Teachers' teaching and learning motivation in China

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GENERAL INTRODUCTION

1.1 Introduction

Teaching is considered to be one of the most important predictors of students' learning outcomes (Dello-Iacovo, 2009; Wei, Darling-Hammond, Andree, Richardson, & Orphanos, 2009). As a consequence, professional learning programmes are designed to support teachers to use various instructional practices effectively in the classroom. Teachers' professional learning has received considerable attention in research and practice as a way to maintain high teaching standards.

Several studies have reported the positive relationship between teachers' participation in professional learning programmes and their teaching quality (e.g., Cheng & So, 2012; Wei et al., 2009). However, teachers' continuous learning is not self-evident. Learning motivation is one of the most important psychological factors that determines learning behaviour of teachers (Roth, Assor, Kanat-Maymon, & Kaplan, 2007). Many studies have indicated teachers' autonomous motivation to learn is a basic condition for teacher successful professional development (Shulman & Shulman, 2009). However, in practical terms, teachers differ in their learning motivation. Some teachers may implement professional learning activities with considerable energy and persistence, whereas others are reluctant to participate.

Previous studies have reported that the effectiveness of professional development (PD) may affect teachers' willingness to learn (Gan, Nang, & Mu, 2018; Kwakman, 2003; W. Liu, Yuan, & Zhang, 2018). In China, educational researchers have acknowledged that the traditional teachers' professional development programmes provided by the government do not fit teachers' own learning preferences or their specific concerns, and fail to stimulate teachers' motivation to participate in PD (Yan, 2015; Yuhua & Jiacheng, 2013; X. Zhang & Wong, 2018). To better stimulate teachers' learning motivation, more and more new teachers' professional development programmes provided by universities are organised to help school teachers to improve their teaching quality. In this research project, we focus on a specific educational programme, the New Basic Education (NBE), which is designed as a PD programme in China with the aim to improve teaching quality. We intend to explore the effects of NBE on teaching quality. In addition, we intend to explore the relationship between teachers' learning motivation and their teaching quality. Finally, to stimulate teachers' learning motivation, we also want to investigate the factors which contribute to teachers' learning motivation in the NBE. The remainder of the introduction

first describes the context of the study, followed by the theoretical foundation, and finally, an overview of the following Chapters is presented.

1.2 Context of this research project: New Basic Education

In China, educational assessment is dominated by high-stakes examinations. In light of the importance of examination success, initial teacher education encourages teachers to develop their teaching practices emphasized on knowledge delivery, memory-driven learning, and teacher-centred approaches (Xin & Fred, 2014) to ensure high student academic achievement in public examinations. This contradiction between the quality-oriented ideal and the test-oriented reality has aroused concern among Chinese scholars. In order to change this situation, various PD programmes are designed to improve teachers' teaching quality. A notable example in China is the New Basic Education. which is designed as a long-time period of a school-based training programme to continuously help teachers to learn and refine their pedagogy. Academic supervisors from three types of universities (Normal universities under the Ministry of Education of the People's Republic of China; Comprehensive research universities; Provincial normal universities) go to schools weekly to organise seminars for all teachers to disseminate their own professional experiences and beliefs. They also visit classes each week to observe teaching and provide feedback. In addition, they organise monthly workshops to encourage teachers to use more student-centred teaching approaches to foster student motivation and improve their self-directed learning. In Table 1.1, we provide a summary of the general setup of the NBE programme. Nowadays, NBE programme is being carried out in 100 primary and secondary schools in Shanghai, Zhejiang, Shandong and Jiangsu Province. About 20,000 teachers are involved, with implications for 100,000 primary and secondary school students (Yuhua & Jiacheng, 2013).

Although NBE is regarded as effective, not all the teachers are willing to participate in NBE (Yuhua & Jiacheng, 2013). Many factors, such as teacher personal factors (e.g., Ryan & Weinstein, 2009) and school working conditions (e.g., Pelletier, Séguin-Lévesque, & Legault, 2002) may affect teachers' learning motivation. Consequently, it will eventually affect teachers' implementation of educational measures into their current approaches (Epstein, 1998). In light of this context, this research project focuses on teachers' learning motivation in the NBE and the effects of fol-

lowing NBE on teaching quality. We want to know how teachers develop their teaching when they participate in NBE, and the relationship between their teaching quality and learning motivation in NBE. Finally, this research project intends to explore the factors which are important for teachers' learning motivation.

Table 1.1
learning activities organized by NBE

Activities	Content	Length	Frequency
Lectures	General knowledge of curriculum and pedagogy	1-3 hours	Weekly
Workshops	Specific skills including: 1: Curriculum and materials design, 2: Teaching and management skills 3: Stimulating students' interest	1-3 hours	Weekly
Classroom observations	Observation and evaluation of teaching, and providing professional recommendations	3-6 hours	Monthly
Reflective activities	Teachers are required to reflect on past learning, consider implications, and let reflection guide future actions and activities	1-3 hours	Weekly

1.3 Conceptual framework

Teachers' learning motivation is a significant factor in explaining the effectiveness of continuous professional development programmes, and many factors may have the potential to influence teachers' motivation to learn. In this Chapter, we first describe the theory of teacher learning motivation, and then discusses the factors which are important for teachers' motivation. Finally, to relate teacher learning motivation and their learning performance, the measurement of teachers' learning performance is presented.

1.3.1 Teachers' learning motivation

Teachers' learning motivation is a basic condition for teacher learning and successful professional development (Shulman & Shulman, 2009). In this research project, self-determination theory (SDT) is used to define teachers' learning motivation. SDT approaches learning motivation as a multidimensional construct, implying that individuals may have multiple reasons for engaging in a certain behaviour (Deci & Ryan, 2002). In the case of participating in learning activities, a teacher may work with teaching experts to improve his or her instructional quality owing to the pleasure and enjoyment derived from the partnership. This represents an example of intrinsic motivation, which is deemed to be the most self-determined type of motivation. In contrast, extrinsic motivation refers to behaviours that are exhibited in order to attain material incentives, recognition or rewards, or to avoid punishment. It can be divided into: a) external regulation, when the reasons for participating in professional learning are entirely external from the self; b) introjected regulation, when the reasons for getting involved in professional learning are not fully internalised and teachers merely want to avoid feelings of guilt or shame; and c) identified regulation, when the reason for doing an activity is to pursue fully internalised goals, which is considered a highly self-determined form of extrinsic motivation (Georgios Gorozidis & Papaioannou, 2014). According to Deci and Ryan (2000) self-determination theory, intrinsic motivation and identified regulation can be understood as autonomous motivation, while external regulation and introjected regulation is conceptualised as controlled motivation. Research on teachers' learning motivation has systematically revealed that autonomous motivation is strongly related to positive teacher learning outcomes, whereas controlled motivation has been closely associated with negative outcomes (Blais, Lachance, Vallerand, Briere, & Riddle, 1993; Deci et al., 2001; Gagné et al., 2010). For example, Wang and Liu (2008) indicate that teachers with higher levels of autonomous motivation to learn demonstrated more confidence in learning and teaching, and the more they were engaged in reflecting on professional learning. This is congruent with the findings of a study by Gorozidis (2009) that indicate that the higher the level of teachers' intrinsic motivation to learn, the greater the degree of implementation of the professional learning programme.

1.3.2 Factors related to teachers' motivation to participate in professional learning activities

Many studies have indicated that teachers' personal factors, their perceptions of workplace conditions in schools, and principal leadership potentially affect their motivation to participate in professional learning activities (Geijsel, Sleegers, Stoel, & Krüger, 2009; Thoonen, Sleegers, Oort, Peetsma, & Geijsel, 2011). For teachers' personal factors, several studies show that perceived self-efficacy is important for teachers' learning motivation. (Mintzes, Marcum, Messerschmidt-Yates, & Mark, 2013; Tang, Cheng, & Cheng, 2014). Teachers with more self-efficacy are more likely to participate in PD programmes to take risks and to experiment in their teaching while following a PD programme. Tschannen-Moran and Hoy (2001) also find that the more self-efficacy teachers had in their teaching, the more willing they were to participate in PD to demonstrate acceptance of new ideas and experiment with new instructional methods. Other studies, however, came to a somewhat different conclusion, indicating that teachers with more confidence in, and satisfaction with, their teaching showed less willingness to participate in PD to alter their way of teaching (Supovitz, Sirinides, & May, 2010; Zhao, Valcke, Desoete, Sang, & Zhu, 2014). In addition, teachers' beliefs about learning also seem important for teachers' learning motivation. Bolhuis and Voeten (2004) find that teachers with stronger beliefs in intelligence as a malleable quality were more concerned with developing their teaching competence, and less like to give up when confronted with difficulties in PD programs Moreover, some researchers also find that teaching experience affects their learning motivation. For instance, Maskit (2011) indicates that teachers displayed significant differences in attitudes towards to participate in PD at different stages of their careers, with teachers at the stages of induction and competency building being more likely to participate in PD than those in more stable stages.

Apart from personal circumstances, working conditions, such as work and emotional pressure, task autonomy, and help from colleagues may also affect teachers' learning motivation in PD programmes. In a survey of 502 teachers from 32 elementary schools in the Netherlands, Thoonen, Sleegers, Oort, Peetsma, and Geijsel (2011) find that task autonomy, which refers to the joint decision-making of principals and teachers, may reinforce the extent to which school values are internalised as teachers' personal goals and subsequently affect their learning motivation. In addition,

according to Rosenholtz (1989), the more emotional pressure teachers perceived in school, the more reluctant they were to attend perform activities.

In addition to these environmental circumstances, leadership from the school principal may also significantly influence the degree to which teachers become involved in PD programmes (Fullan & Hargreaves, 1996). Eyal and Roth (2011) show that transformational leadership stimulates a teacher's participation in professional learning activities, and that was even a strong predictor of professional learning activities than other personal and environmental factors. Many studies also indicate that Chinese school principals are expected to play a significant role in teachers' development. For example, in an exploratory study of principal leadership in mainland China, Pisapia and Ying (2011) report that in Chinese principals have great power to model teaching behaviour and their skills in curriculum and pedagogy; only a few school teachers would go against the principals' decisions. Based on previous studies, we have developed a framework of factors which is important for teachers' learning motivation (see Figure 1.1).

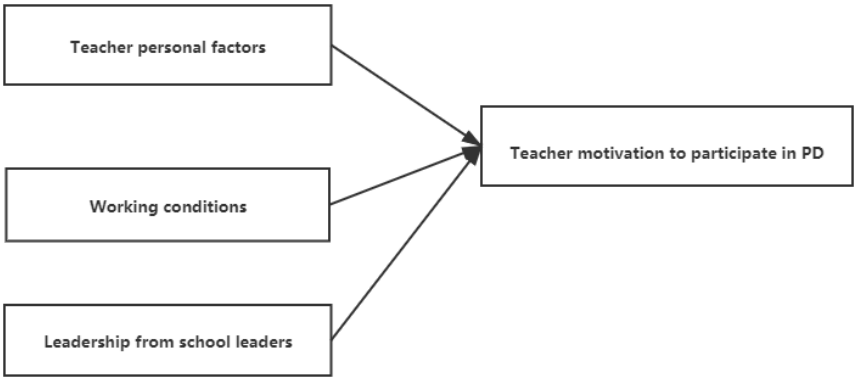

Figure 1.1
The framework of teacher motivation to participate in PD.

1.3.3 Measurement of learning performance

This research project intends to explore the relationship between teachers' learning motivation and their learning performance in the NBE. The purpose of NBE is to encourage teachers to improve their teaching quality through developing a new pedagogy that fosters students' active learning and critical thinking abilities. Therefore,

teachers' learning performance in this research project is defined in terms of teaching quality.

Extensive literature has indicated that three basic dimensions − classroom climate support; classroom management; and cognitive activation reflect the key aspects of teaching quality (Kunter & Baumert, 2006; Wagner, Göllner, Helmke, Trautwein, & Lüdtke, 2013). Classroom climate support includes specific aspects of the teacher-student positive relationship and constructive teacher's feedback. In order to enhance a positive climate, teachers should provide extra help when needed, respect students' questions and care about students, which is crucial for students' intrinsic motivation and subject-related interest. Classroom management refers to classroom rules and procedures, coping with disruptions, and smooth transitions, which is crucial for students' learning gains. Cognitive activation encourages students' cognitive engagement by integrating changing tasks, exploring theoretical conceptions, and applying knowledge. Previous studies have shown that cognitive activation indeed fosters students' cognitive engagement, and students' ability to elaborate knowledge (Kunter, Baumert, & Köller, 2007). In addition, many studies indicate that these three dimensions, classroom climate support; classroom management; and cognitive activation are found to be positively related to students' learning outcomes, such as students' development of subject-specific interest, and student academic achievement (Fauth, Decristan, Rieser, Klieme, & Büttner, 2014).

A considerable debate with regard to evaluating the quality of instructional behaviour deals with selecting methods that are powerful enough to reflect 'real' teaching practice. Two common methods for measuring the quality of teaching practice are 1) registration methods (i.e., classroom observation) and 2) methods based on perceptions, mostly student surveys (Hassan & Wium, 2014). When a teacher teaches in the classroom and is involved with classroom management and the content of the lesson, registration methods can allow an observer to record what is happening in the classroom. The record from the observer is often considered as the most objective by many researchers (Dobbelaer, 2019b). Compared to registration methods, students perceptions of teaching quality can also function as a valuable source of feedback to teachers as students are the learners and spend the most time in the classroom (Dockterman, 2017a). In addition, the two methods differ in *who* evaluate the quality of teaching. Classroom observations are often carried out by external experts or col-

leagues who provide comments. They have the ability to recognise and understand complex instructional behaviours. For student evaluation, perceptions from students are based on day-to-day experiences with the teacher during different lessons, not merely from a single or limited number of observations. It can be concluded that both methods have their benefits. To have a better understanding of teachers' learning performance, this research project uses both classroom observations and student questionnaires as instruments to evaluate teaching quality.

1.4 Overview of the research project

The research project focuses on teachers' learning motivation and learning performance in the NBE. Teachers' learning during the NBE is defined in terms of teaching quality. Three assumptions as follows: (1) the quality of teaching has been significantly improved after a period of study in NBE, (2) teachers' teaching quality and their learning motivation are interrelated, (3) teacher personal characteristics and school working conditions are important for their learning motivation. To explore these topics, students and supervisors from NBE are invited to evaluate teaching quality, teachers who differed in the experience with the NBE from primary education participated in this project to explore their perceptions of learning motivation. Various analysis methods are performed based on the same data set in the following Chapters:

In *Chapter 2*, we address the evaluation of teaching quality. The study examines the students' and supervisors' perceptions of teaching quality. Specifically, this study sought to answer the questions: *(1) What is the relationship between supervisor and student perceptions of instructional quality? (2) What are the evaluation criteria used by supervisors and students?* To answer these questions, a total of 20 teachers from 12 primary schools participated in this project. 497 students of the 20 teachers are invited to evaluate their teachers' teaching by the student questionnaire. In addition, for these teachers, three lessons within three weeks are videotaped and assigned to 10 supervisors to evaluate their teaching. Mixed methods are performed to analyze the data.

In *Chapter 3*, we cover the effect of NBE on teaching quality. We want to know how teachers develop their teaching after six months of learning in the NBE. The

following research questions are addressed: *(1) Do teachers improve their teaching quality as evaluated by their students during participation in the NBE program? (2) How are teacher characteristics, school working conditions and principal's transformational leadership related to the changes in teaching quality?* To answer these questions, 375 teachers from 12 primary schools in Shanghai who are active in the PD program participated in this study. A paired-samples t-test is carried out for two teaching quality scales together at two different times to test whether the change was significant. Then stepwise regression analyses are performed to assess the relationship between teacher personal factors, working conditions, and principal transformational leadership, on the one hand, and changes in teaching quality, on the other hand.

Teachers' learning motivation is an important predictor for teacher learning performance. In *Chapter 4*, we relate teachers' learning motivation to their teaching quality. Specifically, we explore the relationship between teachers' learning motivation, as well as other personal and environmental factors and their teaching quality. The following research questions are formulated to guide this study: *How are working conditions, school leadership, and teacher psychological factors related to students' perceptions of teaching?* To answer these questions, 472 teaches participate. In this study. Multivariance analyses of variance are performed with teacher personal factors, working conditions, as well as principal leadership as independent variables and teacher learning motivation as dependent variables.

The third assumption of this research project is that teacher personal characteristics and school working conditions are important for their learning motivation. Therefore, in *Chapter 5*, we explore how teachers' characteristics and school working conditions are both related to their learning motivation, the following questions: *How are factors at the personal and school levels related to teachers' motivation to participate in professional learning?* To answer these questions, 472 teaches participate in this study. Multivariance analyses of variance are performed with teacher characteristics and environmental factors as independent variables and the three motivation scales as dependent variables.

Teachers' autonomous motivation is positively related to teacher learning outcomes. In *Chapter 6*, we explore how teacher psychological factors moderate teachers' autonomous motivation. The following research questions are addressed: *(1) Which*

workplace conditions are related to teachers' autonomous motivation to learn? (2) Which workplace conditions moderate the relationship between teachers' characteristics and their autonomous motivation to learn? To answer this question, 472 teachers from 12 primary schools in Shanghai participate in this study. Multilevel regression analyses are performed with factors at level 1 and 2 as predictors of teachers' autonomous motivation with Mplus 8.

Finally, in *Chapter 7*, we provide an overview of the main findings from chapter 2 to 6, followed by a discussion of these findings, implications, and theoretical and educational practice.