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Learning to become teacher educators: Testimonies of three PhD students in China

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Abstract: While there has been an increasing number of graduate students who enter teacher education after obtaining a higher research degree (e.g., PhD or EdD), scant attention has been paid to their professional learning as prospective teacher educators in higher education. To fill this gap, this study, informed by the social theory of learning, investigates how three PhD students learned to become teacher educators in a university in China. Drawing on the data from interviews and the participants' personal reflections, the study shows that the participants engaged in professional learning by interacting with different others (e.g., teachers and teacher educators), negotiating and tuning their enterprise, and developing a repertoire of knowledge and skills in their communities of practice. The study generates some implications for both teacher education and higher education in preparing and developing future teacher educators.

Key words: graduate students; teacher educators; the social theory of learning

Introduction

Over the recent years, in some contexts like the USA, Australia and China, there has been an increasing number of graduate students who enter teacher education after obtaining a higher research degree (mostly PhD or EdD) (Kosnik, et al. 2011; Mayer, Mitchell, Santoro, & White, 2011; Zeichner, 2005). These graduate students, who can be regarded as "pre-service teacher educators", learn how to practice teacher education through a wide range of teacher education activities (e.g., teaching and practicum supervision) in different higher degree programs housed in faculty/departments of (teacher) education or other related subject disciplines (e.g., Mathematics or English) in universities (Wilson, 2006). To date, scant attention has been paid to how graduate students learn to become teacher educators and what opportunities and obstacles are embedded in their learning processes (Viczko & Wright, 2010). There is also a paucity of research on what professional support and guidance is present or absent in their learning, and whether and how they are prepared to meet the various challenges as future teacher educators. As Zeichner (2005) argues for "the special

responsibility" of higher education institutions "in preparing the new generation of teacher educators" (p. 123), it is important to examine graduate students' initial learning experiences in teacher education, which could serve as a powerful force in shaping their professional practice over their careers as teacher educators (Dinkelman, Margolis, & Sikkenga, 2006). To this end, the present study seeks to investigate how three PhD students learned to become language teacher educators in a university in China in order to shed light on the complexities of their professional learning in teacher education as well as the possible opportunities and challenges involved.

Learning to become teacher educators

Over the past decade, the professional development of teacher educators has become an emerging subject of research and discussion, with particular attention paid to novice teacher educators' learning experiences (e.g., Dinkelman, Margolis, & Sikkenga, 2006; Murray & Male, 2005). An important finding that has emanated from the existing research is that learning to become teacher educators, often characterized as a "rocky road" (Wood & Borg, 2010, p. 17), involves a wide range of challenges and tensions (Murray & Male, 2005). New teacher educators, who might be experienced school teachers transitioning into teacher education (Dinkelman, Margolis, & Sikkenga, 2006) or newly minted PhDs without formal school teaching experience (Wilson, 2006), usually need to take up a wide array of responsibilities in their work, such as providing clinical supervision during student teachers' teaching practicum, developing collaborative relationships with frontline teachers, and engaging in academic research and publishing (Robinson & McMillan, 2006; Murray, Swennen, & Shagrir, 2009). These responsibilities, which call for the acquisition of new knowledge and skills and involve strong intellectual and psychological engagement, can be quite challenging for teacher educators who just put their feet in the field of teacher education (Dinkelman, Margolis, & Sikkenga, 2006). In face of all these challenges, however, there is often a lack of professional support for new teacher educators (Yuan & Lee, 2014), as a result of which, they might be working under tremendous stress, with low self-efficacy, and even experiencing "identity crisis" in perceiving themselves as qualified teacher educators. Therefore, many scholars (e.g., Mayer, et al., 2011; Zeichner, 2005) argue for the importance of providing teacher educators with sufficient and effective preparation and guidance, not only at the induction stage, but also before their entry into teacher education (i.e., at the preparation stage), so that they can learn how to practice teacher education "in structured and scholarly apprenticeships" (Wilson, 2006, p. 315) and how to cope with the myriads of demands and difficulties in their future work.

Thus how do we prepare the future generation of teacher educators in higher education? One viable approach, suggested by many scholars (e.g., Cochran-Smith, 2005; Kosnik, et al.,

2011; Viczko & Wright, 2010), is to provide graduate students who aspire to join teacher education with effective preparation and guidance in their situated higher degree programs where they can develop the crucial knowledge, skills, and attributes as qualified teacher educators (Loughran, 2014). For instance, Zeichner (2005) describes a series of doctoral courses at the University of Wisconsin–Madison with a strong emphasis on cultivating new teacher educators. In addition to a variety of courses in relation to teacher education theories and practice, the graduate students worked as teaching and/or research assistants in teacher education programs to learn about how to prepare and develop teachers. As teaching assistants, their work might involve educating prospective teachers and supervising their field experience during teaching practicum. As research assistants, they might work with experienced teacher educators (sometimes frontline teachers) in exploring significant issues in teaching and teacher education through action research, self-study and other research forms (Cochran-Smith, 2005). Graduate students can also conduct academic research and develop their doctoral dissertations on different aspects of teacher education practice. As shown in McGregor, Hooker, Wise, and Devlin's (2010) study, the seven EdD students, through their research-led journey of learning with scaffolding and support from the coursework and their peers, developed new understanding about the processes and meaning of teacher education and educational research. Above all, by engaging in different forms of teacher education practice and research in higher degree programs, graduate students can develop necessary knowledge and skills of preparing teachers, deepen their understanding of teacher learning as a complex and socio-cultural enterprise (Kosnik, et al. 2011), and construct their professional identities as "practitioner-researchers of teacher education" (Wilson, 2006, p. 317).

In the existing literature, apart from the description of different program initiatives in teacher educator preparation (e.g., Cochran-Smith, 2005; Wilson, 2006; Zeichner, 2005), there is a lack of in-depth research on graduate students' learning experience as prospective teacher educators in their embedded institutional and social-cultural contexts. To fill this gap, this research, drawing on the social theory of learning (Lave & Wenger, 1991, Wenger, 1998), focuses on how three PhD students learned to become teacher educators in a university in China. Such a study cannot only add to our limited knowledge of graduate students' professional development in teacher education, but it can also generate useful implications for higher degree programs (especially those related to teacher education) in preparing competent teacher educators who can better adjust to the complex and challenging work environment in higher education and bring greater benefits to teachers and their students in the future.

A social theory of learning

The past decades have witnessed a paradigm shift in educational research from a cognitive view of learning as decontextualized acquisition of knowledge and skills within individuals' minds to a social view of learning as a dialogic process that emerges out of the dynamic interactions between individuals and their situated socio-cultural contexts (Kelly, 2006; Lave & Wenger, 1991). The social theory of learning has offered powerful explanation for how individuals (e.g., teachers and teacher educators) engage in various social cognitive processes in order to achieve their learning in both Western (e.g., Viczko & Wright, 2010) and Chinese contexts (e.g., Trent, 2010). According to this perspective, learning does not take place in vacuum; instead it arises from people's social practice and interactions in their embedded communities of practice (Wenger, 1998). This paper thus draws on the social perspective to investigate how three PhD students learned to become teacher educators through their participation in the community of teacher education where a wide range of institutional and socio-cultural factors were at play.

A community of practice refers to "a collection of people who engage on an ongoing basis in some common endeavor" (Eckert, 2006, p. 1), which provides the important context for learning to take place. For newcomers in a community of practice (graduate students in my case), their learning can be conceptualized as "legitimate peripheral participation" (Lave & Wenger, 1991, p. 29) in which they are granted legitimate access to engaging in different forms of practice, negotiating meaning with other members, and developing competence and skills, in order to achieve their full participation as full-fledged members that are valued by the community (Tsui, Lopez-Real, & Edwards, 2009). Specifically, as Wenger (1998) delineates, learning in a community of practice can be achieved through three interrelated processes:

First of all, people learn through their "evolving forms of mutual engagement" (Wenger, 1998, p. 95). By engaging with others in concrete practice, people can discover how to conduct specific activities, understand what helps and what hinders, and develop interpersonal relationships that can facilitate their learning. In Brody and Hadar's (2011) study, they demonstrate how a group of teacher educators shared teaching ideas and recourses and participated in group discussion and reflections in a university. Their mutual engagement characterized by open communication and deep collaboration constituted a major source for their professional development. For novice teacher educators, their learning can be enhanced by their dialogic interaction with an "expert" collaborator, e.g., their appointed mentors and/or experienced colleagues (White, Robert, Rees, & Read, 2014), who can provide useful information and scaffolding for their learning in practice. For example, Dinkelman, Margolis, and Sikkenga's study (2006) shows how two new teacher educators engaged in collaborative learning with an experienced teacher educator through self-study. By jointly documenting, reflecting on, and interpreting their professional experiences, the participants examined their

pre-existing beliefs and practice in a new light, acquired new knowledge and skills about teacher education practice, and enhanced their self-understanding as teacher educators.

Another important dimension of learning resides in people's "understanding and tuning their enterprise" (Wenger, 1998, p. 95) in their communities of practice. The term "enterprise" is not just a stated goal, but "relations of mutual accountability" (Wenger, 1998, p. 77) that keeps a community of practice together. For teacher educators, on the one hand, they are constantly engaged in the joint pursuit of a common enterprise, i.e., preparing qualified teachers who can enhance students' learning; on the other hand, they can also bring in their personal perspectives and practical theories in their professional work and social interactions (Wilson, 2006) in which new meaning and enterprise of teacher education might be (re)negotiated and developed. This process of interpreting, negotiating and (re)constructing the joint enterprise can serve as a powerful source for learning for teacher educators to make sense of their practices, their situated community, as well as themselves in a profound sense. However, as Wenger (1998) emphasizes, a community of practice is not conflict-free; given the complex power relations between different community members, disagreements, challenges and competition can arise in the process of negotiating meaning and enterprise, which might constrain their learning (Tsui, Lopez-Real, & Edwards, 2009). In order to address the power dynamics and promote mutual learning, Reynolds, Ferguson-Patrick and McCormack (2013) argue that it is crucial for different members (e.g., teachers and teacher educators) to "go out of their comfort spaces" (p. 307) and construct an open and dialogic relationship in their learning community.

Furthermore, learning emerges from people's practice of developing repertoires and styles in their communities of practice (Wenger, 1998). By adopting different tools and artifacts, acquiring new ways of doing and talking about things, and understanding new customs, rules, and concepts, people can gain their membership as a part of the community with legitimate status and recourses for the negotiation of meaning in order to enhance their continuous learning. For teacher educators, their participation in teacher education practice affords rich opportunities for them not only to develop a repertoire of procedures and skills about teacher education, but more importantly to learn the ways of being, acting and knowing as teacher educators (White, et al., 2014). For instance, Kosnik, et al. (2011) explored how a group of PhD students participated in a professional development community led by two experienced teacher educators. The various activities (e.g., group reading, critical discussion, and research presentations) in the community helped the participants reflect on their practice and refine their teaching and research skills (e.g., how to conduct research and write up conference proposals), which exerted positive influence on their learning about teacher education.

To sum up, the social theory of learning provides a powerful framework to make sense of how graduate students learn to become teacher educators through their evolving forms of mutual engagement, negotiation of joint enterprise, as well as acquisition of a repertoire of

skills and techniques (Wenger, 1998). An understanding of these issues has important implications for the professional preparation and development of future generation of teacher educators who are considered the "linchpins" of the ongoing reform and improvement of teaching and teacher education (Cochran-Smith, 2003, p.5).

The study

Informed by the social theory of learning, this study examines three PhD students' learning experiences as prospective teacher educators in their situated PhD program in a normal university in China. One central question that guides the present study:

How did the three PhD students learn to become teacher educators in their communities of practice?

Research contexts

Teacher educators in China

Teacher education in China is mainly situated in the higher education sector, provided by general comprehensive colleges and universities (usually in departments of different subjects, e.g., English, Math and Physics) as well as normal colleges and universities (with a strong orientation towards teaching and teacher education) at both state and provincial levels (Shi & Englert, 2008). Thus teacher educators in China can generally be referred to those who are involved in teaching of teachers at university settings (Wang, 2013). Different from their counterparts in Western contexts who are traditionally experienced school teachers and transition into higher education at the latter stage of their career, Chinese teacher educators usually enter the universities after obtaining a higher degree (usually a PhD) and learn how to practice teacher education on the job. As Wang (2013) points out, without school teaching experience, these graduate students might lack a systematic knowledge of teachers' work and their situated educational reality, thus creating a demand for them to engage in continuous learning in order to enhance their professional knowledge and competency. Nevertheless, due to the internationalization and marketization of higher education in China (Mok, 2007), more and more universities (including normal universities) tend to de-emphasize teacher education (given its practice orientation) (Wang, 2013), as a result of which, there is inadequate institutional support and limited resources for teacher educators' professional development. Furthermore, the past decade has witnessed an increasing demand on academics' (including

teacher educators') research output in many universities in China (Lai, Du, & Li, 2014). Such demands could create a divide between teacher educators' teaching and research, which might take a toll on their professional learning and continuing development. Against such a backdrop, how to prepare and develop university-based teacher educators has become a critical issue confronting both policy makers and practitioners in teacher education in China. While it is important to provide adequate training and support for in-service teacher educators on their job, for those (particularly graduate students) who aspire to become teacher educators, it is crucial to offer them a positive and comprehensive learning experience at the preparation stage (before their full entry into teacher education) in higher degree programs, so that they can develop a better understanding of teaching and teachers and learn how to cope with the potential challenges in their future work.

The PhD program

This study is embedded in the PhD program in the English department in NK University (NKU) in Beijing, China. As one of the top normal universities, NKU has long been a key center for teacher education and development in China. Strongly influenced by the university's tradition, the English department is committed to the preparation of English teachers at both primary and secondary levels through its undergraduate and MA programs, whereas its PhD program (usually for 3 to 4 years) aims to cultivate strong academic researchers and teacher educators in the field of language teaching and teacher education through coursework (related to research methodology and theories on teacher education) and individual research (guided by academic advisors). The PhD students are also provided with practical opportunities to participate in different forms of teacher education practice (e.g., teaching student teachers and collaborating with school teachers in classroom-based research) with a view to enhancing their understanding of language teachers and their teaching in current educational contexts. After completing their PhD, most of the graduates usually will find positions in normal universities and embark on their careers as full language teacher educators.

Research participants

Three PhD students in the English department of NKU were invited to participate in this study on a voluntary basis. They were chosen because during the pre-study communication with the author, they expressed a strong willingness to work as teacher educators in the future and they had also engaged in a wide range of professional activities (such as teaching pre-service teachers and collaborating with frontline teachers) with respect to language teacher education in the PhD program. Focusing on such critical and information-rich cases (Patton, 2005) can therefore generate insights into the complex

processes of the participants' professional learning and shed light on the various personal and contextual factors at play.

The three participants – Melissa, Rachel, and Kate (pseudonyms are used), all female, shared some similarities and differences in their personal backgrounds and learning histories. First of all, all of them did not have any formal school teaching experience. Melissa entered the PhD program right after she obtained her MA degree, whereas Rachel and Kate were teaching in two different universities (after their MA study) as lecturers before they started to pursue their PhD degrees. In their prior teaching (three years for Kate and four years for Rachel), Kate had some experience in teaching methodology courses to pre-service teachers, while Rachel was mainly teaching language proficiency courses for English majors. Their reasons for joining the PhD program also vary. Melissa was influenced by her MA supervisor - an experienced teacher educator who is fully devoted to language teaching and teacher education; Rachel was motivated by the practical need for job change and prospects for promotion in the university; Kate was stimulated by her internal desire to learn new knowledge and improve her professional practice in teacher education. By the time of the research, Melissa had finished her first year study in the program, while Rachel was about to step into her third year. As for Kate, she had just completed her PhD study and returned to her previous university where she would work as a language teacher educator. The three participants shared the same PhD supervisor in the program. Ethical approval was obtained from the university before the study commenced. The participants were also informed of the purpose and method of the inquiry from the beginning.

Data collection and analysis

This study adopts a qualitative case study approach in exploring the three participants' learning to become teacher educators. One major interview was conducted with each of the participants to collect information about their learning experiences in their situated PhD program. The interviews were carried out in a conversational manner and guided by a protocol, each of which lasted for around 2 hours. In the interviews, the participants were invited to share their motivations to become teacher educators, their professional practices in relation to teacher education, their social interactions with different "significant others" (e.g., their supervisor and peers), the challenges they encountered and the support they received, as well as their perceptions of themselves as teacher educators and its possible change in the program. Special attention was also paid to the "critical incidents" in their learning processes as the researcher deliberately asked the participants to share the details of the incidents with their personal reflections. All the interviews were audio-recorded and conducted in Chinese as the participants felt more comfortable to converse in their first language. After that, the interview data was carefully transcribed by the researcher and the transcripts were sent to the participants for checking and clarification.

The participants' personal reflections were also collected in order to triangulate with the interview data. These reflections, which took the form of diaries and research reports, were constructed during their prior practices in teacher education in the program. The participants were asked by the researcher to select the pieces which were most representative of their experiences. In the end, Melissa submitted 6 pieces of her reflections, Rachel 7, and Kate 5. These reflections, produced by the participants at naturalistic settings, can provide another perspective on the PhD students' learning to become teacher educators.

The data analysis was a gradually evolving process in which the researcher moved between the data, the theoretical framework, and the research question in a recursive and iterative manner (Strauss & Corbin, 1998). First of all, the interview transcripts were carefully reviewed to identify the themes and patterns in relation to the research question (i.e., how the participants learned to become teacher educators) within and across the three cases (Merriam, 1998). Three distinctive themes of their professional learning were thus identified, including their learning through (1) teaching pre-/in-service teachers, (2) participating in university-school partnership, and (3) researching on teaching and teacher education. These themes were further analyzed with reference to the theoretical framework (i.e., the social theory of learning) to shed light on how the participants learned to become teacher educators by mutually engaging with others (e.g., experienced teacher educators and teachers), negotiating and tuning their enterprise, as well as developing a repertoire of skills, procedures and techniques in their embedded communities of practice (Wenger, 1998). As for the personal reflections, they were carefully read to triangulate with the findings extracted from the interview. The data interpretation results were shared with the participants and their comments were taken into account during the refinement of the final results, which can enhance the validity and trustworthiness of the study.

Findings

In this section, three distinctive routes for the PhD students' professional development (in terms of teaching, collaboration and research) in teacher education are presented in order to provide an in-depth and analytic account of their learning to become teacher educators in their embedded program in higher education.

Learning through teaching pre-/in-service teachers

First of all, the participants' learning arose from their teaching of both pre- and in-service teachers in the program. Through their actual engagement with teachers in teacher education classrooms, they gained rich opportunities to implement what they had learned from the coursework in practice and developed their practical knowledge about teacher education:

> *It was like learning by doing. Through real practice, we got to know what teachers want and need and whether our theories could work or not, which became part of our practical knowledge. (Rachel, interview)*

For instance, in her first year in the PhD program, Melissa co-taught a course – *Language Teaching Theory and Methodology* with her supervisor. This course was provided for the first year students in the TESOL Master program, which introduced to them a variety of approaches of language teaching as well as how to apply these approaches in classroom teaching. As a novice teacher educator, Melissa encountered some difficulties in preparing the course due to her "lack of teaching experience and limited knowledge of pre-service teachers' learning needs" (Interview). Thus she referred to her mentor's teaching as a frame of reference in guiding her own practice:

> *I spent a lot time observing my supervisor and reflecting on how she taught the course. I found she was always trying to change the course and make it more relevant and practical for the students. She put the students at the center and created opportunities for them to link theories with practice. (Melissa, interview)*

Based on her observation and reflections, Melissa guided the student teachers to watch videos of classroom teaching and critique on their merits and drawbacks. She also led them to engage in discussion and debate in order to foster their critical thinking and reflective abilities:

> *In our discussion, when some disputes arose, I won't jump in. Instead, I asked them to share their ideas. They really got on board and had a heated debate about some interesting instances in the video. In the end, I also shared my thoughts and invited them to engage in further reflections and discussion. So there was a mutual construction of knowledge among us. (Melissa, interview)*

Through her teaching of teaching, Melissa gained opportunities to "talk and act like a teacher educator in real classroom" (interview) and acquired some useful teaching skills, such as "how to give instructions, organize learning activities, and pose questions to stimulate students' thinking and discussion" (personal reflections). More importantly, she deepened her knowledge of teacher learning as an interactive and reflective process of mutual knowledge construction with teacher educators playing a facilitative and scaffolding role:

> *It is important for student teachers to have a space so that they can construct knowledge with their peers and teacher educators. What we need to do is to create such a space and provide guidance. (Melissa, interview)*

Therefore, Melissa's professional learning can be attributed to the "modeling" of her supervisor followed by her personal engagement with student teachers in her teaching practice (White, et al., 2014).

Besides, the participants also learned to become teacher educators through teaching in-service teachers. For instance, as a project assistant in a school-based teacher development program, Rachel worked with some experienced teacher educators in conducting professional

development workshops for language teachers. In the project, not only did she observe how other teacher educators deliver theoretical knowledge with concrete examples and facilitate teachers' reflections through questions and dialogues, but she also gained opportunities to conduct workshops for teachers on her own. In one session, inspired by her previous learning in a course on language teacher education, she adopted the idea of "reading circle" by guiding teachers to form different groups and engage in collaborative reading. In a "reading circle" of five teachers, each participant was in charge of reading one independent section of a practice-based research article (provided by Rachel) and shared their understanding and reflections, with the group leaders further synthesizing their ideas and presenting them to other groups. This activity, according to Rachel, "activated the teachers' interest by creating an information gap and helped them relate their reading to their practice" (personal reflections). More importantly, it could "foster teachers' autonomy by giving them responsibilities for their own learning" (personal reflections). Reflecting on this activity, while Rachel learned that extra attention should be paid to selecting appropriate articles according to the teachers' levels and needs (as some teachers felt the articles were too abstract), she regarded it as a valuable experience in which she implemented her theoretical knowledge in teacher education practice and acquired new understanding of her own role as a teacher educator in promoting teacher development:

> As a PhD student, I appreciated the opportunities to conduct workshops for teachers. It helped me understand what it means to be a teacher educator, which is not about how much knowledge we possess, but about to what extent we could use our knowledge to help teachers become reflective practitioners and knowledge producers on their own. (Rachel, personal reflections)

Furthermore, while initially the participants were concerned about their "lack of school teaching experience and limited understanding of language teachers' work" (Melissa, interview), by engaging in interactions and dialogues with teachers within and outside of their classrooms, they deepened their knowledge of language teachers' professional lives and their situated educational reality. As Kate noted:

> It is a pity that I did not have any teaching experience in schools. I was worried that it might be a disadvantage for me. But by teaching and interacting with teachers, I came to a better understanding of how they approach their work in daily practice. I also gained some insights into their needs for personal wellbeing and professional development and the contextual constraints they have to cope with. (Kate, interview)

Overall, as newcomers to the community of teacher education, the three PhD students were given rich opportunities to observe experienced teacher educators' practice and engage with pre- and in-service teachers in actual teaching, which largely contributed to their professional learning as teacher educators (Dinkelman, Margolis, & Sikkenga, 2006).

Learning through participating in university-school partnership

Apart from teaching, the participants also took part in a university-school collaborative action research project initiated by their department. The project, involving both university teacher educators and a group of English teachers from local schools, aimed to improve the teachers' teaching practice and promote their professional development. For the three PhD students, they participated in a series of project activities (e.g., group meetings and workshops) in which they observed how experienced teacher educators guided the teachers to conduct collective reflection and learn about the methodology of action research. They also served as research assistants for individual teachers from different schools by contributing their knowledge and providing guidance in the teachers' action research. Their work in the project was accompanied by a constant negotiation of meaning with teachers and other teacher educators, through which they tried to (re)discover and (re)define the enterprise of the community of collaborative action research and enhance their understanding of teacher development (Cochran-Smith, 2005):

> *It is in the actual process of working with teachers that I began to understand the meaning of university-school collaboration and my own role as a teacher educator. (Kate, interview)*

For example, Melissa worked as a research assistant for three primary school teachers in the project. While she understood that the teachers were in need of her help in action research due to their lack of research knowledge and experience, they treated her as an "expert" who should provide detailed instructions in the research process. Two teachers even passed their research work (e.g., designing student questionnaires and analyzing data) to her "when they were too busy with teaching and had no time for research" (Interview). For Melissa, the teachers' strong reliance was in severe conflict with her belief that "teachers should take ownership of their action research in order to develop their professional autonomy and research competency" (personal reflections). Such a conflict put her into a loss about the "enterprise" of the collaborative action research project:

> *If I do all the work for the teachers, is it still their action research or mine? Is it against the spirit of collaborative action research? Is this still a "partnership" between teachers and teacher educators? What can I do to help their action research without controlling it? I was struggling with these questions. (Melissa, interview)*

To solve this conflict, Melissa had a discussion with her supervisor who reminded her of the importance of "being cautious of using your expertise" in collaboration with teachers (personal reflections):

> *From my supervisor, I understood that action research is a shared journey towards mutual learning and growth. We should be teachers' guide and use our expertise in a supportive and constructive way. (Melissa, interview)*

\   Advised by her mentor, while Melissa engaged in open communication with teachers, she also tried to be more strategic in providing guidance in the process of collaborative action research:

> *I shared my concerns with them (teachers) about their "reliance" on me. They told me about the difficulties they encountered and expressed their willingness to take responsibility for their action research with my support. I also tried to be more flexible in providing my assistance. For instance, instead of giving answers, I tried to ask them questions to stimulate their thinking…Gradually we became close and created a comfortable space in which we could engage with each other as partners in the journey of action research. (Melissa, personal reflections)*

Through the negotiation of meaning with the teachers, Melissa learned how to accommodate to the teachers' needs and facilitate their action research as a "partner" (Reynolds, Ferguson-Patrick, & McCormack, 2013), which gave rise to her personal interpretation of the enterprise of university-school partnership, i.e., "creating a dialogic space in which teachers and teacher educators can engage in learning with mutual understanding and support" (personal reflections).

In Rachel's case, she also engaged in the negotiation of meaning with other teacher educators in the project. During the group discussion in a project meeting, a teacher shared her problems in her action research. Given the strong examination-oriented culture in the school, she was forced to follow the school's prescribed curricular and textbooks which contradicted her action research plan to bring in authentic and communicative activities in her language classroom. After the teacher's sharing, while Rachel encouraged the teacher to "stick to her own plan" disregard of the external pressure as she believed "it would benefit students' long-term language development" (Interview), another teacher educator raised a different opinion that "examination is also important for students especially in current education system in China" (Interview). Their diverging opinions turned the discussion into a constructive debate among the group members concerning the conflicts between "idealism" and "realism" in language education. Reflecting on this experience, Rachel commented:

> *I was glad that another colleague shared a different view so that we could have a fruitful discussion on whether teachers should be idealistic or realistic in their work and how they can practice what they believe. Although we didn't reach an agreement, we made the teachers become aware of different ideas and possibilities…In teacher education, teacher educators do not always have the right answers for teachers' problems. What we can do is to listen to teachers, show them different possibilities, and guide them to analyze the situation and make judgment. This is what I learned from this incident and I would use it to guide my future practice. (Rachel, personal reflections)*

Thus the dialogic interaction between Rachel and other teacher educator not only provided learning opportunities for the teachers, but it also helped her (re)interpret the meaning of "teacher education" with a promoted understanding of how teacher educators can

better assist teachers in seeking their professional growth by "listening to teachers, showing them different possibilities, and guiding them to analyze the situation and make judgment" (personal reflections).

Overall, the three PhD students participated in the community of university-school partnership through which they interpreted and tuned the enterprise of the community (Wenger, 1998) and learned how to interact with teachers and facilitate their professional learning. Their enhanced knowledge of the meaning of teacher development and their own role as teacher educators further dispelled their concerns about the lack of school teaching experience and boosted their self-confidence as prospective teacher educators (Loughran, 2014):

> *Even though I was not a language teacher before, the actual experience of working with teachers helped me understand them and thus made me feel I could really help them. It consolidated my belief that I can be a good teacher educator in the future. (Kate, interview)*

Learning through researching on teaching and teacher education

As PhD students, the participants largely benefited from their academic research on language teaching and teacher education. From their research work, they developed new insights into language teachers' professional lives and built up their knowledge base about "the practice of teacher education and the practice of teacher education research" (Wilson, 2006, p. 216). As Melissa commented:

> *Research is another important part of my learning, which helped me construct a systematic and theoretical understanding of language teachers' practice and lives. (Melissa, personal reflections)*

For instance, Kate conducted an ethnographic study on a group of English teachers in a high school in Beijing. By following the teachers in their daily work for a whole academic year, she examined their professional culture and how it was transformed in their embedded institutional and socio-cultural contexts. Her extended engagement with the teachers through research not only helped her develop practical research skills, such as "how to conduct classroom observation with follow-up interviews and discussion" and "how to construct a trusting and reciprocal relationship with the research participants" (interview), but it also led to her enhanced understanding of "the mutually constitutive relationship between teachers' professional culture and their everyday practice and continuous development" (personal reflections). For instance, Kate found the teachers' professional culture was influenced by traditional Chinese values, such as their respect for authority:

> *It was interesting that while the teachers formed a professional community through collaborative activities, they showed great respect to their department head and followed her instructions wholeheartedly. (Kate, Interview)*

Instead of treating the traditional values as obstacles to teachers' professional practice, Kate argued that they are an inevitable part of teachers' daily lives, and under certain circumstances, they can be facilitative to the development of teacher culture:

While previous research suggests that teachers' respect for authority could diminish their professional autonomy, the situation was different in my research. The department head was open-minded and supportive and she always encouraged the teachers to explore and learn in their practices. In fact, her leadership played a key role in the formation of their professional culture. (Kate, interview)

Through her PhD research, Kate developed a contextualized knowledge of language teachers' professional practice and development (e.g., a critical understanding of the traditional Chinese culture), which could be conducive to her future work in teacher education:

For teacher educators in China, we need to from a local understanding of the educational practices in our socio-cultural environment. Thanks to my PhD research, I gained a deep look into the teachers' professional lives and learned about the underlying contextual factors, including the traditional culture. Such knowledge is very useful to my future teacher education practice. (Kate, personal reflections)

Similarly, Rachel also explored language teachers' professional practice in her PhD study. By situating her research in a teacher development project in which she worked as a project assistant, she looked into language teachers' perceptions of their students and how such perceptions influenced their teaching. The project-based PhD research provided an important source of learning for Rachel. On the one hand, her ongoing practice and interactions with the teachers (as a project assistant) helped her establish a sound researcher-participant relationship, while on the other, the critical insights gleaned from her PhD research in turn improved her teacher education practice in the project:

Through our ongoing interactions in the project, I developed a good relationship with the teachers who were also my research participants; from my research, I gathered insights into language teachers' beliefs and how they could influence their teaching. I tried to apply the research findings into my teacher development workshops by helping the teachers make explicit their teaching beliefs and conduct critical reflections. (Rachel, Interview)

Closely related to the participants' research endeavor was their active engagement in academic writing, which served as a critical route for their professional reflections and knowledge building (Kosnik, et al., 2011):

When I wrote, I needed to read literature and reflect on my research in order to make sense of my data. Then I tried to put all my ideas into words and made them clear, logical and meaningful for teachers and teacher educators. It developed my critical thinking and put my research experiences into a new perspective. I believe these ideas could be transferred and influence my future practice. (Melissa, interview)

As they tried to disseminate their research findings through publications, they also engaged in academic dialogue with other professionals in teacher education where more learning opportunities could arise:

Once I attended a conference and one teacher educator from another university approached me as she had read one of my published articles and had interest in my research. We had a long talk and even discussed about possibilities for future collaboration. (Kate, Interview)

However, the participants encountered some challenges in publishing due to their lack of experience of academic writing and the implicit bias against practice-based research in current educational field in China:

I do not have much experience in writing for publications, which is different from thesis. It is kind of new and difficult to me. (Rachel, interview)

I got rejections from some journals, saying my manuscripts were too "practical" and "qualitative". It was a bit shocking to me. I feel they hold a bias against practice-oriented research, which, however, is what most teacher educators do in their work. (Kate, interview)

In order to learn how to write and publish, they sought guidance from their supervisor with respect to how to improve the quality of their writing and identify the potential outlets for publications:

From my mentor, I learned useful skills such as how to engage in critical discussion and make an effective argument in writing. I also learned about the journals that are more open-minded about practical research. (Melissa, interview)

They also engaged in dialogic learning with other PhD students in the program:

The PhD students in our program formed a professional learning community. As we all aspire to become teacher educators and our research interests are similar, we could offer support to each other by sharing information and doing peer review in our writing. (Rachel, interview)

The participants' mutual engagement in the community of PhD students thus contributed to their professional learning as a practice-oriented teacher educator/researcher in higher education:

It was good to work with my "critical friends" who shared similar values about teacher education. By offering help to each other, we managed to conduct research on teachers and shared our findings through individual and joint publications. We are a community of practice-based researchers and teacher educators. I hope our collaboration can extend to the future. (Kate, interview)

Thus, through their academic research on language teachers and their engagement in academic writing and publishing, the three PhD students constructed and reconstructed their knowledge about teacher education with an increased self-understanding as practice-oriented teacher educators/researchers (Zeichner, 2005). Their professional learning was also

facilitated by their interactions with their mentor and other PhD peers in their situated community of teacher educators in the program.

Discussion

Based on the three routes for the PhD students' professional development in teacher education, this study demonstrates the social nature of their learning to become teacher educators (Kosnik, et al., 2011), arising from their mutual engagement with different others (e.g., teachers and teacher educators), their negotiation and tuning of the enterprise of their professional community, as well as their development of a repertoire of skills and procedures about teacher education (Wenger, 1998).

First of all, the participant sought their professional learning through their evolving forms of engagement in teaching, collaboration, and research (Brody & Hadar, 2011). Despite their lack of school teaching experience, the participants' engagement with pre- and in-service teachers in teacher education classrooms helped them integrate the theories they acquired from the coursework with real practice and build up their personal practical knowledge of teacher education (Loughran, 2014). It also enhanced their understanding of language teachers' professional lives with a heightened awareness of their job satisfaction and motivation, their needs for professional learning, as well as the educational reality they were situated in (Wang, 2013). In terms of collaboration, the university-school partnership provided rich opportunities for the participants to interact and learn with teachers and teacher educators through collaborative action research. Not only did they acquire important knowledge about how to facilitate teachers' action research as an effective teacher educator, but they also developed new perspectives on teacher education by dialogically interacting with other teacher educators in the project (in Rachel's case for instance) (Cochran-Smith, 2005). Further, through their research work, the participants constructed a solid knowledge base about language teaching and teacher education (Loughran, 2014), shedding new light on their future practice as teacher educators. Through their academic writing and publishing, they also engaged in professional reflections and knowledge construction and gained new opportunities to interact with teacher educators and researchers in the large community of teacher education as indicated in Kate's experience.

Another critical source of the participants' learning was their negotiation and tuning of the enterprise of their embedded community of practice (Wenger, 1998). Specifically, through their interactions and negotiations with teachers and other teacher educators, the participants developed and refined their personal interpretation of the meaning of teacher education in order to improve their own professional practice. However, as previous studies (e.g., Reynolds, Ferguson-Patrick, & McCormack, 2013; Kelly, 2006) have illustrated, this is a complex and challenging process which might involve the negotiation of power relations between different community members. For instance, in the community of university-school partnership, while Melissa believed the teachers should take ownership of their action

research, they treated her as an "expert" who should provide detailed instructions for their action research. The conflicts between Melissa's beliefs and the teachers' expectations derived from the hidden power differentials between universities and schools (Tsui, Lopez-Real, & Edwards, 2009) put her into a loss about the enterprise of the collaborative action research. It was through her ongoing negotiation and open communication with the teachers that she found ways to redress the power imbalance and help them take charge of their own action research and engage in collective learning. At last, Melissa deepened her knowledge of the enterprise of the community of university-school partnership – "creating a dialogic space for teachers and teacher educators to engage in mutual learning with understanding and support". Such knowledge could serve as "a source of coordination, of sense-making, and of mutual engagement" (Wenger, 1998, p. 82) in her continuing work with teachers.

The participants also actively engaged in their professional learning by developing a repertoire of skills, techniques, and procedures about teacher education (Wenger, 1998). For instance, while Melissa lacked teaching experience and knowledge of her students, by observing the supervisor's teaching, she acquired some important instructional skills, including how to organize learning activities and stimulate teachers' reflective thinking (e.g., through questioning) in teacher education classrooms. Besides, their PhD research centering on language teachers and their internal world and external conditions not only equipped them with crucial research knowledge and skills, but it also improved their interpersonal abilities in terms of how to develop a sound relationship with teachers, which could play a significant part in their continuous exploration and learning as a teacher researcher/educator (Wilson, 2006). More importantly, their research work helped them foster a critical understanding of their embedded educational and socio-cultural environment. For instance, through her PhD study, Kate deepened her knowledge about the traditional Chinese culture and its possible influence on teachers' professional work, which shed important light on her future practice as a teacher educator in the Chinese context. Moreover, the participants also actively engaged in academic writing and publishing by seeking advice and support from their supervisor and peers. Given the strong emphasis on academics' (including teacher educators') research productivity in universities in China (Lai, Du, & Li, 2014), such learning experiences could develop their writing abilities and enhance their knowledge about how to cope with the increasing demands and possible bias in their future publishing (e.g., how to select appropriate journals). Underneath the acquisition of all the knowledge and skills was the participants' gradual immersion into the teacher education community in which they actually spoke and acted as teacher educators (White, et al., 2014), which pushed forward their professional learning as a powerful socializing force.

Center to the three dimensions of teacher educators' learning was the supportive program context in which they engaged in "legitimate peripheral participation" (Lave & Wenger, 1991, p. 29) in the community of teacher education. As Tsui, Lopez-Real and Edwards (2009) point out, it is important for the novice to "be granted legitimacy of access to practice and legitimacy to participate peripherally at the initial stages until they have acquired

the necessary competence to participate fully" (p. 38). In the study, the participants as prospective teacher educators were afforded legitimate access to engage in various forms of teacher education practice, ranging from peripheral (e.g., observing experienced teacher educators' practice) to core (e.g., running professional development workshops for teachers and conducting academic research on teachers and their professional lives). While the participants encountered various challenges in their specific contexts, e.g., their lack of school teaching experience, the power issues involved in their collaboration with teachers, and the bias against practice-based research in publishing, they also received effective scaffolding and support from their supervisor and peers, which led to their enhanced professional knowledge and competence with increased self-efficacy in coping with the potential obstacles in their future work.

Overall, while traditionally teacher educators might enter teacher education without sufficient training and support (Murray & Male, 2005) and might experience difficulties in developing new pedagogies and conducting academic research (Yuan & Lee, 2014), this study provides a different perspective on how graduate students without teaching experience can learn to become teacher educators through their participation in teacher education practice with adequate support and guidance (Wenger, 1998). The findings of this study are of much relevance for educational contexts like China, Australia, and the USA where more and more graduate students (with or without teaching experiences) seek to enter teacher education through higher degree programs (Mayer, et al., 2011; Zeichner, 2005). It is noteworthy that this paper does not intend to undermine the importance of school teaching experience which can guide and inform teacher educators' professional work. Instead, the professional development mode reported in this paper might serve as an alternative to educating and developing prospective teacher educators through their guided engagement in teaching, research, and collaboration, which might help them accumulate the practical insights and wisdom that have traditionally been acquired through practical teaching. However, while the study demonstrates the systematic and comprehensive preparation the participants received from the program enhanced their professional knowledge and competence, it still remains to be seen whether the participants can adjust well to the complicated and changing landscapes of higher education and teacher education and grow into competent teacher educators in the future. This is a question that is beyond the scope of the paper but worth continuous exploration.

Conclusion and Implications

Informed by the social theory of learning (Wenger, 1998), this study adds to our current limited knowledge of how PhD students can learn to become teacher educators in higher degree programs. Despite the participants' lack of school teaching experience, the different forms of practices and interactions in the program enhanced their professional knowledge and skills in terms of teaching, research, collaboration and publishing, opened up

their horizons about teacher education, and contributed to their self-understanding as teacher educators in the Chinese context. Several implications can be drawn for both teacher education and higher education in terms of preparing and developing future generation of teacher educators.

First of all, in higher education institutions, a close link between teacher education programs and higher degree programs (e.g., PhD and EdD) can be established so that graduate students can gain opportunities to engage in teacher education practice, such as teaching pre-service teachers and collaborating with school teachers in classroom-based research (Viczko & Wright, 2010; Wilson, 2006). Teacher education programs/projects can also provide fertile soil for graduate students' research work, through which they can engage in the exploration, creation, and renew of knowledge about teaching and teacher education as shown in Rachel's project-based PhD study.

Systematic scaffolding and guidance is also crucial in graduate students' learning to become teacher educators. While an academic supervisor is usually assigned to guide their study in higher degree programs, for those who aspire to become teacher educators, a mentor (who can also be their academic supervisor) with experience and expertise in teacher education might also be necessary. Through dialogically interacting with their mentors of teacher education, graduate students can acquire important skills and techniques about teacher education practice, engage in critical reflections and knowledge construction, and make sense of what it means to be a teacher educator. Also, a community of practice of teacher education characterized by professional dialogue and collaboration (e.g., between teachers and teacher educators) can play a pivotal role in promoting prospective teacher educators' professional learning. For such a community to be enacted and sustained, higher education institutions need to provide necessary resources and support (e.g., in terms of funding and facilities) so that PhD students cannot only develop their pedagogical and research skills through mutual engagement with others (e.g., their peers and teachers), but they can also cultivate a sense of belonging as valuable members in the community of teacher education (Kosnik, et al., 2011).

Furthermore, given the criticality of reflection in the participants' knowledge construction (e.g., through their academic writing) as indicated in this paper, it might be useful for PhD students to engage in reflective writing (e.g., reflective diaries/journals), action research, and self-study on their teacher education practice (Cochran-Smith, 2003; Viczko & Wright, 2010). By systematically inquiring into their own journeys of becoming teacher educators, they can foster their reflective abilities and enhance their sense of agency in grappling with various contextual challenges and seeking their continuous development in teacher education (Loughran, 2014).

To conclude, this paper reports on a study investigating the process of three PhD students' learning to become teacher educators in a university in China. Not only does it add to our limited understanding of graduate students' professional learning through their participation in teacher education, but it also sheds light on an alternative mode for the preparation of future teacher educators with useful implications for both higher education and teacher education. This research is not without limitations. First, the small sample size makes

it difficult for the findings to be generalized to other contexts. Also, as the study relies on the self-reported data from interviews and the participants' personal reflections, there is little information on how they actually engaged in different forms of teacher education practice. Future research, by adopting observational research methods, can continue to explore how graduate students practice teacher education and seek their professional learning as full-fledge teacher educators in their situated institutional and socio-cultural contexts.

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