrator
2. Description of the interactants (the narrator and the other person) following diversity criteria
3. Description of the context of the disorienting dilemma (time, space and social context)
4. Emotions and reactions
5. Cultural values and norms of the narrator
6. Cultural values and norms of the other interactants
7. Deduction of action strategies for the workplace
This six-week analysis was performed both orally and in written form and was followed by two concluding sessions in the larger group to develop action plans for disorienting dilemmas and to reintegrate new meaning schemes that emerged during the course into learner’s existing cultural frames of reference (session 5 and 6).

**Objectives**
The research aim was to investigate the reflexive learning pathways of pre-service teachers when coming to understand their attitudes towards diversity and examine the transformation processes that occurred after a one-semester, intensive and interactive diversity training.

The research questions were as follows: How can pre-service teachers be prepared for managing diversity in their future workplaces in Austrian schools through diversity trainings applying transformative learning? How does learning through meaning transformation take place?

**Participants**
The study participants were pre-service teachers inscribed in two Master courses at the largest university in Austria, the University of Vienna, which currently caters to approximately 12,000 pre-service teachers. 18 of the 24 students enrolled in the focal training course 1 in 2020 and 20 of the 21 students in the focal training course 2 in 2021 agreed to be interviewed. Seven declined in total without any consequences. All participants were informed verbally about the objectives and options to withdraw from the study and gave their written consent. Following the ethical procedures of the university in non-interventional studies with adults, the Dean of Student Affairs of the Centre for Teacher Education, who oversees app. 12,000 pre-service teachers at the university, provided ethical approval of the study. The final sample, which consisted of nine men and 29 women, was strongly representative of the cohort of pre-service teachers enrolled in the university in terms of gender, prior experience and age. All 38 students grew up in Austria and were white. Many pre-service teachers from course 2 in addition reported living in rural areas in Austria, in which exposure to diversity is generally less likely.

**Instrument**
In the study, semi-structured qualitative interviews (Saldaña, 2015) were held using a semi-structured guide with ten main questions and several (optional) sub-questions about their experiences of the diversity trainings and how they had affected their corresponding cultural frames of reference.

**Process**
The interviews for course 1 took place from May to June 2020, for course 2 from January to February 2021. The average duration of an interview was 23 min. All interviews were held online due to the COVID-19 restrictions using either Skype or Zoom as video or audio tools. All interviews were taped and fully transcribed in German. Recognising the hierarchical positioning of the teacher educator and the pre-service teachers in the research process, the interviews were conducted at the end of the trainings, when all sessions had been completed. For the purpose of this study, key quotes were translated into English by the teacher educator.

**Data analysis**
Data from the 38 transcripts were analysed using structured content analysis (Saldaña, 2015). The inductive coding process led to four themes: social learning, cognitive learning, emotional
learning and action-driven learning. The coding process followed three of these four themes. For a deep analysis of the original category of action-driven learning, the interview guide would have had to mirror this category more closely. Thus, the coding process revealed three final categories exploring the transformative learning potential of (1) cognitive, (2) social and (3) emotional learning about diversity. In addition, one theme was added to the coding system about the (4) assessment of the learning process as such. A differentiation was made between the pre-service teachers who were narrators of a disorienting dilemma and participants without a narrative role. Quotes in the empirical analysis use the notation N for narrators of the disorienting dilemmas and ST for students followed by the respective interview number (e.g. N4, ST28).

Results
Pre-service teachers expressed aspects of transformative learning in three categories: (1) cognitive, (2) social and (3) emotional learning about diversity.

Cognitive learning about diversity
The study participants viewed learning about reactions to disorienting dilemmas as part of their cognitive frames of reference. Indeed, many of them mentioned a cognitive learning effect when working with the disorienting dilemmas and the iceberg metaphor of visible and invisible signs of culture. They claimed that looking beyond the visible to the invisible cultural norms and values which guide behaviour had triggered a transformation of cultural frames of reference for them (ST3, ST4, ST7). Changing to the perspective of the other person (of a different culture) also produced a transformative learning effect in terms of understanding cultural behaviour and cross-cultural adaptation processes (N4, N6, ST2, ST6, ST9). Changing the perspective from the narrator (such as the teacher who did not know how to handle a student with a different religion than her own) to the person evoking the disorienting dilemma (the student who refused to complete her homework during Ramadan) was helpful for developing new cognitive frames of reference. Four pre-service teachers reported also learning from the disorienting dilemma as such (ST1, ST2, ST30, ST36), namely the description of the dilemma, the diversity dimensions and in particular the "loss of one's cultural frame of reference" associated with disorientation and shock. One participant reported having learnt from a narration about an Austrian pupil who had given a Christmas present to a classmate from a different culture, who felt offended because she had not considered that religious gifts like Christmas presents might not be welcome in his culture (ST1). One participant connected this to cognitive frames of reference incurred by taking time to write down such dilemmas and the facts and feelings associated with the situation (N6). Having to write down a dilemma was useful for thinking about one's own frames of reference: “Especially when you invest so much time on reflecting and really writing down what you think in full. That is something that descends to your consciousness” (ST4). Developing alternative strategies of behaviour for such dilemmas was also reported as having a cognitive transformative learning effect in that it enabled the students to deduce possible ways of managing cross-cultural adaptation processes. “When all participants say what they think and feel[... then the large spectrum of possible behavioural reactions becomes obvious, and you realise that there is no right or wrong decision like we know from teacher education” (ST4). The courses also encouraged the participants to question the reasons for cultural behaviour and develop alternative approaches to deal with future dilemmas following the theory of transformative learning, which was reflected by one student in particular (ST25).

The analysis also revealed changes to the pre-service teachers’ comprehensive thinking (N4, ST1, ST4, ST6, ST10, ST38). One of the narrators reported having transformed his point of view of comprehensive thinking after speaking about his own dilemma in the course.
“In any case, I learnt to see the case that I had introduced to the group in a holistic way – not just from my own perspective but as a whole” (N4). For other participants, holistic thinking means broadening their horizons and interpretations of a disorienting dilemma but also recognising the range of elements in a situation (ST5, ST10, N19, ST37). Diversity entails understanding the values and norms of the people with whom they interact in schools and not only taking their own feelings into account. “It’s when you assess a situation as a whole and not only your own mini-perspective” (ST1).

Pre-service teachers in addition reported having felt learning to take place on a general cognitive level after completing the course, such as a gain in analytical skills, awareness for consequences, and organisational skills. Some pre-service teachers reported having acquired content knowledge about diversity, conflict resolution, and how conflicts evolve (N4, ST30). They likewise gained knowledge of the consequences of their actions. By discussing and analysing dilemmas in a systematic form, they also trained their analytical skills (N6, ST12, N23, ST34). “My analytical skills have improved through the thorough analysis because this is something we don’t usually do [in teacher training]. Also, […] conflict resolution skills were trained because we discussed possibilities of how we could have reacted” (N6). Analytical skills were related to judgement, i.e. being able to classify content and situations and analyse situations in which they were personally involved with a certain degree of emotional distance. One student exemplifies this: “I think judgement can grow immensely when working with dilemmas and thus lead to […] objectivity […] This is also important for taking professional action as a teacher” (ST1).

Social learning
Some pre-service teachers reported a transformative effect in their social and communicative skills, in particular their conflict resolution and general communication. Communication was assessed as central when dealing with conflicting interests and diversity (ST2, ST24). Conflict management was triggered by strategically working on a disorienting dilemma (N2, ST25), leading to the feeling of acting successfully in conflicting situations (ST7, ST8, ST9, ST12, ST35). “Conflict resolution, well, being able to act effectively … Like I said, there’s no recipe for this – it changes with experience, and this experience makes you richer with this method (…) that is something I learned” (ST6).

In this category of social learning, the ability to work in a team, managing diverse relations, problem solving, empathy for others and the willingness to cooperate with others emerged as relevant themes. Participant’s willingness to cooperate was strengthened when they had to cooperate with the narrator of a specific disorienting dilemma and negotiate a change of perspectives from the narrator’s view (such as the teacher) to that of the other interactant (such as the student who refused to complete her homework during Ramadan) (ST7, N19, N22, ST31, ST34, ST36). The willingness to cooperate is particularly important for pre-service teachers, who are preparing to work in schools:

I think social communication skills are very important. That a teacher has advanced skills in communication, is able to communicate well with students, is willing to cooperate, and has a certain level of willingness to cooperate with others. (ST11)

In order to evoke a transformation on the social and communicative level, a willingness to develop mutual understanding for culturally different (sub)-groups and empathy for others was required (N2, ST2, ST32, ST38). This entails the willingness to understand the motives of culturally others and how they perceive reality as well as the ability to communicate one’s observations.

The ability to understand others and to put something across. I think the ability to understand others always entails being able to put yourself in someone’s position, which is what you do when you
analyse an incident: change perspectives. You essentially reconstruct the patterns of behaviour of others and, as a result, develop empathy in the best case, no matter whether you feel the same or not. (ST2)

Some pre-service teachers reported being concerned about future possibilities or opportunities to discuss problems with colleagues at the workplace, since they thought they would not have the possibility to do so with any regularity when they were working in schools. They reported fears of “working as a lone wolf” in school and having few opportunities for mutual and critical reflection, which they had learned was part of transformative learning. This is illustrated by two representative statements:

This is very unlikely to happen in everyday school life. Sitting down with colleagues and talking about a case and discussing it. And if it is at all possible, it will only be in a limited timeframe and space and maybe not with many colleagues, because if we are honest, every teacher minds their own business and their own sphere and their own lessons and their own problems. (ST1)

I hope that later on when I teach in a school that I will still have the possibility to take part in reflections like this with my colleagues. Because for me personally, this takes me forward. (ST12)

As the above statements show, these pre-service teachers valued the possibilities offered by the courses for critical assessment of existing frames of reference through discussion, feedback, reflection with peers and adapting points of view to one another (ST9, N21, N23, ST34). Indeed, one of the narrators reported that social learning had been the most crucial effect of the course:

For me the biggest learning effect was definitely reflecting with others – not reflecting alone but with someone else or even better with a group. Because I don’t think that I could have deconstructed the narration in such a good way if I had reflected on it on my own because of my emotional entanglement. (N5)

They also reported social learning effects from small group discussions, working in plenary and feedback from the teacher educator (N4, ST3, ST8, ST27, ST34, ST38).

We had reflection sessions in which thought about what had happened on our own […] on our own critical incidents. Then we had group reflection sessions in which we empathized with someone else and their situation […]. And then we had the plenary where we developed alternative strategies for behaviour. (ST3)

Emotional learning
Interestingly, in the category of emotional transformation, the pre-service teachers frequently noted that emotions did not help them in the analysis of a disorienting dilemma. Some mentioned pushing back emotions for the sake of systematic analysis, trying to simply view the facts without an emotional assessment or aftertaste (ST8). Reflecting with others had the effect of making the disorienting dilemma more neutral and less emotional (ST10). However, they did manage to transform their meaning schemes and were offered new meaning schemes on the situation by their peers. Staying neutral, especially in the role of the narrator, seemed to be the key for the reflection process, as one participant explains:

In particular when a situation is of emotional weight, like when you take offence or when the situation is generally just emotional for you, and you think about it, it is maybe helpful when someone reflects with you, someone who can assess the situation in a more neutral manner because they weren’t actually there. (ST1)

Another aspect of emotional transformation for diversity was connected to empathy (ST5, N19, ST32, ST33): These pre-service teachers reported understanding others better after
reflecting on a dilemma and having developed the ability to share the other person’s feelings by imagining what it would be like to be in their situation.

I think that a lot of people try to empathise with others, but it is not possible to analyse a situation like this in a sound way in everyday life [...] in other words, not fall back into your own emotions, but try to analyse the whole thing in an objective manner and learn from it. (ST6)

Three pre-service teachers (ST3, ST8, ST35) felt that they had gained objectivity as a result of emotional learning within the course. “It’s like visualizing what is happening objectively and what you interpret subjectively in such a situation” (ST35). Objectivity is related to its extreme, namely being (too) emotional. Students mentioned that the courses helped them to view a disorienting dilemma in a more systematic way, maintaining emotional distance. With this skill, they might be more successful at analysing disorienting dilemmas and deducing alternative ways of action (ST3). “It is important that [...] I do not relate everything to myself but instead integrate aspects of the situation into my thinking, consider the background of the people involved, and, yes, be more objective” (ST8) The most important emotional learning took place when a student was confronted with the disorienting dilemmas of others and recognised the “moment of disorientation in the narration”:

Through the irritation, expectations of normalcy are hurt in the communication. For me, these moments of irritation are essential, and I think you can work with them and use them to show which opinion or worldview you represent and why. (ST5)

This is when the actual transformative learning took place, namely when emotions changed from the foreseeable to the loss of one’s frame of reference, which resulted in wonder, irritation or simple astonishment. Reflecting on and drawing conclusions from this brief moment of disorientation is a vital step in transformative learning.

Assessing the learning process
All teams working on a disorienting dilemma reported a good quality of team interaction. One student, for example, underlined the openness of all participants to support each other. “It was real teamwork, no one was left behind” (ST7). They also reported a high degree of equal involvement, collegiality, and mutual respect. Identifying with the topic of the disorienting dilemma was likewise an important aspect of the training and was achieved by working with real cases. Crucial aspects for good quality work in the small groups were openness, good organisation, a positive working climate, an affinity for the others in the group and being able to identify with the disorienting dilemma. Openness to change was mentioned by several pre-service teachers as a basis for allowing cognitive and emotional transformation (ST5, ST11, ST12, ST28). This entails being open to change when situations require spontaneous and unplanned action, especially as a schoolteacher (ST29). “Openness to change because I recognized that I maybe have to change my way of thinking” (ST11).

Switching between written and oral reflection and individual and group learning was found to be essential for the course. The teacher educator provided regular guidance, support and feedback to the pre-service teachers while they were working on the disorienting dilemma. All seven steps in the systematic analysis were described in a “how to” manner, which meant students only had minor problems with fulfilling the task. “We kept to the teacher’s guidelines, and that way the solutions evolved step by step” (N2). The pre-service teachers asked for guidance when they felt lost in the analysis, as one student illustrates: “We asked and got immediate feedback. It is empowering when you receive an answer and support and when you also receive praise (N6)”.

When reintegrating new points of view into their cultural frames of reference, some pre-service teachers reported positive changes in their decision-making skills and quick-
wittedness as a result of the courses. They described gaining increased awareness of the fact that new behaviour in conflicting situations needs to be trained in practice (ST25, ST26, ST38). “It’s not something you learn by heart and then implement one-to-one. I think it’s a question of training” (ST8). Reintegrating new frames of reference into their behaviour was linked to the ability to make decisions. After completing the course, one pre-service teacher reported that when he encountered a similar disorienting dilemma, he would be able to decide what to do next because he would have analysed his possible action strategies beforehand (ST9). Reintegrating new points of view into their cultural frames of reference was described as the ability to act dynamically (ST2). After reviewing disorienting dilemmas between teachers and students in schools, one narrator reported: “I now recognize that I need to act more socially” (N4). Another referred to being more aware of social problems (N5).

Discussion
By the end of the diversity training courses studied here, the pre-service teachers were able both to articulate an array of new understandings and emerging realisations about diversity and advance their own cultural reference frames. Many ended the semester with a new-found awareness of cultural diversity depending on the topic of the actual dilemma (e.g. ethnicity, disability, gender). The pre-service teachers recognised and embraced the importance of knowing the origins of their thoughts and actions before attempting to understand the cultural norms and values of others (McInnes, 2017). They also had the time and space to explore their own cultural identities. Following recommendations in previous research that studies should explore how pre-service teachers reflect on their own culture (Lambeth and Smith, 2016), this aspect was taken into account in the study at hand. This is also a key within Mezirow’s theory (1997). When asked to look back to the beginning of the courses, the participants noted that their approaches to diversity were based more on intuition, their reactions were spontaneous and unreflected, they felt disoriented and they only applied a single perspective. After the courses, they took a more critical and self-reflected approach to diversity, knew how to act in different situations after analysing disorienting dilemmas, and had an increased subjective feeling of empathy. Transforming meaning schemes to action is a complex task, requiring individuals to know how, when and why they choose to act in a particular situation. According to Ryan and colleagues this involves three connected and recurring elements: discernment, deliberate decision-making and dedicated action in particular contexts (Ryan et al., 2020). This form of epistemic reflexivity can be described as a perspective that focuses on thinking (discernment), decision-making (deliberation) and action as a final result of these processes. Diversity trainings can hope to transform thinking and decision-making in such a way that future teachers take action when facing disorienting dilemmas. Previous studies underline that teacher educators who place more importance on understanding and critical thinking are more likely to report a transformation in reflexivity in the context of preparing future teachers for diversity in schools. Those who place greater importance only to knowledge about diversity report less reflexivity (Ryan et al., 2020). Reflection for diversity in contrast to knowing about diversity can be viewed as the cornerstone of transformative learning and decision making in practice. This epistemic reflexivity is how pre-service teachers become “critical reflective practitioners” (Ryan et al., 2020, p. 208).

The transformative change in pre-service teachers’ cultural frames of reference in cognitive and social learning but to a lesser extent in emotional learning was perhaps the most valuable finding of the study. Pre-service teachers were able to transform their meaning schemes in several areas by working with interactive methods and real dilemmas, an approach also supported by other scholars, such as Nieto (2017), who argues for real-life dilemmas on diversity that teachers face in their own classrooms. The participants mentioned
a transformation of their way of thinking (cognitive level) and their way of engaging in disorienting dilemmas (social level) after the course. The courses contributed to critical self-reflection and group reflection by showing students that there is always a second way of looking at an event (Nguyen et al., 2014). Collaborative reflective learning also contributes to professional identity building of teachers (Ryan et al., 2020). Changing the perspective in the analysis of disorienting dilemmas from the narrator to the cultural “other” was also viewed as a strength, as it contributed to creating cultural awareness and a more objective view of what had happened.

The pre-service teachers in this study found the emotional component of working with disorienting dilemmas discomforting. These findings on emotional learning, in essence how emotion was addressed in the learning process as something “to avoid and manage”, is surprising. Exploring emotions in transformative learning may be discomforting as it involves challenging deeply felt and cherished ideas about culture, identity, inclusion and others. When engaging in collaborative reflective learning, pre-service teachers position themselves in relation to others by sharing personal considerations and emotions, which means taking a personal and emotional risk by engaging in this kind of reflection (Ryan et al., 2020). Pre-service teachers reported a desire for objectivity and emotional distance as necessary means of “staying neutral” in the face of disorientation, rather than making use of the emotions in place. A “pedagogy of discomfort” would help students leave their comfort zones following the assumption that discomforting feelings are important in challenging dominant beliefs, habits and cultural norms that sustain social inequities (Zembylas, 2015). Keddie (2021) underlines the significance of pedagogic discomfort and the value of strategic empathy. In the study, empathy was addressed in the category of social learning. Pre-service teachers reported that empathy entails the willingness to understand the motives of others who do not belong to one’s own social or cultural group as the opposite of mere self-interest. Common approaches in teaching diversity would involve positive representations of groups that are usually portrayed negatively in the dominant culture, facilitating empathy by didactic methods that allow students to “feel what it is like” to be marginalised (Kukar, 2016). Within transformative learning, learners arrive at this point when exploring the disorienting dilemma.

Working with narrative disorienting dilemmas as expressions of biographical experiences in diversity trainings requires both reflection and caution, as emotions of the narrator are involved (Maged, 2014; Mezirow, 2000). Discussing disorienting dilemmas in a pedagogical context also involves questions of who narrates for which purpose (Reiter and Davis, 2011). All experiences are biographically structured and can thus be useful in diversity trainings when they are critically reviewed. The transformative learning theory of Mezirow (1985, 2000) was an adequate tool for exploring the transformation that occurred. Critical reflection as described by Dewey (1933) and Schön (1983) provides a solid basis for discussing the complexity of diversity and its role in teacher training.

Applying a skills-based approach in this field relating to diversity skills is generally viewed critically in higher education non-neoliberal literature: Skills models lack clarity, consistency or a recognisable theoretical base and are connected to the neoliberal stance of increasing the employability of students. Yet the incorporation of diversity skills into study programmes is important for educational quality and the social reality of the future workplace, especially in teacher education (Washer, 2007). From a sociological point of view, skills always depend on others; they cannot be described as values only within one actor, but between actors. Only when performing social roles (here being a teacher), individuals actually learn to use their skills (Kneer, 2009).

This study has several limitations. First, each disorienting dilemma that was selected for analysis was subjective and situated in a specific time and context. This makes it difficult to generalise the findings of the analysis and might lead to a lack of transferability. As a single...
institution study, it provides a good starting point to highlighting the transformative potential of diversity trainings which apply teaching concepts with a disorienting dilemma at its core. Second, due to the rather medium sample size, this study should only serve as a preliminary step to exploring the transformative potential of diversity trainings applying Mezirow’s theory of transformative learning for pre-service teachers. Also, other theoretical approaches like epistemic reflexivity in teaching for diversity could have been applied (Ryan et al., 2019). Third, one semester might be too short to ascertain a relevant level of transformation and new meaning schemes. It could be the case that new meaning schemes were not fully acquired by the participants, but only initiated (Maged, 2014). Moreover, it was beyond the scope of this study to assess the emergence or development of diversity skills in a longitudinal way (and hold more than one interview per participant). However, it would be interesting to follow these pre-service teachers through their transition from student to working life and subsequently reassess their reintegration of their new meaning schemes in school.

Conclusion
The study shows the importance of avoiding shallow diversity course work that lacks opportunities for critical self-reflection and transformative learning. Its findings echo the calls for action to place diversity at the centre of teacher training. It is essential that diversity is a key principle throughout teacher training, and this might be the first step to ensuring that teachers are capable of making a difference for disadvantaged students in schools.

References
Anthony-Stevens, V., Gehlken, E., Jones, C., Day, S. and Gussenhoven, S. (2017), “I am assumed to be someone who doesn’t have to deal with diversity: Countering the denial of diversity in rural teacher education”, Multicultural Education Review, Vol. 9 No. 4, pp. 270-288.
Avramidis, E. and Norwich, B. (2002), “Teachers’ attitudes towards integration/inclusion: a review of the literature”, European Journal of Special Needs Education, Vol. 17 No. 2, pp. 129-147.
Denzin, N. (2016), “Symbolic interactionism’s contribution to the study of culture”, in Inglis, D. and Ahmila, A.-M. (Eds), The SAGE Handbook of Cultural Sociology, SAGE, London, pp. 105-115.
Dewey, J. (1933), A Restatement of the Relation of Reflective Thinking to the Educative Process, Heath & co., Boston, MA.
Enns, C.Z. and Sinacore, A.L. (2005), Teaching and Social Justice: Integrating Multicultural and Feminist Theories in the Classroom, American Psychological Association, Washington, DC.
Feyerer, E., Dlugosch, A., Prammer-Semmler, E. and Reibnegger, H. (2014), Einstellungen und Kompetenzen von LehramtstudentInnen und LehrerInnen für die Umsetzung inklusiver Bildung, Forschungsbericht BMUKK-20.040/0011-1/7/2011, BMUKK, Endbericht.
Fine-Davis, M. and Faas, D. (2014), “Equality and diversity in the classroom: a comparison of students’ and teachers’ attitudes in six European countries”, Social Indicators Research, Vol. 119, pp. 1319-1334, doi: 10.1007/s11205-013-0547-9.
Gay, G. (2002), “Preparing for culturally responsive teaching”, Journal of Teacher Education, Vol. 53 No. 2, pp. 106-116.
Glock, S. and Kleen, H. (2019), “Attitudes toward students from ethnic minority groups; the roles of preservice teachers’ own ethnic backgrounds and teacher efficacy activation”, Studies in Educational Evaluation, Vol. 62, pp. 82-91.
Guðjónsdóttir, H. and Óskarsdóttir, E. (2020), “Dealing with diversity’: debating the focus of teacher education for inclusion”, European Journal of Teacher Education, Vol. 43 No. 1, pp.95-109.
Güneş, F. and Söylemez, Y. (2018), The Skill Approach in Education: from Theory to Practice, Cambridge Scholars Publishing, Cambridge.

Habermas, J. (1984), The Theory of Communicative Action: Reason and the Rationalization of Society, Polity, Beacon.

Hecht, P., Niedermair, C. and Feyerer, E. (2016), “Einstellungen und inklusionsbezogene selbstwirksamkeitsüberzeugungen von lehramtsstudierenden und lehrpersonen im berufseinstieg – messverfahren und befunde aus einem mixed-methods-design”, Empirische Sonderpädagogik, Vol. 1, pp. 86-102.

Hertel, S., Djakovic, S.K., Adl-Amini, K., Rieger, I., Hondrich, L., Mannel, S. and Bruder, S. (2012), “Preparing pre-service teachers for dealing with students’ diversity related to learning: an intervention study”, International Journal of Psychology, Vol. 47, p. 301.

Keddie, N. (1973), The Myth of Cultural Deprivation, Penguin Books, London.

Keddie, A. (2021), “Engaging boys in gender transformative pedagogy: navigating discomfort, vulnerability and empathy”, Pedagogy, Culture and Society, Vol. 30 No. 3, pp. 401-414.

Kitchenham, A. (2008), “The evolution of John Mezirow’s transformative learning theory”, Journal of Transformative Education, Vol. 6 No. 2, pp. 104-123.

Kneer, G. (2009), “Akteur-netzwerk-theorie”, in Kneer, G. and Schoer, M. (Eds), Handbuch Soziologische Theorien, Springer, pp. 19-40.

Kukar, P. (2016), “The very unrecognizability of the other: Edith stein, Judith butler, and the pedagogical challenge of empathy”, Philosophical Inquiry in Education, Vol. 24 No. 1, pp. 1-14.

Lambeth, D. and Smith, A. (2016), “Pre-service teachers’ perceptions of culturally responsive teacher preparation”, The Journal of Negro Education, Vol. 85 No. 1, pp. 46-58.

Maged, S. (2014), “Breaking the silence of exclusion: examining the complexities of teacher education for cultural diversity”, Educational Research Policy Practice, Vol. 13, pp. 181-197.

McInnes, B.D. (2017), “Preparing teachers as allies in indigenous education: benefits of an American Indian content and pedagogy course”, Teaching Education, Vol. 28 No. 2, pp. 145-161.

Mezirow, J. (1985), “A critical theory of self-directed learning”, in Brookfield, S. (Ed), Self-directed Learning: from Theory to Practice, Jossey-Bass.

Mezirow, J. (1990), “How critical reflection triggers transformative learning”, in Mezirow, J. (Ed.), Fostering Critical Reflection in Adulthood: A Guide to Transformative and Participatory Learning, Jossey-Bass, pp. 1-20.

Mezirow, J. (1997), “Transformative learning: theory to practice”, New Directions for Adult and Continuing Education, Vol. 74, pp. 5-12.

Mezirow, J. (2000), Learning as Transformation. Critical Perspectives on a Theory in Progress, Jossey-Bass, San Francisco.

Mezirow, J. (2003), “Transformative learning as discourse”, Journal of Transformative Education, Vol. 1 No. 1, pp. 58-63.

Mills, C. (2008), “I don’t have much of an ethnic background” Exploring changes in dispositions towards diversity in preservice teachers”, International Journal of Pedagogies and Learning, Vol. 4 No. 3, pp. 49-58.

Nguyen, Q.D., Fernandez, N., Karsenti, T. and Charlin, B. (2014), “What is reflection? A conceptual analysis of major definitions and a proposal of a five-component model”, Medical Education, Vol. 48, pp. 1176-1189.

Nieto, S. (2017), “Language, culture, and teaching”, Critical Perspectives, 3rd ed., Routledge, New York, NY.

Raphael, J. and Allard, A.C. (2013), “Positioning people with intellectual disabilities as the experts: enhancing pre-service teachers’ competencies in teaching for diversity”, International Journal of Inclusive Education, Vol. 17 No. 2, pp. 205-221, doi: 10.1080/13603116.2011.639811.
Reiter, A.B. and Davis, S.N. (2011), “Factors influencing pre-service teachers’ beliefs about student achievement: evaluation of a pre-service teacher diversity awareness program”, Multicultural Education, Vol. 19 No. 3, pp. 41-46.

Resch, K. and Raschauer, A. (2019), “Kritische ereignisse in der hochschullehre. Ein beitrag zur weiterentwicklung von diversitätsskompetenz”, Die Hochschullehre, Interdisziplinäre Zeitschrift für Studium und Lehre, Vol. 5, pp. 115-134.

Robertson, P.M., McFarland, L.A., Scuichetti, M.B. and Garcia, S.B. (2017), “Connecting the dots: an exploration of how pre-service special education teachers make sense of disability and diversity”, Teaching and Teacher Education, Vol. 65, pp. 34-47.

Ryan, M., Bourke, T., Lunn, J., Rowan, L., Walker, S. and Churchward, P. (2019), “Seeking a reflexive space for teaching to and about diversity: emergent properties of enablement and constraint for teacher educators”, Teachers and Teaching: Theory and Practice, Vol. 25 No. 2, pp. 259-273.

Ryan, M., Rowan, L., Lunn Brownlee, J., Bourke, T., L’Estrange, L., Walker, S. and Churchward, P. (2020), “Teacher education and teaching for diversity: a call to action”, Teaching Education, Vol. 33 No. 2, pp. 194-213.

Saldana, J. (2015), The Coding Manual for Qualitative Researchers, 3rd ed., SAGE, London.

Schön, D.A. (1983), The Reflective Practitioner: How Professionals Think in Action, Basic Books, New York, NY.

Statistik Austria (2020/2021), “Studierende in Österreich”, available at: https://www.statistik.at/services/tools/services/publikationen/detail/1254?cHash=2c47052f167671e421a5240ef028fd25 (accessed 8 July 2022).

van Middelkoop, D., Ballafkhi, H. and Meerman, M. (2017), “Understanding diversity: a Dutch case study on teachers’ attitudes towards their diverse student population”, Empirical Research in Vocational Education and Training, Vol. 9 No. 1, pp. 1-19.

Washer, P. (2007), “Revisiting key skills: a practical framework for higher education”, Quality in Higher Education, Vol. 13 No. 1, pp. 57-67.

Zembylas, M. (2015), “Pedagogy of discomfort’ and its ethical implications: the tensions of ethical violence in social justice education”, Ethics and Education, Vol. 10 No. 2, pp. 163-174.

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