EXPLORING CULTURE-RELATED VALUES IN CHINESE STUDENT TEACHERS' PROFESSIONAL SELF-UNDERSTANDING AND TEACHING EXPERIENCES

MEI LIU

Exploring culture-related values in Chinese student teachers' professional self-understanding and teaching experiences

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Exploring culture-related values in Chinese student teachers' professional self-understanding and teaching experiences

Een verkenning van culture waarden in het professionele zelfbeeld en de leservaringen van Chinese leraren-in-opleiding

(met een samenvatting in het Nederlands)

探索文化相关价值观在中国实习教师的专业自我认知和教育实践中的体现

(附中文摘要)

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For my dear and lovely parents

Yongfu Liu (刘永福)

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Chapter 1

General Introduction

Focus of the thesis

The importance of values for teachers' professional development has been studied by many researchers (e.g., Beijaard, Verloop, & Vermunt, 2000; O'Connor, 2008; Pantić & Wubbels, 2012; Sam & Ernest, 1997; Veugelers & Vedder, 2003; Willemse, Lunenberg, & Korthagen, 2005). Some researchers focused on the influence of values on teachers' professional understanding (e.g., Beijaard, Verloop, & Vermunt, 2000; O'Connor, 2008), while others studied the influence of values in teachers' actual teaching practices (Pantić & Wubbels, 2012; Sam & Ernest, 1997; Veugelers & Vedder, 2003). Furthermore, the influence of values on professional development has been studied specifically with student teachers (Hong, 2010; Korthagen, 2017; Wubbels, 1992), and Calderhead and Robson (1991) compared student teachers' values with the values of experienced teachers. All of these studies demonstrated that values are relatively stable and rooted in teachers' personal and professional history and underlie behaviour of people (Kagan, 1992; Tatto, 1996).

It has been argued that in education, including teacher education, values always come first (Biesta, 2010). Therefore, before making decisions about what and how to teach or how to educate future teachers, it is important to consider the underlying values of these decisions. However, many studies showed, that the role of student teachers' values is often neglected by teacher educators and educational policy makers (e.g., Aronson & Laughter, 2016; Wubbels, 1992; Cheng, Cheng, & Tang, 2010; Korthagen, 2001; Pedder & Opfer, 2013). This neglect can be problematic when values underlying educational approaches – for example related to social learning – are in conflict with the (often culture- or community-related) values a(student) teacher (unconsciously) adheres to. Such a conflict might come to the fore in

current Chinese educational policies and teacher education programmes, in which one of the important skills for student teachers is applying constructivist teaching approaches to facilitate pupil learning (Chen, Wei, & Jiang, 2017; Guan & Meng, 2007; see *Policy of Education Modernization in China 2035*[1], 2019). These constructivist approaches to teaching do "not refer to the simple application of instructional strategies in which the teacher is the principle actor and the students are objects upon whom action is taken" (Windschitl, 2002, p.132). Teachers must embrace the underlying values in applying constructivist approaches, i.e., pupils should be at the centre in teaching and teachers should be the facilitators for pupils in an environment where teacher and students act on a hierarchical equivalent level (Kirkebæk, Du, & Aarup Jensen, 2013; Krahenbuhl, 2016). However, most Chinese student teachers are themselves taught by teacher educators using knowledge transmission approaches within hierarchically structured relationships - the more traditional Confucian teaching approach (Gu, 2004; Yan, 2006). Also because of their experience of traditional teaching approaches in primary and secondary education, they are not intrinsically familiar with pupil-centred and constructivist ideas about teaching. Finally, the exam-based assessment of pupils still prevails in current Chinese education, and this might be felt at odds with constructivist teaching approaches (Chen, Wei, & Jiang, 2017). All these former and present experiences might make the traditional teaching approaches, e.g., the knowledge transmission model, attractive for schools and (student) teachers.

Within this Chinese teacher education context of coexisting – often implicit - diverse values, - probably stemming from strong culture-related traditions - it is interesting to study student teachers' development as teachers and the role their own personal (culture-related) values play in their development. Do current Chinese student teachers experience the above hypothesized contradictions in value systems? How do their values influence their thinking (i.e., their self-understanding and their reflection on teaching experiences) and acting (actual

[1] Information source: http://www.gov.cn/zhengce/2019-02/23/content_5367987.htm.

classroom teaching)? These questions touch on the main topic of this thesis: Chinese student teachers' culture-related values and their development and relationship with their actual teaching experiences. Insight into this topic might raise teacher educators' and policy makers' awareness of the role of student teachers' values in teaching.

Conceptual framework

Values can be considered as judgments on what is good and what is bad in people (including the self) and behaviour in general and for this thesis in particular in teaching (Schwartz, 1992; Veugelers & Vedder, 2003). In this thesis, we adopted a cultural lens to explore todays Chinese student teachers' values since individuals' values are "implicitly and explicitly shaped by the worlds, contexts, or sociocultural systems that people inhabit" (Markus & Kitayama, 2010, p.422). Below we will discuss the main concepts in this thesis.

Values

Values are "actually constitutive" of individuals' behaviour (Biesta, 2010, p.501) and involve the standards for evaluating self and others (Hadar & Benish-Weisman, 2018). In this study, values are conceived of as the judgements which individuals hold and are assumed to be influenced by the contexts in which the individuals find themselves (Hofstede & Bond, 1988; Hofstede, Hofstede, & Minkov, 2010). These values are the standards that student teachers use to select and justify good or bad about teaching and teachers' behaviour (including their own), and pupils' behaviour (Veugelers & Vedder, 2003).

Individuals' values have been studied from different perspectives, ranging from individual psychophysical (e.g., Lakoff, 2004; Kahneman & Tversky, 1984; Schwartz & Bilsky, 1987) to social perspectives (e.g., Triandis, 1993; 2004; Hofstede, 1983; Hofstede, Hofstede, & Minkov, 2010), and also from addressing the uniformity of values (e.g., Schwartz, 2012) to focusing on the diversity in values (e.g., Subedi, 2006). Although these

studies focused on different perspectives, a common understanding about values is, that it is difficult for individuals to express their values explicitly (Pajares, 1992). Therefore, it might be insufficient or even inaccurate to understand student teachers' values by asking student teachers to report these directly. It might lead to more authentic results to explore student teachers' values from easier accessible sources such as student teachers' experiences in daily life, their self-understanding of being a teacher or teaching practices.

Values in the self-understanding of being a teacher

The self can be understood within the personal but also professional domains of behaviour (Beauchamp & Thomas, 2009). In this dissertation, we consider the personal and professional self-understanding as an integrated whole (Kelchtermans, 1993; 2005). The professional self is conceptualized as the manner in which the teacher conceives of him or herself as a teacher while looking back from the present to the past but also forward from the present to the future. Via reflection on the past, teachers create their own personal conceptions of themselves as a professional. By deliberately looking forward to the future, teachers can create expectations for themselves and — for instance — their career development.

It can be expected that most student teachers undergo a shift in their self-understanding of being a teacher as they move through teacher education programmes and during (student) teaching positions. Their ideas on how to be a teacher also might change when entering an actual teaching environment (Beauchamp & Thomas, 2009). Student teachers gain knowledge of and insight in teaching and learning and in their own and pupils' role in the teaching and learning process during their teacher education programme and specifically in their teaching experiences. Thus, their understanding of being a teacher might be modified, adapted, and reconstructed during and after teaching experiences (Beauchamp & Thomas, 2009; Day, Kington, Stobart, & Sammons, 2006; Kagan, 1992). The new gained

knowledge and insight specifically can trigger student teachers' development when the knowledge brings "cognitive dissonance and the concomitant mitigation" (Kagan, 1992, p.147) in student teachers' value systems. The value development then is the result of the teachers' self-understanding of being a teacher "in response to their participation in experiences provided by the professional development programmes and through their participation in the classroom" (Clarke & Hollingsworth, 2002, p.955). However, knowledge and insights probably will *not* change student teachers' values completely or even considerably (Pajares, 1992). Some parts in student teachers' self-understanding of being a teacher might be stable and unchangeable (Tigchelaar, Brouwer, & Korthagen, 2008). These stable parts may reflect the incontrovertible personal (culture- or community-related) values of student teachers (Tigchelaar, Brouwer, & Korthagen, 2008).

Values in emotional incidents

Teaching is a strongly value-based activity (Korthagen, 2017; Veugelers & Vedder, 2003). The values underlying someone's teaching are often implicit and difficult to be made explicit (Fives & Buehl, 2008; Willemse, Luneberg, & Korthagen, 2008; Pantić & Wubbels, 2012). Values are known to be associated with how teachers feel (their emotions), think (their cognitions), and with their reactions in teaching situations (their behaviour) (Clarke & Hollingsworth, 2002; Wubbels, 1992). Thus, in the present thesis, one of the ways we tried to understand values was in teaching practices based on student teachers' emotions, cognitions, and behaviour. Specifically, we chose to investigate emotional incidents during teaching, because in such incidents values play an important role (Bruster & Peterson, 2013).

Emotional incidents are classroom incidents that trigger student teachers to experience emotional arousal (Bruster & Peterson, 2013; Korthagen & Vasalos, 2005; Shapira-Lishchinsky, 2011). Emotions emerge in conjunction with an appraisal of a situation, on the one hand, and the attribution of cause/responsibility for the incident on the other hand

(Schutz, Aultman, & Williams-Johnson, 2009). Appraisal, an evaluation of an event, is an "antecedent" of emotion (Pekrun, Frenzel, & Goets, 2007, p.14). Attribution refers to perceptions of agency and thus responsibility for a given situation or incident (Weiner, 1972). Cognition is typically approached in terms of reasoning and rationality, and Blanchette and Richards (2010) have argued that cognition can be affected by emotion. There is a possibility that a teacher's interactive cognition (i.e., teachers' believing and thinking while teaching) differs from their reflective understanding (i.e., teachers' explanation of an incident after teaching) (Borg, 2003; Schepens, Alterman, & van Keer, 2007). Teachers' behaviour in class generally speaking, concerns their behaviour in relation to pupils' learning and outcomes and involves teachers' personal and professional understanding of being a teacher (Maulana, Helms-Lorenz, & van de Grift, 2015). All these variables involved in emotional incidents can be sources to understand student teachers values in teaching.

Understanding values from a cultural perspective

Because values people hold are influenced by the culture they live in (Veugelers & Vedder, 2003; Pantić & Wubbels, 2012), many researchers tried to understand values from cultural perspectives (e.g., Gabrenya Jr & Huang, 1996; Hofstede, 1983; Leung, 1989); Schwartz, 2012; Triandis, 1972). Culture can be considered on different levels, such as the *country-level* and the *level of the individuals* living in a country (Leung, 1989), and also from the most visible level (i.e., behaviour and practices) to the least visible level (i.e., unconscious values and beliefs) (Schein, 1992). These levels of culture probably influence each other. A country-level culture could impact the values and beliefs of individuals living in that country. Also, changes in individuals' values and beliefs could (re)modify the country's culture (Erez & Gati, 2004). Similarly, individuals' cultural-related values could also be reflected in their behaviour and acting (Hofstede, Hofstede, & Minkov, 2010).

According to Triandis (1996), culture offers individuals "the standards for perceiving, believing, evaluating, communicating, and acting" (p. 408). For example, a country's culture such as the Chinese culture mentioned above, is often a broadly shared collection of judgments (Veugelers & Vedder, 2003), which indicates that individual Chinese people might embrace hierarchical and collectivistic ideas in their values (Chinese Cultural Connection, 1987; Gabrenya & Huang, 1996). In the current thesis, we are not so much interested in a broad overarching description of 'being Chinese' (i.e., for example adhering to Confucian values), but would rather like to study Chinese student teachers' culture-related values from a more comprehensive and varied cultural perspective. We did want, however, to build on an existing and often used analytical framework to study culture-related values and therefore used the four cultural dimensions described by Hofstede (1983) as an analytical lens.

Hofstede (1983) investigated the values of employees of the IBM (International Business Machine) company from different countries and categorized these in four cultural dimensions on which the values differed from each other: acceptance/non-acceptance of unequal power relations (power distance), individualism/collectivism, masculinity/femininity, and strong /weak orientation towards uncertainty avoidance. In country-level studies, each dimension has two opposite ends: large vs. small power distance, collectivism vs. individualism, masculinity vs. femininity, and strong vs. weak uncertainty avoidance. While the two ends of each dimension represent opposites at the level of the country, Triandis (1993) has shown collectivism and individualism — for example — to often coexist and simply be "emphasized more or less in each culture, depending on the situation" (p. 162) and certainly at the level of the individual's values (Triandis, 2004, Watson & Morris, 2002).

To avoid the problem of falsely dichotomize culture-related values into two opposites, in the present dissertation we took only one end of the Hofstede's dimensions as starting point to understand individuals' values: Acceptance of Unequal Power Distribution,

Acceptance of Collectivist Thinking, Acceptance of Masculine Ideas, and Acceptance of Uncertainty. Several scholars have criticized using these dimensions and argued that it is impossible to accurately describe a countries' culture with these dimensions and, even more strongly, to describe an individual's values (e.g. Baskerville, 2003; Beugelsdijk & Welzel, 2018; Signorini, Wiesemes, & Murphy, 2009). Even Hofstede himself argued that his cultural dimensions are not suitable to describe individuals' values (Hofstede, 2011). In Chapter 2 of this thesis we will therefore first test whether a questionnaire based on an adapted version of these dimensions can be used to describe culture-related values of Chinese student teachers at the individual level.

In chapter 2 of this thesis the adapted categories and how they are used to study Chinese student teachers' culture-related values will be further discussed.

Personality traits

In previous research a close relation between values mapped with Hofstedes' cultural dimensions and personality traits has been found (Hofstede & McCrae, 2004; McCrae, & Terracciano, 2005; Triandis, 2001; Realo, Allik, & Vadi, 1997). Personality traits are basic characteristics within the human nature, i.e., enduring tendencies to feel, think, and act in consistent ways (McCrae & Costa, 1999; Dobewall, Aavik, Konstabel, Schwartz, & Realo, 2014). Psychologists have created different sets of concepts to map personality (e.g., Block, 1961; Gough, 1956; Tupes & Christal, 1992). After decades of research, a consensus seems to have been reached in the field on the usefulness of the Five-Factor Model of personality (Roccas, Sagiv, Schwartz &Knafo, 2002; John, Naumann & Soto, 2008). In the current thesis, we therefore studied Chinese student teachers' personality traits with the Big Five model (Goldberg, 1981), i.e., Extraversion, Agreeableness, Conscientiousness, Neuroticism, and Openness to experiences.

Because of the earlier shown overlap between personality traits and culture-related values, in the current thesis, we collected data on culture-related values and personality traits at the same moment from the same group of Chinese student teachers. We then analysed the association between student teachers' acceptance of culture-related values and their personality traits (chapter 2).

Problem statement and research questions

In this thesis, we aim to understand Chinese student teachers' development during and through their student teaching experiences in their internship and the role their own personal values play in their thinking and acting as teachers.

The following leading research questions were formulated:

1. What is the quality of a newly developed instrument mapping individual Chinese student teachers' culture-related values based on Hofstede's four cultural dimensions? To what degree do Chinese student teacher adhere to the four categories of culture-related values? And what is the relation between Chinese student teachers' culture-related values and their personality traits?
2. How are Chinese student teachers' values in education and daily life and in their self-understanding of being a teacher, studied from a cultural perspective, related?
3. What role do culture-related values, inferred from emotional incidents, play in the teaching practices of Chinese student teachers?
4. What role do the student teachers' teaching experiences play in the development of their values?

Each of these research questions - in chapter 3, 4 and 5 adapted to the number of student teachers involved in the studies - will be answered in respectively chapter 2 to 5 of this thesis.

Methods

Context and participants

Since 2007, in the six leading teacher universities of China a tuition-free Teacher University policy applies. This means that studying certain majors and particularly those related to future teaching subjects (e.g. Chinese, English, Mathematics, Geography, Biology, Physics, History, and Political Science) is free for all students. The Government pays the university to cover the tuition for these students and also pays their monthly living expenses. As compensation, these students entering until 2018 had to sign a contract, which required them to guarantee to return to their hometowns or home provinces to teach for ten years after their graduation. As of 2018, the Ministry of Education of China changed the ten years obligatory teaching duration to six years.

In Chinese teacher universities, students are trained for four years to become a teacher. The focus in the first three years is on the development of the professional knowledge and skills needed to teach a specific subject matter (e.g., Chinese literature, history, physics, English). At the beginning of the fourth year of study, universities arrange for student teachers to do a two-month internship in a primary or secondary school.

For the studies in this thesis, to test whether the four categories of culture-related values were applicable to map individuals' values and how individuals' culture-related values were related with their personality traits, data of 425 student teachers from one of the leading teacher universities in China were collected at one data-collection moment by two questionnaires. For thoroughly exploring the role student teachers' values played in their life and in education, we approached eight student teachers (seven females and one male, ages ranging from 21 to 23) from different areas of China who attended the same English department of a teaching education university in China. All of them agreed to participate in our studies.

Procedures

Both quantitative and qualitative data were collected for the four studies in this dissertation. The data collection of the whole project can be divided into three phases: before, during and after the internship in a secondary school. In Figure 1.1, an overview of the procedures of data collection applied in the studies is shown.

A quantitative approach was chosen to collect the culture-related values and personality traits from the 425 Chinese student teachers, by administering two questionnaires: a questionnaire on culture-related values (QCV) and a questionnaire on personality traits (QPT). Qualitative methods were applied to study in depth the eight Chinese student teachers' culture-related values in their educational and daily life, their self-understanding of being a teacher (before and after their internships), and their teaching practice. This was done by using three types of interviews: interviews about their culture-related values (CV interview), interviews about their self-understanding of being a teacher (SUT interview) and video stimulated recall interviews about emotional incidents during teaching (EI interview).

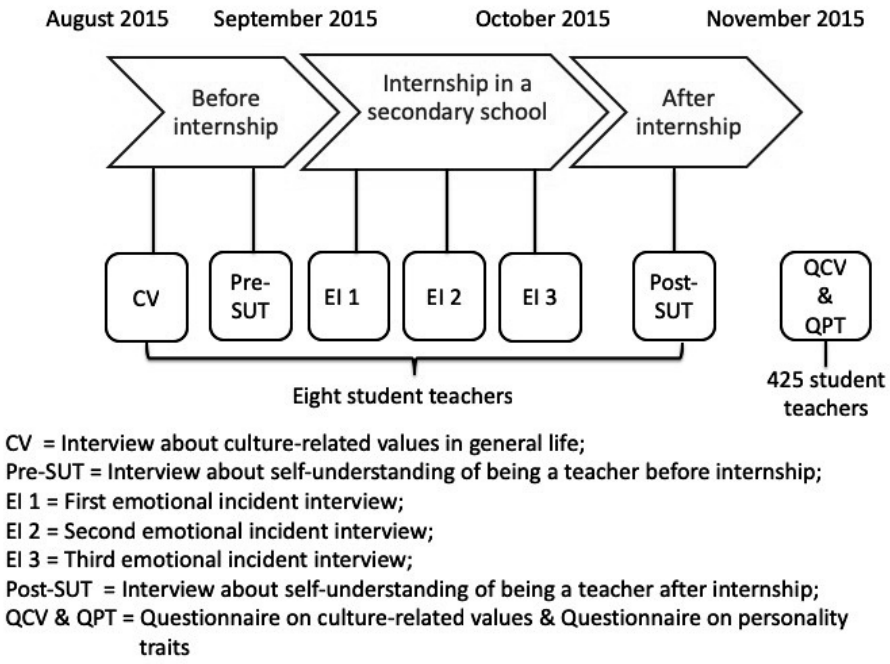


Figure 1.1. Overview of the data collection procedures

Relevance of the study

Many scholars have demonstrated the important role values play in teaching and learning to teach. It is therefore important for student teachers and teacher educators alike to understand and acknowledge the values underlying different teaching approaches and to become aware of the alignment or contradiction of these values with their own personal values. From a practical perspective, the studies in this thesis will help understand Chinese student teachers' development during and through their student teaching experiences as new teachers and the role their own personal values and the values underlying the teacher education programme play in their thinking and acting as teachers. This understanding will not only be applicable in Chinese contexts, in which in the slipstream of globalization, many different, sometimes even contradicting values coexist, but also for students from other

countries. For example, teacher education programmes in the United States might want student teachers to adopt values about cultural diversity that are not necessarily in line with their own personal values (Gay, 2002; Thomas & Warren, 2017). Teacher education programmes and educational policies wanting student teachers to apply certain "good" or "right" teaching approaches might not reach their aim, when they neglect to consider whether the underlying values of the teaching approaches could be fully absorbed in student teachers' value systems.

On a theoretical level, insight in Chinese student teachers' values and the role these culture-related values play in their teaching experiences and development as new teachers, could contribute to a deeper and more personalized understanding of student teachers' professional development.

Overview of the thesis

After this introductory chapter, this thesis describes four studies in four consecutive chapters.

Chapter 2 explores the quality of a measurement instrument we developed to map Chinese student teachers culture-related values adjusted from Hofstede's four cultural dimensions (1983, 2010) and the relation between these values and student teachers' personality traits. 425 Chinese student teachers' culture-related values and personality traits are collected.

In Chapter 3 to 5, we investigated the same eight Chinese student teachers' values and value development during and through their internships in a secondary school.

In Chapter 3, the relation between the culture-related values in eight Chinese student teachers' educational and daily life and the culture related values in their self-understanding of being a teacher before a student teaching practice is investigated.

Chapter 4 reports on a study that inferred eight Chinese student teachers' values in teaching from their emotion, cognition, and behaviour during teaching incidents considered by the student teachers to arouse emotion. These values are framed from a cultural perspective (i.e., the four categories of culture-related values based on Hofstede's four culture dimensions, Hofstede, 1983; Hofstede, Hofstede, & Minkov, 2010) and a tentative model is proposed to describe the association between culture-related values and the evaluation of emotional incidents.

In an intermezzo between chapter 4 and 5, we explain that after having studied student teachers' values from a cultural perspective we shifted our attention to understand the student teachers' value development from the perspectives of inward and outward orientation and teacher and pupil centeredness.

The study described in Chapter 5 interprets eight Chinese student teachers' values development during their teaching experiences in an internship and explores the role of their teaching experiences in the development of their values.

Finally, Chapter 6 presents and discusses the main results and conclusions of the four empirical studies. Furthermore, the limitations of these studies and implications for future practice and research are brought forward in this chapter.

Chapter 2

Mapping Chinese student teachers' values from a cultural perspective and relationships of these values with personality traits [1,2]

Abstract

In this study, we mapped individual Chinese student teacher's values from a cultural perspective and quantitatively explored the relationships between these values and personality traits in a sample of 425 student teachers from one Chinese Teacher University. We investigated individual Chinese culture-related values with four scales based on Hofstede's cultural dimensions and used the Big Five to map student teachers' personality traits. The results showed that our adaptation of the four dimensions in Hofstede's studies (e.g., Hofstede, Hofstede, & Minkov, 2010) into four scales could be used to map individual Chinese culture-related values reliably. Individuals' culture-related values and personality traits were significantly, but not perfectly correlated and thus each have an independent meaning. The results indicate that one should be cautious to generalize traditional Confucian values and Hofstede's descriptions of China to individual Chinese, specifically Chinese student teachers.

[1] An adapted version of this chapter will be submitted to the Journal of *ECNU Review of Education* with authors: Mei Liu, Rosanne Zwart and Theo Wubbels.

[2] Acknowledgement of author contributions: ML, RZ, and TW designed the study together. ML translated the questionnaires in Chinese. ML collected and analyzed the data and drafted the manuscript. All authors contributed to critical revision of the paper. RZ and TW supervised this study.

Introduction

The role of culture in (student) teachers' professional development and their teaching behaviour is currently topic of debate in educational sciences. Some studies argue that culture plays an important role in the professional development of teachers and in their classroom teaching (e.g., Ahn, Usher, Butz, & Bong, 2016; DeCapua & Wintergerst, 2016). In these studies, the authors argue that (student) teachers' professional understanding and their teaching behaviour are inevitably influenced by the contexts that the (student) teachers find themselves in, i.e., their culture. Other studies, on the contrary, advocate that the role of culture in teachers' development and teaching behaviour is overemphasized in educational studies (e.g., Pekrun, 2018; Voronov & Singer, 2002). These studies argue that cultural differences between countries might vanish nowadays because of the pressures of globalization (Pekrun, 2018; Zhu, Valcke & Schellens, 2010). The debate on the role of culture might be a result of the fact that different authors might have different opinions about what culture is. Authors of studies that argue against the role of culture in (student) teachers' professional development or behaviour, seem to understand culture in a homogeneous way, which would lead to the conclusion that differences between individuals should be aligned with the cultural differences between countries such as an Eastern Asian culture and a Western culture (Pekrun, 2018; Zhu, Valcke & Schellens, 2010). However, the studies emphasizing the important role of culture define culture rather as a heterogenous and dynamic concept (DeCapua & Wintergerst, 2016). These authors are open towards observing differences between individuals within the same culture.

The debate above regarding the role of culture focuses on the country level, i.e., the macro-level of culture. Culture can however, be conceived to have several levels. For example, Leung (1989) argued for distinguishing two levels of culture: the country level and the individual level. Also, Schein (1992) divided culture into different levels depending on the level of visibility varying from the most visible level (i.e., behaviours and practices) to

the least visible level (i.e., unconscious values and beliefs). The different levels of culture probably interplay with each other. For example, culture on the country level could influence individuals' basic values and beliefs. Also, the changes in individuals' values and beliefs could (re)modify the macro level of culture (Erez & Gati, 2004). Therefore, it is reasonable to question whether individuals' values are still country-culture related when country cultures are tending to broaden (Veugelers & Vedder, 2003). In China, for example, well known as a country characterized as a Confucian culture (i.e., supporting hierarchy and collectivism) (Zhang, Lin, Nonaka, & Beom, 2005), the economic, political and educational system has been in transition since 1985 in a more Western direction (Chen, Wei, & Jiang, 2017; Guan & Meng, 2007). Fierce international market competition, and rapid technological developments (including ICT) made a huge difference in individuals' lifestyle and living contexts in China. Studies have shown the acceptance of concurrent different culture-related values by Chinese student teachers (Cheng, Chan, Tang, & Cheng, 2009; Chen, Wei, & Jiang, 2017). Consequently, the description of Chinese culture-related values as acceptance of hierarchy and adhering to collectivist views might not hold anymore (Zhu, Valcke & Schellens, 2010). Western culture, characterised by equality and individualism, might nowadays have impact on individual (student) teachers' values in China.

Different from values at the country level, individual Chinese culture-related values remain relatively under-explored. Many studies, including some in educational sciences, still apply the traditional description of Chinese culture-related values to explain individual Chinese' behaviour or beliefs (e.g., Hu, 2002; Jin & Cortazzi, 2006; Sang, Valcke, van Braak, & Tondeur, 2010; Tan, 2015), which we would argue is an oversimplification. Therefore, it is useful to explore individuals' values, from a cultural perspective, and this perspective should be more comprehensive and differentiated than the traditional description of China as hierarchic and collectivistic.

In the current study, we argue that individuals' culture-related values can be understood as the standards or criteria that individuals hold and that are assumed to be influenced by the culture in which the individuals find themselves (Hofstede & Bond, 1988).

Previous studies have shown a relation between cultural dimensions and personality traits (Hofstede & McCrae, 2004; McCrae & Terracciano, 2005; Triandis, 2001; Realo, Allik, & Vadi, 1997). When studying culture-related values it is, therefore, advisable to investigate if eventual differences in individuals' culture-related values are related to or even caused by differences in their personality traits. Therefore, in the current study, we also collected data on student teachers' personality traits and analysed the association between acceptance of culture-related values and personality traits.

Below, we will introduce in more detail our cultural perspective, the concept of personality traits, and the relations between culture-related values and personality traits as these have been studied in earlier research.

Theoretical framework

Cultural perspective

Values that individual Chinese hold have been explored with help of several dimensions and concepts in the literature, such as the concept of Eastern Confucianism (e.g., Leung, 2001; Hayhoe, 2016); collectivism (e.g., Teo & Huang, 2018; Mercado & Trumbull, 2018), and also, Hofstede's cultural dimensions (e.g., Huang et al., 2019; Saboori & Pishghadam, 2016).

In studies on the Eastern Confucian concept, Confucian values are described as a focus on "moral development and the social good" (Hayhoe, 2016, p. 219). Gabrenya Jr and Huang (1996) described Confucian culture-related values as "a modicum of harmony in the cool embrace of inescapable hierarchy" (p. 310), which indicates the importance of harmony (i.e., collectivism) and hierarchy in China. This description aligns with the results of the

Chinese Culture Connection (1987) investigation, i.e., Chinese culture-related values were found to be hierarchical and collectivistic.

Triandis (1972, 1980) argued that individualism and collectivism are the most important concepts to understand individuals' values from a cultural perspective. Individualism and collectivism not only can represent the common values cultural communities share but can also reflect differences among individuals (Triandis & Suh, 2002). Empirically, it appears that individuals' acceptances of collectivistic and individualistic thinking are not opposites to each other at the individual level: individual's values in a certain situation can reflect their acceptance of both collectivistic thinking and individualistic thinking (Triandis, 2004; Watson & Morris, 2002). For the concepts of individualism and collectivism, Triandis (1995; 2001) argued that individuals' experiences with hierarchy should be considered for interpreting individuals' values regarding individualism and collectivism. He divided individualism and collectivism into subdimensions, namely the vertical and horizontal individualism/collectivism dimension. The end of the horizontal dimension refers to seeing no hierarchy, while at the end of the vertical aspect a person sees different hierarchical roles. In the studies of Triandis (1995; 2018), Chinese culture-related values were always represented as adhering to rather horizontal collectivistic views (see also the study of Sivadas, Bruvold, & Nelson, 2008). In several recent studies, collectivism also has been proven to be a deeply rooted value in China (e.g., Hu, Bernardo, Lam, & Cheang, 2018; Hu, Dieker, Yang, & Yang, 2016).

Studies by Hofstede and colleagues (Hofstede, 1983; Hofstede, Hofstede, & Minkov, 2010) developed four cultural dimensions[3] and described Chinese culture-related values not only with collectivism and hierarchy (described as "power distance" in Hofstede's studies) but by adding two other dimensions (i.e., masculinity, and weak uncertainty avoidance).

[3] Hofstede uses one additional dimension, namely long- versus short-term orientation. Because applying the four dimensions is common in the educational sciences (e.g., Hofstede, 1986; Fisher & Waldrip, 1999; Cronjé, 2010) and the differences between long-term and short-term orientations are not as clear as those between the other dimensions, this dimension is not considered here.

These dimensions were added based on the comparison of the values of Chinese employees with other countries in the IBM (International Business Machine) company. Table 2.1 summarizes the description of the four cultural dimensions in Hofstede's study (Hofstede, Hofstede, & Minkov, 2010).

Table 2.1.

The description of the four cultural dimensions

Dimension	Description
Power distance	… the extent to which the institutional or social members accept the unequal power distribution.
Collectivism and Individualism	… the degree to which individuals are supposed to look after themselves or remain integrated into groups or families.
Masculinity and femininity	… refers to the distribution of different roles between the genders. Besides, it describes the extent to which the institutional or social members accept competition.
Uncertainty avoidance	… the extent to which the institutional or social members feel either uncomfortable or comfortable in uncertain situations

In Hofstede's work, on the country level, each dimension has two opposite ends, for example, the dimension of power distance has as opposites large and small power distance, and also the concepts of masculinity and femininity are opposites. Hofstede and his colleagues claim that Chinese values, compared with other countries, can be positioned closer to the sides of large power distance, collectivism, masculinity, and weak uncertainty avoidance (Hofstede, Hofstede, & Minkov, 2010). The above description of China's positions on the four dimensions are commonly used to present Chinese values (see for example: Huang et al., 2019; Xing, 2018).

At the individual level, the two ends of each dimension appear not to be opposites, but these can coexist in individuals' value systems. For instance, individual Chinese might hold high acceptance of unequal power distribution in some situations and low acceptance in others, also they might show both collectivistic and individualistic thinking in different occasions (Triandis, 2004). To avoid the problem of falsely dichotomizing individuals'

values in two opposites, we adopted only the four ends which were more adjacent to the Chinese culture in Hofstede's investigation as our starting point to understand Chinese student teachers' acceptance of the four categories of culture-related values, i.e., Acceptance of Unequal Power Distribution (abbreviated as AUPD), Acceptance of Collectivist Thinking (ACT), Acceptance of Masculine Ideas (AMI), and Acceptance of Uncertainty (AU).

Individuals' acceptance on the four categories of culture-related values are reflected in their preferences in beliefs and action in different contexts, such as in the family, at school, and in the workplace, etc. (Triandis, 1996; Hofstede, Hofstede, & Minkov, 2010). For example, individuals with a high acceptance of unequal power distribution tend to think that "respect for parents and other elders is considered a basic virtue" (Hofstede, Hofstede, & Minkov, 2010, p.67). In this study, based on the previous work of Hofstede et al. (2010), we selected the preferences of the extreme ends of the four categories of culture-related values in different settings (such as at home, at school, in the workplace) to investigate individuals' level of agreement with the ends of a dimension. A specification of the meaning of these dimensions is presented in Table 2.2.

Table 2.2.

Descriptions of four categories of culture-related values

Four categories of culture-related values	Description of key aspects (Hofstede, Hofstede & Minkov, 2010)
Acceptance of unequal power distribution (AUPD)	- accepting hierarchy in organizations - accepting inequality of roles established for efficiency - thinking that less powerful people and more powerful people should be interdependent
Acceptance of collectivist thinking (ACT)	- valuing honour or prestige as their 'face' - accepting interdependency - valuing personal relationships more than tasks - accepting that people are born into extended families or other in-groups which protect them in exchange for loyalty
Acceptance of masculine ideas (AMI)	- valuing competition with others - perceiving school failure as a disaster - thinking that conflicts should be resolved by letting the strongest win - having preference for larger organizations
Acceptance of uncertainty (AU)	- attributing success/failure to circumstances or luck - feeling comfortable in ambiguous situations - accepting uncertainty as a normal aspect of life - thinking that what is different is interesting

Personality traits

Personality traits are basic characteristics within the human nature, i.e., enduring tendencies to feel, think, and act in consistent ways (McCrae & Costa, 1999; Dobewall, Aavik, Konstabel, Schwartz, & Realo, 2014). Personality psychologists have been involved in articulating an integrative framework to understand the whole person (e.g., McAdams & Pals, 2006; Gerber, Huber, Doherty, & Dowling, 2011). McAdams and Pals (2006) summarized that a personality framework might help understand "an individual's unique variation on the general evolutionary design for human nature, expressed as a developing pattern of dispositional traits, characteristic adaptations, and self-defining life narratives, complexly and differentially situated in culture and social context" (p.204). Psychologists have created different sets of concepts to map personality, some of them containing two concepts (e.g. California Q-sort, Block, 1961), while others include many more up to 20

concepts (e.g. California Psychological Inventory, Gough, 1956). After decades of research, a consensus seems to have been reached in the field on the usefulness of the Five-Factor Model of personality (Roccas, Sagiv, Schwartz &Knafo, 2002; John, Naumann & Soto, 2008).

The Five-Factors Model was coined by Tupes and Christal (1992) when reanalyzing correlation matrices from the various data sets of Cattell (1957). Each factor is a bipolar scale. Goldberg (1981) emphasized the comprehensiveness of the five traits and started to call them the "Big Five". Table 2.3 summarizes the description of the Big Five personality traits. The Big Five framework describes personality traits "at a very broad level of abstraction" (John, Naumann, & Soto., 2008, p.119). Regarding relations among these five traits, research results are inconclusive. Costa and McCrae (1985) and Goldberg (1992) state that these traits are conceptually independent from each other as originally the aim of developing this factor model was. Others, however, found relations between the traits. For example, Hendriks, Hofstee, and De Raad (1999) demonstrated that Conscientiousness had a positive relation with Agreeableness and a negative with Extraversion.

Table 2.3.

Big Five Personality Traits

Traits	Definition (John, Naumann, & Soto, 2008)
Extraversion (EXT)	- An individual shows energetic approaches to the social and material world
Agreeableness (AGR)	- An individual shows a prosocial and communal orientation to others with antagonism
Conscientiousness (CON)	- An individual behaves within social prescribed impulse control
Neuroticism (NEU)	- An individual shows low emotional stability
Openness to experiences (OE)	- An individual shows the breadth, depth, originality, and complexity of his/her mental and experiential life

Because our study is situated in China to investigate the personality of Chinese student teachers it is important to see what personality frameworks have been used in studies on Chinese samples. Several frameworks were designed to investigate Chinese personality

traits, such as the 12-factor model in the Chinese Personality Assessment Inventory (developed by Cheung, Leung, Fan, Song, Zhang, & Zhang, 1996) and the seven-factor model in the Qingnian Zhongguo Personality Scale (developed by Wang, Cui, & Zhou, 2005). The Big Five model of personality traits also has been used widely in studies on Chinese samples with a long Chinese questionnaire (e.g., Liu & Wang, 2000; Wang, Jackson, Zhang, & Su, 2012; Zeng & Kan, 2007). As the Big Five personality traits provide a comprehensive picture on understanding individuals' personality (Cheung, van de Vijver, & Leong, 2011; McCrae & Costa, 1997), in this study, we investigated Chinese student teachers' personality traits with the Big Five framework.

Relationships between culture-related values and personality traits

Considerable research has been conducted to investigate if culture-related values people hold, are related to their personality traits (Hofstede & McCrae, 2004; McCrae, & Terracciano, 2005; Triandis, 2001; Realo, Allik, & Vadi, 1997). This has been done from both a country-level as well as a personal level (Triandis, 2001).

In the country level approach, researchers mapped how frequent various personality traits are found in a number of cultures and compared these frequencies to see if in different cultures different distributions of personality traits showed up (e.g. Hofstede & McCrae, 2004; McCrae & Terracciano, 2005). Hofstede and McCrae (2004) linked the four cultural dimensions of the Hofstede framework with personality traits at the country level. In their study they combined Hofstede's data on the four cultural dimensions with McCrae's data on personality traits. Their results showed that extraversion was positively related with individualism, and negatively with power distance. Conscientiousness had a positive relation with power distance. Openness to experience had a positive relation with masculinity, and negative with power distance. For Neuroticism, there were positive relations with masculinity

and uncertainty avoidance. Agreeableness had a negative relation with masculinity and uncertainty avoidance.

When researchers approach the relationship between culture and personality traits at the personal level, they map the culture-related values individuals hold in one or more cultures and relate these to measurements of their personality traits. For example, Triandis (2001) reviewed the studies on the relation between the dimensions of collectivism and individualism with individual's personality traits. He found that the individual's degree of support for individualism and collectivism correlated with their personality traits with respect to consistency and self-enhancement. The study by Realo, Allik, and Vadi (1997) investigated culture-related values and personality traits of 1031 Estonians and found a negative relation between openness to experiences and collectivism and a positive relation between agreeableness and conscientiousness on the one hand and collectivism on the other. The study of McCrae, Costa, and Yik (1996) describes the relation between culture-related values and personality traits as "co-determiner of characteristic adaptations" (p. 191).

Approaching the relations at the personal level, usually, individualism and collectivism are the culture-related values that are investigated (e.g. Realo, Allik, & Vadi, 1997; Triandis, 2001). A limited number of studies explored how individuals' culture-related values regarding the acceptance of the four dimensions of Hofstede (1987) are related with individuals' personality traits. Research on the question if and how culture-related values and personality traits are associated at the individual level might contribute to a better understanding of what constitutes culture-related values of individuals in the same culture.

Research question

In this study, we aim to explore whether the four categories of culture-related values based on Hofstede's four cultural dimensions can be used to map Chinese student teachers' values. However, many studies criticized Hofstede's work on the four cultural dimensions

and argue that understanding culture with the four dimensions, especially in social sciences, is oversimplified and neglects the dynamics of culture (e.g. Baskerville, 2003; Beugelsdijk & Welzel, 2018; Signorini, Wiesemes, & Murphy, 2009). Also, Hofstede, himself, agreed that his cultural dimensions could not be applied at the individual level (Hofstede, 2011). In the current study, we do not use the dichotomies of opposites inherent in Hofstede's dimensions and are open for diversity within persons and between persons within one country. We explored whether the categories based on Hofstede' four cultural dimensions (1983) are applicable on the individual level if used without the dichotomy. Besides, to explore the validity of individuals' culture-related values we measured: we checked if the individuals' culture-related values we measured do not overlap to a large degree with their personality traits, i.e., we studied the relation between culture-related values and personality traits. The research questions in this study are:

What is the quality of a newly developed instrument mapping individual Chinese student teachers' culture-related values based on Hofstede's four cultural dimensions?

To what degree do Chinese student teacher adhere to the four categories of culture-related values?

What is the relation between Chinese student teachers' culture-related values and their personality traits?

Methods

In the present study, we first developed a new instrument to assess the student teachers' acceptance of the four categories of culture-related values and translated a short version of the Big-Five personality scale into Chinese. Then, we collected data from 425 Chinese student teachers about their acceptance of culture-related values and their personality traits and explored the relation between them.

Instruments

Culture-related Values Questionnaire (CV). Hofstede and his colleagues developed a questionnaire on culture-related values at the country-level (Hofstede, 1980; 2011), which is not applicable at the individual level. Hoppe (1990) replicated Hofstede's work and found that the four dimensions were stable at the country level, but not at the individual level. He found that the reliabilities of these dimensions at the individual level were not acceptable. Some other studies also demonstrated that Hofstede's measure could not "accurately capture psychological, individual-level cultural traits" (Bearden, Money, & Nevins, 2005, p.202). Several scholars noticed the necessity to develop new scales for measurement of culture-related values at the individual level. Triandis developed a new scale to address only the dimension of collectivism and individualism, named *INDCOL* (Triandis, 1995), which, however, could not guarantee "conceptual conformity to the definition of the cultural dimension originally meant by Hofstede" (Yoo, Donthu, & Lenartowicz, 2011, p.196). Furthermore, Dorfman and Howell (1988) and Yoo et al., (2011) developed scales to measure Hofstede's four dimensions at the individual level. Although their scales showed satisfactory reliability and validity, they are not suitable for the purpose of our study, because the scales were designed by assuming that at the individual level, the two ends in each dimension represent opposites (i.e., large/small power distance, collectivism/individualism, masculinity/femininity, strong/week uncertainty avoidance). Therefore, in this study, we decided to develop a new questionnaire among others based on the VSM.

Based on our understanding of culture-related values in the current study, the items we developed had to represent judgments related with the four categories of culture-related values and answers had to show to what extent the respondents hold these judgments. We used the descriptions of the four ends of Hofstede's cultural dimensions as the starting point to develop a questionnaire to map Chinese student teachers' acceptance of these culture-related values. To generate a relevant pool of items, we first chose and modified items from

the Values Survey Module 2013 (VSM 2013)[4]. For example, an item we used from the VSM 2013 was on investigating how often subordinates are afraid to contradict their boss (or students their teacher). To make the item fit our interests, we modified the item into *I think it is important that followers obey their leaders without question* (in Chinese: 我认为下属无条件服从领导者很重要), and asked the respondents to indicate their agreement with the description on a 7-point Likert-type scale anchored as 1 = *extremely inaccurate* (in Chinese: 非常不准确) and 7 = *extremely accurate* (in Chinese: 非常准确). Then, we also adopted some descriptions from Hofstede and his colleagues' book (Hofstede, Hofstede, & Minkov, 2010) to develop items representing these descriptions. For example, in their book Hofstede, Hofstede, and Minkov (2010) described that people with high acceptance of collectivistic thinking, prefer to think that "a diploma is an honour to the holder and entitles the holder to associate with members of higher-status groups" (p. 119). We phrased this description into the item *I think a high degree is an honour to the holder* (in Chinese: 我认为高学历是一种荣耀). In total, we generated 20 items; five items for each category of culture-related values.

We piloted these 20 items with 47 Chinese respondents. The Cronbach's alpha's of the four categories were very low (ranging from 0.022 to 0.363). We therefore engaged in another pilot with more items. After deleting problematic items from the original 20, based on the very low items rest correlations, we added new items to the questionnaire (32 items) by procedures similar to the first pilot version. Then we piloted this second version with 54 other Chinese respondents via FSW survey[5]. Although the results were still not acceptable, the Cronbach's alpha increased substantially (now ranging from 0.371 to 0.680).

[4] Source from: http://geerthofstede.com/wp-content/uploads/2016/07/VSM-2013-English-2013-08-25.pdf
[5] FSW Survey is a survey tool developed by Universiteit Utrecht. Website: https://survey.fss.uu.nl/.

In a third round we added again more items into the questionnaire and a pool of 50 items was generated to investigate student teachers' culture-related values at the level of the individual. Among these items, 12 items were designed to investigate student teachers' acceptance of unequal power distribution, such as: *I think power needs to be concentrated at the top of an organization* (in Chinese: 我认为权力应该集中在一个组织的顶端); *I think those in high ranks in the hierarchy should have special privileges* (in Chinese: 我认为那些地位级别高的人应该享受特权), 12 items for investigating acceptance of masculine ideas, such as: *I think excellent students should be praised* (in Chinese: 我认为优秀的学生应该被表扬); *I think only the strongest person can be the winner in competitions* (in Chinese: 我认为在竞争中只有强者才能取胜), 12 items on the acceptance of uncertainty (such as: *I think I am satisfied with the life I'm leading* (in Chinese: 我对现在的生活感到满意), and 14 items to the acceptance of collectivistic thinking, such as: *I think one's social networks determine what information one can get* (in Chinese: 一个人的社会交际圈决定了其信息来源); *I think family celebrations and observances should not be missed* (in Chinese:我认为家庭聚会活动是不能推拒的).

After deleting items that were problematic in terms of low item rest correlation, we finally achieved acceptable results on the Cronbach alpha 's of the four categories of culture-related values. These alpha's will be presented in the results section.

Big Five Questionnaire (BF). In this study, we chose to use the short version of the Big Five Questionnaire by Vermulst and Gerris (2005) and therefore could not us the existing Chinese questionnaires. Their original version was in Dutch. To ensure the linguistic and cultural validation, we translated and back-translated the 30 items (Behling & Law, 2000) to adapt the set from Dutch into Chinese. We first asked an assistant (with Dutch as first language) to translate the questionnaire from Dutch into English. Another two Chinese researchers translated the resulting questionnaire from English into Chinese. The first author, whose first language is Chinese, then translated the Chinese version into English. Then the third author (with Dutch as first language) translated the English version into Dutch. At last, we compared the final Dutch version with the original version. The result showed that the translation was accurate. We piloted the Chinese version of this Big Five questionnaire among 47 Chinese respondents and the Cronbach's alpha ranged from adequate to excellent (i.e., six items about Opening to Experiences, $\alpha = 0.77$; six items about Neuroticism, $\alpha = 0.73$; six items about Conscientiousness, $\alpha = 0.82$; six items about Extraversion, $\alpha = 0.79$; six items about Agreeableness, $\alpha = 0.73$).

Data collection

Sample and procedure. We approached 500 student teachers from a Teacher University in China and collected 425 responses (the response rate was 85%). First, the first author contacted a teacher educator in the University and help was provided by the teacher educator to conduct the data collection. It was clearly mentioned to student teachers that participation was voluntary and that the data would be treated anonymously. The teacher educator distributed the paper questionnaire to five administrative teachers from different faculties of the University (i.e. Faculty of Geography, Faculty of Foreign Languages, Faculty of Literature, Faculty of Math, and Faculty of Physics). The five administrative teachers assigned the questionnaires randomly to student teachers from their faculties. After student

teachers had completed the questionnaire, the answer sheets were handed in to the administrative teachers and then to the teacher educator.

Among the 425 questionnaires, 1 was empty, and 5 were only having answers on the Big Five questionnaire. Also, 19 questionnaires had certain patterns in their answers (such as all the answers were 1 or 7, and some sequences like repeatedly 3-4-5-6) and these were removed. Finally, 400 usable questionnaires were available (60 from the Faculty of Geography, 96 from the Faculty of Foreign Languages, 88 from the Faculty of Literature, 72 from the Faculty of Math, and 83 from the Faculty of Physics, and 1 missing the name of the faculty). The student teachers on average were 19.11 years old, ranging from 17 to 23 years. Of the student teachers, 93.3% were female and 6.3% were male. This gender distribution was in line with the fact that in China, many more females than males are in teacher education.

Analysis. For the Culture-related Values Questionnaire, we first calculated alpha reliabilities. Then, to identify whether the four categories could be assumed to indicate one underlying factor (to be interpreted as individuals' acceptance of culture-related values), we first conducted an exploratory factor analyses on the CV questionnaire data by the SEM software Mplus 1.4. We hypothesized the structural equation model in the data as represented in Figure 2.1.

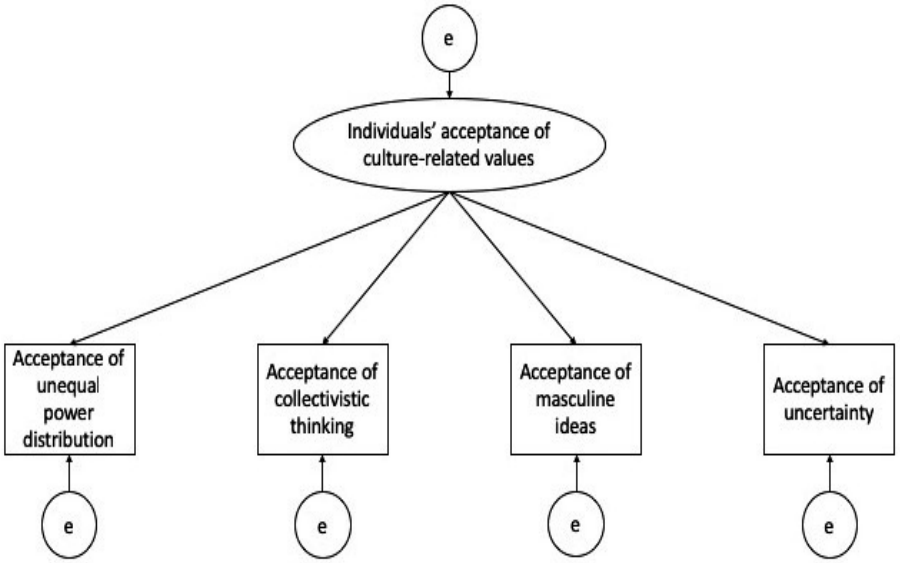


Figure 2.1. Hypothesized structural equation model for the CV questionnaire

After confirming the existence of one underlying factor with the four indicators (i.e., the four categories of culture-related values), we used SPSS (Version 25) to describe the data we collected, including the mean *M*, the standard deviation *SD*, Minimum and Maximum of each indicator. Third, we calculated the correlation between the four categories of culture-related values. Then, by performing a regression analysis with SEM software Mplus 1.4 we determined the degree to which individuals' acceptance of culture-related values were related with the five personality traits. In the regression analysis, we used the five personality traits as independent variables to predict the dependent variable: individuals' acceptance of culture-related values. To specify how the five personality traits predicted each category of culture-related values, we finally performed four regression analyses by Mplus 1.4.

Results

Reliability and face validity of the Culture-related values Questionnaire

In the final version of the CV questionnaire, we had 39 items representing four scales with acceptable reliability (Cortina, 1993): five items for Acceptance of Unequal Power

Distribution (α = 0.72), 13 for Acceptance of Collectivistic Thinking (α = 0.66), 12 for Acceptance of Masculine Ideas (α = 0.68), and nine for Acceptance of Uncertainty (α = 0.67). See the Appendixes for the questionnaire in English (Appendix 2A) and Chinese (Appendix 2B). Because the reliability of the four scales was acceptable and the development of the items guaranteed their face validity, we can assume that the mean score of each scale of each participant could be used to represent his/her acceptance of each category.

Existence of one underlying factor in the Culture-related values Questionnaire

We checked if one concept could be assumed to underlie the four categories of culture-related values. We first explored if our data fitted the model represented in Figure 2.1. Based on Kline (2005), we report in Table 2.4 the model Chi-square (X^2), Root Mean Square Error of Approximation (RMSEA), Comparative Fit Index (CFI) and Standardized Root Mean Square Residual (SRMR) to judge the model fit. It can be concluded from the figures in Table 2.4 that the hypothesized model did not fit our data. Based on the results of the Model Modification Indices from Mplus, we included correlations between the residuals of AUPD and ACT. We therefore adjusted the hypothesized model as shown in Figure 2.2.

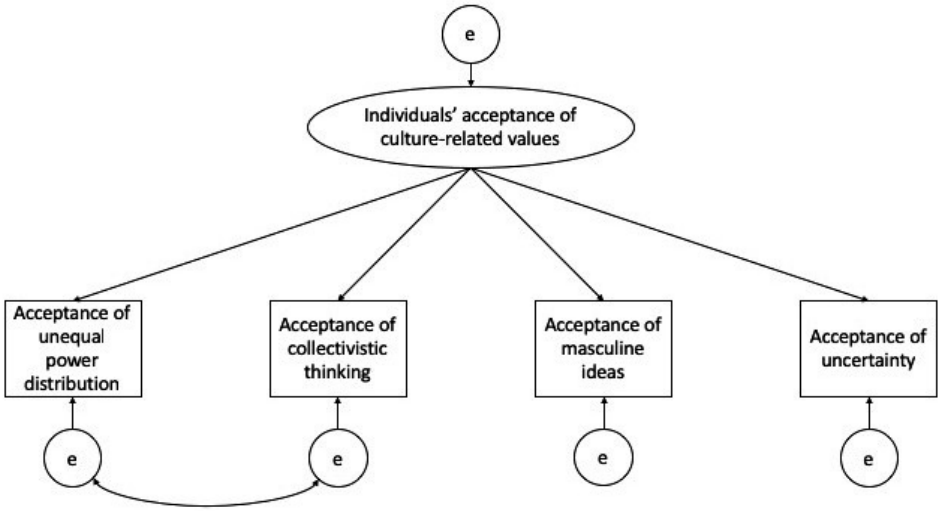


Figure 2.2. The adjusted model for the individuals' acceptance of culture-related values

Table 2.4.

Results of Model Fit

Model	X^2	RMSEA	CFI	SRMR
Cut-off for good fit (From Hooper, et al., 2008)	*p*-value >0.05	<0.08	>=0.95	<=,0.08
Hypothesized Model	0.00	0.00	0.95	0.04
Adjusted Model	0.64	0.78	1.00	0.003

The results in Table 2.4 for the adjusted model show that a latent factor (interpreted as individuals' acceptance of culture-related values) could explain the four variables (i.e., acceptance of unequal power distribution, acceptance of collectivistic thinking, acceptance of masculine ideas, and acceptance of uncertainty). The standardized parameter estimates are provided in Figure 2.3.

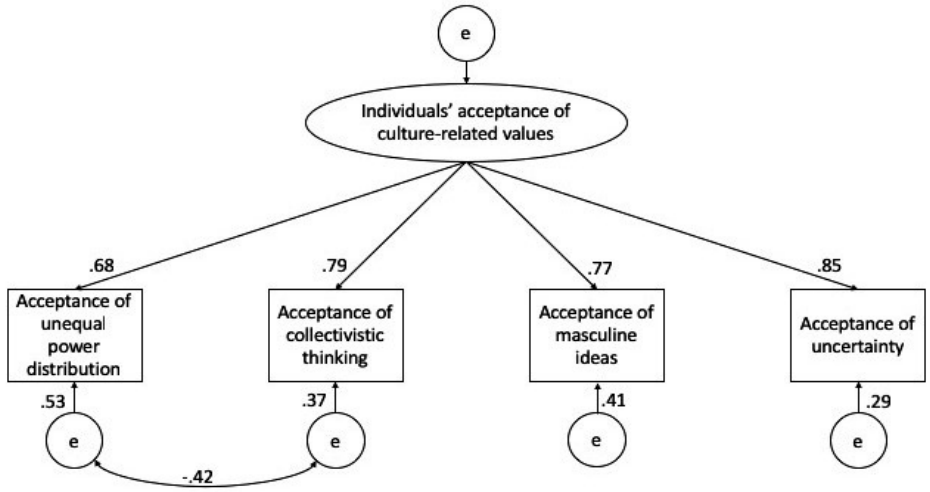


Figure 2.3. The standardized parameter estimates of the adjusted model

In order to further explore the value of the questionnaire we calculated the correlations between the four categories (see Table 2.5).

Table 2.5.

Correlations among the four categories of culture-related values

	AUPD	ACT	AMI	AU
AUPD	1			
ACT	.36***	1		
AMI	.52***	.62***	1	
AU	-.58***	-.67***	-.65**	1

(*** $P < 0.001$; ** $P < 0.01$; * $P < 0.05$)

Note. AUPD = Acceptance of Unequal Power Distribution; ACT = Acceptance of Collectivistic Thinking; AMI = Acceptance of Masculine Ideas; AU = Acceptance of Uncertainty.

From Table 2.5 we can see that the four scales were all significantly correlated with each other. These correlation coefficients ranged from medium to large effect size (above 0.5) (Cohen, 1988). Given that the highest correlation is 0.67 we can conclude that there is considerable overlap between the four scales, but also that a unique part exists among each of the four categories of culture-related values in the measurement.

Descriptive results of the four categories of culture-related values

The results of the descriptive analyses for the four categories of culture-related values are presented in Table 2.6.

Table 2.6.

Mean, standard deviation, minimum and maximum for the four categories of culture-related values

Variables	M	SD	Minimum	Maximum
AUPD	3.12	1.07	1.00	6.20
ACT	4.66	0.66	2.75	6.46
AMI	4.15	0.75	2.08	6.42
AU	3.94	0.82	1.78	6.33

Note. AUPD = Acceptance of Unequal Power Distribution; ACT = Acceptance of Collectivistic Thinking; AMI = Acceptance of Masculine Ideas; AU = Acceptance of Uncertainty.

In the culture-related values, the highest scale mean was 4.66 (collectivistic ideas) and the lowest 3.12 (acceptance of unequal power distribution). The standard deviations varied between 0.66 (collectivistic ideas) and 1.07 (acceptance of unequal power distribution). The minimum scale mean ranged from 1 (acceptance of unequal power distribution) to 2.75 (collectivistic ideas). Minimums of acceptance of masculine ideas and uncertainty were respectively 2.08 and 1.67. The maximums of the four-scale means were all below 7, and ranged from 6.46 (collectivistic ideas) to 6.20 (acceptance of unequal power distribution).

Relationship between personality traits and culture-related values

The results from the regression analysis of the prediction of individuals' culture-related values by the Big Five personality traits are shown in Figure 2.4.

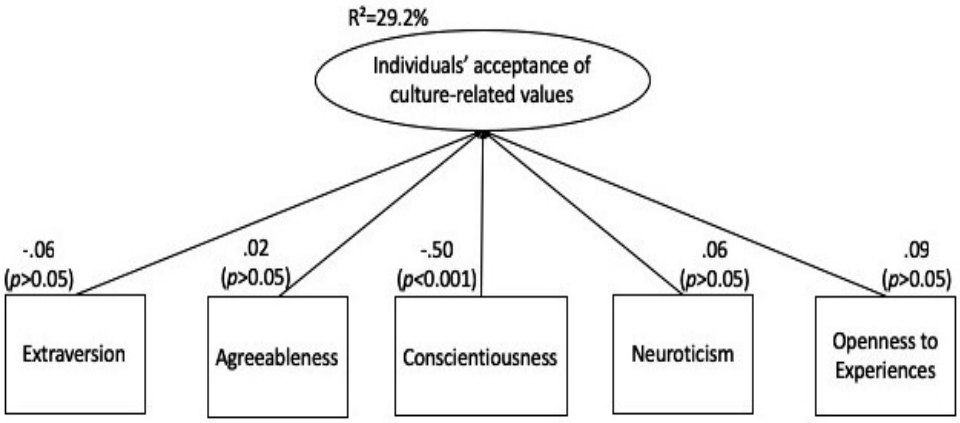
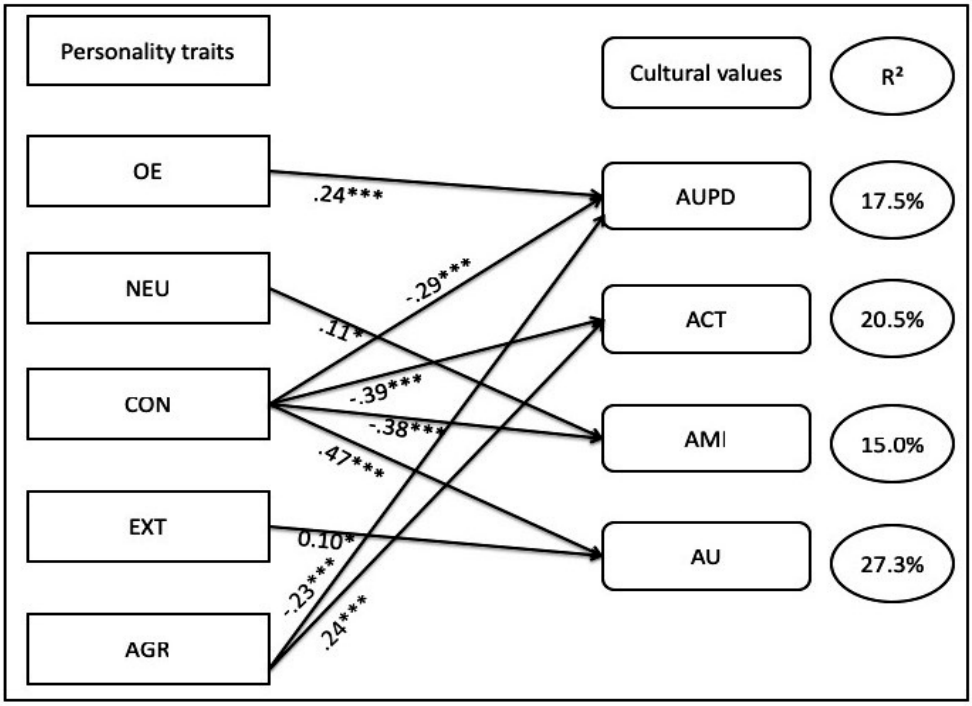


Figure 2.4. The results of regression analysis to predict culture-related values by personality traits

The Figure shows that individuals' acceptance of culture-related values was predicted to some degree by personality traits. The personality traits explained a significant proportion of variance of acceptance of culture related values, $R^2 = 29.2\%$, $p < 0.001$, and within the prediction, only conscientiousness significantly and negatively predicted student teachers' acceptance of culture-related values ($b = -0.5$, $p < 0.001$). The other four personality traits

(i.e., Extraversion, Agreeableness, Neuroticism, and Openness to Experiences) could not significantly predict individuals' acceptance of culture-related values.

The results of the regression analyses of the prediction of the four categories of culture-related values by the five personality traits are summarized in Figure 2.5.



Note. EXT = Extraversion; AGR = Agreeableness; CON = Conscientiousness; NEU = Neuroticism; OE = Openness to Experiences; ACT = Acceptance of Collectivistic Thinking; AUPD = Acceptance of Unequal Power Distribution; AU = Acceptance of Uncertainty; AMI = Acceptance of Masculine Ideas. (* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$)

Figure 2.5. Prediction of the four categories of culture-related values by personality traits

Figure 2.5 shows that the four categories of culture-related values were predicted to some degree by personality traits. The personality traits explained a significant proportion of variance of acceptance of uncertainty, $R^2 = 27.3\%$, $p < 0.001$, and within the prediction, conscientiousness significantly positively predicted student teachers' acceptance of uncertainty ($b = 0.47$, $p < 0.001$). Also, extraversion positively contributed to shaping student teachers' acceptance of uncertainty ($b = 0.10$, $p < 0.05$). Student teachers' acceptance of collectivistic thinking was predicted by personality traits for 20.5% of the variance.

Agreeableness significantly and positively predicted student teachers' acceptance of collectivist thinking (b =0.24, $p < 0.001$), while conscientiousness was negatively predicting collectivism (b =-0.39, $p < 0.001$). Student teachers' acceptance of unequal power distribution was predicted by personality traits (R^2 =17.5%, $p < 0.001$). Openness to experiences (b = 0.24, $p < 0.001$), conscientiousness (b = -0.29, $p < 0.001$) and agreeableness (b =-0.23, $p < 0.001$) all significantly predicted personal values on acceptance of unequal power distribution. A significant proportion of variance of student teachers' acceptance of masculine ideas could be explained by their personality traits, R^2 = 15.0%, $p < 0.001$, Acceptance of masculine ideas were negatively related with conscientiousness (b =-0.38, $p <$ 0.001) and positively with neuroticism (b = 0.11, $p < 0.05$).

Conclusion and discussion

In this study we developed a questionnaire related to Hofstede's four cultural dimensions including four scales (i.e., acceptance of large power distance, collectivism, masculinity, and weak uncertainty avoidance), and mapped individual Chinese student teacher's acceptance on these four categories of culture-related values. As there have been shown close relationships between Hofstede's four cultural dimensions and personality traits (Hofstede & McCrae, 2004; Roccas, Sagiv, Schwartz, & Knafo, ,2002), we also examined the relations between individual's acceptance of culture-related values and the five-factor personality traits among Chinese student teachers.

The results showed acceptable reliability of the four scales and positive indications for the validity of the Culture-related Values Questionnaire. There was one underlying factor of the four scales of the questionnaire, which we interpret as representing Chinese individuals' acceptance of culture-related values measured with the acceptance of the four categories. The factor analysis and the correlation matrix of the four categories of culture-

related values also indicate that every scale measures a unique part of the values of the student teachers.

Our results provide support that the categories based on the four dimensions in Hofstede's studies (Hofstede, Hofstede, & Minkov, 2010) can be used to map individual Chinese culture-related values. Although we found initial support for the reliability and validity of the questionnaire, we suggest that for future use further development is needed to separate the four scales better from each other and improve scale reliability. The adjusted model in our study showed a unique relation, i.e., a strongly negative correlation between the residuals of individuals' acceptance of unequal power distribution and their acceptance of collectivistic ideas. This unique relation resembles the description of horizontal collectivism in Triandis studies (1995; 2001) (see also Sivadas, Bruvold, & Nelson, 2008). Therefore, this relation might indicate an extra latent factor, i.e., individuals' acceptance of horizontal collectivism. For future study, it is interesting to investigate the relation between individuals' acceptance of culture-related values and their acceptance of horizontal collectivism.

In teacher education research, several authors assumed that Chinese (student) teachers' think and behave in line with Confucian cultural values (e.g., Kirkebæk, Du, & Jensen, 2013; Zhou, Lam, & Chan, 2012). These authors described Chinese (student) teachers as holding hierarchical and collectivist ideas on teaching. However, our results showed that in our sample, the Chinese student teachers' acceptance of unequal power distribution had the lowest mean scores compared to other values, and also its standard deviation was the highest. This result indicates that student teachers vary considerably on the unequal power distribution cultural dimension. Some student teachers hardly accepted it, while others felt that unequal power distribution was normal. Also, our findings suggest that Chinese student teachers' acceptance of collectivistic thinking is higher than the acceptance of other cultural values. This support for collectivistic thinking indicates that such Confucian related values are (still) a feature of Chinese student teachers' values. These seem still to be rooted in their

traditional culture and have not (yet) been replaced by more individualistic Western values. This result is in line with other studies describing Chinese (student) teachers thinking (e.g., Hu, Dieker, Yang, & Yang, 2016).

Our results showed that although personality traits predicted individuals' cultural values to some degree, Chinese student teachers' acceptance of culture-related values and personality traits were not perfectly correlated. Comparing our results with the results in the study of Hofstede and McCrae (2004), notwithstanding some similarities, we found mostly differences. For example, openness to experiences was positively correlated with acceptance of unequal power distribution in our study, while in the study of Hofstede and McCrae (2004), these two showed a negative relation. These unexpected relations might be a result of Chinese individuals holding understandings of personal traits that are different from those in other countries (see in McCrae, Costa, & Yik, 1996; Cheung, et al., 2008). The study of Cheung et al. (2008) found that Chinese understandings of openness to experiences were related with their attitudes to leadership; openness to experiences should be a characteristic of a good leader. The positive relation between openness to experiences and acceptance of unequal power distribution could be understood from this perspective. Within the five personality traits, conscientiousness was significantly associated with the four categories of culture-related values, which result is different from results in previous studies (e.g., Hofstede & McCrae, 2004; Realo, Allik, & Vadi, 1997). The study of McCrae, Costa, and Yik (1996) found that Chinese students scored much higher on conscientiousness than students in the United States, and they explained this by the ideal image of a good student (and teacher), rooted in the Chinese culture, i.e., to be conscientious. Our results also indicate that being conscientious is stronger associated with culture-related values, than with other personal traits. Given these results it is advisable that future studies investigate the relation of conscientiousness with the four categories of culture-related values in different countries.

Because we collected our data in one Teacher University, it is important to notice that results cannot be generalized to other Chinese student teachers. Furthermore, in the current study, we do not delve into how the four categories of culture-related values would influence student teachers' professional understandings and also their teaching behaviour. Future studies should consider exploring the role of culture-related values in student teachers' understandings and behaviour and their development, especially when the culture-related values student teachers' hold are different with the ones in the teacher education.

Appendix

Appendix 2A

Questionnaire --- English translation

Faculty_____ Ethnicity _____ Gender _____
Age _____
The scale is: 1. extremely inaccurate 2. inaccurate 3. more inaccurate than accurate 4. partly inaccurate/ partly accurate 5. more accurate than inaccurate 6. accurate 7. extremely accurate

1.(OE)	Imaginative	1-7
2.(CON)	Irritable	1-7
3.(NEU)	Disorganized	1-7
4.(EXT)	Reserved	1-7
5.(AGR)	Nice	1-7
6.(OE)	Investigative	1-7
7.(CON)	Nervous	1-7
8.(NEU)	Careful	1-7
9. (EXT)	Silent	1-7
10.(AGR)	Helpful	1-7
11.(CON)	Touchy	1-7
12.(NEU)	Organized	1-7
13.(EXT)	Inhibited	1-7
14.(OE)	Versatile	1-7
15.(AGR)	Kind	1-7
16.(CON)	Worried	1-7
17.(NEU)	Conscientious	1-7
18.(EXT)	Talkative	1-7
19.(OE)	Innovative	1-7
20.(AGR)	Supportive	1-7
21.(EXT)	Timid	1-7
22.(AGR)	Agreeable	1-7
23.(OE)	Artistic	1-7
24. (CON)	Anxious	1-7
25.(NEU)	Neat	1-7
26.(EXT)	Withdrawn	1-7
27. (NEU)	Systematical	1-7
28. (AGR)	Sympathetic	1-7
29.(CON)	Tense	1-7

30.(OE)	Creative	1-7
31. (AUPD)	I think it is important that followers obey their leaders without question.	1-7
32. (UA)	I think teachers should have all the answers in their subjects.	1-7
33. (AMI)	I think brilliance and academic reputation are very important for teachers.	1-7
34. (ACT)	I think direct confrontations should be avoided.	1-7
35. (UA)	I think what is unknown is dangerous.	1-7
36. (AMI)	I think mothers should spend more time on taking care of children than fathers.	1-7
37. (ACT)	I think harmonious relationships prevails over task completion.	1-7
38. (ACT)	I think loyalty to the group is very important.	1-7
39. (AUPD)	I think power needs to be concentrated at the top of an organization.	1-7
40. (AMI)	I think I want to be the best student on academic performance in the classroom.	1-7
41. (UA)	I think strict timetables are important for students.	1-7
42. (ACT)	I think “face” is very important to me.	1-7
43. (AMI)	I think the national exam is very important to students.	1-7
44. (UA)	I think orderliness is more important than innovation.	1-7
45. (AUPD)	I think one’s academic achievement depends more on the excellence of one’s teachers than a student’s ability.	1-7
46. (UA)	I think uncertainty in life is a continuous threat for me.	1-7
47. (ACT)	I think one’s social networks determine what information one can get.	1-7
48. (AUPD)	I think those in high ranks in the hierarchy should have special privileges.	1-7
49. (AMI)	I think excellent students should be praised.	1-7
50. (ACT)	I think group cohesion is more important than individualism.	1-7
51. (AMI)	I think only the strongest person can be the winner in competitions.	1-7
52. (AMI)	I think career opportunities are more important than intrinsic interests in job choice.	1-7
53. (ACT)	I think saying “no” to others is a confrontation.	1-7
54. (UA)	I think I easily feel nervous.	1-7
55. (UA)	I think the distinction between good and evil ideas is sharp.	1-7
56. (ACT)	I think family celebrations and observances should not be missed.	1-7

57. (AMI)	I think husband should earn more than his wife.	1-7
58. (ACT)	I think I am afraid of losing face.	1-7
59. (AUPD)	I think the teaching process should be decided by the teacher.	1-7
60. (ACT)	I think marriage is a crucial event for both their families.	1-7
61. (AMI)	I think grades are very important for students in school.	1-7
62. (UA)	I think luck plays an important role in success.	1-7
63. (ACT)	I think I want to work with my families.	1-7
64. (AMI)	I think failing in national exam is a disaster.	1-7
65. (ACT)	I think students should keep quite in the classroom.	1-7
66. (AMI)	I think foreign products are more attractive than home-made products.	1-7
67. (UA)	I think decision content is more important than the process.	1-7
68. (ACT)	I think high diploma is an honor to the holder.	1-7
69. (AMI)	I think fight is only way to solve conflicts.	1-7

Appendix 2B

问卷调查

学院:_____ 民族：_____ 性别:_____ 年龄：_____

以下数字表示： 1. 非常不准确 2. 不准确 3. 有些不准确 4.不确定 5.有些准确 6.准确 7.非常准确

1.(OE)	有想象力的	1-7
2.(CON)	易发脾气的	1-7
3.(NEU)	马虎的	1-7
4.(EXT)	内敛的	1-7
5.(AGR)	讨人喜欢的	1-7
6.(OE)	好奇的	1-7
7.(CON)	易高度紧张的	1-7
8.(NEU)	小心谨慎的	1-7
9. (EXT)	不张扬的	1-7
10.(AGR)	乐于助人的	1-7
11.(CON)	非常敏感的	1-7
12.(NEU)	有条理的	1-7
13.(EXT)	内向的	1-7
14.(OE)	多才多艺的	1-7
15.(AGR)	友善的	1-7
16.(CON)	焦虑的	1-7
17.(NEU)	精准的	1-7
18.(EXT)	健谈的	1-7
19.(OE)	有创新精神的	1-7
20.(AGR)	有合作精神的	1-7
21.(EXT)	腼腆害羞的	1-7
22.(AGR)	令人愉快的	1-7
23.(OE)	有艺术气质的	1-7
24. (CON)	忧虑的	1-7
25.(NEU)	整洁的	1-7
26.(EXT)	孤僻的	1-7
27. (NEU)	有条不紊的	1-7
28. (AGR)	易同情的	1-7
29.(CON)	紧张的	1-7
30.(OE)	有创意的	1-7
31. (AUPD)	我认为下属无条件服从领导者很重要。	1-7
32. (UA)	我认为教师应该知道其学科领域内所有题目的答案。	1-7
33. (AMI)	我认为学识和学术声誉对教师而言很重要。	1-7
34. (ACT)	我认为应该避免和别人直接冲突。	1-7

35. (UA)	我认为未知是一种危险。	1-7
36. (AMI)	我认为母亲应该比父亲花费更多时间来照顾孩子。	1-7
37. (ACT)	我认为维持和谐的人际关系比完成任务更重要。	1-7
38. (ACT)	我认为对组织的忠诚很重要。	1-7
39. (AUPD)	我认为权力应该集中在一个组织的顶端。	1-7
40. (AMI)	我想成为班级里成绩最好的学生。	1-7
41. (UA)	我认为严格的作息时间对学生来说很重要。	1-7
42. (ACT)	我认为“面子”对我很重要。	1-7
43. (AMI)	我认为高考对学生来说很重要。	1-7
44. (UA)	我认为秩序比创新更重要。	1-7
45. (AUPD)	我认为学生的学业成绩更多的取决于其教师的水平，而非其自身能力。	1-7
46. (UA)	我认为生活中的不确定性让人担惊受怕。	1-7
47. (ACT)	我认为一个人的社会交际圈决定了其信息来源。	1-7
48. (AUPD)	我认为那些地位级别高的的人应该享受特权。	1-7
49. (AMI)	我认为优秀的学生应该被表扬。	1-7
50. (ACT)	我认为集体利益比个人利益更重要。	1-7
51. (AMI)	我认为在竞争中，只有强者才能取得胜利。	1-7
52. (AMI)	我认为在找工作时，机会比自身兴趣更重要。	1-7
53. (ACT)	我认为对别人说“不”是一种冒犯。	1-7
54. (UA)	我认为我很容易紧张。	1-7
55. (UA)	我认为善与恶之间有明确的界限。	1-7
56. (ACT)	我认为家庭聚会活动是不能推拒的。	1-7
57. (AMI)	我认为丈夫应该比妻子的收入高。	1-7
58. (ACT)	我害怕丢“面子”。	1-7
59. (AUPD)	我认为课堂进程应该由老师决定。	1-7
60. (ACT)	我认为婚姻对男女双方的家庭来说都十分重要。	1-7
61. (AMI)	我认为分数对学生而言很重要。	1-7
62. (UA)	我认为运气在成功里扮演很重要的角色。	1-7
63. (ACT)	我想要和我的家人一起工作。	1-7
64. (AMI)	我认为高考失败是一场灾难。	1-7
65. (ACT)	我认为学生在课堂上应该保持安静。	1-7
66. (AMI)	我认为外国制造的商品要比本国制造的商品更有吸引力。	1-7
67. (UA)	我认为决策结果比决策过程更重要。	1-7
68. (ACT)	我认为学历高是一种荣耀。	1-7
69. (AMI)	我认为斗争是解决争议的唯一方式。	1-7

Chapter 3

Values in education and daily life and self-understanding of being a teacher: A study of eight Chinese student teachers from a cultural perspective[1,2,3]

Abstract

Nowadays, Eastern and Western values concur in Asia, with potential impact on student teachers' understanding of what it means to be a teacher. Insight from a cultural perspective in student teachers' values in education and daily life and in their self-understanding of being a teacher might contribute to a better understanding of their professional development. In the current study, we adopted Hofstede's four cultural dimensions as lenses to describe culture-related values. We examined these values and their relation with their self-understanding of being a teacher with in-depth interviews with eight Chinese student teachers. The findings showed that the student teachers' culture-related values about education and daily life and the ones reflected in their self-understanding showed considerable overlap. Both Eastern and Western perspectives on teaching and learning were found in the student teachers' values and the student teachers showed different levels of acceptance of the four categories of culture-related values. The findings supported the importance of the role of values in student teachers' professional development. Insight in the relation between culture-related values in education and daily life and in the self-understanding can help teacher educators and student teachers to deal with the struggles emerging in professional development in a changing culture.

[1] This chapter will be shorted and submitted to the Journal of *Teachers and Teaching* after the thesis submission as: Liu, M. Zwart, R., & Wubbels, T. (Preparing to submit). Values in Education and Daily Life and Self-understanding of Being a Teacher.

[2] Acknowledgement of author contributions: ML, RZ, and TW designed the study. ML translated the interview guidelines into Chinese. ML approached the participants, collected the data and translated one student teacher's data in English and discussed with the other two authors the analyses. Then ML analyzed the other data. ML drafted the manuscript. All authors contributed to critical revision of the paper. RZ and TW supervised this study.

[3] All details on data analyses (including audit trails) are available upon request from the author.

Introduction

Vast and varied studies on teacher education have highlighted the importance of student teachers' self-understanding of being a teacher in their professional development (see e.g., Akkerman & Meijer, 2011; Allard & Santoro, 2006; Beauchamp & Thomas, 2009; Kelchtermans, 2005; Korthagen, Kessels, Koster, Lagerwerf, & Wubbels, 2001; Koster & van den Berg, 2014). Such studies focused on different perspectives varying from sociocultural (e.g., Olsen, 2008) to narrative biographical (e.g., Kelchtermans, 1993), from multiple dimensions of understanding (e.g., Beauchamp & Thomas, 2009) to contextual based identity (e.g., Gee, 2001). Although these studies approached student teachers' self-understandings differently, they all seem to agree that student teachers' self-understanding is influenced by their previous learning experiences, their teacher education programmes, and their personal living contexts (Flores & Day, 2006; Izadinia, 2013; Raymond, 1997). The influences of these factors are not always consistent and sometimes can even be in conflict with each other. For example, as will be explained below, student teachers in China nowadays might be confronted with such a conflict because of a disparity between experiencing traditional collectivistic and Confucian values in their personal life and applying individualistic and constructivist approaches to teaching advocated in teacher education programmes.

Since 1985, China's economic and political systems have been transitioning from a traditionally Confucian cultural basis to a more Western one (Chen, Wei, & Jiang, 2017; Guan & Meng, 2007). Fierce international market competition, and rapid technological developments (including ICT) made a huge difference in individuals' lifestyle and living contexts in China. The transformation is echoed in the current teacher education programmes where student teachers are trained to apply constructivist teaching principles to foster student learning. For example, in the programme of the Northeast Teacher University of China, encouraging self-initiated learning together with collaborative inquiry is considered one of

the most important skills for student teachers to acquire. The constructivist approach to education in which teachers act as facilitators of student learning and thus adopt a student-centred approach to instruction nevertheless stands in marked contrast to the traditional Confucian, teacher-based transmission of information for educational purposes (Kirkebæk, Du, & Aarup Jensen, 2013). This may lead to a conflict in the student teachers' values. Most student teachers were not taught according to constructivist principles in primary or secondary education (Gu, 2004; Yan, 2006) and it is well documented, that the conceptions developed through their own learning experiences play an important role in the development of student teachers (Wubbels, 1992; Korthagen, 2010; Stürmer, Seidel, & Holzberger, 2016). Also, the uniform, exam-based assessment of students that is still prevalent in China is at odds with a constructivist approach to teaching and learning (Chen, Wei, & Jiang, 2017). Such an approach to teaching and learning is not particularly well-suited for the preparation of students to take the still traditional exams and thus for the student teachers a traditional teacher-centred transmission of information approach to teaching might still be quite attractive (Kirkebæk, Du, & Aarup Jensen, 2013). Given such different and often discrepant contexts, student teachers in China may experience confusion, disequilibrium and a struggle with their values in personal life and professional self-understanding.

Some studies have explored Chinese student teachers' self-understanding of being a teacher and concluded that both Western constructive teaching values and Eastern Confucian teaching values were coexisting in student teachers' self-understanding (e.g., Cheng, Chan, Tang, & Cheng, 2009; Zhu, Valcke, & Schellens, 2010). These studies indicated the importance of the cultural perspectives in examining Chinese student teachers' self-understanding of being a teacher.

Recently we see, however, scepticism about using cultural perspectives in studying teaching, especially when the concepts of Eastern and Western cultural values are overemphasized and simplified to understand individuals' beliefs and behaviour (e.g.,

Pekrun, 2018; Veugelers & Vedder, 2003; Zhu, Valcke, & Schellens, 2010). Therefore, in the current study, we aim to delve into Chinese student teachers' values in education and their daily life and their self-understanding of being a teacher, and then explore their relations from a more comprehensive and differentiated cultural perspective adapted from Hofstede's cultural dimensions. Insight in the relation between values in education and daily life and in the self-understanding of being a teacher from a cultural perspective can help teacher educators and student teachers to deal with the struggles emerging in professional development in a changing culture. The research question of this study is:

How are Chinese student teachers' values in education and daily life and in their self-understanding of being a teacher, studied from a cultural perspective, related?

Below, we introduce how previous studies understand values in education and daily life and the self-understanding of being a teacher from a cultural perspective.

Theoretical framework

Values contain judgements on what is good and what is bad (Veugelers & Vedder, 2003). Individuals' values are "implicitly and explicitly shaped by the worlds, contexts, or sociocultural systems that people inhabit" (Markus & Kitayama, 2010, p.422). Values function as guiding principles for individuals' action (Hadar & Benish-Weisman, 2018). Thus, individuals' values can be reflected in their judgments about good or bad behaviour, people (including the self), and incidents (Schwartz, 1992; Veugelers & Vedder, 2003) in daily life and their understanding of being a teacher, and these values are indubitably influenced by culture (Veugelers & Vedder, 2003).

Understanding values from a cultural perspective

Several scholars have studied individuals' values from cultural perspectives. For example, Triandis (1996, 2004) took individualism versus collectivism to constitute a dimension for understanding individuals' values in daily life. People who adhere to individualistic ideas show different patterns of thinking and acting than people with collectivistic ideas. However, individualism and collectivism are not opposite ends at the individual level (Triandis, 2004; Watson & Morris, 2002). An individual can show both collectivistic thinking and individualistic thinking in different situations and emphasize one or the other more or less (Triandis, 1993; 2004). Individuals showing more individualistic thinking are found to score relatively high on expressiveness, aggressiveness, dominance and holding strong opinions while people showing more collectivist thinking are found to score relatively high on accommodation, avoidance of conflict/argument and easy modification of their opinions (Triandis, 2004).

Besides collectivism and individualism, Hofstede and his colleagues (Hofstede, 1983; Hofstede, Hofstede, & Minkov, 2010) adopted three other dimensions to characterize dominant value differences between countries based on their investigations of the values of employees in the IBM (International Business Machine) company from different countries: 1) power distance, 2) masculinity/femininity, and 3) uncertainty avoidance[4] (see Table 3.1 for further description of these dimensions). According to Hofstede (1983), a country's culture can be described using the aforementioned four elements. For example, the Chinese culture can be construed as a predominantly Confucian culture, meaning that unequal power distribution and uncertainty are largely accepted and that there is a tendency to adhere to collectivist and masculine ideas (Hofstede, Hofstede, & Minkov, 2010). In contrast Western

[4] Hofstede uses one additional dimension, namely long- versus short-term orientation. As applying the four dimensions is common in the educational sciences (e.g., Hofstede, 1986; Fisher & Waldrip, 1999; Cronjé, 2010) and the differences between long-term and short-term orientations are not as clear as those between the other dimensions, this dimension is not considered here.

cultures, broadly spoken, can be characterized as adjoining the ends on the dimensions opposite to China's, i.e., relatively low acceptance of unequal power distribution and uncertainty, with a tendency to individualistic and feminine values (Hofstede, Hofstede, & Minkov, 2010).

Although a country's culture could impact the values and beliefs of individuals from that country (Erez & Gati, 2004), many researchers, including Hofstede himself, argued that Hofstede's four cultural dimensions could only describe culture at a country level and are not applicable to understand individuals' values (e.g., Baskerville, 2003; Beugelsdijk & Welzel, 2018; Hofstede, 2011; Signorini, Wiesemes, & Murphy, 2009). Furthermore, the two ends of each dimension, for example collectivism and individualism, could coexist at the individual level (Triandis, 1993; 2004). To avoid the problem of falsely dichotomizing individuals' culture-related values into opposite ends (following our study reported in Chapter 2), we use in the present study the ends of Hofstede's four cultural dimensions (see Hofstede, Hofstede, & Minkov, 2010) describing the Chinese culture to understand individuals' culture-related values, i.e., individual Chinese student teachers' acceptance of unequal power distribution (further abbreviated as *AUPD)*, acceptance of collectivistic thinking (abbreviated as *ACT*), acceptance of masculine ideas (abbreviated as *AMI*) and acceptance of uncertainty (*AU*). According to Hofstede, Hofstede, and Minkov (2010), individuals' culture-related values are reflected in individuals' general ideas, such as about relations with friends, colleagues, family members, a boss/superior, etc. Given our interest in the connection between the values of the individual student teacher's views in education and daily life and his or her perceptions of being a teacher, we decided to ask the individuals in our research about the *extent* to which they endorse situations related to each of the four categories identified above and in a variety of situations which could occur in their daily life.

Table 3.1.

Descriptions of four categories of culture-related values

Four categories of culture-related values	Description of key aspects (Hofstede, Hofstede & Minkov, 2010)
Acceptance of unequal power distribution (AUPD)	- accepting hierarchy in organizations - accepting inequality of roles established for efficiency - thinking that less powerful people and more powerful people should be interdependent
Acceptance of collectivist thinking (ACT)	- valuing honour or prestige as their 'face' - accepting interdependency - valuing personal relationships more than tasks - accepting that people are born into extended families or other in-groups which protect them in exchange for loyalty
Acceptance of masculine ideas (AMI)	- valuing competition with others - perceiving school failure as a disaster - thinking that conflicts should be resolved by letting the strongest win - having preference for larger organizations
Acceptance of uncertainty (AU)	- attributing success/failure to circumstances or luck - feeling comfortable in ambiguous situations - accepting uncertainty as a normal aspect of life - thinking that what is different is interesting

Self-understanding of being a teacher

The *self* can be understood within the personal but also professional domains of behaviour (Beauchamp & Thomas, 2009). In educational science and particularly the training of teachers, researchers understand the associations between the personal self and the professional self sometimes very differently (see the reviews of Beijaard, Meijer, & Verloop, 2004 and Izadinia, 2013).

Some view the personal and professional self-understanding as being separated, and emphasize the influence of the personal self on the professional understanding (Beijaard, Meijer, & Verloop, 2004; Reynolds, 1996). Others emphasize the interaction between personal self and professional self (Akkerman & Meijer, 2011). Beijaard, Verloop, and Vermunt (2000) understand the professional self to stand central in teaching and to consist of the many possible professional roles played by the teacher: subject matter expert (i.e., the

teacher's understanding of his/her subject area), pedagogical expert (i.e., the teacher's educational aims, norms, and values related to student development) and instructional expert (i.e., the teacher's didactic skills). In recent research, van der Want et al. (2015) added the role of the teacher's perceptions of his or her interpersonal expertise (i.e., the handling of the teacher-student relationship) to the definition of the teacher's professional self. Additionally, a teacher's professional self subsumes not only their self-understanding in the actual teaching situations, but also in their work settings. Kieschke and Schaarschmidt (2008) studied the teachers' self-understanding in work-settings, specifically their professional commitment. They argued that professional commitment includes the subjective significance of work, professional ambition, tendency to exert, striving for perfection, and emotional distance (Kieschke & Schaarschmidt, 2008).

Other researchers consider the personal and professional self-understanding as an integrated whole. In a biographical view of the self, Kelchtermans (1993, 2005) adopts an integrated perspective on the personal and professional selves. Of particular relevance here are the personal perceptions and subjective interpretations of the teaching experience by teachers or what Kelchtermans refers to as the *professional self*, on the one hand, and the *subjective educational theory*, on the other hand. The *professional self* is conceptualized as the manner in which the teacher conceives of him/herself as a teacher while looking back from the present to the past but also forward from the present to the future. Via reflection on the past, teachers create their own personal conceptions of themselves as professionals.

Research by Kelchtermans (1993) showed four components to play a crucial role in the teacher's *professional self*: self-image, self-esteem, job motivation and task perception. Via reflection on the future, teachers can then create expectations for themselves and — for instance — their career development. Kelchtermans (1993) defines *subjective educational theory* as "the personal system of knowledge and beliefs teachers use while performing their job" (p. 450). The subjective educational theory of a teacher thus reveals the teacher's

knowledge and beliefs, and this theory is assumed to be drafted as so-called "principles of practice or images" (Kelchtermans, 1993, p.451). Student teachers have yet to develop their own system of knowledge and beliefs to guide their teaching, but they do have an idea of their professional self, which may be based on images of the teaching profession, initial beliefs about being a teacher, their own conceptualizations of what makes a teacher good and their own implicit theories of teaching (Sutherland, Howard, & Markauskaite, 2010; Wubbels, 1992). Also, Kagan (1992) showed the ideas of student teachers about the teaching profession and practices to be shaped by their learning experiences as students or, in other words, "internalization of models of good and bad teaching" (p. 76) prior to actual teaching in classrooms.

For purposes of the present research, we decided to study the self-understanding of student teachers in terms of the following five components: 1) self-image, 2) self-esteem, 3) job motivation, 4) task perceptions, and 5) future perspective.

Viewing self-understanding of being a teacher from a cultural perspective

In educational research, a number of researchers have noted the expressions of culture-related values in the self-understanding of being a teacher. Brand (2004) and Klassen and colleagues (Klassen, Usher, & Bong, 2010), for example, examined quantitatively how collectivist and individualist values were reflected in teachers' self-understanding. In the present study, we address culture-related values beyond individual's acceptance of collectivistic thinking as was discussed above. The culture-related values in the student teachers' self-understanding of being a teacher, including self-image, self-esteem, job motivation, task perspective, and future perspective will be studied with the four categories AUPD, ACT, AMI and AU. In relation to the self-understanding of being a teacher the culture-related values could for example be interpreted as follows. For AUPD in the classroom, the student teacher prefers strict order with the teacher initiating all

communication. Pupils in the class should not make uninvited comments. With high ACT, pupils are treated as a member of the group and they hesitate to speak up in large groups without a teacher present. At the level of the school, high AMI could imply that student teachers think that teacher brilliance and academic reputation and pupil academic performance (i.e., scores) are the dominant criteria for evaluation of teachers and pupils in school. (See Appendix 3A for a complete overview of the specific educational interpretations of the categories).

Methods

Research context and participants

Once Chinese student teachers enter teacher education universities, they have four years to acquire the professional knowledge and skills required for their particular subject (e.g., Chinese literature, mathematics, history, a foreign language). Eight senior (i.e., fourth-year) student teachers from an English Language Department of one of Chinese teacher universities were approached and all of them were willing to participate in the present study. They all signed an informed consent agreement form prior to participation. The basic information on and teaching experiences of these student teachers can be found in Table 3.2. The gender distribution in the sample was similar to the distribution in the whole population of student teachers in that university.

Table 3.2.

Participant information

Name[a]	Gender	Age	Teaching experience
Jenny	Female	22	Volunteer teacher in a rural area during the summer holiday once
Mary	Female	21	Volunteer teacher in a rural area during the summer holiday once
Lily	Female	22	No teaching experience
John	Male	21	Volunteer teacher in a rural area during the summer holiday once; visited schools and observed teaching in Taiwan
Anna	Female	23	No teaching experience
Ella	Female	21	No teaching experience
Lucy	Female	22	No teaching experience
Krystal	Female	21	Volunteer teacher in a rural area during the summer holiday once

[a] Names are fictitious

Procedure

Prior to data collection, the first author had established good relations with the eight participants in the present study. Two interviews were conducted on separate occasions for each participant: one about culture-related values in the participant's educational and general views (CV interview) and one about the participant's self-understanding of being a teacher (SUT interview). All the interviews were conducted in their native language, Chinese.

Interview about culture-related values in education and daily life (CV interview). To evoke the participants to elaborate their culture-related views, twenty descriptions of different situations representing the four categories of culture-related values were presented (five situations per category). The student teacher was asked to explain their reaction in this situation. An example to indicate the AUPD reads as follows: *Suppose that you, as a new employee in a company, disagree with the management model, which is developed by the boss. What would you do?* A situation to investigate ACT was: *Imagine that your best friend decides to start a new business. However, you think it is not a good idea. What would you*

do? An example to indicate AMI reads: *Imagine that you have a thirteen-year-old child. There are two secondary schools you can choose from for your child. One of the schools has famous teachers. The other one has a great library. What would you do?* Finally, a situation to gauge AU was: *Imagine that you want to make an appointment with your colleague. You send him/her an email to ask when he/she will be available. He/she replies to you that he/she will see you tomorrow. What would you do?* The responses provided by the student teachers were taken to indicate the extent of their support for the four categories of culture-related values.

Prior to the conduct of the actual CV interviews, the 20 descriptions were piloted with four Chinese PhD students (located in the Netherlands). The original interview about AUPD all included situations pertained to employee-boss relations within a business. The responses of the PhD students to these items showed that it was difficult for them to relate to the organizational situations mentioned. We therefore changed the type of organization in these items to a school organization, which can be argued to be more relevant for student teachers. For example, the previous example about AUPD, we changed into: *Suppose that you, as a new teacher in a school, disagree with the teaching model, which is developed by the head teacher. What would you do?* (See Appendix 3B for all of the situations in CV interview).

The CV interview lasted about 50 minutes for each participant.

Interview about self-understanding of being a teacher (SUT). A structured interview was developed to investigate the self-understanding of being a teacher (SUT) for each of the participants in the present study. As described, five components of the student teachers' self-understanding of being a teacher were explored: 1) self-image, 2) self-esteem, 3) job motivation, 4) task perceptions, and 5) future perspective. To explore self-image, for example was asked: *How do you conceive of yourself as a teacher?* For self-esteem, questions were posed such as *What kind of qualities do you think a good teacher should*

have? An example of a question to explore job motivation was: *Which aspect of being a teacher is most satisfying for you?* Task perception was explored by questions such as: *Could you describe what you will do in a normal working day as a teacher?* Finally, for future perspective, we asked for example *What kind of plan do you have for your teaching career?* (See Appendix 3C for all the questions in the SUT interview)

Prior to the conduct of the actual SUT interviews, we piloted the 24 questions with three Chinese PhD students (located in the Netherlands) who already had some teaching experience. No changes to the interview questions were called for by the SUT pilot results. The SUT interviews lasted about an hour for all participants with the exception of Krystal, for whom the SUT interview took about two hours.

Data analysis

Culture-related values reflected in CV interview. Three steps were taken to analyse the culture-related values of the students as reflected in the CV interview. First, according to content, all sentences in the interview transcript were categorized into the four categories of culture-related values (see Table 3.1).

Each response was next analysed as indicative or non-indicative of accepting the more specific culture-related values/ideas as listed per category in Table 3.1. We take as an example Jenny's response to a situation for exploring her stance towards AUPD: her judgment on applying a teaching model developed by her head teacher that she disagreed with. Jenny mentioned that she would apply the teaching model anyway because she did not want to make her superior angry with her. According to Table 3.1, individuals with acceptance of unequal power distribution prefer to accept hierarchy in organizations. Her response reflected an acceptance of hierarchy and thus, "AUPD" was scored.

In the third step in the analyses of the CV interview responses, the number of indicative and non-indicative scorings of the responses was counted. When acceptance scores

predominated for the specific items within a particular category of CV, the category of CV was coded as reflecting acceptance of that value. When non-indicative acceptance codes predominated for the specific items, the category of CV was coded as non-indicative for acceptance of that value.

To calculate inter-rater agreement (Cohen's Kappa) for the coding of the CV interview data, the analytical steps for 16 randomly selected items were conducted separately by the first author and another independent researcher. A Cohen's Kappa of 0.83 was found for the coding of the responses, which can be considered good.

Culture-related values reflected in SUT interview. To map the culture-related values reflected in the SUT interview an analysis was conducted in two steps: 1) creating the SUT profile and 2) looking for culture-related values reflected in these profiles.

Creating the SUT profile. In order to create the profiles for the eight student teachers, the SUT interview responses were analysed in terms of the five components, i.e., self-image, self-esteem, job motivation, task perception, and future perspective.

The initial results showed all of the SUT responses provided by the student teachers to concern mostly teaching in classrooms and no other aspects of the work setting, such as interactions with colleagues. This holds even for the responses to questions explicitly asking about student teachers' understanding of teaching as a profession, i.e., their task perception. Furthermore, the interview data showed no support to explicitly distinguish self-esteem, self-image and future perspective. Instead in all their answers related to questions about for example, self-esteem, self-image or future perspective, the student teachers referred to the different roles teachers can have in the classroom. Instead of job motivation, the participants talked about professional commitment in general and the 'work ethos' a teacher is supposed to demonstrate, which was in line with the work of Kieschke and Schaarschmidt (2008). It was therefore decided to modify the analytical framework to better reflect the richness of the

data concerned with the classroom setting. Based on the work of Beijaard et al. (2000) and van der Want et al. (2015), we decided to describe the student teachers' perceptions in terms of the teacher (expert) roles (subject matter expertise, instructional expertise, pedagogical expertise and interpersonal expertise) and based on the work of Kieschke and Schaarschmidt (2008), we also portrayed their views on professional commitment.

First, the interview responses were coded for the five aspects of self-understanding concerned with expert roles and professional commitment. For example, Anna said that "*self-directed learning is good for the pupils' learning. Teachers assign some tasks to pupils before class. These tasks should contain all the learning goals of the teaching. Then pupils need to complete the tasks by themselves. It is good to train pupils to have such good learning abilities.*" This answer was coded as Anna's judgements about being an instructional expert. Second, the coded responses for these five aspects of self-understanding were sub-coded using a total of 13 categories (e.g., *planning of teaching, execution of teaching, evaluation of teaching,* and *pupils' learning process* for *instructional expert*). For example, the answers of Anna above were sub-categorized into execution of teaching. Third, the responses were further sub-coded using "*Positive Attitudes*" (PA), "*Negative Attitudes*" (NA), and "*Not mentioned*" (None) to produce a total of 83 sub-subcategories (See Appendix 3D for the analytical tool for the analysis of student teachers' SUT interview). Back to the example of Anna, the sub-subcategories of her answer was "*focus on pupils-centred teaching*". Anna's answer showed a positive attitude towards this sub-subcategory. Thus, it was scored "PA". Fourth, based on the information gathered by the previous steps a self-understanding profile was written for each of the student teachers. The self-understanding profiles created for each participant consisted of two parts: a summary of the participant's self-understanding of being a teacher and a brief specification for each of the five domains of self-understanding (four expert roles and professional commitment).

To ensure the reliability of this analytical procedure, an audit procedure was conducted (Akkerman, Admiraal, Brekelmans, & Oost, 2008) on the data of four randomly selected participants. The two auditors were native Chinese-speaking researchers (located in The Netherlands). First, the self-understanding profiles of the four participants were presented to the auditors (two profiles each). The auditors read the self-understanding profiles and checked them against the raw (Chinese) interview responses. Next, the auditors commented on the descriptions of the participants' self-understandings. Third, the auditors inspected the codes and indicated whether they agreed or disagreed with the assigned codes. Fourth, the auditors wrote a summary statement of a few sentences on whether or not the description of the self-understanding of the participant could be judged to be systematically and transparently grounded in the process of data collection and analysis.

The results of the audit procedure showed the two auditors to agree with the descriptions of the self-understanding profiles.

Analysis of culture-related values in the SUT profile. To analyse the representation of culture-related values in the self-understanding (SUT) profiles of the participants, first, we coded these profiles for the representation of the four categories of culture-related values. Second, we determined the focus of the codes by using the specific coding subcategories concerned with the classroom setting (i.e., the items in Appendix 3A). For example, most of the participants, with the exceptions of Mary and Anna, thought that teachers should be able to answer student questions at all times, which runs counter to the third item in the CV category of AU (i.e., *Students accept a teacher who says "I don't know"*). In the third step, individual summaries were made of the culture-related values reflected in the five aspects of self-understanding of being a teacher.

Again an audit procedure was conducted to ensure sufficient and transparent grounding of attained results in the data. Another auditor, who was an assistant researcher in

educational sciences (non-Chinese speaker), performed this audit procedure. First, two participants from the set of eight participants were randomly selected. Second, the first author provided all the analyses of SUT documents of the two participants to be examined by the auditor. Third, the auditor discussed all problems encountered and possible misunderstandings with the first author. Fourth, the auditor completed an agreement/disagreement form indicating whether the summaries of the culture-related values represented in the self-understanding profiles of the student teachers were sufficiently and transparently grounded in the data. The results of the audit procedure showed the auditor to agree with the summaries for the two participants.

Comparison of culture-related values identified in the CV interviews with those reflected in SUT interviews. To examine the similarities and differences for the culture-related values reflected in the CV interviews and the SUT interviews, we combined the information from the CV interviews with the self-understanding profiles of the student teachers. The CV and SUT sources of information on the culture-related values were summarized for each category of culture-related values. For example, it appeared that Jenny's Acceptance of Unequal Power Distribution was discussed most often in not only the CV interview but also the SUT interview.

Results

Culture-related values of student teachers as revealed by CV interviews

In Table 3.3, the culture-related values of the eight student teachers as revealed by the CV interviews are described in terms of 1) the most dominant culture-related values per participant and 2) other culture-related values found per participant.

The findings show every participant to clearly reflect one category of culture-related values more than the others. We therefore labelled the most frequently mentioned culture-

related value the *dominant culture-related value*. For example, Jenny's responses to all of the situations presented in the CV interview reflected the culture-related value of AUPD (acceptance of unequal power relations). This occurred, moreover, in not only her reactions to situations specifically concerned with this culture-related value but also situations developed to explore other culture-related values. Jenny's responses largely reflected the idea that "subordinates must always respect superordinates even when they disagree with them". Similarly, in Lucy's CV interview responses reflecting ACT (acceptance of collectivist thinking) predominated: group interests should always be placed above personal interests.

Table 3.3.

*Culture-related values of eight student teachers based on CV interview**

Name	Dominant cultural values	Other cultural values
Jenny	AUPD	ACT; non-indicative for AMI; non-indicative for AU
Mary	ACT and non-indicative for AU	Non-indicative for AUPD; AMI
Lily	ACT	AUPD; AMI; non-indicative for AU
Lucy	ACT	AUPD; AMI; non-indicative for AU
Krystal	AUPD and non-indicative for ACT	AMI; non-indicative for AU
John	Non-indicative for AU	Ambiguous on AUPD; ambiguous on ACT; AMI
Anna	ACT	Non-indicative for AUPD; AMI; AU
Ella	ACT	Non-indicative for AUPD; AMI; AU

* AUPD = Acceptance of Unequal Power Distribution; ACT = Acceptance of Collectivistic Thinking; AMI = Acceptance of Masculine Ideas; AU = Acceptance of Uncertainty.

Description of culture-related values reflected in SUT interview

Table 3.4 shows the SUT profiles for each participant, including brief specifications for each aspect of teachers' self-understanding. Also, a summary of the culture-related values reflected in the self-understanding profile of the student teachers is provided.

Relationship between culture-related values revealed in CV and SUT interviews

The culture-related values revealed in the SUT interviews appeared to be largely consistent with those revealed in the CV interviews. All dominant culture-related values identified for the student teachers in the CV interviews (Table 3.3) manifested themselves also in the self-understanding profiles (Table 3.4). We will illustrate these results with some examples.

In Jenny's case, AUPD appears to be important in both the CV and SUT interviews. In the SUT interview, Jenny says she wants respect and to thus keep a distance from pupils: *If my relationship with my pupils is very close, it seems that I am not their teacher. They will see me as having the same age, so they won't listen to me.* Jenny expressed the same values in the CV interview when confronted with situations pertaining to the distribution of power. Jenny assumed the head teacher in the school to be clearly more powerful and that she should therefore not do anything against the head teacher's will.

For Ella, the predominant common element in both the CV and SUT interviews was ACT, with correspondence between the two interviews found for most of the other culture-related values as well. Ella, for example, mentioned in her SUT interview that she did not have a personal interest in being a teacher but decided to do so under pressure from her family. In her CV interview, she also stated that she considered the interests of the group majority more important than the interests of a minority and that she would vote for the majority, even if she agreed with the opinions of a minority.

Anna showed the same predominant collectivist values as Ella in the CV interview (i.e., always putting the interests of the majority first). Anna for example also mentioned in the SUT interview that she decided to be a teacher because all of her family had graduated from the same teacher university and she did not want to be an exception. In addition to the dominant culture-related value, the other culture-related values manifested themselves

similarly in the CV and SUT interviews for Anna. For Mary, masculine ideas were important in both the CV and SUT interview results.

Only 2 of the 32 culture-related values reflected in the CV and SUT interviews of all student teachers were found to be inconsistent. In these two instances, both John and Ella showed AMI (acceptance of masculine ideas) in the CV interview but non-indicative for AMI in the SUT interview.

Table 3.4.

*Summary of the five domains of self-understanding and predominant cultural values reflected in student teachers' self-understanding profiles**

Name	Topic *	Summary	Key words in the aspect of self-understanding				
			Focus expert Role				Professional commitment
			Subject matter	Instructional	Pedagogical	Interpersonal	
Jenny	SUT	Focuses on being a subject matter and instruction expert.	Sufficient knowledge and reciting English knowledge.	Planning and teaching in a detailed way; pupils' scores; independent learning.	Social skills and promoting positive peer-relationships.	Respect, harmony	Family pressure; being an average teacher, not an excellent one.
	Ref-CV	AUPD; non-indicative for AU and non-indicative for AMI; ACT	AUPD; non-indicative for AU	AUPD; AMI; non-indicative for AU	ACT; non-indicative for AMI	AUPD; ACT	ACT; non-indicative for AU
Mary	SUT	Focuses on being an interpersonal expert and professional commitment.	/	Teaching plan; facilitating pupils in class; pupils' scores; self-directed learning.	Pupils' moral and psychological development	Being equal to pupils; pupils being afraid of her; being a leader in class	Satisfied to be a teacher forever; connection between personal and professional live.
	Ref-CV	ACT and non-indicative for AU; non-indicative for AUPD and AMI	/	Ambiguous AUPD; AMI; non-indicative AU	Non-indicative for AUPD; non-indicative for ACT	Non-indicative for AUPD; ACT; non-indicative for AU	AMI; ACT; non-indicative for AU

Lily	SUT	Focuses on being an instructional and a subject matter expert.	Sufficient knowledge; reciting and translating English.	Teaching plans; different teaching approaches; being able to answer pupils' questions	Social skills; being a better person; discovering pupils' interests.	Respect, treating pupils equally	Family pressure; important for the development of society.
	Ref-CV	ACT and AUPD; non-indicative for AU; AMI	AUPD; non-indicative for AU	Ambiguous AUPD; Ambiguous ACT; AMI; non-indicative for AU	ACT; non-indicative for AMI	AUPD; ACT	ACT; AMI; non-indicative for AU
Lucy	SUT	Focuses on professional commitment and instructional expertise.	Sufficient knowledge; emotional targets	Teaching plan motivating pupils; multiple teaching approaches; innovative and creative teaching; pupils' scores; pupils' own ideas and knowledge	Development of pupils' peer-relationship and psychological well-being; role model;	Tension between wanting to be liked and having to be strict with pupils	Values role of the teacher in society, which makes her satisfied with becoming a teacher. She wants to contribute to society and be a famous teacher and well-known by others.
	Ref-CV	ACT; AUPD; AMI; non-indicative for AU	Non-indicative for AMI; non-indicative for AU	Ambiguous AUPD; AMI; ambiguous AU	ACT	AUPD; ACT	ACT; AMI; non-indicative for AU

Krystal	SUT	Focuses on professional commitment and instructional expertise.	Sufficient knowledge	Teaching plan; guiding, leading and motivating pupils; pupils' scores.	Pupils' personal lives	Respect; being a leader; being strict	Enjoy being a teacher; stable job and suitable for girls; career plan; being the best teacher.
	Ref-CV	AUPD; non-indicative for AU; non-indicative for ACT; AMI	Non-indicative for AU	Ambiguous AUPD; non-indicative for ACT; AMI; non-indicative for AU	Non-indicative ACT	AUPD	AUPD; AMI; non-indicative for AU
John	SUT	Focuses on being a pedagogical and instructional expert.	Sufficient knowledge	Teaching plan; facilitating pupils; multiply teaching approaches; classroom cleanness; learning effectively	Psychological development; personal interests; a role model	Respect; discipline; trust and affiliation	Role in society; suggestions from previous teacher; not being a teacher forever.
	Ref-CV	Non-indicative for AU; non-indicative for AMI; ambiguous AUPD; ambiguous ACT	Non-indicative for AU	Non-indicative for AUPD; AMI; non-indicative for AU	AUPD; non-indicative for ACT; non-indicative for AMI	Ambiguous AUPD; non-indicative for AU	ACT; AU
Anna	SUT	Focuses on being a pedagogical and an instructional expert.	Learning in experiences	Multiple teaching approaches; facilitating pupils; learning attitudes; learning strategies	Being a better person; social skills; role model	Being equal to pupils	Satisfied with being a teacher as the same experience of all family members

	Ref-CV	ACT; non-indicative for AUPD; AMI; AU	Non-indicative for ACT	ACT; non-indicative for AUPD; AMI; non-indicative for AU	Non-indicative for AMI; AUPD	Non-indicative for AUPD; non-indicative for AMI; ACT	ACT; AMI
Ella	SUT	Focuses on being a pedagogical and interpersonal expert.	Sufficient knowledge	Teaching plan; pupils' own ideas; stimulating pupils	Having a happy life.	Being helpful; being trusted	Family pressure; not satisfied; role in society
	Ref-CV	ACT; non-indicative for AUPD; non-indicative for AMI; ambiguous AU	Non-indicative for AU	Non-indicative for AUPD; non-indicative for AMI; non-indicative for AU	ACT	Non-indicative for AUPD; ACT	Ambiguous ACT; AMI; AU

* SUT = SUT profiles; Ref-CV = Reflected Culture-related Values; AUPD = Acceptance of Unequal Power Distribution; ACT = Acceptance of Collectivistic Thinking; AMI = Acceptance of Masculine Ideas; AU = Acceptance of Uncertainty.

Conclusion and discussion

In this study, we explored the culture-related values of eight Chinese student teachers for different situations in their daily life and education and the manifestation of these culture-related values in their self-understanding of being a teacher. The results showed similar culture-related values in the interviews concerned with daily life and educational situations (CV interview) and the self-understanding profiles of the student teachers (based on SUT interviews). Furthermore, the culture-related values which predominated in the CV interviews of the student teachers differed per participant, but clearly correlated with their thoughts about being a teacher. This result indicates that the culture-related values that play a role in student teachers daily life situations also could influence their self-understanding of being a teacher. It has been argued elsewhere that the importance of personal value systems must be recognized in teacher education (Borg, 2003; Pantić & Wubbels, 2012) and the results of this study confirm this assertion. If student teachers' personal values are not aligned with the values underlying the teaching approaches advocated in the teacher education programme or by policy makers, then student teachers might feel tensions. When, for example, student teachers accept collectivistic thinking in their personal values they might feel it difficult to follow individualistic and constructivist approaches to teaching. Therefore, insight into personal values can presumably help raise teacher educators' awareness of the role of culture-related values in teaching and make student teachers and teachers more aware of possible conflicts in the culture-related values underlying their self-understandings of being a teacher, especially in a context of concurrent sometimes conflicting values.

Different student teachers appeared to show rather idiosyncratic combinations of culture-related values instead of a "Chinese" pattern as described in Hofstede's investigations (Hofstede, Hofstede, & Minkov, 2010). For example, the dominant culture-related value for Mary, Lily, Lucy, Anna and Ella in their CV interview was collectivistic thinking, which is a characteristic of a Confucian culture (e.g., Marshall, 2008; Wang & Tamis-Lemonda, 2003).

However, not all participants (i.e., Krystal and John) showed this way of thinking. This variation presumably reflects similar culture-related values not being shared by all individuals within a given culture and, in the case of at least John, exposure to an additional culture (Taiwan) with differing culture-related values might have influenced him (Kirkebæk, Du, & Jensen, 2013). The other characteristic of a Confucian culture, high acceptance of unequal power distribution (Liu & Xu, 2011), appeared clearly in Jenny and Krystal's CV interviews. Anna and Ella, however, did not accept the unequal relationship between teachers and students, which can be seen as a characteristic of a Western culture.

To explore the teacher's self-understanding of being a teacher we wanted to use the five components, self-image, self-esteem, task perception, job motivation, and future perspective (Kelchtermans, 1993, 2005). In doing so, we initially intended to examine the self-understandings of the eight student teachers with respect to not only their actual teaching in the classroom but also their ideas about being a good professional in schools (e.g., how to create fruitful working relationships with colleagues). However, in their SUT interviews, the responses of the student teachers mostly pertained to their task perceptions limited to teaching in the classroom and job motivation formulated as commitment to the job — even when they were explicitly probed about the other three components (i.e., self-esteem, self-image, and future perspective). It might be that their self-understanding related to self-image and self-esteem are masked by their perceived ability to enact tasks, while their perceived future perspective is encapsulated in their commitment to the job. Consequently, we had to decide to use four expertise roles (i.e., subject matter expertise, instructional expertise, pedagogical expertise, interpersonal expertise) to analyse classroom task perception and professional commitment to analyse student teachers' future perspective. Out of these new aspects of self-understanding, instructional expertise was talked about most by the student teachers in the SUT interviews. In other words, the student teachers in the present study were mostly concerned with how to teach. This focus on mostly themselves and the teaching

methods to be used is in keeping with the findings of other recent research (e.g., Anspal, Eisenschmidt, & Löfström, 2012), and can be interpreted as an inward orientation (Conway & Clark, 2003).

The predominant culture-related value was found to vary from participant to participant. This finding is in keeping with Ball's assertion that value struggles are highly individualized (Ball, 2003). It is the individual teacher who experiences the value struggle and must decide on how to preserve, modify or discard specific values (Ball, 2003). Comparison of the results of the CV interviews with the results of the SUT interviews nevertheless showed the results to be highly consistent at the level of the individual student teacher. The exception of a discrepancy in the results for John could be seen to conceivably relate to his experiences in Taiwan, where values are more Western oriented than in Mainland China (Zhang, Lin, Nonaka, & Beom, 2005).

Based on the above, it is reasonable to conclude that the four categories of culture-related values, which were adopted from a country framework (i.e., Hofstede, 1983; Hofstede, Hofstede, & Minkov, 2010), could indeed be used to also qualitatively describe individual student teachers' values in daily life and in their self-understanding of being a teacher.

The small number of student teachers interviewed in the present study precludes generalization to other student teachers or firm conclusions about the current thinking of student teachers in China. Research on a larger scale in a quantitative study is obviously needed to test if the idiosyncratic combinations of culture-related values, rather than a "Chinese" pattern, that were found in this study also exist in a larger population. If so, one might need to reconsider the "stereotype" of being Chinese or being Chinese teachers.

Appendix

Appendix 3A

Specific educational interpretations used to code four categories of culture-related values

Category of culture-related value	No.	Specification related to education
Acceptance of unequal power distribution	1	Teacher-student inequality is well established in the minds of students.
	2	Teachers are treated with respect or even fear. They are never publicly contradicted or criticized, even outside school.
	3	Only teachers outline intellectual paths to be followed (e.g., how to teach, how to think, how students should react, what students should learn). The educational process depends highly on the teacher.
	4	In the classroom, there is strict order with the teacher initiating all communication. Students in the class should not make uninvited comments.
	5	The quality of student learning depends on the excellence of the teacher and not the two-way communication between teacher and student.
	6	Teachers involve parents and expect parents to help set student straight when student misbehave.
	7	Students remain dependent on teachers even after reaching secondary school.
	8	Physical punishment is acceptable at school, at least for pre-adolescent children.
	9	Older teachers are more respected than younger ones.
Acceptance of collectivist thinking	1	Students are treated as a member of the group. They hesitate to speak up in large groups without a teacher being present.
	2	Group formation by teachers is the prevailing way of teaching. It can increase student participation. A spokesperson is appointed for each group. His (her) answers represent group answers.
	3	Teachers stress ‘we’ awareness, collective identity to students.
	4	Teachers avoid confrontation. Conflicts with students should be formulated so as to not hurt anyone. Saving face is important for both teachers and students. Losing face should be avoided.
	5	The purpose of education is to acquire the skills and virtues necessary to be an acceptable group member.
	6	There is an end to learning processes.
	7	Students need to focus on learning how to do and less on how to learn.
	8	A diploma is an honour to the holder (and his or her in-group) and entitles the holder to associate with members of higher-status groups. It is ‘a ticket to success’.
	9	Teachers define themselves by their in-group membership and subordinate their personal goals to those of the in-group. Within an

		in-group, teachers are more likely to emphasize the implications of their own behaviour for others, to share resources (with other members of the in-group), to emphasize harmony, to be controlled by shame, to share both good and bad outcomes, to feel that they are a part of their in-group's life.
Acceptance of masculine ideas	1	Teachers praise excellent students, as the best are the norm.
	2	Students strive for excellence in class and compete openly with each other.
	3	Failing in school is a disaster.
	4	Competitive sports play has an important role to play in the curriculum.
	5	Teacher brilliance, teacher academic reputation and student performance (i.e., academic scores) are the dominant criteria for evaluation of teachers and students.
	6	Intrinsic interest in the subject matter is not an important factor for choice of a teaching career.
	7	Teachers think that it is good to be field-dependent.
	8	Women teach mainly younger children while men teach mostly at universities.
	9	Teacher friendliness, teacher and student social skills and student social adaptation are not important in evaluations.
Acceptance of uncertainty	1	Students expect that inaccuracy can be accepted. They despise structured learning situations with precise objectives, detailed assignments and strict timetables.
	2	Students like situations in which there are different response possibilities and thus different answers which can be correct.
	3	Students accept a teacher who says 'I don't know'.
	4	Students are encouraged to show intellectual disagreement with teachers. Intellectual disagreement is seen as a stimulating exercise.
	5	Teachers attribute their achievements to their own ability instead of circumstances or luck.
	6	Teachers feel comfortable in ambiguous or unfamiliar situations. They are willing to take risks and seek solutions by actively experimenting with problems.
	7	Teachers try to get parents involved in their children's learning: they actively seek ideas and input from parents.
	8	Work hard is not one of the inner urges of teachers. They don't have an emotional need to be busy.

Appendix 3B

Culture-related Values Interview

This interview concerns your cultural values. I will be asking you about four aspects of your cultural values, namely: your acceptance of unequal power distribution, acceptance of collectivist ideas, acceptance of masculine ideas and acceptance of avoidance of uncertainty. I will describe some situations which can present themselves in anyone's life. You will then be asked to tell me what you think about each situation.

Do you have any questions about what I have said up until now?

To introduce you to the kinds of situations which you will be asked about, I will first give you an example. *Imagine that you are in a supermarket. A salesman keeps trying to convince you to buy the products in the supermarket. What would do?*

The 20 situations will now be presented. Please respond to them as instructed.

- Imagine that you have a thirteen-year-old child. There are two secondary schools you can choose from for your child. One of the schools has famous teachers. The other one has a great library. What would you do?
- Imagine that you are a secondary school student. Your teacher asks the class a question. No one answers, but you know the answer. What would you do?
- Imagine that you are the leader of a teaching subject group. The head teacher wants to implement a specific teaching model in your school. However, some of the teachers in your subject group dislike this model. What would you do?
- Imagine that you are a secondary school student and ask your math teacher a question. However, the teacher tells you that he doesn't know how to answer the question. What do you think about this situation?
- Imagine that your English teacher is using your English paper as an example. She is analysing the mistakes in your paper. All your classmates know that this is your paper. What do you think about this situation?

- Imagine that you are a teacher in a public school. There are two transfer students who want to be in your class. But you can only take one of them. According to their achievement cards, you know that one of the students has great academic achievement; the other student is known to have great relations with classmates. What would you do?
- Imagine that you have worked hard for several months for an exam. When you take the exam, you see that a lot of the texts are texts which you have studied. You thus know the answers. What do you think about this situation?
- Imagine that you are a teacher. There is a student who always makes uninvited comments in your class. She asks a lot of questions about what you are teaching. What would you do?
- Imagine that you want to learn to play the violin. There are two teachers you can choose from. One offers you a plan for your learning, such as what you will learn in the first class, what you will learn in the second class and so forth. The other teacher shows her excellent skills and trophies to you. Which one would you chose?
- Suppose that you, as a new teacher, disagree with the teaching model which has been developed by the head teacher in your school. What would you do?
- Suppose that you are secondary school student. The best student in your class always volunteers to answer questions during your classes. What would you do?
- Imagine that your teacher asks you to choose one of your classmates to do something with you. There are two volunteers who want to do this. One is your best friend. The other one is very good at doing the kind of thing which has to be done. What would you do?
- Imagine that you want to make an appointment with one of your teaching colleagues. You send him an email, asking when he is available. He replies that he will see you tomorrow. What would you do?

- Imagine that your best friend decides to start a business. However, you do not think that this is a good idea. What would you do?
- Let's say that one of your classmates is always the best in your class but fails to pass the National Exam. She is very upset. What would you do?
- Imagine that you've lost the report which you did for your work. The head teacher, however, thinks that you didn't prepare it and that you are lying to him. He is very angry with you. What would you do?
- Let's say that you have a job with a high social status. One of your cousins cannot find a job. He asks you to help him find one. What would you do?
- Imagine that you are discussing something with your teacher. Your teacher's phone rings. He doesn't ask your permission and answers the phone. What do you think about this situation?
- Imagine that you are a new teacher in a public school. You can choose one of two experienced teachers to be your lead teacher. One of the teachers has a great reputation for high student scores, but is also famous for her strictness — all of her students are afraid of her. The other teacher is very popular amongst students. Which teacher would you choose?
- Imagine that there is only one month until your graduation. However, you haven't found a job yet. How will you feel in this situation?

Appendix 3C

Self-understanding of Being a Teacher interview

Hello! In this interview, I want to ask about your self-understanding of being a teacher. All your answers will be treated confidentially. I will not use them for any other purpose than my research study. All of your answers will only be seen by my supervisors and by me. The interview will take roughly one hour. If you want to stop or take a rest at any point during the interview, please let me know. Do you have any questions about what I have just said?

- What kind of teacher do you want to become?
- What kind of plan do you have for your teaching career?
- What, in your opinion, is a good way to teach?
- What is in your opinion is a bad way to teach?
- What general principles do you have for your teaching?
- What, in your opinion, is a good classroom atmosphere?
- What, in your opinion, is a bad classroom atmosphere?
- How good are you as a teacher?
- What kind of qualities do you think a good teacher should have?
- What kind of qualities do you think you need to improve?
- What kind of perceptions do you hope your pupils will have of you as a teacher?
- What kind of perceptions do you hope that your instructor will have of you as a teacher?
- What kind of perceptions do you hope that your lead teacher will have of you as a teacher?
- What qualities do you think a good student should have?
- What kind of relationship do you want to build with your students?
- What kind of support do you expect parents of students to offer to you?

- What's your job as a teacher?
- Can you describe what you will do during a regular working day as a teacher?
- Can you tell me if you are satisfied with how these tasks are done?
- Which aspect of being a teacher is most satisfying for you?
- Which aspect of being a teacher is most dissatisfying for you?
- What made you decide to be a teacher?
- How satisfying do you think a job as a teacher will be?
- How do you conceive of yourself as a teacher?

Appendix 3D

Analytical tool for the analysis of student teachers' SUT interview

Aspect	Subcategory	Focus on… (Examples)
Subject matter expertise	Subject matter knowledge	… teachers need to have sufficient knowledge
	Subject matter skills	… teachers need to teach students how to use reciting skills in learning English
Didactic expertise	Planning of teaching	... teachers need to plan their lessons in a very detailed way
	Execution of teaching	… teachers need to teach students learning strategies
	Evaluation of students' learning	… teachers only use scores to distinguish between students
	Learning process	… teachers need to lead students to self-directed learning
Pedagogical expertise	Students' social development	… teachers need to teach students some social skills
	Students' emotional development	… teachers need to maintain students' self-esteem
	Students' moral development	… teachers should help their students to be a better person in the future
Interpersonal expertise		… students should respect their teachers
Professional commitment	Subject significance of work	…he or she practically satisfies to be a teacher (e.g. having holidays, good salary and so on).
	Professional ambition	… he or she wants to be an advanced teacher
	Striving for perfection	… teachers need to strive to be perfect in being a teacher
	Emotional distance	… teachers need to make a clear separation between professional life and personal life

Chapter 4

Culture-related values in the teaching practices of eight student teachers in China[1,2,3]

Abstract

Student teachers from China might experience a problematic gap between the theory taught in their teacher education programmes (based on Western values) and their personal theories of effective teaching and learning (based on Confucian values). In the current study, stimulated recall interviews were conducted to investigate eight Chinese student teachers' values by collecting the emotions, cognitions, and behaviours that they experienced in relation to emotional incidents. These values were then analysed from a cultural perspective, including four categories of culture-related values. We propose a tentative model to describe the association between culture-related values and the evaluation of emotional incidents.

[1] This chapter has been submitted for publication as: Liu, M., Zwart, R., & Wubbels, T. (under review). Culture-related values in teaching practices of eight student teachers in China.

[2] Acknowledgement of author contributions: ML, RZ, and TW designed the study. ML translated the interview guidelines into Chinese. ML approached the participants, collected the data, translated all data of one student teacher into English and discussed with the other two authors the analyses. Then ML analyzed the other data. ML drafted the manuscript. All authors contributed to critical revision of the paper. RZ and TW supervised this study.

[3] All details on data analyses (including audit trails) are available upon request from the author.

Introduction

Imagine a teacher being interrupted by a pupil with a question. Some teachers may be annoyed by this behaviour, while others may perceive it as quite normal and welcome the interruption. This example illustrates that different teachers can have completely different reactions to the same classroom situation. The diversity of reactions can arise from the teachers' interpretation of the classroom incident (Sutherland, Howard, & Markauskaite, 2010), and the teachers' teaching values, beliefs and knowledge may provide a strong framework for this interpretation (Wubbels, 1992; Pekrun, Frenzel, Goetz, & Perry, 2007). The teacher who is annoyed by a classroom interruption from a pupil might, for example, assume that all pupils must show unconditional respect for their teachers and that every interaction in the classroom must be initiated and guided by the teacher. An interruption by a pupil may thus be interpreted as disrespectful and possibly as a challenge to the authority of the teacher; the teacher may then experience negative emotions. In contrast, the teacher who assumes that interrupting the teacher to ask a question is quite normal may not be bothered by the occurrence. Such a teacher might even consider the act of asking questions to be a feature of an excellent pupil and therefore *expect* pupils to ask questions and even reward a pupil who interrupts the classroom with a question.

The preceding example illustrates that teaching is a value-based activity (see also Korthagen, 2017; Veugelers & Vedder, 2003). Teaching values influence not only teachers' understanding of being a teacher (see chapter 2; O'Connor, 2008) but also their actual teaching behaviour (den Brok, Van Tartwijk, Wubbels, & Veldman, 2010; Sam & Ernest, 1997). When Calderhead and Robson (1991) compared the cognitions used by student teachers to frame their interpretations of a teaching incident to those used by experienced teachers, they found—as might be expected—that experienced teachers drew more upon practical knowledge gained during previous teaching experiences and student teachers drew more upon personal values.

The conflict at times of teaching values with the reality of the classroom has been demonstrated in several studies (e.g., den Brok, Van Tartwijk, Wubbels, & Veldman, 2010; Garmon, 2005; Veugelers & Vedder, 2003). Veugelers and Vedder (2003) found that teachers can espouse one given value as very important but then adhere to very different values in their actual teaching practice. In a similar vein, student teachers might be taught and start to believe that motivating pupils to ask questions is important, but nevertheless, view pupils actually asking questions as negative (i.e., as an inappropriate interruption of the lesson). Such discrepancies between espoused values and practised values are most likely to occur when the values underlying the teacher education programme differ from the personal values of the student teacher (Hobson, Ashby, Malderez, & Tomlinson, 2009; Korthagen & Kessels, 1999). When discrepancies such as these occur, it may become difficult for student teachers to fully incorporate what they have been taught during a teacher education programme into their own practice. The greater the differences in the espoused values and the practised values, the greater the risk that student teachers might feel frustrated and dissatisfied. It is therefore important to better understand the role these values play in developing the teaching practice of student teachers. In the context of China, this difference in values specifically holds since student teachers today find themselves in a situation where, due to educational reforms, major tensions can arise between the values underlying a teacher education programme and their own personal values.

Similar to the educational reforms being implemented in many other Asian countries, the Chinese Ministry of Education started the eighth National Curriculum Reform in 2001. This reform entails the continued introduction of Western values for teaching and learning into a culture with traditional Confucian values (Liu & Xu, 2011). Student teachers from China are therefore experiencing two different value systems at the same time: Confucian and Western (Cheng, Chan, Tang, & Cheng, 2009; also see chapter 2). Most student teachers have been taught in primary and secondary school using a Confucian, teacher-centred,

information transmission approach, while recent teacher education programmes focus on constructivist, student-centred educational methods in which teachers are trained to act as facilitators of their pupils' learning (Chen, Wei, & Jiang, 2017). In the programme of the Northeast Teacher University of China, for example, being able to stimulate self-initiated pupil learning and collaborative inquiry is one of the skills considered most important for student teachers to acquire (Curriculum Plan 2015 for University students, Faculty of Foreign Language)[4].

This study aims to describe the role that the (culture-related) values play in the practice of eight Chinese student teachers of English language in a Chinese Teacher University by collecting in depth qualitative data on self-reported and observed emotional classroom incidents and the student teachers' reflections on those incidents. We argue that the values in the student teachers' teaching practices can be revealed by examining the emotions, cognitions, and behaviours that student teachers experienced in relation to those incidents. Since previous studies showed that the often-used country-based description of Chinese values (e.g., Confucian values) does not adequately describe the variety in individual culture-related values (Pekrun, 2018; Zhu, Valcke, & Schellens, 2010), in the current study, we adopt a boarder cultural perspective by using a description of Hofstede's four cultural dimensions to map, at the individual level, the values that may play a role in the teaching practices of Chinese student teachers.

Theoretical framework

Values in teaching

Values involve judgements of what is good and what is bad (Veugelers & Vedder, 2003). Within the context of teacher training, values can be understood as judgements that

[4] Information source: http://www.nenu.edu.cn/_upload/article/28/da/703afe214648af9c11bf94941f0e/a509a752-1ed7-4f7d-a944-4c33b5f694e3.pdf (in Chinese)

student teachers make during their teaching practices. These judgements, however, are often implicit, and it is difficult to make them explicit (Pantić & Wubbels, 2012; Fives & Buehl, 2008; Willemse, Lunenberg, & Korthagen, 2008). We believe that it is hard, and perhaps even inaccurate, to understand the values in the teaching practices of student teachers by asking them to report the values themselves. The values in teaching practices might be more authentically described by accessible indicators such as (reported) emotions, cognitions and behaviours (see also Clarke & Hollingsworth, 2002).In Figure 4.1, the theoretical framework for the present study is depicted. Below, we will discuss the elements of the theoretical framework.

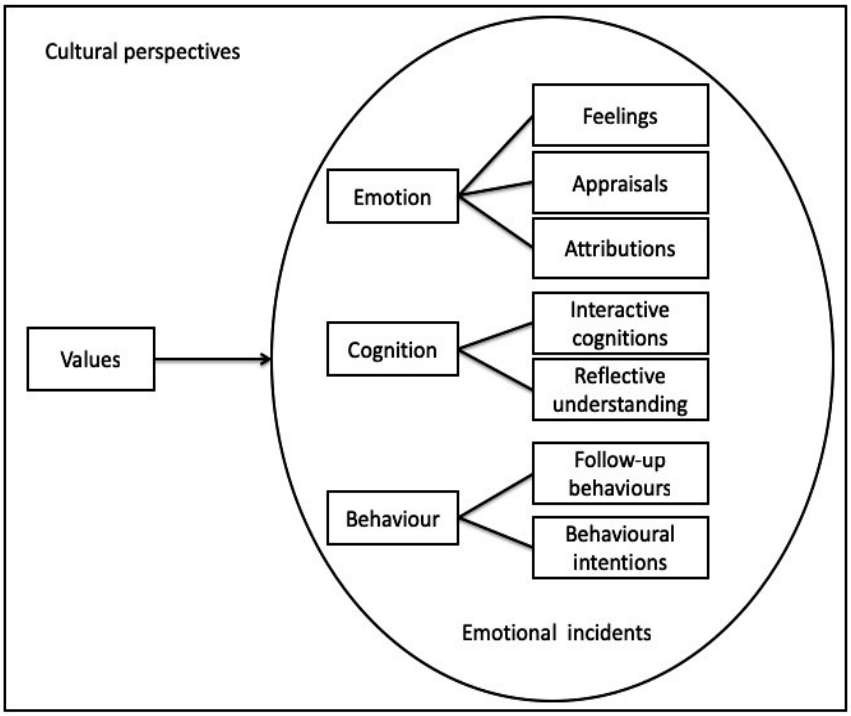


Figure 4.1. Conceptual framework for study

Emotion, cognition and behaviour

Several scholars have documented the associations between teacher values and the emotions experienced by teachers in the classroom (e.g., Roseman & Smith, 2001; Schutz,

Aultman, & Williams-Johnson, 2009; Sutton & Wheatley, 2003). Emotions are largely experienced on an unconscious level (Barrett, 2006), but they can become quite marked and more explicit under extreme circumstances (Russell, 2003). On one hand, emotions emerge in conjunction with an appraisal of a situation, but on the other hand, emotions emerge from the attribution of cause or responsibility (Schutz, Aultman, & Williams-Johnson, 2009). *Appraisal* - an evaluation of an event - is an "antecedent" of emotion (Pekrun, Frenzel, & Goets, 2007, p.14). When the appraisal is in line with the expectations and/or goals, a positive emotion may result; when the appraisal is in conflict with the expectations and/or goals, a negative emotion may result (Allas, Leijen, & Toom, 2017; Lazarus, 1991; Pekrun, 2006; Price & Barrell, 1984). *Attribution* refers to perceptions of agency and thus responsibility for a given situation or incident (Weiner, 1972). Specific attributions can give rise to specific emotions and behaviours (Canrinus, Helms-Lorenz, Beijaard, Buitink, & Hofman, 2012; Weiner, 1972). When someone makes a mistake and this is attributed to the person him or herself, feelings of embarrassment, shame, and disappointment may be the result. When a mistake is made and this is attributed to someone else, feelings of aggravation, annoyance and even anger may result (Weiner, 1972; Pekrun, Frenzel, Goetz, & Perry, 2007).

Cognition is typically approached in terms of reasoning and rationality, and Blanchette and Richards (2010) have argued that cognition can be affected by emotion. There is a possibility that a teacher's reasoning and rationality after teaching differs from their reasoning during teaching (Fenstermacher & Richardson, 1993). Thus, in the present study, we distinguish cognition as *interactive cognition* (i.e., the teachers' beliefs and thought process while teaching) (Borg, 2003; Schepens, Alterman, & van Keer, 2007) from *reflective understanding* (i.e., the teachers' explanation of the incident after teaching).

Generally, teachers' behaviours in class concern their behaviour regarding the pupils' learning and outcomes and involves the teachers' personal and professional understanding of being a teacher (Maulana, Helms-Lorenz, & van de Grift, 2015). De Brabander and Martens

(2014) have argued that behaviour is influenced by the interaction between emotion and cognition. The student teachers' behaviour in class during an incident might be different from intentions to behave in future similar events. Thus, in the present study, we include both *follow-up behaviour* in the incident and *future behavioural intentions* expressed in the interview.

Understanding student teacher values from a cultural perspective

Student teacher values are inevitably influenced by culture (Veugelers & Vedder, 2003; Pantić & Wubbels, 2012). According to Triandis (1996), culture includes common values that provide standards for believing, perceiving, communicating and acting within a society. For example, in a traditional Chinese Confucian culture, harmony in "the embrace of inescapable hierarchy" is a common value (Gabrenya & Huang, 1996, P.310). This value is also reflected in educational practices, e.g., when pupils should respect their teachers and follow their teachers' instructions (Hu, 2002). However, currently in China, because of the imported Western constructivist teaching approaches, (student) teachers might hold different values regarding the hierarchy between teachers and pupils, for example, more egalitarian values. To describe such changes comprehensively, a differentiated perspective on cultural values is needed.

Several perspectives are available in the literature. For example, Triandis (1972, 1980) demonstrates that individualism and collectivism are the most important dimensions to describe an individual's values. Individualism and collectivism not only represent the common values cultural communities share (i.e., most student teachers show a similar acceptance of collectivistic/individualistic thinking) but can also reflect differences between individuals (i.e., individuals show different attitudes) (Triandis & Suh, 2002). Empirically, it appears that an individual's acceptance of collectivistic and individualistic thinking are not opposites at the individual level: an individual's values in a certain situation can reflect their

acceptance of both collectivistic thinking and individualistic thinking (Triandis, 2004; Watson & Morris, 2002). Studies by Hofstede and colleagues (Hofstede, 1983; Hofstede, Hofstede, & Minkov, 2010) broadened the dimensions to characterize cultures. Hofstede (1983) investigated the values held by employees of the IBM (International Business Machine) company from different countries and suggested four cultural dimensions to describe the common values of different countries: power distance, individualism/collectivism, masculinity/femininity, and uncertainty avoidance[5].

The four dimensions at a country level have two opposite ends, i.e., large power distance vs. small power distance, collectivism vs. individualism, masculinity vs. femininity, and strong uncertainty avoidance vs. weak uncertainty avoidance. In Hofstede's investigation, one country's culture, i.e., common values of people in one country, can be marked at a position between the ends of each dimension. For example, the Chinese society, compared with other societies, can be described as having relatively large acceptance of power distance, having weak avoidance of uncertainty, and being largely collectivistic and masculine. However, at the individual level, the two ends of each dimension do not always appear opposite to each other, as mentioned above for collectivistic and individualistic thinking (Triandis, 2004). We avoided the problem of falsely dichotomizing values into two opposite ends and took only one end of Hofstede's dimensions as a starting point to understand the values on an individual level. Given our interests in the values of student teachers from China in teaching, we adopted the four ends that were according to Hofstede (1983; 2010) adjacent to the Chinese culture as lenses to view individual values. The four categories of culture-related values are as follows: Acceptance of Unequal Power Distribution (abbreviated as *AUPD*), Acceptance of Collectivist Thinking (*ACT*), Acceptance of Masculine Ideas (*AMI*), and Acceptance of Uncertainty (*AU*).

[5] Hofstede uses one additional dimension, namely long- versus short-term orientation. As applying the four dimensions is common in the educational sciences (e.g., Hofstede, 1986; Fisher & Waldrip, 1999; Cronjé, 2010) and the differences between long-term and short-term orientations are not as clear as those between the other dimensions, this dimension is not considered here.

Individual attitudes towards the four categories of culture-related values can be reflected in their behavioural tendencies in certain situations (Hofstede, Hofstede, & Minkov, 2010; Triandis, 1996; also see chapter2 of this thesis;). For example, individuals with a high acceptance of collectivistic thinking tend to subordinate their personal goals to those of the in-group (Triandis, 1994). In the current study, we specified the interpretations of the extreme ends of the four categories of culture-related values in educational contexts based on the book of Hofstede, Hofstede, and Minkov (2010) and studies by Triandis (1994, 1996) (see Table 4.1).

Table 4.1.

Specific educational interpretations of the four categories of culture-related values

Category of culture-related value	**No.**	**Specification related to education**
Acceptance of unequal power distribution	1	Teacher-student inequality is well established in the minds of students.
	2	Teachers are treated with respect or even fear. They are never publicly contradicted or criticized, even outside school.
	3	Only teachers outline intellectual paths to be followed (e.g., how to teach, how to think, how students should react, what students should learn). The educational process depends highly on the teacher.
	4	In the classroom, there is strict order with the teacher initiating all communication. Students in the class should not make uninvited comments.
	5	The quality of student learning depends on the excellence of the teacher and not the two-way communication between teacher and student.
	6	Teachers involve parents and expect parents to help set student straight when student misbehave.
	7	Students remain dependent on teachers even after reaching secondary school.
	8	Physical punishment is acceptable at school, at least for pre-adolescent children.
	9	Older teachers are more respected than younger ones.
Acceptance of collectivist thinking	1	Students are treated as a member of the group. They hesitate to speak up in large groups without a teacher being present.
	2	Group formation by teachers is the prevailing way of teaching. It can increase student participation. A spokesperson is appointed for each group. His (her) answers represent group answers.
	3	Teachers stress ‘we’ awareness, collective identity to students.

	4	Teachers avoid confrontation. Conflicts with students should be formulated so as to not hurt anyone. Saving face is important for both teachers and students. Losing face should be avoided.
	5	The purpose of education is to acquire the skills and virtues necessary to be an acceptable group member.
	6	There is an end to learning processes.
	7	Students need to focus on learning how to do and less on how to learn.
	8	A diploma is an honour to the holder (and his or her in-group) and entitles the holder to associate with members of higher-status groups. It is 'a ticket to success'.
	9	Teachers define themselves by their in-group membership and subordinate their personal goals to those of the in-group. Within an in-group, teachers are more likely to emphasize the implications of their own behaviour for others, to share resources (with other members of the in-group), to emphasize harmony, to be controlled by shame, to share both good and bad outcomes, to feel that they are a part of their in-group's life.
Acceptance of masculine ideas	1	Teachers praise excellent students, as the best are the norm.
	2	Students strive for excellence in class and compete openly with each other.
	3	Failing in school is a disaster.
	4	Competitive sports play has an important role to play in the curriculum.
	5	Teacher brilliance, teacher academic reputation and student performance (i.e., academic scores) are the dominant criteria for evaluation of teachers and students.
	6	Intrinsic interest in the subject matter is not an important factor for choice of a teaching career.
	7	Teachers think that it is good to be field-dependent.
	8	Women teach mainly younger children while men teach mostly at universities.
	9	Teacher friendliness, teacher and student social skills and student social adaptation are not important in evaluations.
Acceptance of uncertainty	1	Students expect that inaccuracy can be accepted. They despise structured learning situations with precise objectives, detailed assignments and strict timetables.
	2	Students like situations in which there are different response possibilities and thus different answers which can be correct.
	3	Students accept a teacher who says 'I don't know'.
	4	Students are encouraged to show intellectual disagreement with teachers. Intellectual disagreement is seen as a stimulating exercise.
	5	Teachers attribute their achievements to their own ability instead of circumstances or luck.
	6	Teachers feel comfortable in ambiguous or unfamiliar situations. They are willing to take risks and seek solutions by actively experimenting with problems.
	7	Teachers try to get parents involved in their children's learning: they actively seek ideas and input from parents.
	8	Work hard is not one of the inner urges of teachers. They don't have an emotional need to be busy.

Current study

During teaching, the student teachers' emotions can deeply influence their cognitive processes and their teaching behaviours (Pekrun, 2018; Barrett, Lewis, & Haviland-Jones, 2016). According to Tripp (1993), emotional awareness of an incident could guide (student) teachers to reflect and alter their behaviour in teaching. However, student teachers may not be aware of their emotions, cognitions and behaviours all the time during teaching (Angelides, 2001). Most likely, intense emotions can be recognized by teachers in situations where there is a contrast between the actual classroom experience and their initial understanding of being a teacher (Zembylas, 2005). We therefore used self-selected emotional incidents of student teachers, i.e., incidents when the student teachers sensed their evoked emotions (e.g., Bruster & Peterson, 2013; Korthagen & Vasalos, 2005; Shapira-Lishchinsky, 2011; Tripp, 1993) to trace their values in teaching. The emotions, cognitions, and behaviours related to the emotional incidents could help us infer the values the teachers adhered to (see Figure 4.1 for a representation of the conceptual framework).

The research question was as follows: *What roles do culture-related values inferred from emotional incidents play in the teaching practices of eight Chinese student teachers?*

Methods

To answer our research question, we used semi-structured video stimulated recall interviews to collect data on the emotional incidents of eight Chinese student teachers. We investigated their emotions, cognitions, and behaviours in depth to infer the values of student teachers that were enacted in practice. Then, we categorized these values into the four categories of culture-related values and explored the role of the cultural-related values in the student teachers' teaching practice. Below, we describe the design in more detail.

Research context and participants

In the teacher universities of China, students are trained for four years to be a teacher. The focus in the first three years is on the development of professional knowledge and skills needed to teach a particular subject matter (e.g., Chinese literature, history, physics, and English). At the beginning of the fourth year of study, universities arrange for student teachers to do a two-month internship in a primary or secondary school.

Eight student teachers in their last year of study in the English Language Department of a teacher university in China agreed to participate in the present study and provided their written consent. The university had arranged for these student teachers to do their internships in a secondary school under the supervision of a teacher educator from the university. In addition, the secondary school assigned an experienced teacher as mentor to each of the student teachers, and the student teachers each taught approximately 50 pupils in a grade 10 class (pupils aged 16 to 17 years). At the end of the internship, the mentor teacher provided the university with an evaluation of the student teacher's performance. All of the student teachers started their internships with two weeks of classroom observation in their respective mentor teacher's classes, and then the student teachers replaced their mentor teachers (i.e., English teachers) for six weeks.

Prior to the start of data collection, the first author of this paper established a good rapport with the eight participants by providing small presents. The demographic characteristics of the participants are presented in Table 4.2.

Table 4.2.

Participant information

Name[a]	Gender	Age	Teaching experience
Jenny	Female	22	Volunteer teacher in a rural area during the summer holiday once
Mary	Female	21	Volunteer teacher in a rural area during the summer holiday once
Lily	Female	22	No teaching experience
John	Male	21	Volunteer teacher in a rural area during the summer holiday once; visited schools and observed teaching in Taiwan
Anna	Female	23	No teaching experience
Ella	Female	21	No teaching experience
Lucy	Female	22	No teaching experience
Krystal	Female	21	Volunteer teacher in a rural area during the summer holiday once

[a] Names are fictitious

Data collection

The participants were interviewed about emotional incidents in their student teaching experience with the aid of video-stimulated recall (Consuegra, Engels, & Willegems, 2016; Schepens, Aelterman, & van Keer, 2007; Tripp & Rich, 2012). Each participant was filmed three times during the student teaching period: once at the beginning (during the third week), once in the middle (during the fifth or sixth week) and once at the end (during the seventh or eighth week). Each teaching session lasted 45 minutes. The first author of this paper, a native Chinese speaker, conducted all of the interviews on the day that the lesson was recorded. The interview was introduced as follows:

Together, we are going to look at the video recording of your teaching today. As we look at the video, please try to put yourself in the teaching situation again. As soon as you see an incident that made you experience an emotion or change of emotion during teaching, please say "stop" so we can talk about the incident.

After presenting the instructions, the researcher checked that the participant understood the instructions and asked the participant to repeat the criterion for saying "stop"

to ensure that the participant knew when and what to talk about. Once a participant stopped the video, the researcher conducted a semi-structured interview to investigate the emotions, cognitions and behaviours pertaining to the incident. First, the researcher asked the participant to elaborate upon the selected incident: *Can you tell me what was happening in the classroom?* The emotions pertaining to the incident were investigated by asking: *What did you feel at the moment that the incident happened?* and *Can you tell me what made you feel this way?* The cognitions were probed via such questions as *Can you tell me what you were thinking at that moment?* and *Can you tell me why you think the incident happened?* For behaviours related to the incident, the researcher asked questions such as: *How did the incident influence your ideas about future teaching practices*? The participant was asked at the end of the interview to select the three most impressive incidents. In the current study, we only include the participants' self-nominated three most impressive emotional incidents of each of the three classes in our analyses.

All of the interviews were conducted individually in Chinese in a room with food and drinks prepared by the first author to make the participants feel comfortable. The interviews lasted 60 to 90 minutes.

Data analysis

The participants most often expressed their emotion or changes in emotion when the incident happened during teaching (i.e., in-action), while for some other incidents, they only experienced emotions when they were watching the video (i.e., on-action; Schön, 1987, 2017). For example, Jenny noticed that she made a mistake in an English expression when she was watching the video. However, she had not sensed it when she was teaching. She chose this incident as one of the most impressive emotional incidents. For the present study, we were interested in the incidents during teaching and thus in-action as opposed to the incidents the participants sensed to be emotional when watching the video (on-action). Thus,

we only involved the in-action emotional incidents in the analyses. After deleting all of the emotional on-action incidents, 59 emotional in-action incidents remained for analysis[1].

To examine the role of culture-related values in the incidents, an analysis —in English — was conducted in four steps:

- Each emotional incident was first coded with all of the elements of the theoretical framework presented in Figure 4.1.
- The values involved in the emotional incidents were then inferred from the elements of the emotional incidents.
- The identified values were then coded into the four categories of culture-related values.
- The roles of the different cultural values of relevance for the emotional incidents identified by the student teachers were described.

Below, the four steps are introduced in more detail.

Coding each of the emotional incidents in the elements. ***Description of the incident.*** The emotional incidents that the student teachers selected from the videotaped lessons were first described by the student teacher themselves. We tried to attain the most complete picture of what happened on the basis of the participant's description of each incident and on our own observations of the videotaped incidents.

Coding of feelings, appraisals and attributions in emotional incidents. The emotions reported for the emotional incidents were coded in terms of feelings, appraisals, and attributions.

We distinguished five different types of *feelings*: negative, neutral to negative, neutral, neutral to positive and positive. When participants mentioned negative emotion words such as worried, angry or anxious, we coded the feeling as "negative". When

[1] Out of 72 total incidents (eight teachers chose the three most impressive incidents out of three classes), the participants mentioned 13 on-action incidents as the most impressive. Because only the in-action incidents were included in the data analyses, we had 59 emotional incidents.

participants used positive emotion words such as satisfied, happy or thrilled, we coded the feeling as “positive”. Sometimes the participants did not clearly describe a feeling but used a somewhat negative tone of voice in their description of the incident. This was coded as “neutral to negative”. Similarly, when the participants described the incident using a positive tone of voice and commented on the incident slightly positively, this was coded as “neutral to positive”. For some of the emotional incidents, the participants mentioned both positive and negative feelings, which were then coded as “both positive and negative”. In our data, we found that the participants sometimes could not explicate or describe what they were feeling but still thought the incident was emotionally important to them. These cases were coded as “neutral”.

The attributions and appraisals associated with the emotional incidents were coded next. Based on our theoretical framework, the way in which the student teachers appraised situations was related to their teaching goals and expectations. We therefore coded *appraisal* as a comparison of teaching goals or expectations to what actually was happening. *Attribution* was defined as assignment of responsibility for an incident to—for instance, the participant him or herself, a pupil, a group of pupils, or someone else (e.g., the supervising teacher, the school, or other teachers).

Specifying interactive cognitions and reflective understanding. Cognitions were coded in terms of interactive cognitions and reflective understanding.

The thought process of the participant at the moment of the incident was labelled *interactive cognition*. The participants could not always explain or recollect what they had been thinking at the moment of the incident. “No interactive cognition” was then coded. When participants gave an explanation for the emotional incident *after* stopping the video, we labelled that as *reflective understanding*. Once again, some of the participants could not or did not reflect on the emotional incidents, and “no reflective understanding” was then coded.

Portrayal of behaviour in emotional incidents. Finally, behaviour was coded in terms of follow-up behaviour and behavioural intentions. In the coding of the emotional incidents, we further distinguished between the behaviour visible on the video and behavioural intentions for the future. Sometimes a participant just ignored the incident and continued teaching as if nothing had happened. We coded no follow-up behaviour in this case. Most of the participants depicted their follow-up behaviour instead of their behavioural intentions when we asked about their future teaching style. "No reported future behavioural intention" was coded in such case. Among the 59 emotional incidents, "no reported future behavioural intention" was coded 45 times. Thus, we did not involve the behavioural intention in further analyses of the values.

The three authors of this paper discussed all of the steps in the analysis, and an audit trail was created to ensure reliability of the analytic procedure (Akkerman, Admiraal, Brekelmans, & Oost, 2008). One auditor, a native Chinese-speaking researcher (located in the Netherlands), checked the analyses of the data from eight randomly selected emotional incidents for two randomly selected participants (four incidents per participant). First, the raw Chinese interview data were checked for the selected incidents along with the definitions of the concepts for the purposes of the present study. Next, the auditor coded the selected incidents (other than the descriptions of the actual incidents) in English. The auditor then compared the outcomes of her analysis with those of our analysis and discussed any differences with the first author of this article. To conclude, the auditor decided if the outcomes for the emotional incidents could be judged to be sufficiently transparent and grounded in the data. For all of the checked incidents, this was found to be the case.

Inferring the values in the emotional incidents. Based on the results of analysing the elements for each emotional incident, we inferred the student teachers' values involved in teaching. To illustrate this procedure, Figure 4.2 shows one of the emotional incidents

selected by Lucy and all of the variables from the description of the incident via emotions, cognitions and behaviours summarizing her values involved in this emotional incident.

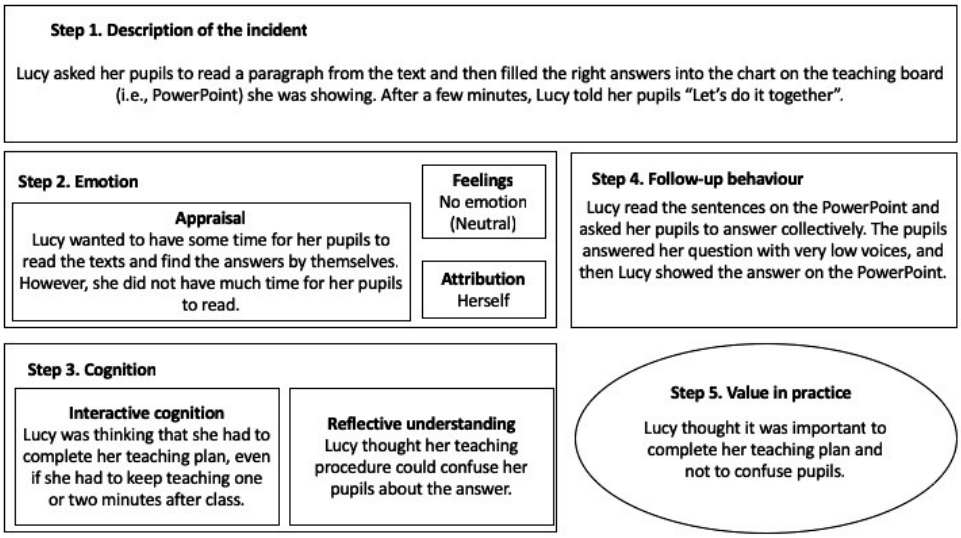


Figure 4.2. Example of analytical steps for one emotional incident selected by Lucy

Once again, an audit procedure was conducted to ensure that the values judged to be of relevance in the emotional incidents were sufficiently grounded in the data. An assistant researcher in educational sciences (non-Chinese speaker) was given our definitions of the relevant concepts (such as definition of appraisal and interactive cognition) and then checked our identification of the relevant underlying values for all of the emotional incidents selected by the student teachers. Any problems or possible misunderstandings were discussed with the first author. The results of the audit procedure showed that after discussion, the auditor and first author agreed on the underlying values of relevance for all emotional incidents.

Coding of specific categories of culture-related values. For the values involved in the emotional incidents, we analysed the reflected cultural perspective by comparing the value with the description of the four categories of culture-related values (see Table 4.1). If the value in the incident was consistent with (one of) the items in a category of culture-

related values then we coded the value as *Acceptance of* that category. If the values in the incident were inconsistent with (one of) the items of a category, then we coded it as *non-indicative of* that category. If acceptance of a category was not reflected in a participant's values of teaching, we coded this as "not visible for acceptance of the category".

Once again, an audit was conducted. Two other researchers checked the specific aspects of cultural values coded for four randomly selected participants (two participants per researcher). Any problems or possible misunderstandings were discussed with the first author. The audit results showed clear agreement on the judgements of the categories in which cultural values had been placed.

The role of culture-related values in the emotional incidents. Finally, to gain insight into the role of culture-related values in the incidents identified as emotionally relevant by the eight student teachers, we examined the coded culture-related values in relation to the elements of the emotional incidents (including emotions, cognitions and behaviours). We first explored, on the basis of the control-value theory of Pekrun (2006), the interactions in the emotional incidents between emotions (feelings, appraisals and attributions), cognitions (interactive cognitions and reflective understanding) and behaviours (follow-up behaviours in particular), i.e., the process of evaluating emotional incidents. We then portrayed possible roles in the emotional incidents of the (four categories of) culture-related values in the student teachers' teaching practice.

Results

The role of values in emotional incidents

As shown in the example in Figure 4.2, we inferred the values involved for every student teacher in every incident from the elements of the emotional incidents. Below, we first summarize the values we found for each participant in their emotional incidents. Then,

we explore the role of these values, especially the dominant values, in the emotional incidents.

In our data, we found for every participant different personal values involved in the teaching incidents. However, for every student teacher, certain values seemed to play a more important role than others because these values were identified more frequently. We refer to these as dominant values. Table 4.3 provides an overview of the values identified for each participant in the emotional incidents.

Jenny considered respect for teachers and her authority on the English language to be important values in her emotional incidents. For Mary, the quality of the pupils' basic English and her teaching plan were important. Lily considered accurate instruction to be most important. Lucy and Krystal valued teaching according to their teaching plans and Krystal placed high value on correct instruction in her teaching. John valued discipline and orderliness. Anna valued facilitating pupils to learn. Finally, Ella valued a capacity to correctly answer questions from her pupils.

Table 4.3.

Description of values apparent in the emotional incidents for each of the student teachers

Name	Dominant values (number of times inferred)	Other values (number of times inferred)
Jenny	Respect for teachers and not losing authority in relation to pupils (5)	Teaching according to the teaching plan (2); not damaging the confidence of "good" pupils (1)
Mary	Pupils' performance in class (3); good teaching plan (3).	Teaching suitable content to pupils (1); paying attention to own teaching behaviour (1); pupils following instructions (1).
Lily	Correct instruction (4)	(No other values)
Lucy	Teaching according to the teaching plans (6).	Respect and authority (1); correct content during instruction (2).
Krystal	Teaching plans (2); correct content during instruction (2).	Facilitating mentor teacher's teaching (1); requiring pupils to have sufficient basic knowledge (1)
John	Discipline & orderliness (4)	Pupils following instructions (1); pupils keeping good interpersonal relationships with each other (1); no "stupid" mistakes in teaching (2).
Anna	Facilitating the pupils' learning process (4);	Encouragement of the pupils (1); pupils actively answering questions (2); requiring pupils to have sufficient basic knowledge (1)
Ella	Ability to answer pupil questions correctly (3);	Promoting pupils' self-esteem (2); pupils following instructions (2)

We now describe Jenny's dominant values as an example to show how these values were visible in the emotions, cognitions, and behaviours of the emotional incidents.

Jenny showed her values about her pupils' respect and her authority on knowledge about English very often. She expressed emotions because she interpreted the pupils' behaviour in the incidents as conflicting with her values (i.e., the pupils disrespected her, or she lost her authority) or in agreement with her values (i.e., the pupils respected her, or she showed her authority). When she felt that the situation was conflicting with her values, she had strong negative feelings (such as angriness, panic, and guilt). If she felt that the situation was in agreement with her values, she experienced positive feelings (such as achievement and happiness). Regarding appraisals, when she appraised incidents such as pupil(s) behaving respectfully or disrespectfully, she attributed the incidents to pupil(s). If she appraised that in

an incident, she engaged in behaviour that threatened or showed her authority, then she attributed the incidents to herself. For Jenny, it was difficult to express her interactive cognitions clearly. The incidents that she could express interactive cognition about (i.e., three out of eight) concerned her possible solutions for the incidents or the origin of the incidents (e.g., a girl disrespected her because she was just an intern). Unlike the interactive cognitions, Jenny clearly expressed her reflective understanding of the incidents. Her reflective understanding referred either to her analyses on the cause of the incidents (e.g., she did not prepare well) or the explanation for her reaction of the incidents (e.g., she appointed a pupil to answer because she wanted to demonstrate her knowledge to her pupils). Interestingly, Jenny conducted similar behaviour to cope with different types of feelings. Jenny appointed a girl to answer her question because she felt anger towards the girl who disrespected her when she was teaching. In another incident, Jenny appointed some pupils to answer her questions because she thought she could show her pupils that she knew they did not concentrate in her class. Jenny thought that calling on her pupils showed that she had "power", which made her feel a sense of achievement.

Culture-related values in emotional incidents

To determine how the culture-related values were associated with the emotional incidents of the student teachers, we first categorized the values inferred from the emotional incidents from a cultural perspective into the four categories based on Hofstede's dimensions. We then developed a tentative model to show the role of culture-related values in emotional incidents (see the next section).

Considering the values in Table 4.3 from a cultural perspective, we found various combinations of the four categories of culture-related values in the emotional incidents. For all of the participants, one or two categories of culture-related values stood out more than the other two and were thus taken to be the *dominant culture-related values* for the participant. In

Table 4.4, we describe the culture-related values of the eight student teachers in their emotional incidents in terms of the four categories.

Table 4.4.

Description of the culture-related values of eight student teachers in emotional incidents

Name	Dominant cultural values	Other cultural values
Jenny	AUPD	non-indicative of AU; ambiguous on AMI; not visible for ACT
Mary	non-indicative of AU; AMI	non-indicative of AUPD; ACT
Lily	non-indicative of AU	not visible for AUPD, ACT and AMI
Lucy	non-indicative of AU	AUPD; non-indicative of AMI; not visible for ACT;
Krystal	non-indicative of AU	AUPD; ACT; not visible for AMI
John	non-indicative of AU	ACT; AUPD; ambiguous on AMI
Anna	non-indicative of AUPD	non-indicative of AMI; ambiguous on ACT; not visible for AU
Ella	non-indicative of AU	ambiguous on AUPD; non-indicative of AMI; not visible for ACT

* AUPD = Acceptance of Unequal Power Distribution; ACT = Acceptance of Collectivistic Thinking; AMI = Acceptance of Masculine Ideas; AU = Acceptance of Uncertainty.

Most of the participants, except Jenny and Anna, showed limited acceptance of uncertainty in their dominant culture-related values. Jenny considered acceptance of unequal power distributions important, while Anna showed the opposite (i.e., rejection of unequal power distributions). Jenny also showed low acceptance of uncertainty, while Anna's attitude on uncertainty was not detectable. Regarding acceptance of collectivistic thinking, Mary, Lily, Krystal and John showed acceptance, while the stances of the other participants on this value were ambiguous. As far as the acceptance of masculine ideas was concerned, Mary showed her acceptance dominantly and Lily also showed her support of it. The other participants showed less acceptance of masculine ideas (Lucy, Anna, and Ella) or they were ambiguous in their stance on this (Jenny, Krystal, and John).

The roles of the different culture-related values in the emotional incidents

Based on the results above, we can tentatively portray the process of evaluating incidents in a classroom setting in relation to culture-related values, as depicted in Figure 4.3. When a situation arises, the teacher's goals and expectations interact to establish an appraisal of the situation and often some attribution of responsibility. Positive and negative feelings can arise in connection with these appraisals and attributions but can also influence the appraisals and attributions. This "package" of emotion (i.e., feelings, appraisals and attributions) can similarly influence cognition, and vice versa. Emotion can contribute to interactive cognitions and reflective understandings, but the opposite can also occur: interactive cognitions and reflective understandings can contribute to emotion. Follow-up behaviour may then occur and directly influence cognition/coping and indirectly influence subsequent emotion, and vice versa: emotion and cognition can influence behaviour. What is the role of culture-related values in evaluating these emotionally relevant classroom incidents?

As depicted in Figure 4.3, culture-related values can directly be associated with the experience of classroom situations (Line 1), the emotions of those involved in the situations (Line 2) and the occurrence of follow-up behaviours (Line 3). We will now explain and illustrate these lines of association with examples from our data. Associations of cognitions with values in our data always seem to go via emotions and behaviour.

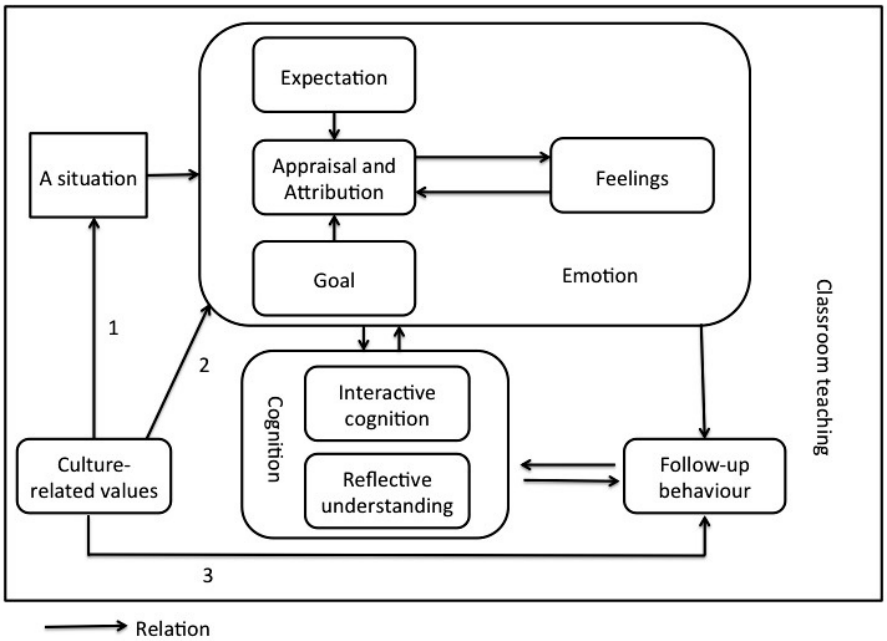


Figure 4.3. Evaluating incidents in classroom teaching

First, culture-related values can be associated with the perception and selection of classroom incidents as emotionally relevant. Different culture-related values can evoke different appraisals of a situation and different feelings as an outcome of such appraisals. Jenny, for example, with her clear acceptance of unequal power distributions, was very sensitive to situations in which her pupils questioned her teaching and to situations in which she sensed that her pupils might not respect her authority. In contrast, Anna, who did not accept unequal power distributions, was particularly interested in making her instruction clear and useful for her pupils (i.e., she wanted to promote her pupils' learning) and in facilitating the ongoing interaction with her pupils. Anna considered herself to be equal with her pupils and clearly approached teaching from the perspective of the pupil.

Culture-related values can also be related to emotions in the selected classroom situations. As a result, different teachers can experience different emotions in otherwise similar situations. For example, Anna and Jenny were both confronted during their teaching

sessions with pupils who clearly did not understand what was being said in English. Jenny, with a high acceptance of unequal power distribution, appraised the incident as one of surprise (*How can pupils not understand such easy/basic English*) with an attribution of responsibility to the pupils, i.e., the *pupils did not learn well*. Anna, who could not accept unequal power distribution, expected her pupils to be able to understand the simple English and was also surprised by their incapacity to do this, but she attributed the situation to *shortcomings in the exam system*. Jenny and Anna nevertheless showed *similar follow-up behaviour*, namely, *the* explanation of the English sentences in Chinese. In a second example, Jenny, Krystal and John were all confronted with malfunctioning equipment, and all three teachers showed negative feelings as a result. Given different dominant cultural values, however, they appraised the otherwise similar situation very differently. Jenny thought she needed to prepare everything for teaching, which might be influenced by her low acceptance of uncertainty. Thus, she attributed the malfunctioning of the equipment to her *not having prepared well enough.* Krystal blamed herself for the malfunctioning of the equipment but from a different perspective. She reported to be worried that the malfunction would impede her to finish her lesson and create problems for her mentor teacher, who would be teaching the subsequent lesson. Such worries can be considered to be associated with her acceptance of unequal power distribution. John viewed the incident from yet another perspective, namely, from low acceptance of unequal power distributions. He attributed the malfunction to *the school not checking the equipment in the classroom*. In sum, Jenny, Krystal and John confronted very similar situations, and all three teachers behaved very similarly (i.e., tried to fix the equipment) but had differing culture-related values that influenced their underlying appraisals of the situation, feelings experienced and attributions of responsibility.

Additionally, as depicted in Figure 4.3, culture-related values can be related to follow-up behaviour. When participants identify largely similar incidents as emotionally relevant for themselves and experience similar emotions in connection with these incidents, they may

nevertheless respond very differently (and thus cope very differently with the feelings they experience). For example, both Jenny and Ella mentioned being asked a question for which they did not know the answer. They both felt embarrassed by this and thus experienced negative feelings. However, their demonstrated follow-up behaviour was very different. Jenny, with her acceptance of unequal power distributions, was afraid to say "I don't know" as she thought this answer would make her pupils question her authority as a teacher and she therefore provided an incorrect answer. In contrast, Ella—with her weak acceptance of uncertainty and not high acceptance of unequal power distribution— although she thought she should know everything and felt a negative emotion, her follow-up behaviour was to admit that she did not know the answer.

Conclusion and discussion

In this study, the role of culture-related values in the internship experiences of eight Chinese student teachers were explored with qualitative analyses. We used video stimulated recall interviews to investigate the emotion (i.e., feelings, appraisals and attributions), cognition (i.e., interactive cognitions and reflective understanding) and behaviour (follow-up behaviour and behavioural intentions) of the student teachers in classroom situations identified by them as emotionally relevant. On the basis of this information, we then inferred values underlying the experience of the emotional situations and interpreted these in terms of the four culture-related values of acceptance of unequal power distributions, acceptance of collectivist thinking, acceptance of masculine thinking and acceptance of uncertainty. Based on these findings, we proposed a model for the evaluation of emotional incidents and the role of the culture-related values in these evaluations.

The results showed that the culture-related values of the student teachers were associated with their choice of emotional incidents, the emotions they experienced during the incidents and their follow-up behaviour. The student teachers were found to think, feel and

behave quite differently from each other despite facing very similar situations. The observed differences tentatively could be related to differences in the dominant culture-related values of the student teachers. Participants with different culture-related values interpreted similar situations differently. The identified differences were not always observable in the videotaped lessons but became apparent in the evaluation of the incidents selected as emotionally relevant by the student teachers (see also Clarke & Hollingsworth, 2002). These findings are consistent with those of Kelchtermans (2005) that emotion, cognition, behaviour and culture all are "intertwined in the complex reality of teaching" (p.996).

The connections found in the present study between the self-selected emotional incidents, emotion (including the interaction of expectations, goals, appraisals, attributions and feelings), cognition (including interactive cognitions and reflective understanding) and follow-up behaviour support the control-value theory (Pekrun, 2006; Pekrun, Frenzel, Goetz, & Perry, 2007). The process of evaluating emotional incidents in our study shows the usefulness of the control-value theory in practical situations. The description of this evaluative process might contribute to future teacher educators' understanding the actual teaching behaviour of student teachers and the underlying values of their behaviour. The tentative model describing the processes we depicted in the study was based only on a qualitative understanding of 59 emotional incidents from eight student teachers. Therefore, this model is still a conjecture that should be tested in future studies with larger and more differentiated samples.

In the present study, a country framework (Hofstede, Hofstede, & Minkov, 2010) was adopted to analyse the values of individual student teachers. The four categories of culture-related values, adapted from Hofstede dimensions, could indeed help map the culture-related values of the Chinese student teachers. The culture-related values found to be of relevance for the emotional incidents in the present study did not, however, show the combination of values that might be expected on the basis of Hofstede's characterization of China (i.e., high

acceptance of unequal power distances, high acceptance of collectivism, high acceptance of masculine thinking and high acceptance of uncertainty), nor the traditional description of China as a Confucian culture. Some of the student teachers, namely, Jenny and Lucy, accepted unequal power distributions in keeping with a Confucian culture (Liu & Xu, 2011). However, Anna showed low acceptance of unequal power distributions and thus understood her teaching task differently than the other student teachers. Anna approached her teaching from a rather pupil-centred perspective, which is characteristic of constructivist Western approaches to teaching (Chen, Wei, & Jiang, 2017). However, another characteristic of a Confucian culture, namely, high acceptance of collectivist thinking (e.g., Wang & Tamis-LeMonda, 2003; Marshall, 2008), did *not* manifest itself in the evaluations of emotional classroom incidents provided by Jenny, Ella, Lily and Lucy. This low collectivistic thinking might, be a consequence of the student teachers focusing on themselves as part of the student teaching experience (Sutherland, Howard, & Markauskaite, 2010).

The variation in culture-related values of the eight student teachers found in this study confirms that applying a country's cultural values, as described in Hofstede's studies, to understand individuals in a country is too simplified (see also Hofstede, 2011). One should also question whether the four categories of culture-related values are sufficient to map student teachers' values. For example, in our results, John's dominant value of low acceptance of uncertainty was seen in his preference for discipline and orderliness. Mary, Lucy, Krystal also showed low acceptance of uncertainty, but for them, it was connected to the importance of following their teaching plans. Teaching plans can provide student teachers with some sense of security and control but no complete security and full control (Livingston & Borko, 1989). These two different enactments of the low acceptance of uncertainty values show that the four categories of cultural perspectives do not suffice for describing the student teachers' practices. Further study is needed to help understand an individual's teaching practice based not only on an even broader approach to culture-related values but also on

other perspectives, such as situational approaches (Triandis, 2004), a focus on teaching philosophy or the dimensions of teacher- and pupil-centeredness (Boyadzhieva, 2016; Dunn & Rakes, 2010; Schuh, 2004) or onward and outward orientation (Fuller & Bown, 1975; Conway & Clark).

The eight student teachers in our study were not always able to explain the thinking underlying their emotions or their behaviours, indicating that they were not always aware of their own thoughts (cf. Larrivee, 2000). Therefore, the research method employed here, namely, video stimulated recall interviews, appears to be promising for future research on the values and thought processes of student teachers.

In the present study, we did not take the school culture into account, even though school culture can certainly shape the values of student teachers (Borko, 2004; Guskey, 2002). The eight student teachers in our study all had their internships at the same school. We can thus assume that the influence of the school culture on their values and experiences was largely the same and that the observed differences in their values and experiences are not so much due to different influences of school culture. We do not know to what degree the mentor teachers have influenced their values. In future studies, the possible influence of school culture and mentor teachers should be taken into consideration.

The present examination of the culture-related values of student teachers in relation to their emotion, cognition and behaviour provides a useful perspective for understanding their internship experiences. Information on culture-related values can help us understand the openness (or lack of openness) of student teachers to new teaching approaches and educational theory. When such approaches run counter to deeply rooted cultural perspectives, the adoption of the required approaches may be impeded. The findings in this study encourage educators of teachers to critically consider whether the new teaching approaches and educational theory they present to student teachers can be accepted by the student teachers (and if so how) when these are in conflict with their values. Similarly, insight into

their own culture-related values can help student teachers better understand the negative emotions experienced in a given situation. Such information can then help student teachers deal with difficulties and the reality shock of beginning to teach.

Intermezzo

In the Chapters 2, 3, and 4, we investigated the role of culture-related values in Chinese student teachers' thinking about educational and daily life, in their self-understanding of being a teacher, and in their actual teaching experiences. We decided to shift our attention in chapter 5 so as to understand student teachers' value development from the perspectives of inward and outward orientation and teacher- and pupil-centeredness. We elaborate on this decision below.

We conducted the same procedure as in Chapter 3 (see the Data analysis section in Chapter 3) to analyse what culture-related values were reflected in the eight student teachers' self-understandings after their internships. Then we compared per student teacher, the culture-related values found in the self-understandings before (see the Results section in Chapter 3) and after their internships. Table I.1 below shows the results of the comparison.

Table I.1.

Comparison between culture-related values before and after student teachers' internships

Name	Culture-related values before	Culture-related values after
Anna	**ACT**; non-indicative for AUPD; AMI; AU	**ACT**; ambiguous on the other three (AUPD, AMI and AU).
Ella	**ACT**; non-indicative for AUPD; non-indicative for AMI; ambiguous AU	**ACT**; ambiguous on AUPD and AMI; non-indicative of AU.
Jenny	**AUPD**; non-indicative for AU and non-indicative for AMI; ACT	**AUPD**; ACT; AMI, ambiguous on AU.
John	**Non-indicative for AU**; non-indicative for AMI; ambiguous AUPD; ambiguous ACT	**Non-indicative of AU**; ambiguous on other three (ACT, AMI, & AUPD)
Krystal	**AUPD**; non-indicative for AU; non-indicative for ACT; AMI	**AUPD**; non-indicative of AU; ACT and AMI;
Lily	**ACT and AUPD**; non-indicative for AU; AMI	**ACT;** AMI; Non-indicative of AU; AUPD
Lucy	**ACT;** AUPD; AMI; non-indicative for AU	**non-indicative of AU**; ACT; AMI; AUPD
Mary	**ACT** and non-indicative for AU; non-indicative for AUPD and AMI	**ACT**; AUPD; ambiguous on AMI; non-indicative of AU.

* AUPD = Acceptance of Unequal Power Distribution; ACT = Acceptance of Collectivistic Thinking; AMI = Acceptance of Masculine Ideas; AU = Acceptance of Uncertainty.
The **bold ones** refer to the dominant culture-related values.

Based on the Table above, we noticed the persistence of student teachers' culture-related values, especially their dominant ones, in their self-understandings of being a teacher. However, when exploring the content of student teachers' values before and after teaching experiences, we noticed for each participant different values in the self-understanding of being a teacher before and after internships that were not culture-related. Therefore, we reasoned that the cultural perspective used in the previous chapters might not be sensitive enough to detect these changes in values. Other perspectives, widely used in other studies on value development, might be suited for our purposes.

Research has shown that student teachers during their teaching experiences in internships or as beginning teachers might change their focus in their cognition, hopes and fears from teachers to pupils (i.e., an outward development) or the other way around (i.e., an inward development (Fuller & Bown, 1975; Conway & Clark, 2003). In the results of Chapter 3, we noticed that most of the student teachers' responses in the interview on their self-understanding of being a teacher were related to their task perceptions and professional commitment. They talked about their focus on the teachers' roles in teaching (an inward orientation) or the pupils' roles in teaching (an outward orientation) (see the Data analysis section on the SUT profiles in Chapter 3). Therefore, we argue that applying the inward and outward perspective to understand our student teachers' value development might enable us to connect our findings to the wider literature on student teacher development.

The teacher education programme our eight student teachers are in is a context where personal values and values in teacher education may differ. According to previous studies (e.g., Chen, Wei, & Jiang, 2017), the core of the expected differences between student teachers' personal values and values in teacher education could be represented as teacher- or pupil-centeredness. In Chapter 5, one of our interests is how Chinese student teachers' values develop during teaching experiences and because of the expected differences between

personal and teacher education values, the teacher-centred and pupil-centred perspective could be useful for understanding value development of the student teachers in this context.

Chapter 5

The role of teaching experiences in the development of values in student teachers' self-understanding of being a teacher [1,2,3]

Abstract

Student teachers in China nowadays are confronted in their teaching experiences during their internships with potential conflicts between their personal values and values in teacher education. In this study, we explored eight Chinese student teachers' development of values and the role of their teaching experiences in the development with qualitative analysis of interviews conducted before and after their internships and three stimulated recall interviews during their internships. The findings showed that student teachers' descriptions of teaching experiences mostly reinforced their existing values. Furthermore, their experiences in a rather traditional school contributed to their development on becoming more teacher-centred. Our results showed the importance of reflection on student teachers' own role in their teaching experiences for value development.

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[2] Acknowledgement of author contributions: ML, RZ, and TW designed the study. ML translated the interview guidelines in Chinese, approached the participants and collected the data. ML translated one student teacher's data in English and discussed the analyses with the other three authors. Then ML analyzed the other data in discussion with the other three authors. ML drafted the manuscript. All authors contributed to critical revision of the paper. BL, RZ and TW supervised this study.

[3] All details on data analyses (including audit trails) are available upon request from the author.

Introduction

> *"During this internship, I realized that I need to put pupils as the major part in teaching. Teaching is not about what I am saying, about showing how good my English is, nor about how perfectly I can teach. It is not about me. I now hope pupils could be part of it. It is more about pupils' learning and practicing. Let them do more (in teaching)."*
>
> - Interview excerpt of Ella

> *"But now (after the internship), it changed my thinking: if pupils want to make me angry in my teaching, they can. I won't care about them anymore. … There are 50 pupils in one class. I cannot pay attention to everyone. It is your (i.e., pupils') own decisions on learning or not. If you want to learn, you need to follow me. If you don't, you can stay behind. Although I don't want to give you up, it is your decision if you want to give yourself up. I cannot change it."*
>
> - Interview excerpt of Jenny

These two excerpts were taken from interviews about two Chinese student teachers' self-understanding of being a teacher. These student teachers studied at the same department in the same teacher education programme and were supervised by the same teacher educator during their internships in the same secondary school in China. Yet they seem to have (developed) quite different values on what it means to be a teacher. Echoing the educational reforms in China since 2001, the most important skills for student teachers advocated by teacher education programmes are applying constructivist teaching approaches to facilitate pupil learning (Chen, Wei, & Jiang, 2017; Guan & Meng, 2007, see also *Policy of Education Modernization in China 2035*[4]*,* 2019). The underlying value of applying constructivist teaching approaches is that pupils should be at the centre in teaching (Kirkebæk, Du, &

[4] Information source: http://www.gov.cn/zhengce/2019-02/23/content_5367987.htm.

Jensen, 2013; Krahenbuhl, 2016). This value was reflected in Ella's self-understanding interview cited above. However, Jenny's excerpt above shows that she could not fully accept constructivist teaching approaches; she seems to have started to value pupils' learning in her teaching less.

Teaching student teachers to fully engage with pupil-centred values and then apply constructivist teaching approaches in their teaching practices are goals of teacher education programmes around the world (see Boyadzhieva, 2016; Dunn & Rakes, 2010; Schuh, 2004). Despite the general acceptance of the important role of teacher education programmes in student teachers' learning, researchers consistently demonstrated that programmes can be ineffective in reaching their goals (see Aronson & Laughter, 2016; Cheng, Cheng, & Tang, 2010; Guskey, 2002; Wubbels, 1992). Such ineffectiveness seems to apply for Jenny in her Chinese teacher education programme, and this is the case for many other student teachers from other teacher education programmes (Guskey, 2002; Pedder & Opfer, 2013; Sykes, Bird, & Kennedy, 2010; Walker & Dimmock, 2000). These student teachers seem to experience difficulties in developing their values towards the aims of their teacher education programmes. Thus, it is important to delve into the process of student teachers value development during their internships. Insight in this process might help teacher educators to understand better how to facilitate in teacher education student teachers' acceptance of and engagement in the teaching values and beliefs advocated in the programmes.

In the current study, we are interested in Chinese student teachers' value development. It is clear that present-day Chinese teacher education programmes want student teachers to embrace pupil-centred values and to also apply constructivist teaching approaches in their teaching (see *Policy of Education Modernization in China 2035*[5], 2019). However, reaching these goals in current teacher education programmes brings major challenges to the fore. First, the student teachers themselves might not have experienced such teaching

[5] Information source: http://www.gov.cn/zhengce/2019-02/23/content_5367987.htm.

approaches in their prior learning experiences in primary, secondary and teacher education. These experiences lead to pre-conceptions of how to be a teacher that play a role in the learning of student teachers (Korthagen, 2010; Stürmer, Seidel, & Holzberger, 2016; Wubbels, 1992). Most Chinese student teachers have been taught in a knowledge transmission way (Gu, 2004; Yan, 2006), which subsumes teacher-centred values (Brown, 2003). Second, in China, exam-based assessment of pupils still prevails which is at odds with pupil-centred values. This prevalence could make teacher-centred values still quite dominant in society and in school (Kirkebæk, Du, & Jensen, 2013).

In a Chinese teacher education context with such diverse values it is interesting to explore the learning process of student teachers' in their internships, specifically how their values develop during student teaching experiences. In this study, we investigate the values of eight Chinese student teachers before and after their internships (including Ella and Jenny cited above) who were trained in the same teacher education programme, worked as interns in the same school, and were supervised by the same teacher educator, and then explore possible explanations for the development of their values in their teaching experiences during the internship.

Below, we will explain the key concepts in this study, i.e., values, the development of values, and the relation between student teachers' development of values and their teaching experiences.

Theoretical framework

Values

In educational sciences, the importance of teachers' values has been marked by many researchers (e.g., Garmon, 2005; Moè, Pazzaglia, & Ronconi, 2010; Pajares, 1992; Tatto, 1996; Veugelers & Vedder, 2003; Zembylas, 2005). Biesta (2010) argues that in education values always come first. Teachers' values are the standards that teachers use to select and

justify good or bad behaviour, people (including themselves), and incidents (Schwartz, 1992; Veugelers & Vedder, 2003). Many researchers have acknowledged that student teachers' values are complex (e.g., Fives & Buehl, 2008; Olafson & Schraw, 2006). Student teachers may hold multiple levels of values that are both general and specific (Fives & Buehl, 2008;). For the general level, student teachers may hold basic values such as *teachers should consider the well-being of pupils* (see in O'Flaherty, Liddy, & McCormack, 2018). For the specific level, values could for example refer to specific preferences, such as judgments about certain teaching, learning and pedagogical techniques, for example *teachers of English should teach pupils how to comprehend spoken English* (Gebhard, 2006).

The underlying values in student teachers' self-understanding of being a teacher are relatively stable and difficult to change (Tatto, 1996). Student teachers mostly focus on their own values and bring their personal values into teaching practices (Calderhead & Robson, 1991; Holt-Reynolds, 1992; Lamote & Engels, 2010; Poulou, 2007). Studies showed that student teachers may shift their focus or concerns about how to be a teacher during their teaching experiences, for example, an inward or outward development (Conway & Clark, 2003; Fuller, 1969; Fuller & Bown, 1975). According to Kagan (1992, p 147) student teachers' value development takes place only when student teachers experience "cognitive dissonance and the concomitant mitigation" in their value systems. Once the values changed, these could effectively influence their teaching practices (Guskey, 2002; Kim, Kim, Lee, Spector, & DeMeester, 2013; Richardson, 1990).

Development of student teachers' values

Many studies have explored the development in student teachers' values from different perspectives, ranging from the development of values about knowledge (e.g., Cheng, Chan, Tang, & Cheng, 2009) to the development of values about teaching approaches

(e.g., Brownlee, 2004), and also from exploring the influence of culture on values (e.g., Chan & Elliot, 2004) to the structure of values (Pajares, 1992).

Values have been shown to be largely implicit (Pajares, 1992) and therefore in the current study, we argue that it is important to try and understand the development of student teachers' authentic values from indirect sources, for example by examining their self-understanding of being a teacher. Student teachers' self-understanding of being a teacher is a personal and situational ongoing process of (student) teachers' perception of how to be a teacher (Beijaard, Meijer, & Verloop, 2004; Guskey, 2003; Lee & Schallert, 2016). Values are related with all the aspects of being a teacher, such as being a pedagogical expert (Beijaard, Meijer, & Verloop, 2004), being an interpersonal expert (van de Want et al., 2016), and professional commitment (Kieschke & Schaarschmidt, 2008). Therefore, understanding the development of values should involve all these aspects in student teachers' understanding of being a teacher.

Based on the studies of Fuller and Bown (1975) and Conway and Clark (2003), a framework used in this study for describing student teachers' value development is the inward-outward distinction. Fuller and Bown (1975) argued that student teachers shift in being concerned about themselves via being concerned about teaching tasks to being concerned about pupils (i.e., an outward directed development). Conway and Clark (2003) expanded the concept of concerns with student teachers' hopes and fears and showed that these not only could develop in an outward direction, as suggested by Fuller and Bown (1975), but also could develop inwardly, i.e., could change their hopes and fears to focus on themselves.

Above we argued that in many teacher education programmes, student teachers are encouraged to develop pupil-centred values and to abstain from teacher-centeredness in their values (see Boyadzhieva, 2016; Dunn & Rakes, 2010; Schuh, 2004). Such developments would need to show up in student teachers' preferences of teaching approaches and the

teacher-student relationship (Kim et al., 2013; Richter et al., 2013), because teacher-centred values are related with knowledge transmission teaching approaches within a hierarchically structured relationship (Brown, 2003; Richardson, 2003; Richter et al., 2013). Oppositely, pupil-centred values are mainly related with constructivist teaching approaches in which teachers work as facilitators for pupils in an environment with relationships between teacher and students based on equality (Olusegun, 2015; Perkins, 1991; Prawat & Floden, 1994; Schuh, 2003; Yilmaz, 2008).

Relation between teaching experiences and value development

A substantial amount of research has shown the important role of teaching experiences in student teachers' professional development (e.g., Beijaard, Meijer, & Verloop, 2004; Flores & Day, 2006; Izadinia, 2013; Kagan, 1992; Lamote & Engels, 2010). However, not all teaching experiences significantly influence student teachers' professional development, but primarily the ones that make student teachers recognize the reality in class compared to their expectations and bring cognitive dissonance to student teachers (Beauchamp & Thoms, 2009; Kagan, 1992; Zembylas, 2005). Emotions that student teachers feel in teaching experiences might be the threshold for student teachers to realize the consistency in or gap between what they expect and the reality of teaching practices (Beauchamp & Thomas, 2009; Pekrun, 2006; Stets & Serpe, 2009).

Whether student teachers are aware of their emotions during teaching depends on how they describe their teaching experiences and what they value in these experiences (Pekrun, Frenzel, & Goets, 2007; Stets & Serpe, 2009). When student teachers think that the teaching experiences correspond with what they expect or with their teaching goals, a positive emotion could emerge, while when what is happening does not align with their expectation, a negative emotion could be trigged (see Chapter 4; Pekrun, 2006). After processing these emotions, student teachers might change (primarily in negatively experienced emotional incidents) or

confirm (commonly in positively experienced emotional incidents) their expectations or goals, which might be related with their value development (Timoštšuk & Ugaste, 2010; Zembylas, 2005).

Therefore, it is reasonable to assume that the teaching experiences that trigger student teachers' awareness of their emotions, i.e., emotional incidents (Tripp, 1993), could (implicitly) prompt student teachers to develop their values when student teachers realize the dissonance or consistency between the reality and their values before teaching (Beauchamp & Thomas, 2009; Beijaard, Meijer, & Verloop, 2004). In the current study, given our interest in the role of teaching experiences in student teachers' value development, we therefore delve into student teachers' description of the incidents which triggered their emotional awareness.

Research question

We conducted an interpretative cross-case study to examine the role of teaching experiences during their internship on the development of values in eight Chinese student teachers' self-understanding of being a teacher. The research question was as follows:

1) What are the values in eight Chinese student teachers' self-understanding of being a teacher before and after their internships?

2) What role do teaching experiences during their internships play in eight Chinese student teachers' development of values in their self-understanding of being a teacher?

We expect that teaching experiences that trigger awareness of emotions during internships might contribute most to student teachers' value development. Because of this expectation, we only investigate the teaching experiences in emotional incidents.

Methods

National context

Since 2007, in the six leading teacher universities of China[6] a tuition-free Teacher University policy applies. This means that studying certain majors and particularly those related to future teaching subjects (e.g. Chinese, English, Mathematics, Geography, Biology, Physics, History, and Political Science) is free for all students. The Government pays the university to cover the tuition for these student teachers and also pays their monthly living expenses. As compensation, these students at entering had to sign a contract, which required them to pledge that they will return to their hometowns or home provinces to teach for the next ten years[7].

Once student teachers enter teacher education universities, they have four years to learn subject-related knowledge and skills (e.g., Chinese, Mathematics, History, English). At the beginning of the fourth year of study, Universities arrange all of the student teachers to do a two-month internship in primary or secondary schools in China.

Participants

Eight student teachers from different areas of China but studying in the same department of one of the six leading teacher universities of China were approached and all of them were willing to participate in the present study. They all signed an informed consent agreement form prior to participation. The school where the eight student teachers worked as interns also approved and supported our data collection. The data collection of the present study happened in their last year in their teacher education program. The further characteristics of the participants are offered in Table 5.1.

[6] The six leading teacher universities are: Beijing Teacher University, East China Teacher University, Northeast Teacher University, Central China Teacher University, Shanxi Teacher University and Southwest University.
[7] In 2018, the Ministry of Education of Chinese changed the 10 years obligatory teaching duration to 6 years, but for the participants in this study the 10 years still hold.

Table 5.1.

Participant information

Name [a]	Gender	Age	Teaching experiences
Jenny	Female	22	Volunteer teacher in a poor area during the summer holiday once
Mary	Female	21	Volunteer teacher in a poor area during the summer holiday once
Lily	Female	22	No teaching experience
John	Male	21	Volunteer teacher in a poor area during the summer holiday once; visited schools and observed teaching in Taiwan
Anna	Female	23	No teaching experience
Ella	Female	21	No teaching experience
Lucy	Female	22	No teaching experience
Krystal	Female	21	Volunteer teacher in a poor area during the summer holiday once

[a] Names are pseudonyms

Participants' learning environments

All of these student teachers did their internships in the same secondary school, which was arranged by the University. A teacher educator, who was appointed by the University, supervised the eight student teachers' teaching and learning when they were in the secondary school. In addition, the school assigned an experienced teacher as a tutorial teacher (i.e. mentor teacher) to each of the student teachers to instruct and evaluate their teaching.

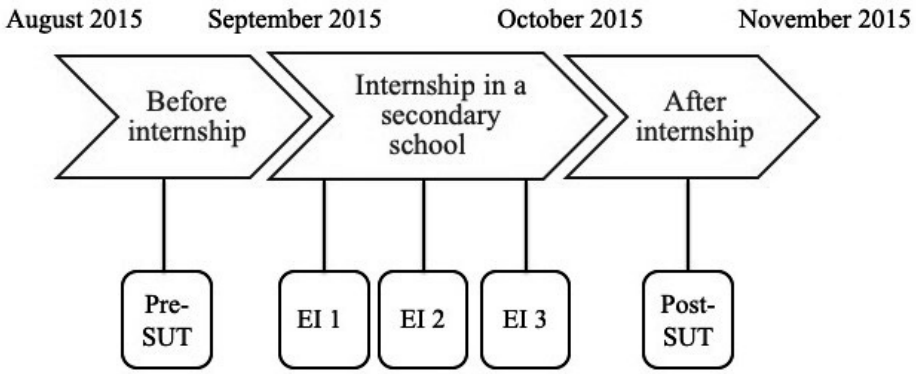
All of the participants started their internships with two weeks of classroom observation in their tutorial teachers' classes (i.e., classes with 50 pupils in grade 10), and then they replaced their tutorial teachers (i.e., English teachers) for six weeks.

From the website of the University, it appeared that one of its training goals is encouraging student teachers to conduct inquiry and interests-based learning. Based on the fieldnotes of the first author regarding the teachers' teaching approaches, pupil-teacher relationships, and time-schedule of the school, we concluded that rather traditional teacher-centred values were prominent in the school culture. We conducted a member check (Birt, Scott, Cavers, Campbell, & Walter, 2016) by asking the teacher educator from the University

to verify our description of the school culture (see Appendix 5A for the conclusions from the fieldnotes and the agreement of the teacher educator).

Data collection

Before data collection, the first author, a Chinese, had established rapport with the eight participants. Two types of interviews were conducted: an interview conducted twice about their self-understanding of being a teacher (below shortened as SUT interview), and a stimulated recall interview conducted three times about emotional incidents (below shorted as EI interview) (Schepens, Aelterman, & van Keer, 2007). Figure 5.1 shows the overview of the data collection.



Note: Pre-SUT = Interview about self-understanding of being a teacher before internship; EI 1= First emotional incident interview; EI 2= Second emotional incident interview; EI 3= Third emotional incident interview; Post-SUT= Interview about self-understanding of being a teacher after internship

Figure 5.1. Overview of data collection

The first author conducted all the interviews in Chinese. All of the interviews were voice-recorded with the permission of the participants.

SUT interview. A structured SUT interview was conducted before and after the internship. The eight student teachers' self-understandings of being a teacher were explored

by prompting them to describe their understanding of being a good or bad teacher (questions like: what is your opinion on a good/bad way of teaching? What kind of relationship do you want to have with your pupils?), their plans for the future (questions like: what kind of teacher do you want to become? What goals do you want to achieve in your teaching career?), their self-image (questions like: how do you conceive of yourself as a teacher?), and their professional commitment (questions like: do you feel satisfied to be a teacher?).

The SUT interviews lasted about an hour for all participants with the exception of Krystal, for whom the pre-SUT interview took about 2 hours.

EI interview. Three rounds of EI interviews were conducted to collect student teachers' emotions during teaching practices (see also Chapter 4). The first author first instructed the participants to select the incidents that made them experience an emotion or change of emotion during their teaching. Then, once a participant had selected an incident, the first author stopped the video and conducted a semi-structured interview to investigate how the student teachers described the incidents. Questions like: *Could you tell me what was happening in the classroom?* and *Could you tell me what you were thinking at that moment?* were asked. After selecting all the emotional incidents, the first author asked the participants to select three incidents they would label as most impressive to them.

Each lesson lasted 45 minutes. All of the EI interviews lasted between 60 to 90 minutes.

Data analysis

Values in student teachers' SUT interviews before and after the teaching experiences during internships. *SUT profiles.* To map the development of values reflected in the SUT interviews, following our previous study (see Chapter 3), we first created for each participant two SUT profiles (one before and one after the internship) with the same structure

as in chapter 3 (i.e., five aspects: subject matter expertise, instructional expertise, pedagogical expertise, interpersonal expertise, and professional commitment). Based on these profiles, we then analysed the values reflected in the pre and post-SUT profiles, to map the development of values. The check on the transparency of the pre-SUT profiles analyses has been described in Chapter 3 (in the Data analysis section). For the post-SUT, we conducted the same audit procedure (Akkerman, Admiraal, Brekelmans, & Oost, 2008) to ensure the reliability of the analyses.

Values reflected in the SUT profiles. We identified values reflected in the SUT profiles, i.e., whether the descriptions of each of the five aspects in the profiles reflected the participants' judgments on what is good or bad about behaviour, people (themselves as a teacher, and pupils), and incidents. For example, on subject matter expertise, Jenny in her pre-SUT profile felt *it was important to have sufficient knowledge*, thus reflecting her value that *good teachers should have sufficient knowledge*. Not all descriptions of aspects in the SUT profiles reflected a judgment on what is good or bad in education. For example, on professional commitment Mary mentioned in her pre- and post-SUT *the importance of finding a job near her parents*. This value was rather related to her personal life, but not to her judgments on being a good or bad teacher. We excluded such personal values from the analysis. Eventually, the values reflected in the pre- and post-SUT profiles of each participant were listed.

Development of values in student teachers' self-understanding of being a teacher.

Inward and outward development. We first divided the values reflected in the five aspects of being a teacher in pre- and post-SUT into three categories: values about teachers, about teaching, and about pupils. Values about teachers regarded primarily the participants themselves, such as their knowledge, authority, personal development and commitment to work and society (e.g., *teachers should contribute to the development of society*). Values

about teaching were about teachers' teaching tasks (e.g., *teachers should teach in a comprehensive way*) and teacher attitudes towards pupils (e.g., *teachers should be liked and be patient to pupils*). Values about pupils concerned what pupils should do (e.g., *pupils should have positive learning attitudes*) and pupils' development (e.g., *pupils should discover their own interests*). Then, we compared the three categories (including the number and the content of values) within cases and summarized the value development of each student teacher. When student teachers showed more values about teachers after the internship, and less about teaching or pupils than before, then we concluded that the student teachers showed an inward development. An indication of an outward development was a rise in values emphasizing teaching tasks or pupils' development.

Teacher-centeredness and pupil-centeredness. We categorised for every student teacher, the values about teaching approaches and teacher-pupil relationships (i.e., values reflected in their understanding of being an instructional expert and an interpersonal expert) in pre -and post-SUT profiles into two categories: values emphasizing teacher-centred teaching approaches and hieratically relationships with pupils and values emphasizing pupil-centred teaching approaches and relationships with pupils based on equality. Then, we compared the values in the pre and post profiles in the two categories (including the number and content of values) within each case and summarized the value development in terms of teacher and/or pupil-centeredness per student teacher.

Emotional incidents interview. From the emotional incidents, only the three that were selected by student teachers' as the most impressive and those wherein the emotion was triggered during teaching (and not by watching the video) were included, resulting in 59 emotional incidents included in the analyses. Subsequently, we summarized the student teachers' description of the emotional incidents. For example, Jenny chose an incident about appointing a girl to answer her questions. In her description of the incident she emphasized

that the girl did not respect her, which made her feel angry at that moment. We summarized her description of the incident as "the pupil disrespected her".

To guarantee the transparency of the emotional incidents analyses, four randomly selected emotional incidents (raw data) were provided to an independent Chinese researcher, located in the Netherlands, to conduct the analyses independently (Cohen, Manion, & Morrison, 2002), i.e., to identify the summary of the participants' descriptions of the emotional incidents. Then the results of the summaries of the independent researcher and the first author were compared. The researcher noticed some disagreements on the English expressions (e.g., "time-control in teaching", was suggested to be rephrased as "classroom management in teaching"), but she agreed on all identified descriptions in Chinese.

The role of teaching experiences in the development of values. For each student teacher, an overview was created of all values inferred from the SUT profiles before and after the internship and all descriptions of emotional incidents. For the inward-outward perspective, all emotional incidents of one student teacher were considered together to understand how the teaching experiences contributed to the development of values. For the development on the dimension of teacher- and pupil-centeredness, it was established for every emotional incident, how it was connected to the student teacher's values before and/or after the internship. Findings on the development from each perspective (i.e. inward-outward, teacher-pupil centeredness) were summarized per case and subsequently compared across cases.

We conducted another audit trail to verify the trustworthiness of our analyses on the role of teaching experiences in the development of values. An independent auditor, different from previously involved auditors, randomly selected one participant and checked whether our conclusions were systematically rooted in the data (i.e. verifying the analytical steps in and between the pre- and post-SUT profiles, the value analyses, the development of the

values, and the connections between the teaching experiences and the values in pre- and/or post-SUTs). The auditor agreed that all analyses were systematic and transparent and our conclusions were adequately grounded in the data.

Results

The values in the student teachers' self-understanding of being a teacher before and after their internships

The values identified in the eight student teachers' self-understanding before and after the teaching experiences can be found in Appendix 5B.

All of the student teachers had some values in their self-understanding of being a teacher after the teaching experiences that differed from those before the teaching experiences. Also, for every student teacher some values were stable, i.e., these values were identified in both their self-understanding before and after the internship. Below, we take Jenny and Ella as examples to illustrate details of their values and value development. Jenny adhered to stable values like: teachers should keep a distance from pupils, pupils should respect their teachers and not sleep in class. Ella's stable values concerned not hurting pupils' self-esteem, being helpful to pupils, and having sufficient knowledge to teach.

In the student teachers' values, teacher-centeredness and pupils-centeredness appeared to co-exist, and some of these values seemed even to conflict. Mary is the best example of this phenomenon. For example, Mary felt before her internship that pupils should conduct self-directed learning and that a teacher should be equal to pupils, thus representing pupil-centred values. However, in the same interview, she also mentioned that it was important for teachers to be the leader in teaching, and pupils should follow their teachers' instructions, which represents teacher-centred values.

Development in the inward and outward perspective

Table 5.2 shows for each student teacher the frequency that their values in their self-understanding of being a teacher before and after their teaching experiences referred to the teacher, teaching, and pupils. In all of the student teachers' self-understanding of being a teacher before and after their teaching experiences values in these three categories were identified, but the frequency differed.

Table 5.2.

Frequency of values about teachers, teaching, and pupils before and after the teaching experiences

Name	Values about teacher		Values about teaching		Values about pupils	
	Before	After	Before	After	Before	After
Jenny	8	7	4	2	4	3
Mary	2	5	7	7	6	4
John	4	1	5	4	3	2
Lily	3	4	6	4	4	2
Anna	2	3	5	6	4	8
Ella	6	5	8	6	3	6
Lucy	4	5	5	5	2	2
Krystal	4	3	6	5	5	3

Based on the Table 5.2 above and also from the content of their values shown in Appendix 5B, we concluded that Jenny, Mary, Lily, Lucy, and Krystal showed an inward development, while John, Anna, and Ella showed outward development. Inward development implies a strengthened focus on themselves, including their personal development and personal role as teacher. On the contrary, the student teachers who showed an outward development valued pupils more, including pupils' development and the pupils' role in their own development. Depending on student teachers' values before the internships, a strengthened focus on teaching could be seen as an indication of either inward or outward development.

We illustrate this value development with examples of teachers in each of these groups: Jenny and Ella.

Before Jenny started her internship, she valued pupils' pedagogical development and her teaching a lot. For example, she said, "*you are a teacher, and your pupils cannot be a criminal in the future,*" "*Good pupils should have good peer-relationships with other classmates*", and "*I think I will put my personal life at second and teaching pupils should be the most important thing to me*". However, in her post-SUT, she changed her values. She cared less about pupils, and more about herself. For example, she did not mention pupils' peer relations at all. Also, she cared more about her personal development by saying "*I want to be a teacher who only needs to teach some lessons. After teaching, I could go away to do something I like such as playing guitar, dancing, and so on.*", and "*I cannot be always thinking about them (i.e., pupils). I have my own life.*" All this indicates that Jenny started to look more inwardly.

Ella's values, before her teaching experience, reflected primarily her own role in pupils' development. For example, she said "*I hope I can teach more things to my pupils, such as knowledge about culture or psychology. I hope that I can give my pupils some enlightenment on their mental level.*" Also, she showed a strong commitment to social development. For example, she thought "*it is teachers' responsibility to help pupils to be a better person in the future,*" and "*I think my job (being a teacher) is a noble one, because I can contribute to the pupils' social development.*" This teacher role in pupils' development was mentioned less frequently after the teaching practice. After the internship, her values reflected the pupils' role stronger, as illustrated in the excerpt at the beginning of this paper. Also, she noticed pupils' initiatives more often, for example when stating "*(a good pupil should) know how to think, how to learn, and know what to do at the right time (i.e., self-disciplined)*". Therefore, we concluded that Ella experienced an outward development.

Development in the teacher- and pupil-centeredness perspective

Table 5.3 shows for each student teacher the frequency that their values referred to teacher- and pupil-centeredness before and after the internship. The number of teacher-centred and pupil-centred values differed between student teachers with Jenny and Krystal as extreme cases who did not show any values reflecting pupil-centeredness.

Table 5.3.

Frequency of values emphasizing teacher-centeredness and pupil-centeredness before and after the teaching experiences

Name	Values about teacher-centeredness		Values about pupil-centeredness	
	Before	After	Before	After
Jenny	6	5	0	0
Mary	8	10	4	0
John	5	6	1	0
Lily	6	6	2	0
Anna	2	6	3	1
Ella	1	9	5	4
Lucy	5	7	1	1
Krystal	10	7	0	0

From the Table 5.3, it can be concluded that in terms of number of references, except Jenny and Krystal, all student teachers became more teacher-centred or less pupil-centred after their teaching practice. The contents of their values (as shown in Appendix 5B) indicate that even Jenny and Krystal, who showed less teacher-centred values, could be considered to become more teacher-centred, as will be illustrated below for Jenny. The contents of the values shown in Appendix 5B indicated that all student teachers showed less trust in pupils' learning abilities but felt more confident in their own teaching after their teaching experiences. They all valued that pupils follow their teachers in teaching and respect their teachers.

Jenny, before her teaching experience, strongly valued her teaching plans. In the interview, she mentioned that "*I will write down the whole teaching plan. For example, I will write down what I would say in class, and what pupils would answer in class*". Besides, in

her understanding of teaching, pupils should follow their teachers' teaching, especially pupils with low academic achievement (i.e., having low scores). She mentioned that "*I, as their teacher, would not want to lose these pupils (in teaching). Thus, they need to follow my teaching procedure in class. They need to know that their teachers haven't given them up, and they don't have the right to surrender by themselves in learning.*" About teacher-student relationships values, Jenny emphasized pupils' respect. She said: "*When you, as a teacher, pass the classroom, pupils should say 'hello! Teacher!' to you, right?*" After her teaching experiences, Jenny's understanding of being a teacher became slightly different. For example, she emphasized teaching plans less, because "*teaching the key knowledge in the textbooks would be enough*". Also, she described teachers as "*knowledge transmission machines*", and pupils should adapt themselves to teachers' teaching. "*If they don't, I won't care anymore,*" she said in the post interview.

Ella, before her teaching practice, showed more pupil-centred values than teacher-centred values. In her self-understanding of being a teacher, she mentioned "*I want to be a flexible teacher, who can bring fresh ideas to my pupils.*", and she thought "*it is bad to teach pupils to accept knowledge passively*," and "*it is better to ask pupils to learn by themselves.*" Regarding the relationship with pupils, she mentioned "*I want to be their (i.e., pupils) friends*" and "*I hope I can be a trustable person for my pupils.*" After her teaching experiences, Ella still showed pupil-centred values (like the one we cited at the beginning of this chapter), but she referred much more often to teacher-centeredness. She said "*it is a good classroom atmosphere when all of the pupils follow my teaching to think along with the teaching contents,*" and "*it is important for teachers to have control in teaching.*" About the relationship with pupils she said, "*during this internship, I realized that it was impossible to have a very close and friendly relationship with pupils. Because, you (teachers and pupils) have different roles. Between teachers and pupils, there is a natural conflict, which could not*

be changed…. For pupils, you are the teacher. You are the one assigning homework to them. For them, you are the authority."

Emotional incidents and the relation between the development of values and emotional incidents

Table 5.4 shows each student teacher's description of his or her emotional incidents and how the description of the emotional incidents was related with the development of values.

All of the descriptions of emotional incidents, except for one description in Krystal's teaching, could be related with their values before or after their internship and mostly both before and after. The exceptional description of Krystal's emotional incident involved her mentor teacher, but in her self-understanding of being a teacher, no value was identified on her relationship with her mentor teacher.

From Table 5.4 we can see that some of the student teachers described incidents in their teaching experiences that contributed to an inward development (Jenny, Mary, Lily, Lucy, and Krystal) and others to an outward development (John, Anna, and Ella). Student teachers with inward development chose most of their emotional incidents either because the incidents were related with their teaching plan (for example Jenny, Mary, Lucy, and Krystal), or because the incidents were about pupils' good or bad performance (with the exception of Lily). In these descriptions, reflection on their own teaching did not occur. When they themselves made mistakes in the teaching they felt it was because of their teaching plan.

Student teachers with an outward development, also selected incidents on pupils not following their teaching procedure. However, they understood these emotional incidents mostly from their own role in the incidents. When they experienced emotional arousal in teaching, they attributed this to the influence of their own teaching behaviour, rather than to pupils. For example, in John's emotional incidents, he noticed that pupils did not follow his

teaching. Then he said "*it was my fault. I did not give them clear instructions which made them misunderstand,*" and "*(it reminds me that) sometimes I think I understand my instructions, but pupils might not in the future.*"

Furthermore, all of the descriptions of incidents indicated, that these incidents seemed to strengthen student teachers' teacher-centred values, except for one of each of the emotional incidents selected by Jenny, John, Ella and Krystal. The four descriptions of these emotional incidents were not related with their values in teaching approaches or their interpersonal relationships with pupils.

Within the description which contributed to the teacher-centred development, all student teachers described incidents in terms of their own teaching (including the teaching plan or teaching procedures), of pupils following their teaching or not, or of the (dis)respect that pupils showed. Although the student teachers described some incidents as a lack of proper preparation, their self-understanding of being a teacher after their internship indicated that they all felt more confident in preparing teaching. Jenny even mentioned "*teachers should not spend too much time on preparing*". However, they felt that it was out of their control whether pupils followed them. Similarly, whether pupils respected them was also out of their control (specifically applicable for Jenny and Lucy). These descriptions of the incidents might explain why all student teachers valued control more after their teaching practice. Hardly any student teachers' description concerned pupils' learning, except for Anna's. Anna noticed the importance of pupils' learning, but from a teacher centred point of view: she addressed whether she could support pupils' learning process or not.

Table 5.4.

Student teachers' description of the emotional incidents and the role of this description in their value development

Name	Student teachers' description of the emotional incidents (frequency of mentioning)	Role of emotional incident in the value development		
		Relation with values before and/or after internship	Development inward or outward	Development on TC or PC
Jenny	Pupils disrespected her and she might lose her authority in relation to pupils. (5)	Before and after	Contribute to inward	Contribute to TC
	She could not teach according her teaching plan. (2)	Before		Contribute to TC
	She hurt the self-confidence of "good" pupils. (1)	After		Unrelated
Mary	Pupils did not perform well in class. (3)	Before and after	Contribute to inward	Contribute to TC
	She did not plan the class well. (3)	Before and after		Contribute to TC
	She did not prepare suitable teaching content for pupils. (1)	Before and after		Contribute to TC
	She did not pay enough attention to her own teaching behaviour. (1)	Before and after		Contribute to TC
	Pupils did not follow her instructions. (1)	Before and after		Contribute to TC
John	He did not enforce discipline and orderliness in teaching, which made that pupils could not follow him. (4)	Before and after	Contribute to outward	Contribute to TC
	He made a "stupid" mistake in teaching. (2)	Before and after		Contribute to TC
	Pupils' peer relationships were spoiled by the pupils' behaviour. (1)	After		Unrelated
	Pupils did not follow his instructions. (1)	After		Contribute to TC
Lily	She did not give correct instructions. (3)	Before and after	Contribute to inward	Contribute to TC
	She gave correct instructions. (1)	Before and after		Contribute to TC
Anna	Her way of teaching did not help pupils' understanding. (3)	Before and after	Contribute to outward	Contribute to TC

	Her way of teaching helped pupils' understanding. (2)	Before and after		Contribute to TC
	Pupils did not actively answer her questions. (2)	Before and after		Contribute to TC
	Pupils actively answered her questions in teaching. (1)	After		Contribute to TC
Ella	She did not have sufficient knowledge to answer pupils' questions. (3)	Before and after	Contribute to outward	Contribute to TC
	Pupils did not complete the task she asked them to do. (1)	After		Contribute to TC
	She had less time to write the answers on the blackboard. (1)	After		Contribute to TC
	She might hurt pupils' self-esteem. (2)	Before and after		Unrelated
Lucy	She could not teach according her teaching plan. (6)	Before and after	Contribute to inward	Contribute to TC
	Pupils respected her and she had authority in relation to pupils. (1)	After		Contribute to TC
	She did not offer correct instructions in teaching. (2)	Before and after		Contribute to TC
Krystal	She prepared the class well. (1)	Before and after	Contribute to inward	Contribute to TC
	She did not prepare the class well. (1)	Before and after		Contribute to TC
	She did not offer correct instructions in teaching. (2)	Before and after		Contribute to TC
	She introduced difficulties for her mentor teachers' teaching. (1)	Unrelated		Unrelated
	Pupils did not have sufficient knowledge. (1)	Before and after		Contribute to TC

Note: TC: teacher centeredness; PC: pupil centeredness

Conclusion and discussion

In this study, the role of teaching experiences in eight Chinese student teachers' value development was interpreted with qualitative analysis of interviews conducted before and after their internships and of three stimulated recall interviews during their internships. We identified the value development by examining the values visible in student teachers' self-understanding of being a teacher before and after teaching experiences in an internship. Specifically, we framed the development of values with two perspectives, an inward versus outward orientation and the view on teaching in terms of teacher- and pupil-centeredness. Also teaching experiences that student teachers felt to give emotional arousal were collected from the stimulated recall interviews. On the basis of the analyses, we inferred how student teachers' teaching experiences might be related to their value development.

The findings indicate that the student teachers in this study showed both teacher-centred and pupil-centred values in their self-understanding of being a teacher before teaching practices, except for Jenny and Krystal. Student teachers' descriptions of their teaching experiences appeared to reinforce existing values; these values persisted after the teaching experiences. This result was in line with results of previous studies (Chan & Elliott, 2004; Calderhead & Robson, 1991; Kagan, 1992) showing that student teachers stick to their personal values to interpret their teaching experiences. That the teaching experiences took place in a traditional school might have contributed to strengthening student teachers' teacher-centred values and hindering the development of their pupil-centred values.

More specifically, the results showed that all of the student teachers in relation to their pupils valued teacher control and authority more after their teaching experiences than before. In their teaching experiences, student teachers noticed that pupils might not follow their teaching procedures and became aware of the importance of their control (including teaching plans and teaching procedures). These realizations might be considered the "realities" that the student teachers experienced in real classes, which modified their understanding of being a

teacher and caused them to become more teacher-centred. The school, as noted in the fieldnotes, was rather traditional, which might have contributed to the teacher-centred development of the student teachers (cf. Flores & Day, 2006; Izadinia, 2013). The student teachers were taught and socialized (implicitly) by the school's culture (see also Avalos, 2011; Lassig, 2009; Stoll, Bolam, Mcmahon, Wallace, & Thomas, 2006). These results are in line with those in the review by Kagan (1992), who wrote: "quickly disillusioned and possessing inadequate procedural knowledge, novice teachers tend to grow increasingly authoritarian and custodial" (Kagan, 1992, p. 145). The influence of the school culture could explain that after their teaching experiences, all of the student teachers showed less or even no pupil-centred values. Our results also confirmed the negative relation between teachers' control values and values on pupils' constructivist learning approaches that Beyhan (2013) demonstrated.

Three student teachers became more teacher-centred in their teaching approaches and relation with pupils, and at the same time, seemingly in contradiction, they showed an outward development. Although these student teachers started to value teacher control and hierarchy more (i.e. teacher-centeredness), this did not mean that they wanted that control and hierarchy for their own sake; they wanted it for the benefit of the pupils in order to contribute to pupils' learning and development (i.e. outward orientation). To understand this result better, we bring in the current Chinese context. Chinese student teachers are facing different value systems, i.e., both Confucian and Western (Chen, Wei, & Jiang, 2017; Cheng, Chan, Tang, & Cheng, 2009; Guan & Meng, 2007). For example, not only in the educational policy (such as *Policy of Education Modernization in China 2035),* but also in teacher education (such as the University website), student teachers are asked to accept an idea about "*teachers as conductors and students as the main body in teaching*". The underlying values of this idea contain both teacher-centeredness and an outward orientation. The coexistence of different values found in this study aligns with the findings in Zhu, Valcke and Schellens

(2010) on Chinese and Flemish teachers' perspectives on teacher roles. They found that Chinese teachers' valued teacher authority and expert roles much more than their Flemish counterparts who valued teachers being a facilitator and delegator equally strong as the Chinese teachers. It seems that our results point out that being a teacher with teacher-centred values and outward orientation refers to what the "ideal" teacher is in China's context. For future study, this assumption should be tested by involving more voices from teacher educators and policy makers.

Student teachers in our study valued their commitment to their job and to the development of society, which to our knowledge has not been reported extensively for Western student teachers (such as in the study of Fuller & Bown ,1975; Conway & Clark, 2003). Similar commitments were also found in the studies of Cheng, Chan, Tang and Cheng (2009) and Walker and Dimmock (2000) on the student teachers in Hong Kong. Adhering to these values might be a result of the collectivistic character of the Chinese culture (Hofstede et al., 2010). Therefore, in future studies, (student) teachers' commitment to the job and to the society should be involved in describing Chinese (student) teachers' development.

As mentioned, the context of the teacher education programme and the internship was similar for all eight student teachers. However, every student teacher had a different tutorial teacher (i.e. mentor). We do not know how the mentor teachers influenced the eight student teachers' value development. For future study, this factor should be considered in student teachers' professional development.

Because of the limited number of participants in the current study, we cannot generalize the findings to other Chinese student teachers' values and their value development. If the results would be confirmed in a broader sample, this study might make teacher educators and policy makers aware that before making decisions on which educational theory or teaching approaches should be accepted by student teachers or teachers, two important issues should be considered: are the values underlying the theory and the teaching approach

consistent or conflict with each other? And are these values grounded in or dissonant with (student) teachers' personal values?

The importance of reflection in student teachers' professional development has been advocated in many studies (e.g., Clarke & Hollingsworth, 2002; Dewey, 1933; Leijen et al., 2014; Loughran, 2007; Rich & Hannafin, 2009). The results of this study might send an alert for teacher educators on the focus of reflection, i.e., teacher educators might need to help student teachers reflect on their own teaching behaviour in class. It seems that the impact of the teaching experiences both in the teacher-centred and inward and outward development reinforce the importance of reflection *on teaching behaviour* in student teachers' professional development. Student teachers showing an inward development, mostly referred in their descriptions of teaching experiences to pupils' actions or their own actions before class, rather than what they themselves did in class. Even when incidents concerned their teaching behaviour in class, for example when making a mistake in teaching, they did not refer to their behaviour in class but attributed the incident to the way they had planned their teaching, i.e., they did not plan the class very well and they did not refer to what they could have done in class to solve the problem of the mistake. On the contrary, student teachers showing an outward development attributed teaching experiences mostly to what they had done in their teaching in relation to what they hoped pupils to learn. When, for example, pupils did not to follow their teaching approach, they thought about how to avoid with their teaching behaviour such incidents happening again. Based on our results, we expect that directing student teachers' reflection to what and how they can change related to their own teaching behavior will support student teachers' development of self-understanding of being a teacher. Future studies should delve into the relation between reflection and the inward and outward orientation with broader sample.

In conclusion, the two perspectives we used (i.e., inward and outward orientation, and teacher- and pupil-centeredness) helped us to clarify the differences in the value development

of the eight student teachers, who came from the same department of the same teacher university and experienced a two-month internship in the same school with supervision of the same teacher educators. Also, our results confirmed (c.f. Timoštšuk & Ugaste, 2010; Zembylas, 2005) the importance of reflection to their own teaching behaviour in teaching experiences for student teachers' value development.

Appendix

Appendix 5A
Fieldnotes and member check with the teacher educator (Chinese version)

实习中学情况描述

以下内容均是作者（刘梅）对其研究对象（实习教师）所在的实习学校的描述。是否同意以及原因由研究对象的实习指导老师（梁忠庶老师）所填写。

No.	内容	是否同意	原因
1	严格的作息时间。该学校学生每天起床、吃饭、上课、运动、休息等都有严格的时间安排（早七点至晚十点）。期间，若无特殊情况，不允许出校门。	√	
2	重视考试和分数。该学校每月对各年级学生各学科进行考试评价。考试过后，学校会对各班级学生的平均分进行排名。每个学生的每门成绩也会被排名，并且张贴在班级里。实习期间，实习教师有参与及经历一次年级统考。	√	
3	实施 FS (Focus on Students)教学模式讲解试卷。该模式主要为：当讲解试卷时，先让学生讨论，讨论过后，学生向老师汇报有哪些问题没有在讨论中得以解决。老师着重讲解这些未被解决的问题。学校规定所有老师实施该教学模式讲解试卷。	不了解	没有听试卷讲解的课
4	教师上课时以知识传授为主。	√	
5	学生需要尊重老师。例如在学生进入老师办公室之前，需要喊"报告！"得到允许后，方可进入。	√	
综上	该实习中学是一所偏向于传统教学模式的学校。即该学校把教学压力、教育成果（考试分数）在很大程度上压在教师身上（例如班级评比）。另外学生需要尊重老师以及服从学校安排。	√	

作者：刘梅

签字：

实习指导老师：梁忠庶

签字：梁忠庶

Fieldnotes and member check with the teacher educator (Translated version)

Below are the descriptions based on the fieldnotes that the first author (Mei Liu) made to describe the culture of the secondary school that the participants worked in. The agreement or disagreement and the reasons for that were completed by the teacher educator (Zhongshuo Liang) responsible for the student teachers participating in this study.

No	Description	Agree or disagree	Reasons
1	Strict timetable. The pupils in the school shared a strict timetable made by the school, including the time to get up, eating, learning, sporting, resting, etc., from 7 a.m. to 10 p.m. During the time, pupils were not allowed to leave the school without special reasons.	Yes	
2	Valuing exams and scores. The school held exam tests on all the learning subjects every month. Afterwards, the school ranked the average scores of each subject of the classes publicly. During the internships, all of the student teachers experienced one exam tests held by the school.	Yes	
3	Conducting the FS (Focus on Pupils) teaching model in the school means : When explaining the paper tests to pupils, first pupils were asked to discuss the test questions by themselves. Then after discussion, pupils reported to their teachers which questions in the tests they could not solve during the discussion. Then teachers only explained these unsolved questions to the pupils. The school asked all the teachers to apply this model to explain tests to pupils.	Not sure	I did not go to any lessons about elaborating tests.
4	In teaching, knowledge transmission was the main teaching approach.	Yes	
5	Pupils need to respect teachers. For example, when pupils enter the teacher's office, they should first ask the teacher's permission.	Yes	
Summary	The secondary school showed a rather traditional school culture. The school put pressure on teachers about the pupils' scores. Pupils should respect their teachers and follow the arrangements of the school.	Yes	

Appendix 5B

The values of the eight student teachers in their pre- and post-SUT profiles
(***Bold ones** are the values present in the student teachers' pre and post-SUT, thus stable values)

Name	Values reflected in pre-SUT profiles		Values reflected in post-SUT profiles	
	Teachers should…	Pupils should…	Teachers should…	Pupils should…
Jenny	**have sufficient knowledge to teach; be a role model of pupils; put a lot of effort in teaching; keep a distance from pupils;** prepare a detailed teaching plan; teach as detailed in the plan; make sure pupils would not be a criminal in the future; put teaching first; teach some learning skills to pupils; pay more attention on pupils with lower scores; teach different contents to pupils in different levels; apply strategies to attract pupils' attentions; be liked by their pupils.	**respect their teachers; not make any comment on their teachers' teaching; not sleep in class; learn independently by doing a lot of paper exercises.**	**have sufficient knowledge to teach; be a role model of pupils; put a lot of effort in teaching; keep a distance from pupils;** spend less time on teaching plan but focus more on their own personal development; not teach many details but only the key knowledge in textbooks; become a machine to transfer knowledge to pupils; pay more attention on pupils with higher scores; not damage pupils' self-esteem; put more attention on personal development.	**respect their teachers; not make any comment on their teachers' teaching; not sleep in class; pupils should learn independently by doing a lot of paper exercises;** adapt themselves to the teacher's way of teaching.
Mary	**have a teaching plan; teach as the teaching plan; be the leader in teaching; not judge pupils only based on scores; be responsible for pupils; change teaching procedure depending on pupils' reaction; motivate pupils to**	**follow teachers' instruction; be afraid of their teachers; have positive learning attitudes**; conduct self-directed learning; have a good mental state; manage discipline by themselves.	**have a teaching plan; teach as the teaching plan; be the leader in teaching; not judge pupils only based on scores; be responsible for pupils; change teaching procedure depending on pupils' reaction; motivate pupils to answer**	**follow teachers' instruction; be afraid of their teachers; have positive learning attitudes.**

	answer questions; teach in a humorous way to attract pupils' interests in learning; be equal with and patient towards pupils; not conduct any physical punishment to any pupils.; not impact pupils' peer-relationships;		**questions;** have sufficient knowledge; keep learning; have clear discipline in teaching; conduct proper physical punishment to pupils if pupils do not learn; work hard; involve pupils' parents to monitor pupils' emotion in learning; help pupils to have higher scores; be trusted and be popular among pupils.	
John	**have sufficient knowledge to teach; have a detailed teaching plan; make sure the discipline, orderliness, and cleanness of the classroom is good; be a role model; be trusted and liked by pupils**; **use multiple teaching approaches to motivate pupils to learn; use different approaches to teach pupils in different levels;** contribute to the development of society; pay more attention on what pupils like, rather than their scores; help pupils to discover their own interests.	**respect their teachers;** make effective use of learning time, especially the time in the morning.	**have sufficient knowledge to teach; have a detailed teaching plan; make sure the disciplines, orderliness, and cleanness of the classroom is good; be a role model; be trusted and liked by pupils**; **use multiple teaching approaches to motivate pupils to learn; use different approaches to teach pupils in different levels;** not fully trust pupils that they can learn independently, but at a certain level; work hard and be conscientious on teaching; use scores to evaluate pupils.	**respect their teachers;** follow their teachers' instruction; work hard to have higher scores.
Lily	**have sufficient knowledge to teach**; **have a teaching plan**; **help pupils to have higher scores; not evaluate pupils only based on scores; be liked**	**respect their teachers; follow their teachers' instructions**; discover and develop their own interests.	**have sufficient knowledge to teach**; **have a teaching plan**; **help pupils to have higher scores; not evaluate pupils only based on scores; be liked**	**respect their teachers; follow their teachers' instructions**; answer teachers' questions actively.

	by and patient towards pupils; teach some learning skills to pupils; teach some social skills to help pupils to become a better person; put some pressure on pupils to make them work hard; encourage pupils to be active in learning; guide pupils to learn independently; use different approaches to motive pupils to learn.		**by and patient towards pupils; teach some learning skills to pupils; teach some social skills to help pupils to become a better person;** teach in a comprehensive way, i.e., teach the exam-related knowledge comprehensively; work hard to help pupils to get high scores; pay attention on emotional development; know the importance of reading; create a relaxed and attractive learning atmosphere for pupils' learning.	
Anna	**have sufficient and accurate knowledge to answer pupils' questions**; **use diverse teaching approaches to teach pupils in different levels; be friendly to pupils;** be strict to pupils for their benefit (i.e., for pupils' development); help pupils to be a better person; be a role model; ask questions to pupils to facilitate pupils to interact with teaching contents; not evaluate pupils only based on scores; be equal with pupils.	**have good learning attitudes; have good learning strategies**; be able to do the self-directed learning.	**have sufficient and accurate knowledge to answer pupils' questions**; **use diverse teaching approaches to teach pupils in different levels; be friendly to pupils;** have a teaching plan; notice the importance of reading for pupils' learning; know the importance of pupils' scores in national exams; work hard to make pupils work hard to pay back; know some skills to cope with the tension between being disciplined and being bored in teaching; collaborate with pupils' parents; put pupils at first; be patient towards pupils; create a relaxed learning	**have good learning attitudes; have good learning strategies**; follow their teachers' instructions; actively answer teachers' questions in class, so the teacher can know how to teach these pupils; respect their teachers; know their dreams/ideals in the future; have good moral characteristics

			atmosphere for pupils to speak and communicate in a free but also respectful way; encourage pupils to find their own dreams/ideals.	
Ella	**have sufficient knowledge to teach; be a role model**; **not hurt pupils' self-esteem; be trusted by pupils; be helpful to pupils;** have a detailed teaching plan; contribute to the achievement of pupils; contribute to the development of society; develop themselves by keeping learning; work hard; be flexible in teaching and bring fresh ideas to pupils; lead pupils to discuss with each other; lead pupils to do self-directed learning; not put too much pressure on pupils by asking pupils to do a lot of paper exercises; not judge pupils only based on their scores.	have his/her own opinions on teaching content and express them during discussion in class; be able to conduct self-directed learning.	**have sufficient knowledge to teach; be a role model**; **not hurt pupils' self-esteem; be trusted by pupils; be helpful to pupils;** keep their authority in relation to pupils; be the leader in teaching and pupils' learning; contribute to the achievements of pupils; teach in an understandable way to attract pupils' interest in learning; consider different pupils' learning attitudes in teaching; apply different teaching strategies; help pupils to develop their own interests.	respect their teachers; follow their teachers' instructions; actively answer their teachers' questions; know how to think, how to learn; have interest in at least one subject.
Lucy	**have sufficient knowledge**; **have teaching plans; know the importance of pupils' scores; be a role model; apply different strategies to motivate and attract pupils' interests in learning; be liked, and trusted by pupils;**	**follow their teachers' instructions;** have positive learning attitudes.	**have sufficient knowledge; have teaching plans; know the importance of pupils' scores; be a role model; apply different strategies to motivate and attract pupils' interests in learning; be liked and trusted by pupils; encourage pupils to**	**follow their teachers' instructions**; answer their teachers' questions actively.

	encourage pupils to express their opinions and understanding; pay attention to the emotional goal in English articles; contribute to the development of society; use different approaches to teach pupils in different levels.		**express their opinions and understanding;** teach according to their teaching plan; have authority in relation to pupils; be able to control the class; work hard and be conscientious towards work.	
Krystal	**have sufficient knowledge to answer pupils' questions; teach in a systematical way, i.e., have a teaching plan, and teach according to the plan; have authority in relation to pupils; be able to make sure that pupils follow their instructions and be the leader in teaching; care about pupils' personal life; apply some strategies to motivate/attract pupils' attention on learning; be liked and trusted by pupils;** be strict and even conduct proper physical punishment to pupils; focus on the needs of the majority of the pupils in teaching but pay some attention to the needs of small groups after teaching; take responsibility for pupils' development; the importance of pupils' scores.	**respect their teachers;** answer teachers' questions actively; follow the procedures in class; have positive learning attitudes	**have sufficient knowledge to answer pupils' questions; teach in a systematical way, i.e., have a teaching plan, and teach according to the plan; have authority in relation to pupils; be able to make sure that pupils follow their instructions and be the leader in teaching; care about pupils' personal life; motivate/attract pupils' attention on learning; be liked and trusted by pupils;** collaborate with pupils' parents; give some freedom to pupils; teach in an understandable and humorous way.	**respect their teachers.**

Chapter 6

Conclusion and Discussion

Introduction

Values play an important role in student teachers' professional development (Korthagen, 2017; Pantić & Wubbels, 2012; Veugelers & Vedder, 2003), and probably especially in a context where diverse value systems coexist. In China, currently both Eastern (e.g., Confucian) and Western (e.g., individualistic) values come to the fore in society and specifically in teacher education programmes (Chen, Wei, & Jiang, 2017; Guan & Meng, 2007). In such a context it is interesting to explore what student teachers' values are about, what values they bring into teaching, and how their values develop. In this thesis, we aim to understand Chinese student teachers' development during and through their student teaching experiences as new teachers and the role their own personal values play in their thinking and acting as teachers. Because values people hold are influenced by the culture they live in (Veugelers & Vedder, 2003; Pantić & Wubbels, 2012), we studied these values from a culture-related perspective. We used four categories of culture-related values adapted from Hofstede's four cultural dimensions as an analytical lens.

In this thesis, we reported on four empirical studies. First we applied quantitative methods to test whether the analytical lens we adapted from Hofstede's four cultural dimensions (i.e., acceptance of unequal power distribution, collectivistic thinking, masculine ideas, and uncertainty) was applicable to map individual Chinese student teachers' culture-related values (Chapter 2). Then with the four categories we investigated the culture-related values of eight Chinese student teachers in their general and educational views, their professional understanding, and their teaching practices (Chapter 3 & 4). In these studies, multiple qualitative methods were used. In Chapter 5, we explored the relationship between

student teaching experiences during an internship with the student teachers' value development using the perspectives of inward and outward orientation, and teacher- and pupil-centeredness.

In this concluding Chapter, we will first introduce the main results and conclusions of the four empirical studies in the current thesis. Second, we will discuss these main results and then, we will present potential implications of these results for practice. Finally, we will discuss some limitations of these studies and offer suggestions for the future studies.

Main results and conclusions

Mapping individual Chinese student teachers' culture-related values and relationships of these values with personality traits

In Chapter 2, we mapped individual Chinese student teachers' culture-related values and explored the relationship of these values with their personality traits. We first developed a questionnaire including four categories based on Hofstede's cultural dimensions (Hofstede, 1983, Hofstede, Hofstede, & Minkov, 2010), the Culture-related Values Questionnaire, below shortened as CV questionnaire. This questionnaire was used to map 425 Chinese student teachers' acceptance of culture-related values. Furthermore, at the same moment, we collected at the same time data on these student teachers' personality traits with a short version of the Big Fiver questionnaire (Vermulst & Gerris, 2005) and explored the relations between student teachers' acceptance of culture-related values and their five-factor personality traits.

The results showed that the CV questionnaire we developed had acceptable reliabilities on the four categories. An exploratory factor analysis showed one underlying factor for the four categories of culture-related values, which we interpreted as representing individuals' acceptance of culture-related values. The results of the regression analyses we conducted to examine the relationship between individuals' culture-related values and their

personality traits showed that, although personality traits could predict individuals' culture-related values to some degree, individuals' acceptance of culture-related values and personality traits were not perfectly correlated.

These results provided some support for the use of the categories based on Hofstede's cultural dimensions (Hofstede, Hofstede, & Minkov, 2010) to describe in a differentiated way the individual culture-related values of Chinese student teachers. These results also indicated that the differences between student teachers' acceptance of the four categories of culture-related values were not completely explained by the differences in their personality traits, and that these categories provided unique perspectives to understand individuals' characteristics in feeling, thinking, and acting. Finally, our results indicated that the culture-related values of the Chinese student teachers in our sample did not align with the description of China in Hofstede's investigations (see in Hofstede, Hofstede, & Minkov, 2010), especially regarding student teachers', on average, lower acceptance of an unequal power distribution.

After this quantitative inspection of individual Chinese student teachers' acceptance of the four categories of culture-related values we delved, with qualitative research approaches, more in depth into individuals' culture-related values in their general and professional life (Chapters 3 and 4).

Using a cultural perspective to understand student teachers' values in daily and educational settings and in their self-understanding of being a teacher

In Chapter 3, we used qualitative methods to explore eight Chinese student teachers' values in educational and daily life and in their self-understanding of being a teacher. In this study, we used a cultural perspective as an analytical lens: i.e., we studied their acceptance of the four categories of culture-related values, which were developed from Hofstede's four cultural dimensions (Hofstede, Hofstede, & Minkov, 2010). We compared their culture-related values in educational and daily life with the ones reflected in their self-understanding

of being a teacher. For the culture-related values in educational and daily life, we designed 20 daily situations to investigate the student teachers' judgments regarding the four categories of culture-related values, in the Culture-related Value interview (abbreviated as CV interview). For the culture-related values in student teachers' self-understanding of being a teacher, we collected data on the eight Chinese student teachers' understanding on how to be a teacher with a semi-structured interview: viz. the Self-understanding of being a teacher interview (SUT interview).

The CV interview results showed, that the student teachers' general values to a varying extent could be described with the four categories of culture-related values. For every student teacher, one or two values stood out but the specific values varied across participants. In the SUT interviews, we examined the eight student teachers' understandings of four teacher roles (i.e., subject matter expert, instructional expert, pedagogical expert, and interpersonal expert) and their professional commitment. From these understandings, we inferred their acceptance of the four categories of culture-related values. The culture-related values reflected in the student teachers' self-understandings were found to vary from participant to participant. Each of the participants showed one or two dominant culture-related values in their self-understanding.

The comparison of the results from the two interviews for each student teacher showed that the culture-related values that appeared in the educational and daily settings and professional understanding of the student teachers were similar. The results confirmed the consistency between the personal and professional life described by Day, Kington, Stobart, and Sammons (2006). The findings provide insight into the relation between values in daily life and the self-understanding of being a teacher in a context of concurrent and potentially even conflicting values. The culture-related values which dominated in the CV interviews clearly corresponded with the student teachers' thoughts about being a teacher but the focus of the dominant values differed per participant. It has been argued elsewhere that the

importance of personal value systems must be recognized in teacher education (Borg, 2003; Pantić & Wubbels, 2012) and the results of this study confirm this assertion.

Understanding culture-related values in actual teaching practice

After investigating whether the individual student teachers' culture-related values could be mapped by the four categories (Chapter 2), we adopted from Hofstede's four cultural dimensions, and after the examination of the relation between these culture-related values and student teachers' self-understanding (Chapter 3), we examined in Chapter 4 how these culture-related values were related to individual student teachers' teaching practices. We examined the culture-related values in the eight Chinese student teachers' actual teaching by three rounds of emotional incidents interviews based on video stimulated recall (abbreviated as EI interview below). In conducting the EI interview, we first collected the incidents identified by the student teachers as emotionally relevant in their teaching practices. Second, we described the incidents including the emotion (i.e., feelings, appraisals and attributions), cognition (i.e., interactive cognitions and reflective understanding) and behaviour (follow-up behaviour and behavioural intentions after the incident). We then explored the values embedded in the student teachers' responses to the incidents and considered these from the four categories of culture-related values: acceptance of unequal power distributions, acceptance of collectivist thinking, acceptance of masculine thinking and acceptance of uncertainty. Based on the findings, we proposed a tentative model to describe the evaluation process of emotional incidents and the role of the culture-related values in these evaluations.

The findings showed that the student teachers' culture-related values, especially the dominant culture-related values, might be associated with their choice of emotional incidents, the emotions they experienced during the incidents and their follow-up behaviour. The student teachers, holding different dominant culture-related values, were found to think, feel

and behave quite differently in the emotional incidents despite being confronted with very similar situations. Also, each student teacher her or himself was found to think, feel or behave quite similar in all of his or her emotional incidents even when confronted with rather different situations in his or her teaching practice. The way the student teacher thought, felt or behaved was related to his or her dominant culture-related values. The differences in their thinking, feeling, and behaviour were not always observable in the videotaped lessons but became apparent in the evaluation of the emotionally relevant incidents selected by the student teachers (also see Clarke & Hollingsworth, 2002). These findings are consistent with those of Kelchtermans (2005) showing emotion, cognition, behaviour and culture to all be "intertwined in the complex reality of teaching" (p.996).

Each student teacher in this study appeared to be more sensitive to certain categories of culture-related values in their teaching practice than to others. Once they interpreted a classroom incident as related to their values, no matter whether this interpretation aligned or conflicted with these values, the incidents emotionally aroused the student teachers. These emotional arousal moments might contribute to student teachers acknowledging the "realities" in real classroom teaching, which might in turn relate to the development of their values in being a teacher (Beauchamp & Thomas, 2009; Day, Kington, Stobart, & Sammons, 2006; Kagan, 1992).

In an intermezzo between chapter 4 and 5, based on the results of previous studies (Chapter 3 & 4) and also our interests in Chapter 5, we explained that after having studied student teachers' values from a cultural perspective we shifted our attention to understand the student teachers' value development from the perspectives of inward and outward orientation and teacher and pupil centeredness.

Exploring the role of teaching experiences in the development of values in student teachers' self-understanding of being a teacher

In Chapter 5, the role of teaching experiences in the development of values in eight Chinese student teachers' self-understanding of being a teacher was studied with a qualitative approach. We collected data on the value development of the eight student teachers by investigating the values in their self-understanding of being a teacher before and after their teaching practice in an internship, and then interpreted these values from two perspectives: inward outward orientation, and teacher- and pupil-centeredness. For their teaching experiences, we used the same data as in Chapter 4, collected with video stimulated recall interviews on the emotional incidents in their teaching experiences. In Chapter 5, we delved into the eight student teachers' cognition (i.e., description) of the emotional incidents, and then we inferred the role of these incidents in the development of values.

The student teachers' description of teaching experiences mostly accounted for reinforcement of their existing values and these values seemed to be confirmed. Despite these many persistent values, our results also showed that five out of eight student teachers showed an inward development. The other three developed in an outward direction, and all of them became more teacher-centred after their teaching experiences in their internships. In their teaching experiences, all of the student teachers noticed that pupils might not follow their teaching and felt that it was important to have control in teaching. This observation probably made them modify their understanding of being a teacher towards becoming more teacher-centred. Student teachers developed differently on the inward and outward orientation and these differences seemed to be related to different descriptions of the "realities" in their experiences.

The results in this chapter signal that the current Chinese teacher education programme of these eight student teachers might be ineffective in training student teachers to become more pupil-centred and alerts teacher educators to clarify the values underlying the

educational theory and teaching approaches they advocate, and to consider student teachers' personal values in teacher training. Furthermore, the results in this chapter point again to the importance of guiding student teachers to reflect on their own teaching behaviour (e.g., Clarke & Hollingsworth, 2002; Dewey, 1933; Leijen et al., 2014; Loughran, 2007; Rich & Hannafin, 2009).

Discussion of the main results

Based on the results of the four empirical studies in this thesis, we confirmed the importance and persistence of personal (culture-related) values in student teachers' professional understanding and their values development (Beijaard, Verloop, & Vermunt, 2000; O'Connor, 2008; Pantić & Wubbels, 2012; Sam & Ernest, 1997; Veugelers & Vedder, 2003; Willemse, Lunenberg, & Korthagen, 2005). We were able to map the student teachers' culture-related values on an individual level with the four categories adapted from Hofstede's cultural dimensions (Hofstede, 1983, Hofstede, Hofstede, & Minkov, 2010). After that we showed that individual Chinese student teachers' culture-related values were reflected in similar ways in their general life and in their professional understanding. Furthermore, it appeared that these culture-related values were related to their teaching experiences during student teachers' teaching practices. Although the teacher education programme of these student teachers tried to educate student teachers to embrace Western teaching values (such as applying constructivist teaching approaches and valuing pupil-centeredness), student teachers appeared to develop in a different direction; towards more teacher-centeredness and often with a focus on themselves instead of teaching and pupils. In our results, we also demonstrated the contribution of student teachers' teaching experiences to their development. Below we will highlight some of the results in relation to the literature.

Hofstede's cultural dimension theory has been debated and criticized for decades. Many scholars questioned the theory and the applicability of the dimensions (e.g.,

Baskerville, 2003; Blodgett, Bakir, & Rose, 2008; McSweeney, 2002). However, this scepticism did not prevent Hofstede's work on culture becoming widely cited and influential (Bond, 2002; Jones, 2007), not only in the field of marketing and business, but also in educational sciences (Cheng, 1998; Cronjé, 2011; den Brok, van Tartwijk, Wubbels, & Veldman, 2010; Hofstede, 2011). There is one agreement in the studies about Hofstede's cultural dimensions , i.e., Hofstede's cultural dimensions can only describe culture at the country level and are not applicable to understand individuals' values (e.g., Baskerville, 2003; Beugelsdijk & Welzel, 2018; Hofstede, 2011; Signorini, Wiesemes, & Murphy, 2009), because the two ends of each dimension – for example collectivism and individualism – can coexist at the individual level (Triandis, 2004; Watson & Morris, 2002). We therefore avoided the problem of falsely dichotomizing on opposite ends individual Chinese' culture-related values, and developed four categories of culture-related values based on the ends that China's culture most adheres to, i.e., individuals' acceptance of unequal power distribution, individuals' acceptance of collectivistic ideas, individuals' acceptance of masculine ideas, individuals' acceptance of uncertainty.

In other studies (such as Chinese Culture Connection, 1987; Gabrenya Jr & Huang, 1996; Hofstede, Hofstede, & Minkov, 2010) it was found that Chinese generally highly accept hierarchy. In our study, individual Chinese student teachers on average appeared to accept unequal power less than expected on the basis of these earlier studies. Furthermore, the Chinese student teachers in our dataset showed a broad variation in their degree of accepting hierarchy (see the results of Chapter 2, 3, and 4).

Regarding the four categories of culture-related values and personality traits, our results showed that these two approaches of understanding individuals' feeling, thinking and acting showed overlap but also had unique features. Conscientiousness in the personality traits appeared to be significantly associated with the four categories of culture-related values (see the results of Chapter 2). Also, in the responses of the student teachers we interviewed

(in Chapter 3 and Chapter 5) about their self-understanding of being a teacher, being conscientious in the work and contributing to the development of society were mentioned repeatedly. This result confirms results of McCrae, Costa, and Yik (1996), showing that being conscientious might be deeply rooted in the Chinese culture.

Comparing student teachers' culture-related values in educational and in daily life with the values in their self-understanding of being a teacher indicated consistency between personal and professional values, which supported the arguments in the study of Day, Kington, Stobart, and Sammons (2006) about teachers' stable selves. Although the eight student teachers showed persistent culture-related values, especially their dominant ones, their values also differed across student teachers, indicating that individuals' values are highly individualized (Ball, 2003), and "one size may not fit all" (Walker & Dimmock, 2000; p. 175). The relative low acceptance of an unequal power distribution and the variation in the culture-related values of the Chinese student teachers in our sample, indicated that it might be too simplified to understand individuals in a country by applying the description of a country's cultural values (e.g., Hofstede, Hofstede, & Minkov, 2010).

Except for the acceptance of collectivistic thinking, student teachers' dominant culture-related values played a role in student teachers' teaching experiences. The participants in Chapter 3 and 4 being the same, we compared their culture-related values in their teaching practices and in their self-understanding of being a teacher. We noticed that even for the student teachers with strong collectivistic thinking in their self-understanding of being a teacher and in their educational and daily life (such as Lucy and Ella), we could not identify their collectivistic ideas playing a role in their teaching practices. However, their collectivistic thinking was reflected in their commitment to the job and contribution to society (i.e., being conscientious), but not (yet) into pupils in teaching.

The value development of the eight student teachers showed that all of them became more teacher-centred after their teaching experiences, i.e., they became more authoritarian

and custodial (Kagan, 1992). This shift can be interpreted as a higher acceptance of an unequal power distribution (Hofstede, Hofstede, & Minkov, 2010). This development was not surprising, considering the values of Jenny, Lucy, John, Lily, and Krystal in their educational and daily life, and self-understanding of being a teacher before the internships: they showed a high acceptance of an unequal power distribution. However, the other three student teachers (Mary, Ella, and Anna), showed low acceptance of unequal power distribution in their personal and professional life, but anyway also changed to value their control over pupils more after their teaching experiences.

We noticed different and potentially even conflicting values regarding teaching in Mary, Ella, and Anna's self-understanding of being a teacher. For example, Mary felt that pupils should conduct self-directed learning, but also felt that it was important for teachers to be the leader in teaching. This coexistence of different values might be a result of the diverse values present in China nowadays (see the similar results in the study of Zhu, Valcke, & Schellens, 2010). Based on our results, the fact that student teachers had different and even conflicting values might have been influenced by the school culture (see also Avalos, 2011; Lassig, 2009; Stoll, Bolam, McMahon, Wallace, & Thomas, 2006). The school that the eight student teachers worked in as interns held rather traditional values about teaching and learning.

Our findings also indicate the importance of reflection, especially on student teachers' own teaching behaviour (see also in Clarke & Hollingsworth, 2002; Dewey, 1933; Leijen et al., 2014; Loughran, 2007; Rich & Hannafin, 2009). Not all student teachers could, as in the description in Fuller and Bown (1975), notice the important role of pupils after teaching. Our results showed that only if student teachers could reflect on their own teaching behaviour rather than attributing their teaching experiences to their teaching plan or pupils, they would develop outwardly. Otherwise, they would care more about themselves and their own roles in teaching and learning, i.e., an inward development.

Implications for practice

If the results presented in this thesis will be confirmed in studies in larger and more diverse samples, these results have implications for practice, not only for teacher educators and policy makers, but also for student teachers themselves. We present such potential implications.

For teacher educators and educational policy makers, it is important to consider student teachers' personal values in teacher training programmes (see also Biesta, 2010; Borg, 2003; Pantić & Wubbels, 2012). In this thesis, we showed how consistent these personal values appear in student teachers' personal and professional life. Without considering student teachers' personal values when educating student teachers to embrace the education theory and apply "ideal" teaching approaches in practice, teacher training programme might be ineffective (also in Aronson & Laughter, 2016; Guskey, 2002; Pedder & Opfer, 2013; Wubbels, 1992). This implication does not only refer to Chinese teacher education programmes, but to programmes all over the world, for example when programmes want student teachers to apply culturally responsive teaching approaches in the United States (Gay, 2002) and the Netherlands (Leeman & Ledoux, 2003).

Student teachers in their internships, might experience conflicts between the "realities" in their student teaching and the "ideal" theory as presented in their teacher training programmes. The results of this thesis might make student teachers help to be aware of these "reality shocks" and acknowledge the sources of these shocks (such as the coexistence of diverse cultural values). Also, the results of the thesis offered some strategies for student teachers professional development, such as conducting self-reflection on their own teaching behaviour rather than attributing incidents happening in their classroom to their teaching plan and pupils, as suggested in Chapter 5.

Limitation and suggestions for future research

This thesis explored current Chinese student teachers' values and the development of values in a context where diverse values coexist. As a result of globalization, such diverse-values-coexisting contexts inevitably can be seen all over the world (see Veugelers & Vedder, 2003). Based on our experiences in exploring Chinese student teachers' values in such contexts and also the limitations in the thesis, we suggest some directions for future studies.

First, the cultural lens we adapted to understand individuals' culture-related values was based on the ends of the cultural dimensions that China's culture adheres to in Hofstede's investigations (Hofstede, Hofstede, & Minkov, 2010) and we only applied these categories on a Chinese dataset. It would be interesting to explore individuals' acceptance of the four categories of culture-related values in another country which might be very different from China's culture, for example in the Netherlands (with a rather small power distance, individualism, and femininity, and stronger than Chinese uncertainty avoidance in Hofstede's investigation, (Hofstede, Hofstede, & Minkov, 2010).

Second, in the current thesis, we approached all of our participants (i.e., 425 student teachers in Chapter 2, and the eight student teachers in Chapter 3, 4, and 5) from one teacher education programme. Although the students came from a variety of areas in China, one should be cautious to generalize our results to explain the values of all Chinese student teachers. In future studies, student teachers from diverse teacher education programmes should be involved.

Third, in our study, we focused only on student teachers' values and their value development and it would be interesting to include experienced teachers in future research. It might be interesting to compare the values and value development of student teachers and experienced teachers, especially when they are from different generations. Also, in our investigation of student teachers' value development, we did not include the role of their

tutorial teachers. Future studies should also consider the influence of student teachers' tutorial teachers on their professional development.

Fourth, we would suggest future studies to consider pupils' perceptions of their teachers, especially their teachers' teaching behaviour. It might be interesting to involve pupils' selections of the same class or investigate pupils' perceptions or interpretations of the incidents that their teachers selected. Comparing the differences between pupils' and teachers' perceptions might offer deeper explanations for the "reality shocks" that (student) teachers' experience.

Last but not least, the teaching period we investigated in the current thesis was only two months. Although in our results student teachers have already shown development in their values, investigations over longer teaching periods might be interesting.

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Samenvatting

In de professionele ontwikkeling van leraren in opleiding (LIO's) spelen waarden een belangrijke rol; zeker in een omgeving waarin verschillende waarden naast elkaar bestaan.

Chinese leraren in opleiding hebben tegenwoordig te maken met zulke uiteenlopende waardensystemen in de samenleving en ook in hun lerarenopleidingen. Oosterse en Westerse waarden komen er gelijktijdig voor. Chinese studenten worden in de lerarenopleiding opgeleid met waarden die ten grondslag liggen aan constructivistische benaderingen in het onderwijs: leerlingen moeten centraal staan in het onderwijs en leraren moeten het leren van hun leerlingen faciliteren in een omgeving waarin leraren en leerlingen op voet van gelijkwaardigheid met elkaar omgaan. De meeste studenten van de lerarenopleiding in China worden zelf echter onderwezen door lerarenopleiders die gebruik maken van kennisoverdracht binnen hiërarchisch gestructureerde relaties - de meer traditionele confuciaanse onderwijsaanpak. Mede door hun ervaring met traditionele onderwijsbenaderingen in het basis- en voortgezet onderwijs, zijn studenten in de lerarenopleiding niet vertrouwd met leerlinggerichte en constructivistische ideeën over lesgeven.

Het is daarom interessant om de ontwikkeling van Chinese leraren in opleiding te bestuderen en daarbij ook de rol van de eigen persoonlijke (aan de cultuur gerelateerde) waarden in ogenschouw te nemen. In dit proefschrift beschrijven we de waarden van Chinese leraren in opleiding in relatie tot a) hun persoonskenmerken, b) hun opvattingen over het leraarschap (*professional self understanding*) en c) hun professionele ontwikkeling in de context van de schoolstage op een middelbare school.

Omdat de waarden die mensen hebben beïnvloed worden door de culturele omgeving waarin ze leven, bestudeerden we de individuele waarden van de leraren in opleiding vanuit een cultureel perspectief. Het cultureel perspectief werd bekeken door de lens van de vier door Hofstede onderscheiden culturele dimensies waarop landen met elkaar vergeleken

kunnen worden. Deze dimensies op landelijk niveau zijn aangepast tot vier categorieën van cultuurgerelateerde waarden die kunnen worden gebruikt op het niveau van een individu.

In het inleidende hoofdstuk (1), introduceren we het doel en de context van het onderzoek en het conceptuele kader. We beschrijven het concept waarden, de rol van waarden in de opvattingen over het eigen leraarschap, de rol van waarden in ervaringen in het onderwijs (met name emotionele incidenten) en de vier aan het werk van Hofstede gerelateerde categorieën van cultuurgerelateerde waarden (acceptatie van: 1) ongelijke machtsverdeling, 2) collectivistische ideeën, 3) masculiene ideeën en 4) onzekerheid). In dit hoofdstuk formuleren we ook de onderzoeksvragen van het proefschrift, de methoden die we hebben toegepast om elke vraag te beantwoorden en de relevantie van de verschillende studies.

In hoofdstuk 2 hebben we met kwantitatieve methoden onderzocht of de vier categorieën van cultuurgerelateerde waarden toegepast kunnen worden om de waarden van Chinese LIO's op een individueel niveau in kaart te brengen. We ontwikkelden een vragenlijst over de eerder genoemde vier categorieën om de waarden van 425 Chinese LIO's te beschrijven. Daarnaast hebben we op hetzelfde moment de persoonlijkheidskenmerken van deze studenten bevraagd met een korte versie van de Big Five-vragenlijst en hebben we de relaties onderzocht tussen de acceptatie van cultuurgerelateerde waarden en persoonlijkheidskenmerken. De bevindingen toonden aan dat de vier categorieën van cultuurgerelateerde waarden kunnen worden gebruikt om de waarden van individuele Chinese studenten op een betrouwbare manier in kaart te brengen. Bovendien wijzen de , resultaten op een significante, maar niet perfecte correlatie tussen cultuurgerelateerde waarden en persoonlijkheidskenmerken van individuen en hebben ze dus elk een onafhankelijke betekenis. Tot slot toonden onze resultaten aan dat de cultuurgerelateerde waarden van Chinese leraren in onze steekproef, en dus op individueel niveau, niet overeenkwamen met Hofstede's eerdere beschrijving van Chinese waarden op landelijk

niveau. Dit betrof vooral de gemiddeld lagere acceptatie van een ongelijke machtsverdeling die bij de studenten naar voren kwam.

In hoofdstuk 3 verdiepten we het inzicht in de rol van de cultuur-gerelateerde waarden en onderzochten deze (d.w.z. hun acceptatie van de vier categorieën van cultuurgerelateerde waarden) bij acht Chinese leraren in opleiding in het onderwijs en het dagelijks leven in relatie tot hun zelfverstaan betreffende het leraarschap. Voor deze studie kozen we een kwalitatieve benadering. Voor het in kaart brengen van de cultuurgerelateerde waarden, ontwierpen we 20 situaties betreffende het dagelijks leven en de onderwijsomgeving waarin cultuurgerelateerde waarden een rol speelden. LIO's konden in een interviewsetting aangeven wat zij belangrijk vonden.

Om inzicht te krijgen in de weerspiegeling van de cultuurgerelateerde waarden in de opvattingen over het (eigen) leraarschap, verzamelden we gegevens met een semi-gestructureerd interview betreffende onder andere de beleving van de leraarstaak, de ideeën over de eigen capaciteiten en over goed leraarschap in het algemeen. Waarden die het vaakst naar voren kwamen beschreven we als dominante cultuurgerelateerde waarden. De bevindingen wezen erop dat 1) de leraren in opleiding in verschillende mate de vier categorieën van cultuurgerelateerde waarden accepteerden (sommigen hechten bijvoorbeeld veel waarde aan ongelijke machtsverdeling en anderen toonden vooral collectivistische ideeën als dominante waarden) en 2) dat hun cultuurgerelateerde waarden over onderwijs en het dagelijks leven voor een groot deel ook weerspiegeld werden in hun opvattingen over het leraarschap. Inzicht in de relatie tussen cultuurgerelateerde waarden in het onderwijs en het dagelijks leven en in het zelfverstaan van leraren kan lerarenopleiders en leraren in opleiding helpen om te gaan met de spanningen die in hun professionele ontwikkeling kunnen optreden door de balans die zij moeten zoeken in het omgaan met verschillende waarden die er in hun omgeving – en zeker in een veranderende cultuur – bestaan.

Om meer inzicht te krijgen in de rol die de cultuurgerelateerde waarden van de Chinese leraren in opleiding spelen in hun dagelijkse lespraktijk, doet hoofdstuk 4 verslag van een studie naar de cultuurgerelateerde waarden van dezelfde acht Chinese LIO's in relatie tot wat zij in hun onderwijspraktijk doen. We onderzochten de cultuurgerelateerde waarden in het onderwijs met behulp van (*stimulated recall*) interviews naar aanleiding van het bekijken van video-opnames van hun eigen lessen. De studenten selecteerden uit deze opnamen momenten (*incidents*) die ze tijdens de les zelf als emotioneel hadden ervaren. Dit kon zowel positief als negatief zijn. In het interview werden de studenten uitgenodigd te vertellen over deze situaties. Ook werd de studenten gevraagd de drie voor hen belangrijkste incidenten te prioriteren. Deze procedure werd drie keer herhaald - aan het begin, in het midden en aan het einde van de stageperiode. Voor de data-analyse beschreven we de incidenten in termen van: 1) emotie (gevoelens, *appraisals* en attributies), 2) cognitie (interactieve en reflectieve cognities) en 3) gedrag (gedrag dat werd vertoond en/of intenties voor gedrag na het incident). Vervolgens brachten we de waarden in kaart die op basis van deze beschrijving onderscheiden konden worden en werden ze op basis van de vier categorieën van cultuurgerelateerde waarden getypeerd: acceptatie van: ongelijke machtsverhoudingen, collectivistische denken, masculien denken en onzekerheid. Op basis van de bevindingen stelden we een voorlopig model op waarmee beschreven kan worden hoe studenten reageren op emotionele incidenten in de lespraktijk en wat daarbij de rol lijkt te zijn van de cultuurgerelateerde waarden. Cultuurgerelateerde waarden van de docenten in opleiding – en dan vooral hun dominante waarden - bleken naar voren te komen in de (meer of minder bewuste) keuze van incidenten die als emotioneel werden ervaren, in de emoties die ze tijdens de incidenten hadden ervaren en in hun vervolggedrag. Ook bleek dat bij de LIO's in dit onderzoek bepaalde categorieën van cultuurgerelateerde waarden in hun onderwijspraktijk een grotere rol speelden, meer dominant waren, dan andere. Welke waarden dit waren verschilde tussen de leraren.

Na inzicht te hebben verkregen in de rol van cultuurgerelateerde waarden in relatie tot het professioneel zelfverstaan en in relatie tot de reactie van studenten op emotioneel geladen gebeurtenissen in de lespraktijk, waren we geïnteresseerd in de ontwikkeling van de waarden van de acht Chinese leraren in opleiding. In het intermezzo tussen hoofdstuk 4 en 5 motiveren we, op basis van de resultaten in hoofdstuk 3 en 4, dat we daarbij de aandacht verlegden naar twee andere perspectieven op waardeontwikkeling, te weten: een naar-binnengerichte oriëntatie (d.w.z naar de eigen persoon) of naar buitengerichte oriëntatie (d.w.z bijvoorbeeld op de leerlingen of de les) centraal stellen van de docent of de leerling bij beschrijvingen van het leraarschap (kort gezegd, ligt de focus op de leraar die onderwijst of de leerling die iets leert?).

In hoofdstuk 5 werd wederom met een kwalitatieve benadering bij de acht Chinese leraren in opleiding de rol van hun onderwijservaringen in de ontwikkeling van waarden in het zelfverstaan als leraar bestudeerd. We verzamelden gegevens over de waardenontwikkeling door de waarden te onderzoeken in hun interviewgegevens over zelfverstaan voor en na hun onderwijspraktijk in een stage. We interpreteerden deze waarden vervolgens vanuit de twee perspectieven: een naar binnen- of naar buitengerichte oriëntatie en het centraal stellen van de docent of de leerling. Verder analyseerden we de beschrijvingen van de leraren van hun emotioneel relevante onderwijservaringen en leiden daarna de rol van deze ervaringen in de ontwikkeling van hun waarden af. De resultaten toonden aan dat de onderwijservaringen van de leraren in opleiding meestal hun bestaande waarden versterkten. Hoewel veel van de waarden persistent waren toonden onze resultaten ook aan dat vijf van de acht studenten zich naar-binnengericht ontwikkelden. De andere drie ontwikkelden zich naar-buitengericht en alle acht studenten werden meer leraargericht. De resultaten in dit hoofdstuk geven aan dat het opleidingsprogramma van deze acht Chinese docenten niet effectief lijkt in het opleiden tot meer leerlinggericht denken en handelen. De resultaten in dit hoofdstuk

bevestigen het belang van het begeleid reflecteren door leraren in opleiding op hun eigen onderwijsgedrag.

Hoofdstuk 6 bespreekt de belangrijkste resultaten en conclusies van de vier empirische studies uit hoofdstuk 2 tot en met 5. De resultaten bevestigen het belang en de persistentie van persoonlijke (cultuurgerelateerde) waarden in het professionele zelfverstaan van docenten in opleiding en in hun onderwijspraktijk. In dit hoofdstuk worden ook de beperkingen van deze studies en implicaties voor de praktijk en toekomstig onderzoek gepresenteerd. De resultaten van het proefschrift laten lerarenopleiders en onderwijsbeleidsmakers zien dat het belangrijk is om in lerarenopleidingen rekening te houden met de persoonlijke (cultuurgerelateerde) waarden van leraren in opleiding. Het gebruik van de resultaten van deze dissertatie in de lerarenopleiding kan ertoe leiden dat (Chinese) leraren in opleiding zich bewust worden van hun "realiteitsschok" en de bronnen van deze schok herkennen, zoals het naast elkaar bestaan van verschillende culturele waarden. De resultaten van het proefschrift bieden ook strategieën voor de bevordering van de professionele ontwikkeling van (Chinese) leraren in opleiding, zoals reflectie gericht op hun eigen onderwijsgedrag in plaats van het toeschrijven van incidenten in hun klas aan hun lesplanning en het gedrag van leerlingen.

中文概要

教师的价值观念直接影响着其职业发展。目前，已有诸多研究证实了教师的价值观念对其职业理解和教育实践具有重要的影响作用，特别是对于那些实习教师而言，其影响作用明显大于经验丰富的教师。因此，教师教育除了要考虑如何培养实习教师专业技能和教学技能以外，也要考虑这些专业技能和教学技能背后所包含的价值观念是否与实习教师自身的价值观念相符合。然而，有很多研究表明，实习教师的个人价值观念常常被教师教育者和教育政策制定者所忽略。这样的忽略会造成教师教育或教育政策中所提倡的教育教学方法和理论与实习教师自身的价值观念相冲突，从而导致实习教师在其职业理解和教育实践中无法践行他们从教师教育里所学到或者教育政策中所要求的理论和方法。这样的现象在一个多元价值观并存的社会环境中会更为突出，例如当代的中国。

在当代中国，东方传统的文化价值观（即传统儒家文化价值观）和西方文化价值观（即个人建构主义价值观）都深刻影响着教师（包括实习教师）的个人生活和教育经历。例如，受西方文化价值观的影响，中国在教育政策及教师教育过程中均明确要求教师运用建构主义的教育教学方法。而建构主义教学方法的运用，不仅仅要求教师适时对话或者讨论的教学形式，更主要的是要求教师（包括实习教师）完全接受建构主义教学背后的价值观，即学生是课堂的主体，教师是学生学习的促进者和辅助者，以及在教学过程中建立平等的师生关系。但与此相矛盾的是，中国大多数教师以及实习教师在其自身的受教育经历（包括其中小学和教师教育中的学习经历）中都是接受的传统儒家的教育教学方式，即老师作为课堂的中心传授知识给学生，学生需要尊重以及听从老师的教学方式。另外，在当代的中国教育中，考试测评依然盛行。研

究表明传统的教育教学方式对学生考试成绩的推动作用要大于建构主义教学方式。因此，目前的考试测评方式在一定程度上给实施建构主义教学方式带来了困难。

综上所述，目前中国实习教师在其个人生活和职业发展中可能面临着多重价值观的选择，这些价值观念对其职业认知发展和教学实践都会产生不同的影响。在本篇论文中，我们把价值观念定义为个体判断是非好坏的标准。我们通过四篇实证性研究去探究了当代中国实习教师的价值观念是什么，以及这些价值观念如何影响其职业认知发展和教学实践等问题。由于这些价值观念常常深受其所在文化背景的影响，因此本文从文化的视角去理解实习教师的价值观念。下面我们将具体介绍四篇实证性研究的内容、方法以及结论，即本篇论文的第二至第五章。

在**第二章**中，我们借鉴 Hofstede 的四个文化维度的理论，在此理论的基础上，我们提出四大类个人文化价值观：1.对权利分配不公平的接受程度，2.对集体主义思想的接受程度，3.对男权思想的接受程度，4.对不确定性的接受程度，去理解中国实习教师的价值观念，同时分析个体的文化价值观与其人格特征之间的关系。以这四大类个体文化价值观为支撑，我们研发了一份调查文化相关价值观的问卷，并用此问卷调查了 425 名中国实习教师的文化相关价值观。与此同时，我们也用短版的大五人格问卷收集了这些实习教师的人格特征，并调查了他们的文化相关价值观与大五人格特征之间的关系。

调查结果表明，第一，我们所研发的文化价值观问卷对于了解个体的文化价值观是适用、可靠的，即个体的文化相关价值观可以通过其对四大类文化价值观的接受程度表现出来。这样的结果在一定程度上支持了运用 Hofstede 的文化维度来理解个人的文化相关价值观。其次，结果显示个体文化价值观和人格特征的异质性，即个体的

文化相关价值观与其人格特征完全不同。个体的文化相关价值观可以提供独特的视角去理解个体的感受、思考和行为方式。最后，结果表明中国实习教师的文化相关价值观与 Hofstede 所描述的中国文化是不同的，特别是对于权力分配不均匀的接受程度上。Hofstede 的调查结果表明中国文化能够接受权力分配不均的情况，然而我们的结果表明中国实习教师对其的接受程度相对较低。

在**第三章**，我们运用质性研究方法调查了八名中国实习教师在其日常生活（包括教育生活）中所体现的价值观以及其职业自我认知中的价值观，并且采用了前文证实的四大类文化价值观视角来理解其日常生活与职业自我认知的关系，即他们价值观中所体现的对权力分配不公平的接受程度，对集体主义价值观的接受程度，对男权思想的接受程度以及对不确定性的接受程度体现在日常生活与职业自我认知中的异同。我们设计了二十种不同的日常生活（包括教育生活）的情景。通过收集分析八位实习教师对这些情景的反应和思考判断他们对四大类文化价值观的接受程度。与此同时，我们通过半结构化访谈法收集并分析这八位实习教师在职业自我认知中所体现的文化相关价值观。

结果表明无论在日常生活中，还是在职业认知中，实习教师的文化价值观都呈现出多样性。不同的实习教师对于某一类或某两类的文化价值观会更加敏感，并且他们对于不同类型的文化相关价值观的敏感程度不同。另外，在对实习教师的职业自我认知的分析中，我们检测到实习教师的职业自我认知主要可以被分成五种：1.作为学科知识专家的自我认知，2.作为传授知识专家的自我认知，3.作为学生发展专家的自我认知，4.作为人际关系专家的自我认知，以及 5.职业认同感的自我认知。实习教师在

表达他们各类型自我认知时，会体现出他们对某一类或者某两类文化价值观的支持，即他们在其职业自我认知中的文化价值观。

通过把实习教师在日常生活中和职业自我认知中所体现出的文化价值观进行对比，我们发现两者存在极高的相似度，即实习教师在其职业和日常生活中所体现的文化相关价值观与其在职业自我认知中的文化相关价值观多数是一致的，特别是其主要价值观更是完全一致。由此可以推断出实习教师的文化相关价值观的稳定性，以及在教师教育中重视实习教师的文化相关价值观的必要性。

在**第四章**中，我们调查了实习教师的文化价值观在其教育实践中的体现。具体而言，我们运用了三轮刺激回忆访谈法调查了八位实习教师在其两个月的教育实践中所感受到的情绪性事件。通过对这些情绪性事件的深入访谈，我们收集到实习教师在每个情绪性事件中所感受到的情绪（包括感受、评估和归因）、认知（包括互动认知和反思认知）和行动 （包括对情绪性事件的应对行动和可能的行动指向）。 我们随后探索了在每个情绪性事件中所体现的价值观，并运用四大类文化相关视角去理解这些价值观。最终基于这些结果，我们总结得到文化相关价值观是如何影响实习教师的情绪性事件判断的模型。

结果表明，实习教师的文化价值观对其情绪性事件的选择、情绪性事件中感受，以及他们的应对行为都有影响。如果实习教师有着完全不同甚至相反的文化相关价值观，那么哪怕是在面对类似的课堂事件时，他们的思考方式、感受机制和行动机制都可能会完全不同，甚至会相反。虽然思考方式、感受机制和行动机制上的不同通常是内敛的，很难被直接观察到，但是在他们对情绪性事件的判断上，这些不同都会被直接、有效的表现出来。另外，调查结果表明，不同实习教师在教育实践中也会对

不同类型的文化相关价值观会更为敏感，并且常常会把其教育实践与该类型的价值观念建立联系。实习教师在其教育实践中的情绪往往会受到该类型价值观念的影响。。深入了解实习教师在教育实践中的情绪以及背后的相关因素可以帮助实习教师克服他们所认为的“现实”和“理想”的冲突，从而有助于实习教师更清楚地认识自己的价值观念。

在第四章和第五章中间，我们加入了一个中间章节来解释为何在第五章中我们不再运用文化视角去理解实习教师价值观念的发展。由于文化相关价值观的稳定性，我们很难从文化的角度分析出实习教师价值观念的发展。因此，我们摒弃了之前的文化视角，而运用了内向型和外向型发展，以及教师中心和学生中心两种发展类型来了解实习教师的价值观念发展。

在**第五章**中，我们运用质性研究方法调查了八名实习教师在其教育实习期间的价值观念发展。我们访谈了这八名实习教师在教育实习前和实习后的职业自我认知，并从内向或外向型发展视角以及教师或学生中心视角分析了实习前后其价值观念的发展变化。与此同时，我们也通过刺激回忆访谈法去了解八位实习教师在其实习期间的经历，并且分析这些经历对其价值观念发展的影响。

结果表明，实习教师的实习经历多数是对其已有的价值观念的巩固，特别是对一些教师中心的价值观念。例如，在教育实习中，八位实习教师都发现到学生不会一直听从其指导来学习，并且他们意识到课堂控制的重要性。因此八位教师在实习后，其教师中心的价值观念得到了进一步巩固。八位教师都变得更加支持教师中心的观点。除此之外，在八位实习教师中，有五位表现出内向型发展，而另外三位则表现出外向型发展。这样的不同，可能是由于不同实习教师对于课堂“现实”的理解方式不

同。内向型发展的老师总是从学生的角度去理解一些课堂事件（例如课堂实践的发生是由于学生不听话或学生不思考），而外向型发展的教师总是从自身的角度来解读多数课堂事件（例如课堂事件的发生是由于自己的教育教学方式没有让学生听懂或者激起学生的学习兴趣）。此结果在一定程度上表明在培养实习教师实施学生中心教学方式上的不力，以及实习教师自我反思的重要性。

以上便是对此篇论文中四个实证性研究的整理和总结。

Acknowledgement

I have thought for a very long time how I would like to write the acknowledgement of my thesis. There are too many people and experiences that I appreciate in the past five years. These people and experiences contribute not only to my professional but also to my personal development. In this section, I would like to borrow the method I used in the thesis, i.e., emotional incidents[1] (in Chapter 4, below shorted as EI) to record the memorable experiences with those super nice people.

EI: with Prof. dr. Theo Wubbels, at the PhD workshop, Beijing, 2013

The organizer of the PhD workshop arranged a party and invited all the attendants (including Theo and me) to join. Theo and I had a funny conversation during the party. Theo said to me, "*Oh, you look different to other Chinese! You are much taller!*" Then, I told Theo, "*Ha, you look quite the same as other Dutch! Not having much hair!*" Afterwards, Theo and I laughed.

I am not sure whether Theo still remembers this conversation. This conversation really helped me to overcome my fear to communicate with him, even before I came to UU. Because of this joke, I thought Theo was easy to talk with and his acceptance of unequal power distribution was low. In the five years working experiences with Theo, my assumption about him was confirmed for many times. Also, I appreciate that Theo is open-minded to the differences between me and other PhDs. He could understand that I need extra help from him. He really showed and taught me how to be a critical and independent researcher!

EI: with Dr. Rosanne Zwart, during a Skype meeting, 2017

This incident happened after I got my first rejection from a journal. I emailed Rosanne that I wanted to cancel the meeting with her. She replied that "*No! We cannot cancel it! We need to discuss it!*" Then, eventually, we had a one-hour meeting: for first half an hour, she

[1] I am not sure whether the words in each of the conversations are exactly words we said, but I am sure they are true, at least from my perspective.

watched me crying, and the other half she comforted and encouraged me to accept the criticism of the reviewers critically.

From this incident, Rosanne showed me how to learn from criticism and how to reflect on my work. Also, Rosanne is very thoughtful! In my first year, sometimes, it was difficult to say, "*I don't understand*" for me. Rosanne, as a good qualitative researcher, could always know which parts confused me in our conversation. She encouraged me to express myself in the meeting with her or with other colleagues. In the year of 2017, Rosanne changed her career to NVO but she was still willing to be my daily supervisor, even when she did not get any payment for it. I appreciate her dedication in the project!

EI: with Dr. Larike Bronkhorst, at Sjoerd Groenmangebouw, 2015

The incident happened during a team meeting. In the team meeting, everyone needed to express their research topics with one or two words. For me, at that time, I was not confident with the word I selected, i.e., "professionalism". Afterwards, I could not help looking at Rosanne to check whether she agreed with me or not. Larike caught me at that time! She said to me, "*You don't need to check with your daily supervisor! You should be confident with your own choice!*"

I was shocked at that time. I then started to realize that it was my own topic. I should be confident in my own research and own choices. Besides, Larike loves to make jokes. At first, I could not get her jokes and always explained myself seriously. After one or two years, I finally got used to that! Sometimes, I even could joke back! I thank Larike very much for willing to join our team at the most critical moment! Without her help and encouragement during that time, I am not sure whether I could finish the thesis, especially Chapter 5, in time!

EI: with China Scholarship Council (CSC), library of NENU, 2014

This incident was the time I knew I got the funding from CSC to work on my PhD project in the Netherlands. I was thrilled and started to jump in a circle, and totally forgot I was in a place where everyone needed to be quiet. I then shared this news to Prof. dr.

Congman Rao, and Prof. dr. Xin Chen, who offered me a lot of supports when I was applying for the funding. Besides, they two keep caring about my research progress when I am in the Netherlands. They helped me to make contact with my participants and arranged a secondary school for my data collection. I thank them for their supports and help.

EI: with my (pre)office-friends, F 3.01, 2014-2019

There are many memorable moments with my lovely (pre)office-friends: Katrijn Opstoel, David van Alten, Jonne Vulperhorst, Marloes van Dijk, Anne van Leest, Xiaojing Sun, Mare van Hooijdonk, Loes Boven, Larissa den Boer, Sophie Oudman, Karin van Look, Susan Ravensbergen, and Selina Emhardt.

Katrijn told me, "*Oh! You don't need to push yourself to do sports! It would be better to do it with some the pleasure! Try to find the pleasure! If you cannot find it, then just accept and try something else. It is okay to do that!*" After that, Katrijn introduced me many healthy and funny ideas about sports, like "*being a morning sporting person*", "*being a fit girl!*", etc. Now, I enjoy doing sports much more than before.

When I asked David to be my paranymph, he first widened his blue eyes, and then said, "*OMG! Are you sure? Could you book your defence at Monday, Wednesday, or Friday? I need to teach at Tuesday and Thursday. But if you cannot, I can change one day from school! I think that will be fine! Are you sure? Do you want me to attend your defence?*" From this conversation, we could feel how cute and thoughtful David is! Also, I thank David for understanding my "mean" jokes!

Jonne always asks me questions like, "*Are you really interested in it?*" or "*Do you really want to do it?*" These simple questions from my "vice-paranymph" are somehow very difficult to answer for me. His questions evoke me to think thoroughly about what I really want and also inspire me to know better about myself. Besides, I am impressed by his passion for dancing! I want to address that Jonne is the "mean-king" in our office, but I know that he means for good!

When I told Marloes some of my culture shocks in the Netherlands, she often thought that my experiences were strange as well, and replied me, "*Eh? That is super weird*" The conversation with Marloes made me reconsider my "strange" experiences in the Netherlands and triggered me to think the "real" reasons of my feelings, but not to explain everything with cultural differences.

Anne is a very supportive and thoughtful person. She is willing to listen my stories and to share her opinions and suggestions with me. She often told me, "*Yes! That's a good idea!*" She could sympathize with my stories and tell me how important and reasonable of my thinking and understanding. Also, I thank Anne for inviting me to her very lovely and romantic wedding! I am sure that she will a wonderful life with her "young Jan"!

In these five years, Xiaojing and I experienced a lot together. Some were happy and nice, but some were sad and disagreeable. Although we have totally different life style and ways of thinking, Xiaojing always encourage me. She told me, "*Do not think too much! Do not compare yourself with others and focus on what your gained and learnt.*"

Mare said, "*Haha, my little 'Crack' will be your plan D in the defence!*" Loes asked me, "*Have you tried Pancake? I can show you how to make it at my place!*" Larike said, "*If you want to discuss your topic to help you clear your mind, please tell me! I would love to discuss with you together!*" Sophie asked me, "*I am confused about your study. Could you explain more clearly about your research questions?*" Karin said, "*Mei! You really changed a lot in the past few years!*" Susan taught me how brave we could be to say "no" to something we dislike! Selina and I shared many experiences about getting rejection from journals! Hope one day we could share experiences about being accepted by journals. All these conversations contributed to my "changes" these years! They help me to know myself better and become more confident in myself.

EI: with my colleagues, Martinus J. Langeveldgebouw, 2014-2019

During my PhD study I received a lot supports from my colleagues. Ellie van Eijk offered me a lot of help these years! We contacted each other before I came to The Netherlands for my visa stuff. Her warmness helped me to conquer the fear of going far away from home. Jan van Tartwijk introduced Hofstede's cultural dimensions theory to me in my first year. Martine Rijswijk helped me to understand the differences between "professional identity" and "self-understanding of being a teacher". Bjorn Gert Jan Wansink shared his wisdom of doing research, i.e., "*Do not waste time on worrying! Just do it!*" Monika Louws offered me the very helpful feedbacks and a lot of encouragements on my article. Monika Donker inspired me on how to design the cover of my thesis. Lisette Hornstra offered me opportunities to share my knowledge of Chinese culture in Dutch classrooms. Pierre van Eijl introduced me a new philosophy to understand the world. Jos Jaspers helped me to solve many technical problems and I am impressed by how much love he has for the instant noodles! Nies Kraan said *"Xin Nian Kuai Le"* (Chinese Happy New Year) to me and Xiaojing in the day of Chinese New Year!

EI: with My Chinese friends, at bars and restaurants in Utrecht, 2014-2019

I could not list only one experience with my dear Chinese pals: Jing Zhu, Xing Su, Yuxian Lin, Cunliang Geng, Min Yang, and Jie Hu. When I was happy, you guys were there to share. When I was sad, you guys were there to "laugh at" me. When I was angry, you guys were there to "make fun of" me… I know no matter when, where, and what, you guys would be there with me! You guys really enrich my life in Utrecht!

Also, I want to thank Lijie Zheng, Wanmin Huang, Yipu Wei, Zhenyan Chen, Xiaoyan Zhao, Luhuan Huang, Dingyu Liu, and Honghong Bai for bringing a lot fun in my days here. Lijie's painting "*LIVE LIKE A LV (LV means Donkey in Chinese)*" is still on my wall and I will bring it with me back to China! Wanmin encouraged me to keep drawing and told me that she would love to help me with anything! Yipu inspired me to discover my

interests about classical music. Zheyan taught me how to use and choose the complicated makeups! Xiaoyan shared her experiences about doing research and finding jobs with me. Luhuan helped me to check my data and analyses. Dingyu's beautiful Chinese paintings decorated my home in Utrecht! Honghong Bai enlightened me to think simply and directly on some difficult questions.

Last but not least, with my dearest parents, in my heart, 1989-now

爸爸妈妈，千言万语汇成三句话： "对不起！" "谢谢！" 以及 "我非常非常非常地爱你们！"

Curriculum Vitae

Mei Liu was born on 25 October 1989 in HuoShan, An Hui Province, China. She completed her secondary school in 2007 at No.1 Middle School of HuoShan. During 2007 to 2014, she obtained her bachelor and master degree in the Faculty of Educational Sciences of Northeast Normal University, Changchun, China. In October 2014, Mei received a funding from China Scholarship Council to come to Utrecht University for her PhD project. The PhD project is supervised by Prof. dr. Theo Wubbels and Dr. Rosanne Zwart. The results of the project are presented in this dissertation. The project-related manuscripts are now under reviewed in journals, such as: Asia Pacific Journal of Education, International Journal of Educational Research, Journal of Teacher Education, and Asia Pacific Journal of Teacher Education.

SUMMARY

Chinese student teachers nowadays encounter diverse value systems in society and specifically in their teacher education programmes: Eastern and Western values coexist. In this thesis, we aim to understand in this context, Chinese student teachers' values and value development during and through their internships in a secondary school. We also investigate the role their own personal values play in their thinking and acting as teachers. We adapted four categories from Hofstede's four cultural dimensions as an analytical lens to map student teachers' culture-related values. The findings showed the applicability of the four categories of culture-related values in mapping individual Chinese student teacher's values.

Student teachers' culture-related values appeared to be associated with their evaluation of their teaching practices, especially their emotional incidents during teaching. We noticed that both Eastern (i.e., teacher-centeredness) and Western values (i.e., pupil-centeredness) were held by Chinese student teachers before their internship. Values on teacher-centeredness were mostly reinforced and confirmed during their teaching practices in their internship. After their internships, student teachers showed stronger teacher-centred values in their understanding of being a teacher. Insight in current Chinese student teachers' values and value development can help raise teacher educators' and policy makers' awareness of the importance of student teachers' values in a changing culture. Besides, our results might help student teachers to cope with the conflicting values they encounter when they teach in classrooms. The findings suggest that it is important for appropriate student teachers' professional development that they reflect on their own teaching behaviour.