

**Teacher competence in kindergarten education:
perspective of per-service kindergarten teachers in the
Hong Kong context**

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- This thesis has not been offered previously for any other degree or diploma.
- The word-length of this thesis conforms to the permitted maximum.
 - This thesis results entirely from my work

Signature:

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Abstract

In the 1980s, the Hong Kong government published an official document about kindergarten education, stating concerns around the credential requirements for the kindergarten teaching profession. Over the following 40 years, by gradually increasing the minimum prescribed credential requirements for new-entry kindergarten teachers, the education department gradually shifted responsibility for training to a number of tertiary institutions, resulting in the rapid expansion of pre-service kindergarten teacher (PSKT) training programmes in Hong Kong.

This shift exposed the belief of the government that the improved credential level of PSKT training will lead to better kindergarten teachers' competence. However, this association is debatable. Both the government and academic scholars have conducted only limited research regarding the definition of teacher competence in kindergarten education for PSKTs in the Hong Kong context. This issue also raises concerns about the influence of teacher training programmes and how they can help PSKTs to function competently in the workforce.

The current thesis presents an account of a qualitative research study that aimed to investigate how PSKTs' competence is developed by teacher training programmes in the Hong Kong context. Taking a multiple narrative case approach, quotes were extracted from participant-led photo-elicitation interviews with 17 PSKTs from a higher diploma programme at an institution in Hong Kong. Thematic analysis of the content of these interviews was conducted to form the findings.

The findings of this research indicate that institutional coursework, practicum placements and extra-curricular activities are all important to PSKTs' perspectives of teacher competence. Furthermore, the study explores how PSKTs develop competence based on observation and reflection during a teacher training programme and how they perceive their most recent concept of competence for further application, with findings divided into the domains of 'teaching and learning', 'student development', 'school development', 'professional relationship and services' and 'underpinned core values'. At the end of the thesis, the implications of the research for teacher educators and institutions providing PSKT training programmes are addressed.

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'To learn and to apply, for the benefit of mankind.'

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Picture 1. Hundreds of thousands Hong Kong citizens attended the demonstration against the extradition law amendment bill on 9th June 2019 at Causeway Bay, Hong Kong.

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List of Abbreviations

ACTEQ	Advisory Committee on Teacher Education and Qualification
CDC	Curriculum Development Council
CECS	Department of Childcare, Elderly and Community Services
EDB	Education Bureau
PILOs	Programme intended learning outcomes
HKCEE	Hong Kong Certificate of Education Examination
PSKT	Pre-service kindergarten teacher
QKT	Qualified kindergarten teacher

Chapter 1: Introduction

1.1. Overview

This chapter aims to provide the background and scope of the thesis. By summarising the development of the kindergarten teaching profession in Hong Kong, it addresses the government's assumption that pre-service kindergarten teachers' (PSKTs)¹ competence in kindergarten education can be attributed to their qualifications. It then highlights that this supposition is problematic because the influence of PSKT training programmes and the meaning of teacher competence for PSKTs in Hong Kong are both under-researched. It then outlines the aim and research questions of the thesis, which aim to address the gap in the research concerning how PSKTs' teaching competence is developed during teacher training programmes in Hong Kong. At the end of the chapter, the contributions of the research and the structure of the thesis are outlined.

1.2. Background: The development of the kindergarten teaching profession in Hong Kong

Until and during the 1980s, there was no mandatory credential requirement for teachers working in kindergartens in Hong Kong. This situation started changing in the 1990s, when the government recognised the importance of teacher competence and realised that most kindergarten teachers were untrained. Since then, over the last 30 years, the government has attempted to enhance the overall competence of kindergarten teachers by raising the training and qualification requirements for PSKTs. This section outlines the background of the kindergarten teaching profession in Hong Kong by drawing attention to four developmental stages (summarised in Table 1): laissez-faire (pre-1980s), the transitional stage (1980s–1997), the post-colonial period (1997–2005), and harmonisation (2005–present):

¹ It refers to a student who is currently enrolled in a kindergarten teacher preparation program that provides initial certification and teacher permit.

Stage	Year	Official documents	Development of the kindergarten teaching profession in Hong Kong
From 1841 to 1997, Hong Kong was a Crown Colony under Queen Victoria's Letters Patent			
Laissez-faire (pre-1980s)	Pre-1980s	N/A	No qualifications or credentials required to work as a kindergarten teacher.
Transitional Stage (1980s–1997)	1981	White Paper on Primary Education and Pre-Primary Services	<ol style="list-style-type: none"> Only around 15% of 5,300 kindergarten teachers had received relevant teacher training during or before the 1980s Goal: 90% of kindergarten teachers should attend at least 12 weeks (about 120 hours) of part-time training courses to become 'Qualified Assistant Kindergarten Teachers' in the 1990s
	1994	Policy address <i>Hong Kong: A Thousand Days and Beyond</i>	<ol style="list-style-type: none"> Proposal: New-entry kindergarten teachers must have graduated at Secondary 5 level, with at least two passes in the Hong Kong Certificate of Education Examination (HKCEE) Introduced new three-year full-time certification and top-up bachelor's degree programmes to replace the part-time in-service programme
Hong Kong returned to Chinese sovereignty in 1997			
Post-Colonial Period (1997–2005)	2000	Blueprint <i>Learning for Life, Learning through Life: Reform Proposals for the Education System in Hong Kong</i>	<ol style="list-style-type: none"> All in-service teachers required to complete at least a one-year in-service training programme and obtain QKT registration to continue working in the industry From 2001/2002, all new-entry kindergarten teachers must obtain five passes in the HKCEE (including in Chinese and English) and complete the PSKT training programme
Harmonisation (2005–present)	2005	Hong Kong Government, Education and Manpower Bureau <i>Circular No. 20/2003</i>	Social Welfare Department and Education Department began to mutually recognise qualifications through tertiary programmes with QKT registration so that kindergarten teachers were eligible to work in the childcare sector

Table 1. Development of the kindergarten teaching profession in Hong Kong

1.2.1. Laissez-faire (pre–1980s)

From 26 January 1841 to 30 June 1997, Hong Kong was a Crown Colony under Queen Victoria's Letters Patent. During this period, the colony's laws were made and enforced, and order was maintained, through its governor and legislative council (Legislative Council of the Hong Kong Special Administrative Region of the People's Republic of China, 2020). In the early colonial period (until the end of World War II), the Hong Kong government rejected any responsibility for pre-primary education. Following the Japanese invasion, with the rapidly growing demand from the population for pre-primary education and services due to the influx of mainland Chinese immigrants and refugees, early forms of kindergarten facilities appeared in the 1930s. However, for the following 50 years, there was no mandatory training or qualification for becoming a kindergarten teacher. The development of teacher competence in kindergarten education thus relied mostly on the voluntary in-service training offered by the Education Department (the forerunner of the Education Bureau [EDB])² (Rao & Li, 2009; Wong & Rao, 2015).

1.2.2. Transitional stage (1980s–1997)

Responding to the public's demands around pre-primary education and services, the Education Department released its first official document on pre-school services – the *White Paper on Primary Education and Pre-Primary Services* – in the early 1980s. According to this document, only around 15% of the 5,300 kindergarten teachers in Hong Kong had received relevant teacher training during or before the 1980s (EDB, 1981). With a mission of enhancing the quality of kindergarten education, the document outlined the need to expand kindergarten teachers' training, aiming towards 90% of Hong Kong kindergarten teachers attending at least 12 weeks (about 120 hours) of part-time training courses to become 'Qualified Assistant Kindergarten Teachers' in the 1990s.

Under these proposed approaches, the Education Department gradually shifted its responsibility for kindergarten teacher training onto three tertiary institutions: the Lee Wai Lee Technical Institute (forerunner of Hong Kong Institute of Vocational Education – Lee Wai Lee campus), the Hong Kong Polytechnic Institute (forerunner of Hong Kong Polytechnic University), and the Grantham College of Education (forerunner of Hong Kong

² It is an official department which is responsible for formulating, developing and reviewing policies, programmes and legislation in respect of education from pre-primary to tertiary level in Hong Kong.

Education University). From the mid-1980s, the Education Department and these tertiary institutions together offered two kinds of part-time kindergarten teacher training programme:

- Two-year training programme (about 360 hours) to register as a Qualified Kindergarten Teacher (QKT)³; and
- Twelve-week (about 120 hours) part-time training course to become a Qualified Assistant Kindergarten Teacher.

Although the Education Department had outlined its intention to increase the teacher training opportunities in this field, the target was unfortunately not achieved. By 1994, only 24% of kindergarten teachers were trained. Chris Patten, the last Hong Kong governor, in his policy address, *Hong Kong: A Thousand Days and Beyond* (Patten, 1994), he presented a four-year proposal, allocating an additional \$163 million for kindergarten teacher training and setting out a new mandatory qualification requirement for working as a kindergarten teacher (Chan et al., 2009):

- Minimum qualification level for new-entry kindergarten teachers – must have graduated at Secondary 5 level with at least two passes in the Hong Kong Certificate of Education Examination (HKCEE)⁴; and
- New three-year full-time certification and top-up bachelor's degree programmes for teachers not already QKTs, replacing all other programmes.

1.2.3. Post-colonial period (1997–2005)

In 1997, Hong Kong returned to Chinese sovereignty. In response to the sovereignty crisis, then-Chief Executive Tung Chee-Hwa GBM and his Hong Kong Special Administrative Region government introduced their first educational reform '*Learning for Life, Learning through Life: Reform Proposals for the Education System in Hong Kong*' in 2000. This report particularly highlighted that kindergarten teachers' competence was directly affecting the quality of kindergarten education (Education Commission, 2000, pp. 49–50). With this

³ It is an approved teacher qualifications laid down in the Education Ordinance for a person who wishes to teach in a kindergarten in Hong Kong.

⁴ It had been a recognised public examination in Hong Kong since 1978 of which taken by students at the end of their five-year secondary school education. It had been replaced by Hong Kong Diploma of Secondary Education (HKDSE) Examination in 2012.

consideration in mind, the EDB once again adjusted the mandatory credential requirements for kindergarten teachers, starting in the 2001/02 school year.

- In-service teachers required to complete at least a one-year in-service training programme and to obtain QKT registration to continue working in kindergarten teaching; and
- New-entry kindergarten teachers must have obtained five passes in the HKCEE (including in Chinese and English) and completed a training programme in a recognised tertiary institution.

1.2.4. Harmonisation (2005–present)

Owing to the education reform in the 2000s, kindergarten teacher training became sufficiently expanded and diversified. In the 2005/2006 school year, over 90% of kindergarten teachers had already received relevant training and attained the required qualification (Rao & Li, 2009). Next, in 2005, the government implemented harmonisation; the EDB and the Social Welfare Department took steps to jointly restructure the monitoring systems for pre-primary education and services provisions (Hong Kong Government, Education and Manpower Bureau, 2003). Since then, both departments have jointly overseen pre-primary education systems and services in Hong Kong. Within these joint administrative roles, the Social Welfare Department has taken responsibility for organising childcare services for children under three years old. Meanwhile, the Education Department is responsible for monitoring kindergarten and all-day nursery services, which serve children between six weeks and six years old. More importantly, in 2005, both departments began mutually recognising the qualification of QKT registration. This mutual recognition implied a new expectation around kindergarten teacher training; those individuals who had undergone PSKT training and obtained QKT registration were viewed as eligible, and assumed to be competent, to work in kindergarten and childcare services in Hong Kong.

1.3. Research problems

This overview of the development of the kindergarten teaching profession in Hong Kong through these different stages over the last 40 years indicates that the government tends to believe that the improved credential level of PSKT training will lead to better kindergarten teachers' competence. Nowadays, anyone intending to work in the field of kindergarten

education must obtain QKT registration under the Education Ordinance, which they must have five passes in the HKCEE (including in Chinese and English) and must graduate with a Certificate in Early Childhood Education. These mandatory requirements imply that, if an individual can complete a PSKT training programme, they are viewed as sufficiently competent to legitimately work in kindergarten and childcare services in Hong Kong.

However, this implication is problematic. **The first issue here is ambiguity in terms of what teacher competence in kindergarten education means to PSKTs in Hong Kong.**

The meaning and concept of teacher competence for kindergarten teachers has received little attention in policy papers. The Curriculum Development Committee⁵ (the forerunner of the Curriculum Development Council [CDC]) has officially published a series of curriculum guide continuously listing the tasks of kindergarten teachers over the past forty years in Hong Kong (CDC, 1984; 1993; 1996; 2006; 2017). However, what teacher competence in kindergarten education means and requires to PSKTs has not been further identified and explained in those curriculum guides. Furthermore, it is important to note that the definition of such competence is diverse and varied relative to different eras of kindergarten education. Many scholars have already pointed out that teacher competence for future kindergarten teachers keeps changing. For example, scholars suggest that the next generation of PSKTs should be capable of:

- Assessing the needs of infants and toddlers (Chan, 2019);
- Demonstrating their leadership ability (Ho, 2011; Li, 2015);
- Engaging effectively in interdisciplinary professional collaboration (Anderson, 2013; Silverman et al., 2010);
- Multicultural teaching (Park, 2016);
- Organising mindfulness meditation for children (Miyahara et al., 2017); and
- Technological learning (Barnes et al., 2018).

⁵ The Curriculum Development Committee was established in 1972 and re-organized as The Curriculum Development Council in 1988. It is a free-standing advisory body to give advice to the Education Bureau on issues relating to curriculum development for the school system in Hong Kong.

The second issue is that the question of how teacher training programmes develop PSKTs' competence in kindergarten education is under-researched. Based on the Hong Kong government's supposition of credentials qualifying teachers sufficiently, PSKTs are viewed as more competent to work in kindergarten if they have attained a higher level of teacher training. However, research concerning the Hong Kong kindergarten education system has rarely considered the area of teacher competence, meaning that the influence of PSKT training programmes has remained unexplored and susceptible to uncertainty. Discussions related to this supposition have been lacking in both policy papers and academic debates in past decades. Contemporary discussions in the field of Hong Kong kindergarten education have been mainly focused on other issues, including:

- Children's language development (Shing et al., 2013);
- Educational policy (Yelland & Wai, 2018; Yuen, 2016);
- Kindergarten organisational culture (Blaise et al., 2013; Chan, 2013; Chen & Liang, 2016; Ho et al., 2017);
- Pedagogy and curricula (Chen et al., 2017; Huang et al., 2015; Lau & Grieshaber, 2018; Lee et al., 2011);
- Pre-service kindergarten teachers' spiritual well-being (Fisher & Wong, 2013);
- Science, technology, engineering and mathematics (STEM) education (Cheng, 2018).

1.4. Aim and research questions

The ambiguity surrounding what teacher competence means to PSKT and the effectiveness of their training program in Hong Kong kindergarten education represent a gap in the research regarding the influence of teacher training programmes on the development of PSKTs' teacher competence, which this thesis aims to address. Thus, the main research question of this thesis is as follows: **How is PSKTs' teacher competence developed during teacher training programmes in Hong Kong?** To explore this primary question, the thesis aims to address the following sub-questions:

RQ 1. What learning experiences influence the PSKTs' perspectives of competence in kindergarten education?

RQ 2. How do PSKTs develop their competence in kindergarten education during the teacher training program?

RQ 3. How do PSKTs define teacher competence in kindergarten education?

1.5. Contributions

Based on the stated the aims and research questions, this thesis is intended to make contributions to the field of kindergarten teacher education and perhaps also to other pre-service teacher training for other education levels. The study is valuable because it:

1. raises implications for tertiary institutions and other higher education sectors to help evaluate their PSKT programme curricula;
2. facilitates programme administrators' understanding of PSKTs' learning experiences to enhance the quality of teacher training programmes; and
3. contributes to academic discussions on PSKTs' development of teacher competence in kindergarten education, especially in the Hong Kong context.

This thesis is unique in empowering PSKTs and providing them with an opportunity to tell stories about their own learning experiences and their interpretation of teacher competence for teacher educators in Hong Kong. By considering how PSKTs form their teacher competence in kindergarten education during their tertiary learning, the study aims to generate contextual challenges and provide insight into the tertiary institutions that offer teacher education. This research also extends the existing body of literature related to kindergarten teacher education, especially in the south-east Asian context.

1.6. Thesis structure

This thesis comprises six chapters (summarised in Table 2). Chapter 1 presents the background of the development of the kindergarten teaching profession, points out the research gaps and then outlines the aims, the research questions, and the contributions and structure of the thesis. Chapter 2 presents the literature review, starting with the existing accounts of teacher competence in kindergarten education and highlighting that the current thesis aims to move beyond the debate on credentials to focus on PSKTs' learning experience in teacher training programmes. In Chapter 3, the qualitative research method used to address these complexities is outlined, including an explanation of how the multiple narrative case approach contributes to the data collection and analysis procedures. In Chapters 4 and 5

present the researcher's analysis of 17 PSKTs' interviews, reporting on their learning experiences and process of reflection in a teacher training programme as well as how they define teaching competence in kindergarten education. Chapter 6 revisits the research questions and raises implications and suggestions for tertiary institutions, teacher educators and researchers for their potential enhancement and future research.

Chapter	Content
1. Introduction	Demonstrates the development of the kindergarten teaching profession in Hong Kong. Pinpoints the research problems and introduces the study's aims, research questions, contributions and thesis structure.
2. Literature review	Evaluates existing literature that is directly relevant to the definition of teacher competence in kindergarten education and the contemporary discussion on credential requirements. States the research purpose of moving beyond these factors to consider PSKTs' learning experiences, their process of reflection and first person view point on teacher competence during their training programme.
3. Research Design	Draws attention to the qualitative research method and demonstrates how the multiple narrative case approach guides the data collection and analysis procedures. Includes consideration of ethical issues and trustworthiness of the research.
4. PSKTs' learning experiences and development of teacher competence	Responds to research sub-questions 1 and 2 by examining 17 PSKTs' learning experiences in a teacher training programme and the process of how their reflection develops their teacher competence.

<p>5. <u>The definition of teacher competence in kindergarten education for kindergarten education</u></p>	<p>Responds to research sub-question 3 by exploring the PSKTs' definitions of teacher competence in the domains of 'teaching and learning', 'student development', 'school development', 'professional relationship and services' and 'underpinned core values.'</p>
<p>6. <u>Conclusion</u></p>	<p>Revisits the research questions of this thesis and proposes potential enhancement measures for tertiary institutions providing teacher education programmes and future research areas for researchers.</p>

Table 2. Thesis structure

Chapter 2: Literature Review

2.1. Introduction

This chapter reviews contemporary discussions on teacher competence in kindergarten education, including its definition, the debate around credentials, PSKTs' learning experiences in their training programmes, the importance of reflection on PSKTs' teacher competence and the theoretical landscape on reflection. The discussion starts by considering the debate on the association of kindergarten teachers' earned credentials and their competence in kindergarten education. Consolidating both sides of the debate, the discussion highlights that any further study should move beyond credentialism and consider PSKTs' learning experiences and their reflection process of during teacher training programmes. Inspired by theoretical perspectives on reflection, I also emphasise the importance of the third research question for the current thesis to capture PSKTs' own views on teacher competence in particular learning situation in depth.

2.2. Definition of teacher competence in kindergarten education

Teacher competence, as repeatedly discussed in many studies, can be viewed as a holistic concept encompassing a teacher's knowledge, skills and attitudes. For example, Kunter et al. (2013) define teacher competence as the integration of the pedagogical content knowledge, professional beliefs, work-related motivations and self-regulation that guide teachers' decisions and actions in the workplace. Similarly, Koster and Dengerink (2008) define teacher competence as comprising of knowledge, skills, attitudes, values and personal characteristics that a teacher deploys coherently to take professional and appropriate actions in their working situation. Furthermore, the European Commission (2013) describes teacher competence as the ability of a teacher to perform complex acts with ease, precision and adaptability on multiple levels – those of the individual, the school, the community and their professional networks. Overall, across the relevant works of literature, teacher competence is generally viewed as an integrated set of knowledge, skills and attitudes that lead teachers to take effective action in their situation (Medley, 1977; Roelofs & Sanders, 2007; Wortham, 2010).

Definitions of teacher competence are linked with various fields of education studies (e.g. Davidova, 2019; Page, 2015; Schulze et al., 2015; Uerz et al., 2018; Uztosun, 2018; Wahlgren et al., 2016; Witte & Jansen, 2015). In the field of kindergarten education, teacher

competence can be said to consider multi-faceted dimensions of the teacher. For instance, Milner (2013) views teachers' competence in kindergarten education in terms of their ability to be well organised in their classroom and work, and thus to maximise their students' learning and to handle discipline issues appropriately. In another example, presented by Strong et al. (2011), teacher competence in kindergarten education comprises their proficiency in managing their classroom, building up positive relationships with their students and reducing classroom disruptions. Kinkead-Clark (2018), meanwhile, states that a teacher working in a kindergarten should be competent in building a substantial relationship with their colleagues and parents, appreciating the diversity of the children in their class, delivering secure pedagogical practices and having a clear career path.

There is thus not a singular definition of teacher competence in kindergarten education. With the large volume of discourse concerning this concept, researchers have organised a variety of its different dimensions in different contexts (as shown in Table 3). However, as stated in Section 1.3, however, research and policy papers concerning the Hong Kong kindergarten education system have rarely considered the area of teacher competence. As such, there is not a comprehensive discussion or framework that specifically shows the dimensional aspects of teacher competence in kindergarten education in Hong Kong context. However, from 2003 to 2009, the Advisory Committee on Teacher Education and Qualification's (ACTEQ)⁶ developed a teacher competencies framework (ACTEQ, 2003; 2006; 2009) which is the only official framework produced by the EDB. The model is a dimensional matrix designed to highlight the important aspects of teacher competence (as shown in Table 4). Although this framework is not directly related to kindergarten teachers, it is designed to apply to teachers at all levels in Hong Kong.

⁶ ACTEQ is a non-statutory body set up under the purview of the EDB in advising the Government on policies and measures relating to the professional development of the teaching profession. EDB renamed ACTEQ as the Committee on Professional Development of Teachers and Principals on June 1, 2013.

Authors	Place	Dimensions
Center for the Study of Child Care Employment (2008)	California, United States	<p>Child growth and development</p> <p>Child observation and assessment</p> <p>Learning environments and curriculum</p> <p>Positive interaction and guidance Family and community</p> <p>Health, safety and nutrition</p> <p>Professionalism, professional development and leadership</p> <p>Administration and management</p>
Lillvist et al. (2014)	Sweden	<p>General pedagogical competence</p> <p>Specific content competence</p> <p>Distinct teacher competence</p> <p>Play competence</p> <p>Competence of (understanding) child perspective</p> <p>Collaborative and social competence</p>
Pantić et al. (2011)	Western Balkan Countries	<p>Self-evaluation and professional development</p> <p>Subject knowledge, pedagogy and curriculum</p> <p>Values and child-rearing</p> <p>System understanding and development</p>
Sheridan et al. (2011)	Swedish	<p>Subject content knowledge</p> <p>Leadership in an organisation</p> <p>Communicative and social competencies</p>

Table 3. Dimensions of teacher competence in kindergarten education

Domain	Teaching and learning	Student development	School development	Professional relationship and services
Dimensions	1. Subject matter knowledge 2. Curriculum and pedagogical content knowledge 3. Teaching strategies and skills 4. Use of language 5. Multi-media 6. Assessment and evaluation	7. Students' diverse needs in school 8. Rapport with students 9. Pastoral care for students 10. Students' different learning experiences	11. School's vision and mission 12. Culture and ethos 13. Policies, procedures and practices 14. Home–school collaboration 15. Responsiveness to societal values and changes	16. Collaborative relationships within the school 17. Teachers' professional development 18. Involvement in policies related to education 19. Education-related community services and voluntary work
Underpinned core values	20. Belief that all students can learn 21. Love and care for students 22. Respect for diversity 23. Commitment and dedication to professional collaboration 24. Sharing and team spirit 25. Passion for continuous learning and excellence			

Table 4. The teacher competencies framework (ACTEQ, 2003; 2006; 2009)

2.3. Debate on the contribution of credentials

Within the multi-faceted dimensions of teacher competence in kindergarten education, one major issue revolves around the debate of whether the quality of competence is dimensionally associated with teachers' training and qualifications. On one side of this debate, researchers argue that, if a kindergarten teacher has earned higher-level teaching credentials, their decisions and actions will be of a higher quality than those of a less qualified teacher. On the other side of this debate, researchers evidenced that the kindergarten teachers' credential has little or no contribution to their competence as a teacher. In this section, I review the studies around this debate. Upon the review, I then recommend that any further research on teacher competence in kindergarten education needs to move beyond credentialism.

2.3.1. Credentials positive contribution to kindergarten teacher competence

The overview of the development of the kindergarten teaching profession in Hong Kong in Chapter 1 indicated that the government tends to believe that the improved credential level of PSKT training will develop better kindergarten teachers' competence. In scholarly articles, this supposition is not groundless; it echoes the side of the debate that supports the positive contribution of training and credentials to teacher competence in kindergarten education.

Goble et al. (2015) conducted a questionnaire-based study in the United States focusing on 280 kindergarten teachers' knowledge and beliefs about early childhood development and education. By comparing the teachers who were working on a certified course and those who held a bachelor's degree in early childhood education, they found that those with higher-level credentials tended to be more knowledgeable in child development and to have deeper empathy, more reasonable expectations of their students and higher self-esteem. Additionally, in terms of their practice in kindergartens, the teachers who held a bachelor's degree were appeared to be more competent in meeting children's needs and fostering their power and independence than those without degrees or those at certification level.

In a study in Hong Kong, Ho et al. (2016) conducted a survey to research the connection between kindergarten teachers' credential levels and their school-based practices. By gathering responses from 2,242 kindergarten teachers and 174 administrators in Hong Kong, they found that, overall, those kindergarten teachers with higher-level credentials were found

to be more likely to exchange ideas on teaching, to share teaching materials and to recognise a collective form of professional responsibility with colleagues in their workplace.

In a recent survey study, Partee et al. (2019) examined the relationship between kindergarten teachers' credential levels and their classroom behavioural composition and teacher–child interactions. They gathered data from 183 kindergarten teachers and 2,427 children from 173 classrooms in the United States. They found that those teachers who lacked formal teacher training or a bachelor's degree with a major in early childhood education held less child-centred beliefs and experienced more disruptive behaviour from children from deprived backgrounds when they were managing their classrooms.

2.3.2. Concerns regarding the contribution of credentials to kindergarten teacher competence

While there is a cluster of studies that have demonstrated the positive contribution of kindergarten teachers' credential levels on their professional competence, some other researchers' findings suggest that this association may not apply in all districts or countries. For example, Coplan et al. (1999) conducted a year-long observational research study to assess 179 children's social and cognitive skills development within a standardised curriculum across ten public schools in Ottawa, Ontario. They identified no difference between the social and cognitive development of children taught by kindergarten teachers with different credential levels.

Early et al. (2006) used a teacher questionnaire and classroom observation to investigate children's early academic skills in 237 pre-kindergarten classrooms in the United States. They found that the teachers' credential levels were only linked to variation in the children's mathematical skills, while there were few associations between the kindergarten teachers' majors or credentials and classroom quality or their students' academic outcomes. Rouse (2008) also conducted relevant research in the United States, targeting 54 kindergarten teachers analysing their students' achievement levels in relation to the teachers' credential status. The results showed no statistically significant difference between the children taught by certified and non-certified teachers at the pre-school stage.

Another example is Mischo's (2015) study of the impact of teachers' credential tracks on teachers' competence. The researcher longitudinally examined 348 German kindergarten

teachers' perspectives and compared those who had just graduated from university or vocational institutions using a competence self-ratings questionnaire. He found that the participants perceived themselves to be competent in their kindergarten work and that the different credential tracks did not affect their response.

2.3.3. The need to move beyond credentialism

Among these contemporary research results, it is always debatable whether a kindergarten teacher who has attained higher credentials will be more competent when working in kindergartens. Therefore, I suggest two reasons to explain why this debate is problematic.

First and foremost, the debate has overlooked the variety of PSKT training programmes.

The examples discussed in sections 2.3.1 and 2.3.2 consider samples from different programmes, regions and countries, and many of the researchers mention the limitation of their research in that the findings might not be applicable and comparable to other programmes due to the unique context of their samples (e.g. Coplan et al., 1999; Early et al., 2006; Goble et al., 2015; Ho et al., 2016; Rouse, 2008). Empirically, a large number of studies have already addressed the programme context affecting PSKTs' development, including:

- departmental visions and missions (Musgrave, 2010);
- institutional culture (Devore et al., 2015);
- programme content and pedagogy (Horm et al., 2013);
- programme level (Hadley & Andrews, 2015);
- teacher educators' perception of practicum assessment (Ortlipp, 2003);
- support and guidance received from the programme and teacher educators (Al-Hassan et al., 2012; Assaf & Lopez, 2012; Beavers et al., 2017; Bonnett, 2015; Maynard et al., 2014; McFarland & Saunders, 2009; Myers et al., 2017; O'Connor et al. 2014; Ritblatt et al., 2013; Samaras, 2000; Turnbull, 2005).

As such, it cannot be assumed that different PSKT training programmes are equal, even if they offer the same credential level (Bogard et al., 2008; Chu, 2016). As a result, none of the existing research can confirm whether teachers' credential levels are correlated with or irrelevant to the development of teacher competence in kindergarten education. **Second, the debate oversimplifies PSKTs' development during their training.** From a methodological point of view, none of the above studies identifies the participants' qualitative and

idiosyncratic changes (Mischo, 2015). While it is accepted that the quantitative approach can generalise some insights regarding measurable changes in teacher competence and credential levels, a variety of factors both internal and external to the programme curriculum can affect the development of PSKTs in terms of working as a kindergarten teacher (Pianta et al., 2005). For example, researchers pointed out that the influencing factors include:

- confidence and concerns (Johnson et al., 2017; Wee et al., 2014);
- personal history (Chang-Kredl & Kingsley, 2014);
- preparedness and motivation (Kim et al., 2018);
- sense of place (Gross & Hochberg, 2016).

For these two reasons, it cannot be assumed that increasing the quantity of teacher training must develop PSKTs' competence in kindergarten education (Reynolds et al., 2016).

Therefore, any studies related to teacher competence in kindergarten education should move beyond the debate on credential levels and, instead, thoroughly investigate the PSKTs' competence development in their situated training programmes and learning context in-depth.

2.4. Beyond credentialism: In-depth investigation of PSKTs' learning experience in training programmes

The previous section discussed teacher competence in kindergarten education and the debate around its association with credential levels. By evaluating the relevant literature, I explained that any further research on teacher competence in kindergarten education needs to move beyond credentialism for two reasons. First, this approach overlooks the variety of PSKT training programmes, and second, it oversimplifies the development of PSKTs' teaching competence during such training programmes. In light of these two concerns, the current thesis investigates in-depth PSKTs' learning experiences in training programmes. This section justifies the first and second research questions by discussing the influence of PSKT training programmes and identifying PSKTs' reflection as a means for developing their understanding of teaching competence during teacher training programmes. Then, through conceptualising the process of reflection, I outline the third research question taken for the current thesis that places emphasis on PSKTs' own viewpoints on the definition of teacher competence.

2.4.1. Teacher training programmes: PSKTs learning to work in kindergartens

Teacher training programmes are important to PSKTs because they can learn to work in a kindergarten environment through various learning activities offered by such programmes (Bauml, 2011; Lippard et al., 2019). Blank's (2010) study reviews kindergarten teacher education in the United States from a historical perspective. On the one hand, he agrees that teacher training programmes help PSKTs to achieve legitimacy in the workplace. On the other hand, he illustrates that these programmes have an influence in helping PSKTs to negotiate their ideas and evolve their practices through contextual decision-making.

Recent empirical research has also demonstrated how important teacher training programmes are for teaching PSKTs how to work in kindergartens. For example, Di Santo et al. (2017) researching an undergraduate programme at a mid-sized university in Ontario examined the beliefs of 26 PSKTs about classroom practice and guiding children's behaviour. Through the PSKTs' responses to a self-assessment survey at three time points over the first year of their learning experience, they found that these trainees already held child-centred beliefs before the programme began. However, across the three time points, the PKSTs changed their practices and strategies for managing children's behaviours in the classroom to fit what they viewed as most suitable for working in a kindergarten.

Wong and Cheng (2019) conducted survey-based research to study how the learning experience influences PSKTs' attitudes and confidence regarding inclusive early childhood education in the Hong Kong context. They investigated 183 higher-diploma-level student teachers at a vocational institution in Hong Kong, whose responses showed that relevant learning experience in inclusive practice was associated with their attitude and confidence in their practice. Those PSKTs who had relevant learning experiences around inclusive education were more confident and positive in those practices than those who did not.

Example taking a more in-depth look at PSKTs' learning situation is seen in the work of Assaf and Lopez (2012). They used a qualitative methodology to investigate how a year-long school-based institutional course in a PSKT training programme in the United States supported 14 PSKTs in growing professionally and becoming reflective teachers. They found that, through the year-long tutoring experience, the PSKTs built up teacher's self-efficacy and were able to imagine themselves as future teachers. This development also led them to realise the importance of connecting their practices with children's lives and instructional needs and,

at the later stage of learning, to carefully select materials and plan lessons to respond to children's learning interests.

In a paper based on the evidence reported on in this thesis, Cheng (2019) conducted evaluative research to explore how supervised practicum placements could help PSKTs who were entering the kindergarten workforce in the Hong Kong context. Empirical data were drawn from interviewing eight PSKTs who had just completed their first work placement at a vocational institution in Hong Kong. The results revealed that the PSKTs were building up their identity as teachers through the supervised practicum placements by self-reflection on their teacher's role, envisioning what they should be, and developing adequate rationales and support for their practices as kindergarten teachers.

Rather than just fulfilling the mandatory credential requirements, teacher training programmes have the function of offering a variety of learning experiences for PSKTs that can help them to progress from the position of students to teachers who can work competently in a kindergarten. For example, as demonstrated by the studies reviewed in Section 2.4.1 through their course-based learning, PSKTs can learn to manage their classroom strategies and to prepare for lessons. Furthermore, through supervised practicum placements, they can build up their identity as teachers and learn to justify the decision in practices. **As such, the first research sub-question for the current study is designed to identify the learning experiences that influence the PSKTs' perspectives of competence during teacher training programmes.** This is because a variety of activities in such programmes could contribute to the development of PSKTs' competence to work in a kindergarten. In addition, the findings are expected to contribute to the discussion on the influence of teacher training programmes on PSKTs competence development.

2.4.2. PSKTs' reflection: An act of developing their competence as teacher

In Section 2.4.1, I argued that any further research related to teacher competence in kindergarten education should consider PSKTs' learning experiences in teacher training programmes. However, a question remains regarding how the development of PSKTs' competence takes place within these programmes. Among contemporary studies in teacher education and training, researchers have taken pre-service teachers' reflection into account greatly over the last decade (Acquah & Commins, 2015; Bleach, 2014; Castellan, 2012; Chien, 2014; Farrell & Mom, 2015; Nicholson & Kroll, 2015; Parkison, 2009; Riojas-Cortez

et al., 2013; Zulfikar & Mujiburrahman, 2018). The situation in the field of kindergarten education appears the same (Barry & Durham, 2017; Beck, 2013; Caudle & Moran, 2012; Recchia & Beck, 2014; Ritblatt et al., 2013; Santo et al., 2017). For example, Cornish and Jenkins (2012) state that PSKTs' reflection is an iterative process of critical thought about their disposition and the implementation of their decisions, and the revisions they make as a result. Ritblatt et al. (2013) suggest that PSKTs' reflection involves the integration and refinement of their knowledge and practices to ensure that quality teaching and learning take place in the children's early years. Hence, PSKTs' reflection can serve as a touchstone for them to discover and integrate inconsistencies between their beliefs and practices and, therefore, to learn to make better decisions and act more effectively in teaching situations (Caudle & Moran, 2012; McFarland et al., 2009; Nickel et al., 2010; Recchia & Beck, 2014).

Numerous empirical studies have pointed out the value of PSKTs' reflection in developing their teaching practice in state-run quality improvement initiatives. For example, Recchia et al. (2009) focused on the practicum placements of five PSKTs in the United States and how those experiences challenged their beliefs about quality in teaching and learning. By examining the participants' reflective journals from the diverse practicum placements throughout the programme, they found that various practicum experiences provoked distinct questions about the PSKTs' attitudes and thus changed their actions in their fieldwork. Through constantly reflecting on their learning experience, the PSKTs started realising that their idea of quality teaching must be informed by the children in their classroom and, therefore, that they must take multiple teaching practices into consideration to meet those children's learning needs.

In another example from the United States, DeVore et al. (2015) conducted participatory action research to examine how school-based institutional course in an undergraduate programme engaged PSKTs' reflection on teaching and learning in kindergarten. By analysing course materials and conducting classroom observation, they found that their participants' reflection pushed them to re-examine their perception of their teaching responsibilities, including in terms of teaching practices, children's learning needs, self-understanding and teamwork. As such, their competence in self-assessment and problem-solving was increased, and they were able to see beyond racial or cultural bias and to work with children and families professionally.

Another example is seen in the work of Layne and Lipponen (2016). They focused on ten Finnish PSKTs' learning experiences in an intercultural programme and how they changed their relationship with children. They found that each participant had a dominant perception of children's diversities in their educational context, which guided their observation and explanation of children's behaviour and values. Through taking part in consistent reflection and situated implementation in the programme, the PSKTs improved their ability to identify different children's cultural characteristics and to see each child's own diversity rather than pigeonholing them according to cultural categories such as race and religion.

Based on the existing literature discussed above, PSKTs' reflection on learning experiences in teacher training programmes could be regarded as a process for developing their competence as teachers (Isik-Ercan & Perkins, 2017). At the beginning of a teacher training programme, PSKTs might narrowly focus on the exercises to tell them what to work towards rather than fully experience the training to meaningfully complete and apply their knowledge. Over time, through the process of reflection, PSKTs should become equipped with more comparative and critical aspects of theory and practice in terms of where to develop their competence in kindergarten education (Beavers et al., 2017; Körkkö et al., 2016). In this sense, the PSKTs' act of reflection is significant and irreplaceable, because this substantive and overarching process helps them discover and integrate inconsistencies between their beliefs and practices in the programme.

As demonstrated in this section, PSKTs' reflection is an act of developing their competence as teachers in many teacher training programmes. However, it is impossible to assume that PSKTs' reflection must provoke their development. The reason is that, practically, PSKTs may be incapable of developing if they fail to make any effort to understand the reflection process or suffer in the discourse that results in the reproduction of educational inequities (Kim & Kim, 2017). In addition, in the based on my findings reported on in this thesis, PSKTs could just process the reflective practices as a task or assignment and not an act to reflect and form to learn (Cheng, 2019). What more important is that the empirical studies (for example, Beavers et al., 2017; DeVore et al., 2015; Isik-Ercan & Perkins, 2017; Körkkö et al., 2016; Recchia et al., 2009) have a lack of common grounding for the reflective practice, and so the discussion about PSKTs' reflection is too diverse to be compared and for reliable indicators to be drawn for how its process developed their competence (Collin et al., 2013). As such, the second research sub-question for this thesis is designed – **to investigate PSKTs' process of reflection in studying how their teacher competence is developed in these programmes.** This research sub-question

is vital because such investigation can gain us insight of how PSKTs' competence is developed during the training programme. In addition, this sub-question can extend the existing body of literature related to PSKTs' reflection and development in kindergarten teacher education.

2.4.3. Theoretical lens: Conceptualising the process of reflection

In Section 2.4.2, I captured that PSKTs' reflection is an act of developing their competence as teachers in the training programme, and as such the second research sub-question in the current thesis is to investigate PSKTs' process of reflection in the training programmes from their perspective. In this regard, this section further conceptualises the process of reflection through a theoretical lens. Following the theoretical discussion, I argue that the definition of teacher competence in kindergarten education is a product of PSKTs' reflection, which is subject to their first-person viewpoint and particular learning situation.

One of the most well-known works on the theoretical discussion of reflection was written by John Dewey. Dewey (1910) proposed that reflection is 'the act of searching for the way out of perplexity and hesitation that is directed towards bringing further facts to light' (p. 9). As such, if teachers can reflectively review and summarise ideas from their experience, they can derive their meaning and judgement when encountering future experiences (Dewey, 1963). In the ensuing years, scholars have considered how this kind of reflection processes can 'bring further facts to light'. For example, Manen (1977) explained how individual practitioners can transcend their inner growth when they engage in reflection in their learning. He conceptualised the process of reflection in three phases:

- **Technical reflection:** focusing on the technical application of knowledge;
- **Practical reflection:** analysing perceptions to orientate practical actions; and
- **Critical reflection:** inspecting fundamental value systems and concepts.

In the initial phase of reflection, individual teaching practitioners might first concentrate on the technical application of their educational knowledge and of basic curriculum principles to achieve a given purpose. However, a pragmatic form of deliberative rationality exists when there is a multitude of recommendations that offer alternative thoughts that conflict with an individual's original perceptions and beliefs. Therefore, individual practitioners might then start analysing and clarifying their personal experiences, meanings, perceptions, assumptions and presuppositions to orientate their practical actions. The last phase is critical reflection,

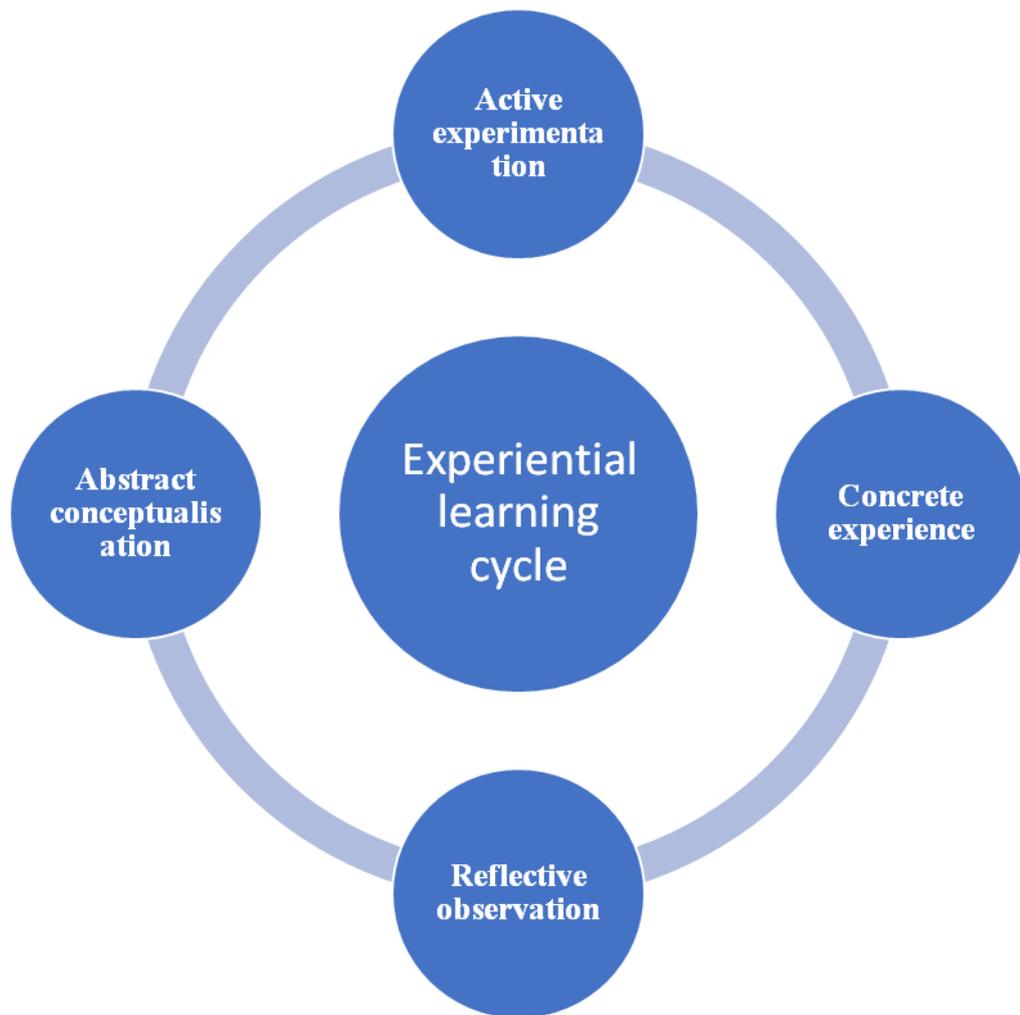
which is the highest level of rational consideration. Here, individual practitioners can start to transcend their inner growth because they can analyse and inspect their fundamental value systems and ideas rather than focusing solely on predetermined objectives or the result of an action.

This idea was further explored in the 1980s by Donald Schön, who believed that teachers should be reflective practitioners who know how to cope with situations of uncertainty rather than just the routine functions of the profession. Schön (1987) affirmed that reflection can help individuals to learn to cope with situations of uncertainty instead of routine functions. Schön also mentioned the concept of 'technical rationality' – a principle of solving a problem through the selection, from available means, of the one best suited to the established ends – and argued that it dominates various professionals' decisions and actions. However, he further pointed out that this rationality sometimes fails to help professionals to resolve dilemmas. This is because professional practices involve implicit knowledge, which is a kind of knowing that leads directly to action that is intelligent; however, it is difficult to describe it and to identify the procedure of how a desired result is produced. Therefore, he suggested that reflection on one's experiences could serve to lead individuals to become aware of their implicit ideas:

- **Reflecting on action:** reviewing and examining our experience after the event; and
- **Reflecting in action:** thinking about what we are doing during the event

Furthermore, Kolb (1984; 2014) presented an influential model – the 'experiential learning cycle' – to demonstrate how an individual practitioner develops through reflection on their learning experience. According to Kolb, an individual's perception develops through the dual dialectics of grasping (the process of taking in information) and transforming (how individuals interpret and act on that information) an experience. These two dialectically related modes consist of four phases (although these are not necessarily sequential) through which participants in an experience progress (as shown in Figure 1).

According to this cycle, the individual practitioner experiences, reflects, thinks and acts in a spiralling and recursive process where the learning situation is sensitive to them. However, these four phases do not occur separately from each other during the learning process. In contrast, they are completely intertwined and in dynamic flux – the dialectic opposition creates space for the individual practitioner to process the experience among all the realms in



- **Concrete experience:** getting the hands-on experience through participating in the learning activities;
- **Reflective observation:** reflecting through observation in their memory and the process of learning activities;
- **Abstract conceptualisation:** generalising the knowledge and theory from the previous experience based on the reflection; and
- **Active experimentation:** modifying existing concepts with the new knowledge and theory they have developed and applying it to future situations.

Figure 1. Experiential learning cycle (Kolb, 1984; 2014)

the cycle to make their learning possible. In this regard, the learning experience is the foundation for the individual to observe and reflect, modify the original idea and form the basis for further experimentation for creating unique experiences, and so the cycle continues.

The theoretical discussion above presented a justification of how PSKTs' reflection takes place as part of developing their teaching competence for kindergarten education in teacher training programmes. From these three examples, however it is important to note that PSKTs affirming new actions and decisions to change their practices for the better, is dependent on their renewed perceptions of teaching competence which might make sense from new and conflicting situations in a teacher training programme. For example, in terms of Manen's (1977) phases of reflection, PSKTs started to grow if they could review perceptions to orientate practical actions and inspect the fundamental values and concepts of their practice. In relation to Schön's (1987) model, PSKTs might be able to take the action that is intelligent in their professional practices but only when they could become aware of their implicit ideas and knowledge behind. Looking more closely at Kolb's (1984; 2014) experiential learning cycle, it is important to address that the PSKTs' practices to their future practice future situation is based on the renewed concepts with the new knowledge and theory they have developed in the learning situation where is sensitive to them.

How a PSKT chooses to reflect and what they choose to reflect upon are subject to their own will, and their choices can result in a variety of outcomes (Boud et al., 1985). Based on the examples, however, it is clear that they had to develop their competence in kindergarten education from modifying their perception of it. What more is that, with reference to Section 2.2, I argue that it is impossible to have a singular definition of teacher competence in kindergarten education. Hence, this thesis research focus is on PSKTs' perspective on teaching competence and how they define on them. This is because the definition of teacher competence in kindergarten education is a product of PSKTs' reflection which is subject to their personal viewpoint and is guiding their practical actions and decisions. Hence, after investigating PSKTs' reflection process in these training programmes, **the last research sub-question for this thesis is designed to research how the PSKTs' define teacher competence in kindergarten education in their perspective.**

2.5. Summary

Chapter 2 has reviewed existing literature related to teacher competence in kindergarten education and how the development of PSKTs' competence takes place in teacher training programmes. **The first half of the chapter** defined teacher competence as an integrated set of knowledge, skills and attitudes that lead teachers to take effective actions. There is no single definition of teacher competence in the field of kindergarten education; rather, researchers have broken down its definition to multi-faceted dimensions. Further to the Hong Kong government's suppositions regarding the mandatory credential requirements for being a kindergarten teacher, I discussed the debate around credentialism – a view in which teacher competence in kindergarten education is associated with teachers' credential levels.

Considering both sides of the debate, I argued that it oversimplifies the variety of contextual factors across teacher training programmes and the development of PSKTs' competence. As a result, I suggested that the current thesis should move beyond the debate and focus in depth on the PSKTs' learning experience in teacher training programmes competence.

The second half of the chapter continued the discussion with a focus on the importance of teacher training programmes in PSKTs' development. Alongside the mandatory credential qualification, teacher training programmes have another function of preparing PSKTs work competently in a kindergarten. More importantly, PSKTs' reflection can be regarded as an act of their learning in teacher training programmes to develop their competence for working in the field. Therefore, the first and second research questions for the current thesis are related to PSKTs' learning experiences and reflection process of how they reported they had developed their competence.

The last section of this chapter explored the process of reflection with reference to theoretical discussions. Through the theoretical lens, I emphasised that PSKTs' practical actions and decisions in the workplace is subject to their most updated concepts of teacher competence in kindergarten education which is adhered to their subtle significations of the lived meaning in their own situation. Therefore, there is not a singular definition of teacher competence in kindergarten education. It is because the definition is a product of PSKTs' reflection which is subject to PSKTs' first person viewpoint and their particular learning situation. This discussion point justified the third research question in which it is designed to research how the PSKTs' define teacher competence in kindergarten education in their perspective, and

also the qualitative methodological approach, which will be discussed in-depth in the next chapter.

Chapter 3: Research Design

3.1. Introduction

This chapter outlines the methodological dimensions that describe the research process. In demonstrating how a qualitative research method can contribute to the thesis, I discuss the research design in terms of the methodological principles of narrative inquiry and relational work in educational research. After discussing why and how the multiple narrative case approach is adopted in the research design, I present the epistemological and ontological perspectives, as well as the researcher's own position in the thesis. Then, I explain the data collection process, clarifying the research site, programme curriculum, research tools, collection procedures and ethical issues related to access to the research site, recruitment, safety and privacy. In the final part of this chapter, I describe the data analysis procedure, demonstrating how the thematic analysis relates to the consideration of the trustworthiness of the findings, guided by the multiple narrative case approach.

3.2. Qualitative research method

This thesis focuses on how PSKTs' teacher competence for kindergarten education is developed in teacher training programmes. As discussed in the literature review in Chapter 2, this thesis places emphasis on PSKTs' personal viewpoint and experience in their situated training programme and learning context; therefore, the research design comprises a qualitative methodological orientation. This type of method was selected because its design generally allows for 'inquiry into selected issues in great depth with careful attention to detail, context and nuance' (Patton, 2002, p. 227). Additionally, the researcher can 'focus on individual meaning, and the importance of reporting the complexity of a situation' (Creswell & Creswell, 2018, p. 51). Sallee and Flood (2012) summarise **three strengths of the qualitative research method, explaining why this method should be used in educational research:**

- It allows the researcher to develop a holistic understanding of the setting and of how participants behave within that setting;
- It helps the researcher to capture meaningful data that adhere to the uncertainty that often accompanies life in schools; and

- The rich narratives can help to capture participants' everyday experiences that would remain hidden in the numerical anonymity of quantitative data.

Generally, a qualitative research method is an orientation that facilitates exploration of a phenomenon within its context in depth. However, this type of method offers many alternative directions and a variety of data sources (Baxter & Jack, 2008). The current thesis employs a multiple narrative case approach, which is not exclusive to the qualitative research method. In the next sections, I present a discussion of narrative inquiry and then outline how educational studies can benefit from relational design. Then, I introduce the multiple narrative case approach (Shekedi, 2005) and why it has been employed as the methodological approach to guide the data collection and analysis in this research.

3.2.1. Narrative inquiry

Narrative inquiry refers to the narrative-based research design within the humanities that investigates individuals' stories that represent their own lives (Riessman, 2008). In other words, it involves studying the content of participants' narratives and generating understandings of how their personal interpretations influence their values, beliefs and actions. At the very core of the idea of narrative inquiry resides an issue discussed by Taylor (1985), who offers a detailed phenomenological critique of the nature of narrative in relation to individuals' values and identity changes. Taylor argues that narratives 'cannot be considered as merely a view on reality, separable from reality, nor as an epiphenomenon, which can be by-passed in our understanding of reality' (p. 47). Rather, he addresses those individuals' narrative of reality is constructing of what we are. He states that a given emotion that we experience involves experiencing our situation as being of a specified kind or having an individual property. This property is something 'relevant or of importance to the desires or purposes or aspirations or feelings of a subject; or property of something whereby it is a matter of non-indifference to a subject' (p. 48). Hence, the emotion is an individual's response to their experienced situation and bears their desires or purposes or aspirations or feelings simultaneously. Amongst the properties of an experienced emotion, Taylor identifies the 'subject-referring properties' as the contribution of an individual narrative of 'what we are'. As such, the narrative with the given emotion corresponds to the individual's understanding of 'as subject qua subject' – how they regard themselves as being a person, how they interpret themselves as being a member of their community and how they value the essential dignity of the individual in an experienced situation in real life.

Taking this discussion further, Ricouer (1992) also highlights that a narrative is not a simple objective fact; rather, it involves interpretation of stories about individuals' social relationships and history. In his discussion, how individuals narrate themselves comprises an inextricable tie between two types of identity – sameness (*idem*) and selfhood (*ipse*). **Sameness** concerns the question 'who am I?', i.e. how to recognise an individual as the same person over time with uninterrupted continuity. This refers to the concept that, whatever changes about an individual through their experiences (e.g. getting old or changing shape), others still consider them to be the same person, even if they have become empirically and qualitatively different. **Selfhood** is situated within quite a different perspective and does not exist in permanence; rather, it emerges from the individual's narrative. It is a product of overlapping the questions of 'who am I?' and 'what am I?' in the idea of keeping one's word according to the individual. In this sense, an individual gives permanence to their own being and affirms their identity across time by keeping their word. In other words, by keeping a promise, the individual recognises and creates a continuity of their life as a person over time. An individual's sense of identity involves an overlap between sameness and selfhood, and the mediating process between the two implies the underlying nature of dialectical innovation and sedimentation. From this perspective, an individual can continuously keep their word and actively identify as present in the future. On the other hand, they can reinterpret the 'already interpreted' according to a new expression of who they are. Therefore, the individual's narrative does not merely tolerate the variations of interpreting their identity – 'it engenders them, seeks them out' (Ricouer, 1992, p. 148) in everyday experiences.

Narrative inquiry, therefore, rather than regarding the participants merely as objects and sources of information, comprises **four characteristics of relational work** (Bartels, 2015):

- The meaning of a narrative is open to change as it is a provisional representation of a situation that could still take unexpected turns;
- Narratives reflect the idiosyncrasies of specific people and inevitably involve their stance and judgement;
- Narratives are not just random stories about given individuals and their situations – they represent their beliefs and values about the underlying everyday issues in a specific setting; and

- Narratives function as an explanation of an individual's particular course of action in a complex context.

These characteristics imply that narratives are a meaningful whole comprising individuals' emotions, values, beliefs, visions and perceptions. Regarding the narrative inquiry, we are all storied individuals who are carrying around a repertoire of explanatory and justificatory stories about our experiences (Riessman, 2008). In this view, individuals' narratives are 'the construction and expression of their understanding of social reality as well as the reflection and production of their self and identity' (Kenny et al., 2011, pp. 26–27). Hence, for researchers, participants' narratives do not only consist of the explicit text; they also represent a product of the complexity of their experiences in a specific and complicated context.

3.2.2. Narrative inquiry in educational research

Narrative inquiry is an effective research design for uncovering and chronicling life histories or critical events linked to the personal and professional lives of participants in educational settings (Clark & Marsha, 2010; Kohler, 2005). This design even offers the educational discussions a spark and intellectual move from what might be staying tune on the surface of teaching and learning (Clandinin & Connelly, 2000). Therefore, it is not difficult to understand why a growing number of researchers in the educational field are adopting narrative inquiry in designing their work (e.g. Allard & Doecke, 2016; Lutovac & Kaasila, 2018; Pinho & Andrade, 2014; Wrench, 2017; Wrench & Garrett, 2012) to obtain rich insights into the lived experience and practices of both in-service teachers (e.g. Adams, 2017; Carrillo & Baguley, 2011; Carter, 1993; Cheng, 2016; Dahl, 2015; Erickson & Pinnegar, 2017; Pisto et al., 2016; Sisk-Hilton & Meier, 2016; SoReide, 2006) and pre-service teachers (e.g. Atilas & Pinholster, 2013; Beltman et al., 2015; Cross & Ndofirepi, 2013; Marsh, 2002; Timoštšuk & Ugaste, 2012).

For instance, Layne and Lipponen (2014) conducted a study focused on ten PSKTs' narratives of their learning experiences in a Finnish teacher training programme and how they perceived and worked with children and families from diverse backgrounds. Another example is the Canadian study conducted by Chang-Kredl and Kingsley (2014). They collected 53 PSKTs' narratives to examine their identity expectations and to explore their memories that influenced their reasons for entering the kindergarten teaching profession. Delaney (2015) studied a single veteran teacher's narrative of her first year of teaching in an

American kindergarten, to address that how the participant made the decision through engaging in the negotiation of her varied conceptions, expectations and assumptions of best practices.

The examples above have already evidenced that the participant's narratives function as valuable data in educational research that can reveal the changing of their professional self and the pursuit of consonance among the conflicting idea of practices in a particular learning context. In this regard, a narrative is clearly not simply a rhetorical device for expressing a participant's sentiments about their experiences. Rather, it reflects a sequence of events that brought their roles, obligations, practices and assumptions about teaching and learning together in unique and divergent ways (Goodson & Choi, 2011). As such, by capturing pre-service and in-service teachers' storied experiences, researchers can make use of participants' narratives as data to reveal their understanding of their practices and the complexities of the perspectives they hold in their particular educational context (Craig, 2018).

3.2.3. Multiple narrative case approach

For the current study, adopting a narrative inquiry design allowed the researcher to study the complexities of PSKTs' learning experiences and the development of their teaching competence. Given the proliferation of narrative inquiry, however, there is a lack of consensus for a specific design for this type of study (Riessman, 2008). As shown by the examples cited in the previous section, narrative inquiry can exist simply from a story of a few target participants to a piece of extended evidence to a research question.

Narrative inquiry is not perfect; in fact, paradoxically, it can increase the constraints on research practices. In carrying out narrative inquiry in a qualitative research, researchers can become involved in a protracted data collection process around one or two cases to explore their narratives richly in a collective case study. With a small sample group of participants, the researcher could easily dismiss some vignettes because they do not carry the weight of the deeper and longer narratives collected in a small number of cases. However, if similar stories are told by many other participants, these elements of the narrative could then be regarded as representing an important event that reflects the participants' beliefs (Cortazzi & Archer, 2002).

To provide a balance between qualitative and quantitative account, and to ensure the success of the data collection and analysis, the current thesis is strategically guided by a multiple

narrative case approach (Shekedi, 2005), which allows for a larger number of PSKTs' narratives to be involved. Shekedi (2005, p. 27) identifies the research strategies of multiple case narrative studies in comparison with the collective case study approach, as summarised in Table 5.

Within a multiple case narrative approach, although some detail and depth may be sacrificed, a briefer interview can still elicit narratives about PSKTs' learning experiences as well as their reflections on and definitions of teacher competence in kindergarten education. This approach is used to guide the research design for the current thesis for a number of reasons.

1. The multiple narrative case approach preserves a similar qualitative narrative nature to that of collective case studies and can provide an in-depth analysis of the phenomena, which is required by the research question;
2. This approach can 'overcome the weakness of generalising to population immanent to single and collective case narratives' (Shekedi, 2005, p. 24), so raised from the sample size can enhance the application of the findings to similar contexts; and
3. As the current study involves insider research (as discussed in Section 3.3.2 below), this approach has a strong advantage in identifying broad patterns across a wide variety of case narratives, while preserving the traits that may appear in collective case or a single-case narrative.

3.2.4. Summary

First, I situated the thesis qualitatively because the research aims to emphasise PSKTs' first-hand views on teacher competence and their own unique learning context. Regarding narrative inquiry, I argue that teachers' narratives expose their understandings of their practices and the complexities of the perspectives they hold in their particular educational context. Therefore, the thesis **makes two assumptions in using narratives as the source of the research data:**

- There is not a single fixed meaning of teacher competence because it is a product of and constituted by PSKTs' individual narratives in response to their unique learning experiences; and

	Collective case study	Multiple case narratives
1. Type of data	Primary 'raw' data	Primary 'raw' data
2. Varieties of data	Variety of triangulation data: observations, interviews and documents	Mainly interviews – sometimes also observations and documents
3. Data collection procedures	Qualitative methods	Qualitative methods
4. Sample	Sample of selected 'new' informants	Purposive sample of selected 'new' informants
5. Case context and identity	Every single case preserves its context and identity	Every single case preserves its [general]context and identity
6. Data analysis methods	Qualitative methods	Qualitative methods
7. Representation of cases in the final report	Combination of single and collective case representation	Narrative cross-case representation
8. Claim to generalisation	Case-to-case and qualitative analytic generalisation	Qualitative generalisation to population, analytic and (sometimes) case-to-case generalisation
9. Number of cases	From one to not more than ten	From ten to several hundred

Table 5. Comparison between collective case study and multiple case narrative study

- PSKTs' narratives bring about a mediated opportunity to continually forming the meaning of teacher competence.

Based on these two assertions, this thesis intensively draws attention to PSKTs' narratives of the perceptions, emotions and feelings they have derived from their learning experiences in a teacher training programme as these are data that give permanence to their beings and affirm their perspectives and actions over time.

The richness of the narratives provided by the target participants is expected to give insights into the complicated nature and features of their development, which might not be obtained by other means or research designs (Cooley, 2013). An alternative would have been to gather data around one or two cases to explore their narratives in more depth in the selected context. However, the drawback of collective case (a single-case) narrative study is that its scope is fairly limited; therefore, the findings are not always widely generalisable and the reader can easily identify the participants' personality traits. The multiple narrative case approach, meanwhile, allows me to draw on a much wider number of PSKTs' narratives and qualitatively generalise broad patterns across a wide variety of cases regarding their learning experiences, their development and their definitions of teacher competence.

3.3. The researcher's position

The research location is the researcher's workplace, which is one of the major government-funded institutions offering recognised PSKT training in Hong Kong (further discussion in Section 3.4.1). As such, the researcher is aware of and recognises the position and perspectives I bring into this thesis due to my status as both a researcher studying the learning experiences of PSKTs and a lecturer working at the research site. Approaching the thesis from an insider role presents potential opportunities and challenges for the research process. Therefore, this section articulates the researcher's positional concern as well as the epistemological and ontological perspectives that have influenced the research design.

3.3.1. Epistemology and ontology

To demonstrate the foundation on which this thesis is built, it is vital to clarify more explicitly the researcher's own epistemological and ontological positions. These positions refer to the beliefs and assumptions about reality and knowledge, respectively that the researcher brings to the study. As such, they have contributed to the selection of a particular

methodological approach in designing the research (Creswell & Creswell, 2018). For both positions, the current researcher's stance is based on constructivism (Lohmeier, 2018):

- Ontology is concerned with the nature and relations of reality. The world is seen as complex and interconnected, and reality cannot be understood outside situational contexts and historical conditions.
- Epistemology is concerned with the nature and scope of knowledge. In this respect, knowledge is viewed as being constructed 'by linking new information to what we already know, rather than simply being passive recipients of knowledge' (p. 383).

Subject to the researcher's disposition, the approach of this thesis holds that PSKTs take an active role in developing their subjective views of the meaning of teacher competence from their experience and the context in which they are situated. In other words, their viewpoints are partially constitutive of the practices that they relate to teacher competence in kindergarten education. As such, the researcher has not taken the position of an outside observer who intends to measure the participants' standards of teacher competence positivity. Rather, the aim is to stay as close as possible to the PSKTs' experiences and viewpoints, because their accomplished teacher competence is most meaningfully constructed in light of the particular events they are asked to narrate.

3.3.2. The researcher's position as a teacher educator and an insider

To capture the PSKTs' learning context and their first-hand viewpoints in depth, the researcher's workplace was selected as the research site, and the study researches the PSKTs' views regarding the higher diploma programme at this institution (further discussion in Section 3.4.2). Costley et al. (2010) discuss how the insider researcher role functions in terms of undertaking a work-based thesis. An insider is in a unique position with specific knowledge of, and advantages in dealing with, the complex situation of the participants. This insider role is vital in allowing the researcher to comprehend the intricacies and complications of the issue in a detailed and thorough manner. However, Berger (2015) highlights three major ways in which this role might impact the research:

1. The researcher might affect the access to data, because they might be more knowledgeable about the situation and may potentially help the respondent to share their experiences;

2. The researcher might dominate the researcher–researched relationship, which may affect the information that participants are willing to share; and
3. The perspective and background of the researcher might affect the way in which they filter and make meaning out of the information gathered from participants, and thus these factors may shape the findings and conclusions of the study.

Given the fluidity of the researcher’s positions, the current study was carried out with an awareness of the drawbacks of insider research throughout all phases, including when collecting and analysing the data and when drawing the conclusions (Toy-Cronin, 2018). In making clear to the participants the distinction between their roles, the researcher took several actions to deal with role conflict and to minimise the impact of the dependency of pre-existing teacher–student relationships during data collection (further discussion in Section 3.4.5). Gathering data as an insider also raises another issue concerning the truthfulness of the findings. Several steps were taken to ensure reliability and validity in the process of analysing the data; for example, careful attention was given to member checking and translation, and the data analysis procedures are presented explicitly in the thesis (further discussion in Section 3.5.2).

3.4. Data collection

As discussed in the previous section, the thesis assumes that the richness of narratives provided by PSKTs can provide insights regarding their perspectives on teacher competence in kindergarten education. Hence, the researcher conducted 17 participant-led photo-elicitation interviews to discover what learning experiences developed their teacher competence in kindergarten education and how their own self-reflection supported this throughout the two-year higher diploma programme at a single research site – Institution A. In this section, I introduce the research site to offer the reader a brief background of the research context. I then discuss the sample size and the participants and explain how the participant-led photo-elicitation approach contributed to the research design. In describing the data collection procedures, ethical issues such as informed consent and the safety of the interviewees are also addressed.

3.4.1. Research site

This research was carried out at the researcher's workplace – the Department of Childcare, Elderly and Community Services (CECS)⁷ at Institution A. Institution A comprises five disciplines in total: Applied Science; Business; Childcare, Elderly and Community Services; Engineering; and Information Technology. The mission of Institution A is to build the type of competent workforce that is needed in a knowledge economy like Hong Kong. Aiming to provide study opportunities to post-secondary students and working adults, it offers qualifications from certification level to post-graduate programmes across all its disciplines. In Hong Kong, people who intend to work in a kindergarten must attend, at minimum, a higher diploma course in early childhood education, which usually takes two years to complete. The two-year full-time higher diploma in Childcare and Education offered by Institution A's Department of Childcare, Elderly and Community Services is a programme designed to meet the needs of students with certain attainment levels in their secondary education (further discussion in Section 3.4.2). Graduates from the programme can register as QKTs and obtain permits to teach in kindergartens in Hong Kong. In the past three years, over 1,500 PSKTs have graduated from this higher diploma programme, representing approximately 10% of the total employed childcare workers and kindergarten teachers in Hong Kong in 2018/19. As such, it was chosen as the only research site for two reasons:

- It is the largest and oldest authorised tertiary-sector institution in Hong Kong offering an EDB-recognised early childhood education programme; and
- It is the researcher's workplace, placing the research in an advantageous position in dealing with the complex learning situations of PSKTs.

3.4.2. Higher Diploma in Child Care and Education

3.4.2.1. Overview of the programme curriculum

The two-year full-time higher diploma in early childhood education is a government-funded programme. It is mainly intended for secondary school and diploma graduates in Hong Kong who have no prior experience of working with children under five years old. Graduates of the

⁷ The department provides higher diploma and professional development programmes in the field of Early Childhood Education, Social Services and Community Education, and Social Work.

programme can register as QKTs with the equivalent of a Certificate in Early Childhood Education, which is a requirement under the Education Ordinance, and as childcare workers and childcare supervisors under the Child Care Services Regulations in Hong Kong. To enable students to pursue careers as kindergarten teachers and administrators in the early childhood education industry, the programme expects the graduates can achieve the following programme intended learning outcomes [PILOs] upon completion of the training (see table 6 for mapping of PILO):

1. Integrate knowledge and skills of child development to plan and evaluate educational and inclusive educational programmes for the benefits of various stakeholders in the early childhood education context;
2. Make appropriate judgment on policies, approaches and practices in designing various educational programmes, including environmental and health programmes, for the diversity of children, parents and communities;
3. Analyze the impacts of cultural, social, economic & political factors in Hong Kong, China and international contexts on the development of early childhood education;
4. Perform professional responsibilities as an early childhood educator by analyzing situations with appropriate work ethics;
5. Implement and evaluate various teaching and learning strategies for benefits of children aged 0-8;
6. Communicate effectively in both verbal and written form, perform research, IT, numerical and soft skills so as to work individually and collaboratively to enhance work effectiveness;
7. Reflect on personal learning needs and construct a personal development plan for employment and/or further study upon learning experience gained throughout the programme.

While the programme emphasises preparation for future careers in the field of early childhood education, the programme curriculum is designed to equip them with the necessary practical and professional knowledge and skills, initially at paraprofessional level, via the

blending of theoretical knowledge and practical application. The programme is designed based on a spiral process that connects theory and practice – its curriculum covers pedagogical studies, teaching experience (work placement) and generic skills. The content spans the duration of study and can be divided into the components of general education and vocational education as shown in Figure 2.

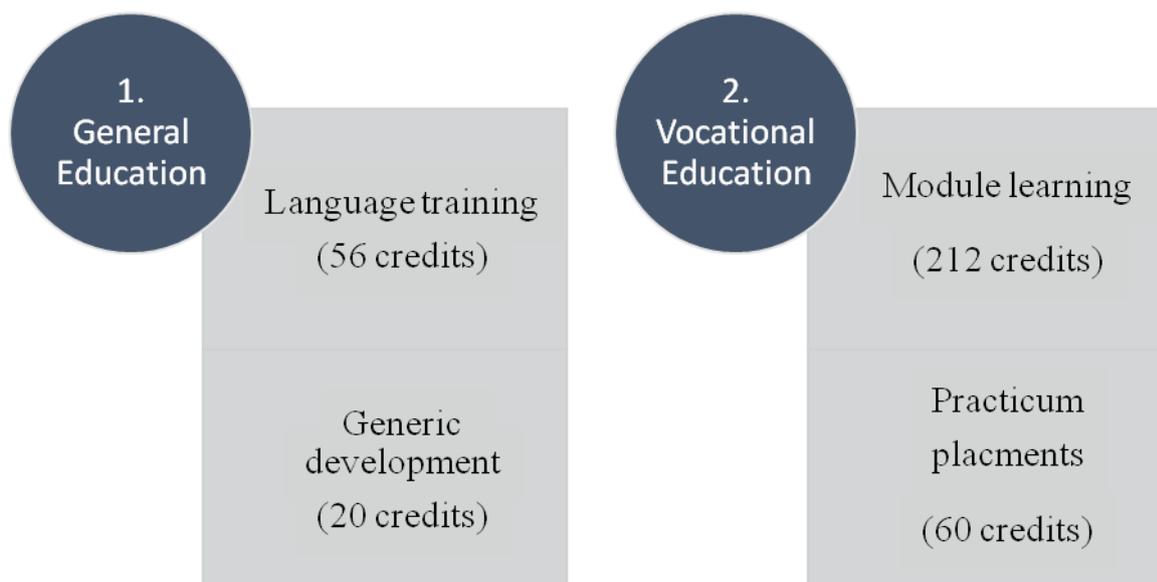


Figure 2. Overview of the programme curriculum

In total, the programme comprises 354 credits. The general education component covers language training (English and Mandarin) and generic development (communication skills and physical development), accounting for 76 credits. The vocational education component includes module learning (212 credits) and practicum placements (60 credits).

3.4.2.2. Curriculum design

The expected learning outcomes are to be attained through a curriculum structure that provides students with specific knowledge and skills, together with the necessary language, information technology, interpersonal and other generic skills for employment and further study. In this section, I address the design of the programme curriculum – both for the general education and vocational education component – and explain how it mapped with the programme intended learning outcomes.

General education component

The general education component is designed by the campus office – student development office and the language centre. The language centre takes up the duty in offering vocational language training in English and Chinese to students. To meet the vocational needs of professions, the centre offers seven language modules to equip students with language skills for work and study. The student development office, meanwhile, offers a range of modules that focus on nurturing the students with appropriate attitudes and values for personal growth as well as their future career development. Table 6 shows how the module components maps with programme intended learning outcomes.

Vocational education component

The vocational education component includes module learning and practicum placements. Module learning refers to the institutional coursework, which are mainly conducted to teach the students main concepts of the topics covered in the module, with a view to further applying the knowledge in their practice. Apart from lecturing, various types of learning activities, such as discussion, case studies and e-learning, is integrated into the coursework to promote active learning. Practicum placements in the curriculum refers to an industrial attachment that aims to provide students with a better understanding of the work placement and facilitate form study to work. Different learning and learning strategies such as sharing of experiences, evaluation of work assignments, and self-reflection on areas for improvement are adopted during the placement period.

Module learning

In this programme, the vocational education component covers the professional knowledge of early childhood education, combining five key domains: child studies, parental involvement & administrative management, foundations of early childhood education, curriculum in early childhood education, and children with diverse needs. To meet the learning needs of PSKTs, the department encourages the teacher educators to adopt a mixture of learning and teaching approaches and strategies, including lectures, tutorials, project work, group work, guided learning in both laboratory and practical contexts, case studies and cross-border visits. The mapping of the module learning with PILOs is summarised in Table 7:

Module Title	Programme intended learning outcomes						
	1	2	3	4	5	6	7
Language Training							
• English & Communication: Workplace Interaction	✓				✓	✓	
• English & Communication: Workplace Correspondence			✓	✓		✓	
• English & Communication: Promotional Materials	✓		✓	✓		✓	
• English & Communication: Reports	✓			✓		✓	
• English & Communication: Persuasive Presentations					✓	✓	
• Vocational Chinese Communication: Putonghua Conversation and Reports			✓			✓	
• Vocational Chinese Communication: Putonghua Presentations and Promotional Text Writing	✓					✓	
Generic Development							
• IT Essentials - Services						✓	
• Whole Person Development - Mindshift: Achieving Personal Growth & Effectiveness		✓		✓		✓	✓
• Whole Person Development - Collaboration, Teamwork & Social Engagement	✓	✓	✓			✓	✓
• Whole Person Development - Enhancing Competencies in the 21st Century Workplace				✓	✓	✓	✓

Table 6: Mapping of general education component with programme PILOs

Module Title	Programme intended learning outcomes						
	1	2	3	4	5	6	7
Domain 1: Child Studies							
• Child Development	✓		✓				
• Applied Psychology	✓		✓		✓		
• Observation and Assessment in Child Study	✓		✓				
• Research Studies in Early Childhood Education			✓			✓	✓
• Health and Care for Infants and Children	✓	✓	✓	✓			
Domain 2: Parental Involvement & Administrative Management							
• Families in Contemporary Society		✓	✓				
• Family Involvement in Early Childhood Education		✓	✓				
• Leadership and Management in Early Childhood Settings		✓	✓	✓			
Domain 3: Foundations of Early Childhood Education							
• Professional Growth of Early Childhood Educators				✓		✓	✓
• Contemporary Issues in Early Childhood Education			✓				✓
Domain 4: Children with Diverse Needs							
• Children with Diverse Needs	✓	✓		✓	✓		
• Practical Skills in Supporting Children with Diverse Needs	✓	✓		✓	✓		
• Working with Children (Persons) with Diverse Needs (Elective)	✓	✓		✓	✓		

Module Title	Programme intended learning outcomes						
	1	2	3	4	5	6	7
Domain 5: Curriculum in Early Childhood Education							
• Contemporary Development in Early Childhood Education			✓				✓
• Creative Play	✓	✓		✓	✓		
• Curriculum for Language Development in Early Childhood Education	✓	✓		✓	✓		
• Curriculum Design and Technology in Early Childhood Education	✓	✓		✓	✓		
• Theory and Practice in Teaching Approaches	✓	✓		✓	✓		
• Supporting Non-Chinese Speaking Children and Their Families (Elective)	✓	✓	✓	✓	✓		
• Green Education in Practice (Elective)	✓	✓		✓	✓		
• Infant and Toddler Curriculum in Practice (Elective)	✓	✓		✓	✓		

Table 7: Mapping of vocational education component with programme PILOs

Practicum placements

Alongside the module learning, every student must complete two compulsory in-service placements – a fieldwork placement and an advanced placement – comprising a total of approximately 600 hours of professional training throughout the programme (as shown in Figure 3). As stated in the curriculum, the first fieldwork placement starts in the second semester of the first year of study. This first placement serves as a pre-requisite module for undertaking the second advanced placement. In both placements, students are placed in a local kindergarten for a month on a full-time basis. During the month, they assist with the kindergarten’s daily operations and design and independently deliver a series of lessons (physical activities, music, language, science and mathematics). In facilitating students’ learning, the department assigns a fieldwork supervisor to work closely with the kindergarten superintendent to monitor their performance. Before the start of each placement, the fieldwork supervisor attends a compulsory first meeting with the student to assist them in orientating themselves towards the learning theories and applying them in their work. To ensure the placement learning prepares students to become high-quality kindergarten teachers, the fieldwork supervisor continues to assess each student’s learning outcomes through individual and group supervision, class observations, poster presentations, lesson plan designs and individuals’ reflective journals.

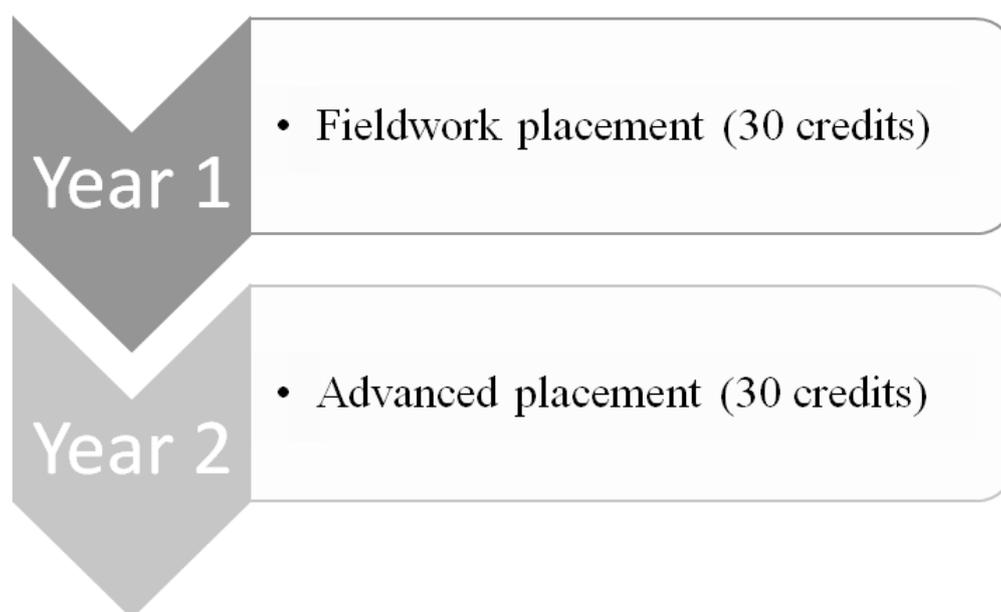


Figure 3. Overview of practicum placements

3.4.3. Participant-led photo-elicitation interviews

An interview is one of the most powerful tools for gaining an understanding of participants and for accessing their perceptions, meanings and definitions of situations as well as their constructions of reality (Punch, 2014). Providing a schedule with a list of relevant issues for a semi-structured interview allows for both the researcher and the interviewee to follow up on certain points if necessary (Thomas, 2011, p. 163). To gain in-depth access to participants' perspectives and values, and to highlight the participants' narratives (Richard & Lahman, 2015), an image-based method was also used in the interviews for the current study. This method is useful because not only captures the scene, freezing it in time for subsequent analysis, but it can also establish a reciprocal relationship between the researcher and the participant to help start the conversation (Silverman, 2011, p. 166). Most importantly, it can 'offer a visual dimension to the unobservable thoughts, feelings, experiences, and understandings' (Richard & Lahman, 2013, p. 4). Additionally, it can motivate participants to respond to the researcher in detail about what the images conveyed mean to them (Hanson et al., 2016; Leonard & McKnight, 2014; Petermans et al., 2014; Wells et al., 2012).

From the available image-based methods, participant-led photo-elicitation design was selected for this research. In this design, the pictures taken are inserted into the interview. As such, the researcher can ask participants to portray some aspects of their experiences through the photographs taken (Alexander, 2013; Justesen et al., 2014; Petermans et al., 2014). With this technique, it is assumed that the participant-driven nature enables the researcher to capture the participants' surrounding context and to explore their emotions and memories that may be difficult to articulate through more conventional methods (Alam et al., 2018; Hanson et al., 2016). To ensure the research tools were appropriate for the research purpose, the researcher first conducted a pilot interview. Using Castillo-Montoya's (2016) Interview Protocol Refinement Framework, a report was compiled on the pilot study ([Appendix One](#)), and the photo-elicitation instructions ([Appendix Two](#)) and interview schedule ([Appendix Three](#)) were systematically refined and finalised.

3.4.4. Data collection procedure

The data for this study were collected via participant-led photo-elicitation interviews with the aim of exploring PSKTs' learning experiences and narratives in depth. Purposive sampling was used because selecting information-rich cases can help to generate insights into and an understanding of the central phenomenon (Creswell, 2008; Creswell & Creswell, 2018).

Contact was made with PSKTs who were in the final year of the recognised full-time higher diploma programme in childcare and education and were aged over 18. A total of 17 participants were recruited, aged between 19 and 26. The female-to-male ratio was 15:2 as similar as the program enrolment which is predominantly female. The demographic characteristics of interviewees as summarised in Table 8.

Interviewee	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Gender	F	F	F	F	F	F	F	F	F	F	F	M	F	F	M	F	F
Age	21	22	20	24	22	19	20	20	20	20	22	26	22	23	20	20	20

Table 8. Demographic characteristics of interviewees

All of the individual interviews were conducted between May and August 2019. A photo-elicitation interview of one hour's duration was conducted with each participant. From the recruitment to the interview, generally, the procedure involved four steps:

- A colleague of the researcher was invited as an independent individual to distribute the initial invitation to the target group and encourage the potential participants to discuss their participation with departmental colleagues for support in making their decision if desired;
- Once the participant had agreed to attend an interview, they were provided with a sheet of photo-interview instructions ([Appendix Two](#)) that asked them to take photos of what was important to them in their tertiary learning. I asked participants to photograph things that showed what they thought represented a professional kindergarten teacher and that illustrated their understanding of teacher competence.
- Once the pictures were ready, the participant was asked to come in for an interview as soon as was practicable to ensure that their memories of taking the photos would still be fresh in their minds.

- During their interview, each interviewee was asked to share the photos they had taken. The researcher saw these photos for the first time in the interview. Interviewees were asked about each photograph and to share the stories behind them.

Before each interview commenced, the nature of the thesis was described to the interviewee via the consent form and information sheet. The consent form was approved by the Faculty of Arts and Social Sciences and Management School Research Ethics Committee of Lancaster University in May 2019. Each interview session was only commenced once the consent form was signed, and all interviewees fully understood the nature of the research.

All the interviews were conducted in Cantonese so that the interviewees would feel comfortable conversing and expressing concerns in their first language. The interviews were conducted in a conversational manner and audio-recorded. Besides, it was important for the interviewees to determine how the interviews proceeded. To maintain that key role, the researcher facilitated and guided the interviewees, rather than directing them. That is, the interviewees were encouraged to tell their stories rather than being asked to answer direct questions. This allowed the researcher to access the participants' in-depth accounts and to explore any new areas they raised.

3.4.5. Ethical considerations

Ethical issues are more likely to arise in a qualitative research, because this type of research usually intrudes into people's lives to some degree (Punch, 2014). In this sense, the researcher also took various measures in respect of the research site, recruitment, safety and privacy to ensure that the interviewees were ethically protected throughout the data collection process.

3.4.5.1. Access to the research site

As the researcher works within the department where the study was conducted, accessing the research site did not present a significant obstacle. However, in the initial stages of the study, the researcher had explained to the department head why the institution was an appropriate site for carrying out the research and indicated how the programme and the PSKTs may benefit if they agreed to participate in the research. In order to establish the researcher's legitimacy and the ethical position in carrying out the study, finally, written official

permission to undertake the research was obtained from the department before data collection commenced on site.

3.4.5.2. Recruitment

As the researcher is a lecturer at the department, I held the authority of a teacher over the participants, and such a position of influence could compromise the voluntary character of participants' decisions. In consideration of the ethical constraints relating to power imbalances and dependent relationships, particular measures were taken throughout the recruitment procedure to minimise the impact of the dependency of the teacher–student relationship:

- To avoid participants expecting unrealistic benefits from the research, the researcher openly recruited the potential participants through the institution's intranet;
- The interviews were conducted after the completion of the programme (May–August 2019);
- Preference was given to PSKTs who were not the researcher's students in the relevant semesters.
- The consent form stated clearly that they were voluntary participants and that they were welcome to withdraw from the study at any time without any negative consequences or unfair discrimination; and
- A colleague to act as an independent individual whom the potential participants could discuss their participation with if necessary.

3.4.5.3. Safety

Concerning interviewees' physical safety, all the interviews were held in a discussion room at the campus during office hours. The researcher reserved the room through the institutional booking system to ensure that it was available for the interviews and that both the researcher and the participants could seek help from the institution if necessary. In terms of psychological safety, the researcher maintained an awareness of the participants' emotional responses. If a negative emotional response was indicated, the researcher acknowledged the importance of the participant's well-being and gave them time to express any significant

emotions. Additionally, the researcher had briefed a trusted colleague from the department so that departmental support could be requested during the interviews if required.

3.4.5.4. Privacy

With respect to individual privacy, interviewees could withdraw from the study at any time, before or during their interview and up to two weeks following their interview, without any consequences. The gathered data, including audio recordings, interview transcripts and pictures, were stored on university-approved (encrypted and password-protected) cloud computing services. They were only accessible by the researcher, and they will be deleted 120 months after the submission of the thesis.

In terms of safeguarding issues, all interviewees' identities have been protected by the use of pseudonyms or general references, such as Interviewee 1-F, where quotes from the interviews are presented. In photographs, it is usually impossible to preserve the anonymity of people and places, so no images that could readily identify interviewees or their friends or family members have been included in the thesis. For those photographs used in the dissemination of the findings, they either directly relate to the quotes and where used the faces of the interviewees are pixilated.

3.5. Data analysis

The data analysis procedure was undertaken began in June 2019 and finished in March 2020. Guided by the multiple narrative case approach, thematic analysis was used to review the findings and to identify thematic elements and the events participants narrated in relation to teacher competence and its development. The analysis process comprised two stages: the thematic stage, and the theoretical stage. In this section, I first outline the procedure of how the findings were processed through these two stages. Then, I discuss the issue of ensuring the trustworthiness of the findings.

3.5.1. Thematic analysis procedure

For the multiple narrative case approach, it is appropriate to apply 'thematic analysing with blocks of text (and not separate words) as the analysis unit', because this type of analysis 'treats text as a window into human experience'; furthermore, 'the context is of critical importance, and one cannot understand separate words outside of their immediate and peripheral context' (Shekedi, 2005, pp. 79–80). Guided by Shekedi (2005), the data analysis

process in the current thesis thus comprises two stages, as mentioned above: a thematic stage, and a theoretical stage. The major difference between these two stages is that the thematic stage emphasises constructing a focused narrative description, while the theoretical stage is focused on conceptual–theoretical descriptions and on explanations of the phenomenon under inquiry.

3.5.1.1. Thematic stage of analysis

In the thematic stage, the analysis is content-driven and is not grounded in any particular conceptual framework. This stage is free from specific theoretical limits, and the themes identified by the researcher need to accurately reflect the content of the entire dataset. In other words, the researcher has to identify themes from the dataset only referring to the research questions. Please see Appendix Four for the coding sample. Technically, the coding steps and the data processing in this study were conducted in an iterative, recursive and rigorous manner, with movement back and forth between different phases.

- First, the researcher transcribed verbatim the audio-recorded dialogue within a week of finishing each interview. By reading and re-reading the data, the aim was to become immersed and intimately familiar with the data over the next week after the transcription.
- After preliminary exploration of the data’s general sense through reading the transcripts in their entirety, memos were written and succinct codes were generated to identify the dialogue that contained important features that could help to answer the research questions.
- After coding the entire dataset, all the codes were collated and examined to identify important broader patterns among the relevant data extracts, similar codes and redundant codes were then grouped in lists for the potential themes and the later stages of analysis.
- The dataset was crosschecked with the potential themes and selected specific quotes to determine whether the data were convincing, responsive to the research questions and clustered around the central organised concept.
- For the final step, the list of codes was reduced and similar ones were aggregated into themes for the findings.

3.5.1.2. Theoretical stage of analysis

This stage was conducted based on the results of the previous coding analysis process, and it involved more of a focus on the conceptual framework. The analysis aimed to follow the ‘narrative-based theory’ suggested by Shekedi (2005), which is grounded in what interviewees describe as their lived experience:

The kind of theories that evolve from the study of specific phenomena is based on the informants’ point of view... What informants say and their explanations for what they do are the bases for building the theory. It is a narrative-based theory because it is built from ‘blocks’ made up of fragments of the informants’ narratives; fragments that express the ‘insider’s points of view’ on the phenomenon under inquiry. Such a process assumes that people indeed have theories and that behind their actions and words are some kind of theoretical structures... (pp.132–133)

In a systematic process through the successive previous stages, the PSKTs’ narratives were examined to extract the descriptions and explanations relevant to the research. In terms of the research aims, it was then appropriate to ‘step further and to translate these narrative descriptions and explanations into theories which are grounded in the informants’ authentic stories’ (Shekedi, 2005, p.134). In this sense, the existing literature relevant to the themes was used as an intermediary by which to identify and focus the conceptual perspectives.

Then, two frameworks – Experiential learning cycle (Kolb, 1984; 2014) and Teacher competencies framework (ACTEQ, 2003; 2006; 2009) – were employed as heuristic devices for refining the themes to offer enhanced central concepts based on the pattern of shared codes and meanings (further discussion in Section 3.5.1.3). However, translating the narrative descriptions and explanations here was not only a task of changing terminologies. Rather, it involved re-considering the data according to the frameworks and consequently changing or dissolving themes, or even establishing new ones, through the following steps:

- The existing literature and other critical materials were examined, and relevant concepts were identified. The next task was to explain the interviewees’ narratives in the light of the reviewed conceptual frameworks.
- The theme was succinctly defined and analysed, and then its presumptions were compared with the data and the selected framework.

- Themes taken from the literature and data were established, using the same terms as appear in the literature or generating new names for some themes.
- As this stage of the process advanced, the findings were regularly checked against the data that had already been analysed in the first stage to verify that the findings were adequately supported by the data.

3.5.1.3. Heuristic devices

As discussed in the previous section, the analysis was conducted in an iterative, recursive and rigorous manner. During the theoretical stage, to contextualise the findings in relation to the existing literature, two frameworks were used, and their presumptions were compared against the data in response to the research questions, as summarised in Table 9. As these two frameworks are both open-ended and value each participant's uniqueness, they are used as heuristic devices in the findings sections to demonstrate how and what the PSKTs developed their perspective on teacher competence through their learning experiences and what those meaning are, while presenting examples from their narratives.

Experiential Learning Cycle

Chapter 4 applies Kolb's (1984; 2014) conceptual framework of the experiential learning cycle (reviewed in Section 2.4.3) as a heuristic device to depict the interviewees' narratives about how they develop their perspectives during their tertiary learning in the Hong Kong context. In addressing the participants' reflective process regarding teacher competence, I aim to crystallise the essential aspects by systematically analysing the emergent learning experiences as the participants moved through and within the stages of Kolb's (1984; 2014) model. This cycle of learning has been used and adapted in the design and conduct of countless educational programmes (Burns & Danyluk, 2017; Konak et al., 2014). Most importantly, two characteristics of the model support using it as a framework for this analysis. First, the cycle embraces the participants' historical, cultural and social contexts in relation to their mastery and their unique experiences during their learning. Second, this model is constructive – the learning is not the substance; rather, it is viewed in terms of the transactional relationship of the participants and their situation. As such, in the current thesis, this experiential learning cycle is not viewed as a simplified, mechanical, step-by-step process that distorts participants' experiences; it is used as a tool to organise the process of reflection and help capture the interviewees' learning contexts and their environment in depth.

Framework	Research Question	Findings
Experiential learning cycle (Kolb, 1984; 2014)	RQ2: How do PSKTs develop their competence in kindergarten education during the teacher training program?	Chapter 4: PSKTs' learning experience and the development of teacher competence in kindergarten education
Teacher competencies framework (ACTEQ, 2003; 2006; 2009)	RQ3: How do PSKTs define teacher competence in kindergarten education?	Chapter 5: The definition of teacher competence

Table 9. Frameworks used in the theoretical stage of analysis

Teacher Competencies Framework

Chapter 5 uses the Advisory Committee on Teacher Education and Qualification's (ACTEQ) teacher competencies framework (ACTEQ, 2003; 2006; 2009) to examine the interviewees' narratives about how they define competence from various perspectives. As reviewed in Section 2.2, the ACTEQ developed this dimensional framework related to teacher competence in 2000s. Although this framework is not directly related to kindergarten teachers, it is the official framework produced by the EDB and designed to apply to teachers at all levels in Hong Kong. While the framework lays out the landscape and a continuum of teacher achievement, it is deliberately generic; it is not differentiated by an arbitrarily selected measure of years of teaching experience, and neither is it a formal checklist for measuring or assessing teachers' performance out of context. Rather, it is a developmental framework for locating a teacher's stage of professional maturity and competency as well as the areas in which they might specialise. As an officially authorised framework that focuses on teacher competence in Hong Kong, it was expected that this model could contextually capture the findings of this research; therefore, it was employed as a device to illustrate different themes in relation to its dimensional categories.

3.5.1.4. Summary

To systematise and solidify the connections between the two stages of analysis, a combination of inductive and deductive dispositions was applied, with the process constantly

moving between the different stages and phases – continually comparing the presumptions of the framework against the data, making modifications to the themes and providing vignettes on the findings. Two frameworks – Experiential learning cycle (Kolb, 1984; 2014) and Teacher competencies framework (ACTEQ, 2003; 2006; 2009) – were employed as the heuristic devices for refining the themes to offer enhanced central concepts in line with the pattern of shared codes and meanings. As suggested by the narrative inquiry research design, the participants’ narratives not only describe events but also their own perceptions and identities. Thus, an attempt was made to keep quotes intact to be interpretive, and thereby to elicit vignettes that represent the learning experience and process of reflection of PSKTs in the training programme at Institute A as well as how they define teacher competence in kindergarten education.

3.5.2. Trustworthiness

Trustworthiness is the foundation of a high-quality thesis using the design of a multiple narrative case approach (Shekedi, 2005). To ensure the trustworthiness of the findings, the current research includes several measures to ensure their validity and reliability as required by the approach.

3.5.2.1. Validity

Two measures have been implemented to protect the validity of the findings by taking a careful approach to the research process and ensure that the product is conceptually and empirically grounded. **First**, a chain of evidence has been preserved regarding the data collection and analysis processes, with all the interview transcriptions, the associated documents and the draft of the thesis stored on a password-protected computer. During the research, it has been important to be able to switch back and forth between data collection, analysis and the overall findings efficiently. As such, the research process and findings have been regularly re-checked until the final stage of writing to ensure the elements of the thesis are consistently linked with one another.

Interviewee checking is the second action that has been taken to confirm the validity of the analysis. This is a process in which the themed findings from the participants are aggregated to check whether they have been misinterpreted or anything has been left out (Birt et al., 2016; Harvey, 2015; Wolf, 2017). The themes and analysis were sent to two interviewees to ask for further comments and checking in order to guarantee that the findings were accurate and

resonated with their experiences. One of them replied and confirmed the findings with no additional information. Attempts to contact another interviewee for feedback failed because they had already graduated and changed their contact number. This is noted as an area for improvement in future studies, where sufficient opportunities and time should be provided for interviewees to offer further elaboration and insight for the co-construction of research findings.

3.5.2.2. Reliability

In terms of establishing reliability, a colleague of the researcher and an editor were consulted. **First**, a colleague who was not involved in the research was asked to evaluate and review the coding sample. This peer was asked to code one transcript and to compare their coding with that generated by the researcher. Then, advice was sought regarding whether they agreed with the data coding and the logical paths taken to establish the findings. This auditing was conducted during the data analysis to help ensure the findings are grounded and interpret the data logically with appropriate themes (Creswell, 2008, p. 267).

Second, an editor was invited to review the translations of the quotations. The interview data consist of words and dialogues; therefore, it is crucial to be sure that readers of the thesis will know what the participants mean, particularly as the conversations have been translated into English after the interviews were conducted in Cantonese. Words could be interpreted in very different ways in other cultures; therefore, to ensure the coded dialogues were translated precisely, an editor was asked to check that the translations of the responses are verbatim (Appendix Five).

3.6. Summary

This chapter has described in detail the various characteristics of the research and the steps taken within the research methodology. Based on the implications drawn from the literature, the qualitative research design of narrative inquiry was selected to help capture the PSKTs' first-hand views and learning context in depth. After outlining the use of the multiple narrative case approach, I described the data collection process, including the details of the specific PSKT programme used as research context, along with the ethical considerations of site access, recruitment, safety and privacy. In the final section, I demonstrated the rationale and procedures for the data analysis and the measures implemented to ensure the trustworthiness of the findings.

Chapter 4: PSKTs' Learning Experiences and Development of Teacher Competence for Kindergarten Education

4.1. Introduction

This chapter examines the interviewees' learning experiences and their perspectives on the development of teacher competence during their teacher training programme in response to the first and second research question of the current thesis. Although the results are bounded within an institution in Hong Kong, the interviewees' learning experiences of developing their teacher competence in kindergarten education in the chapter still warrant emphasis. In the first half of this chapter, by presenting the data-driven current views of the interviewees, I portray the learning experiences, including those elements of their institutional coursework, in-service placements and extra-curricular activities, that have affected their ideas of teacher competence for kindergarten education. In the second half of the chapter, with the support of Kolb's learning cycle process, I outline the interviewees' process of reflection on how their teacher competence in kindergarten education developed throughout the training programme. At the end of the chapter, I summarise the insights provided by the findings and highlight the recommendation that extra-curricular activities and PSKTs' reflective process should be areas for further research.

4.2. Learning experiences in the teacher training programme

This section aims to respond to the first research question of the thesis: **What learning experiences influence PSKTs' perspective of competence in kindergarten education?**

The findings indicate that the institutional coursework (Section 4.2.1), practicum placements⁸ (Section 4.2.2) and extra-curricular activities (Section 4.2.3) were all important to the PKSTs' development of teacher competence (as summarised in Table 10). It is particularly interesting to note that the learning experience of a presentation day during their in-service placements is

⁸ The term 'practicum placement' refers to a supervised work which is part of study that the students are required to get some experience of kindergarten education in a limited period of time. It is same as the 'work placements' which is more conventionally used in UK English. In the current thesis, I have translated the term 'practicum' or 'practicum placement' for all the quotation because it is consistently used in the programme curriculum as outlined in Section 3.4.2.

Key events that have affected PSKT's ideas of teacher competence for kindergarten education	Interviewee																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Institutional coursework	✓					✓		✓	✓	✓				✓	✓		
In-service placement (s)	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Presentation Day	✓				✓				✓				✓			✓	
Volunteering on information day		✓	✓						✓	✓							
Exchange programme		✓									✓	✓					
Other extra-curricular activities				✓			✓								✓		

Table 10: Key events that have affected PSKT's ideas of teacher competence for kindergarten education

one source of contribution to this development. In this section, I also describe how voluntary work in an information day and an exchange programme of such extra-curricular activities influence the PSKTs' ideas on teacher competence.

4.2.1. Institutional coursework

In their interviews, the PSKTs recognised that their learning experiences in undertaking their institutional coursework helped to develop their ideas of teacher competence for kindergarten education. In line with the findings of Cheng et al. (2012), my interviewees found institutional coursework important because it developed their knowledge of pedagogical approaches and strategies that serve as an important basis for their practices in the kindergarten environment. For my interviewees, institutional coursework referred to the course-based learning within the vocational education part of the programme curriculum. At the beginning of the training programme, when the interviewees lacked experience working in a kindergarten, they thought that the institutional coursework helped them to understand the profession's expectations regarding teaching skills, childcare practices and relevant knowledge of children's characteristics. The types of knowledge they mentioned included psychological knowledge (Interviewee 6-F), production of learning materials (Interviewee 9-F), pedagogical and teaching strategies (Interviewees 1-F & 8-F), lesson plan writing (Interviewees 10-F & 15-M) and nursery skills – as stated by Interviewee 6-F (Picture 2):

There are required skills at nursery school such as preparing milk, burping and others for infants from 0–2 years old. Before the coursework, there was no opportunity to put these skills into practice; the only time we learned about these skills was while we worked on ours.

It is worth mentioning that some of my interviewees appreciated the institutional coursework in terms of the lecturers delivering the content and designing the lesson in a practical fashion, thus providing adequate learning activities for the PSKTs to experience the content knowledge they were being taught. For example, Interviewee 8-F discussed the institutional coursework content about teaching and learning that was taught under the subject 'Project Approach' (Picture 3):



Picture 2. Interviewee 6-F learned about nursery skills by using the doll during her institutional coursework.

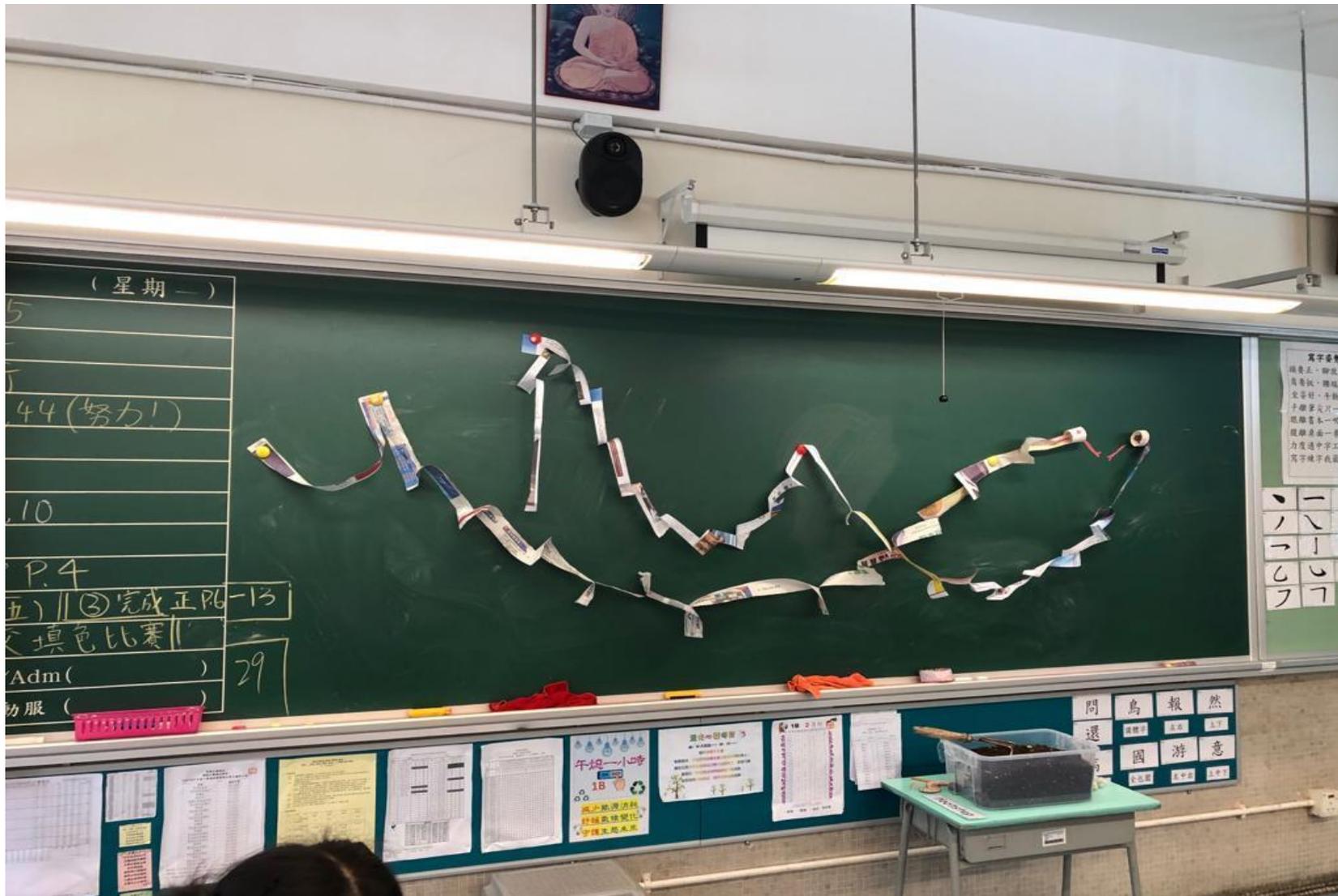


Picture 3. The lecturer gave Interviewee 8-F straws, balloons and plastic tape and a task to make a balloon rise or fall in the institutional coursework topic discussed in 'Project Approach'.

The lecturer only gave us straws, balloons and plastic tape. Then we were asked how to make a balloon rise or fall. If the balloon were blown up normally, it would fly all over the place upon release. This class inspired me, as we learned that the spirit of the project approach is that the teacher should only provide materials to students and encourage them to try the exercise. This photograph reminds me that, when implementing the project approach, I should not interfere with my students' activities too much so they can explore by themselves.

The interviewees thought that the teacher training programme should be practical and applicable to their work. Therefore, they appreciated the practical tasks that they participated in during the courses. Alongside the in-class practical exercises, the interviewees 1-F and 14-F also valued the extended situated implementation. For example, Interviewee 14-F mentioned an instance from when she was studying the course 'Green Education' (Picture 4) – the lecturer asked her group to design and implement a green education lesson for a local elementary school:

Our small group activity topic was "Recycle", and so we thought about how to make use of "rubbish" in our designed activity. Eventually, we made it into an art activity. We gave the children an A3-sized newspaper and tubes from toilet rolls and asked them to make a 'snake' – roll the newspaper, and then put it into the tubes – so the cone could be its head and the newspaper could be its body part, and then we asked them to colour it. This lesson was approximately 40 minutes long. For primary students, our activity was too easy. The children just spent 15 minutes on it and thought the lesson was over. At that moment, I thought I should make use of the lesson time in respond to their learning needs. Hence, I played a game with them and asked them to make a 'snake' as long as they could. They got involved in the class again and spent the rest of the lesson time on this new task. We made a very long one and stuck it onto the blackboard... This lesson was memorable because I tried out a plan in practice and found that sometimes the practice is not the same as what we plan.



Picture 4. The 'Snake' made by the children in Interviewee 14-F's activity.

Similar to the findings of Samaras (2000) and Layne and Lipponen (2016), Interviewee 1-F reported that the situated implementation '[gave] us the chances to practice'. In her case, the situated implementation in the elementary school allowed her to explore, and discover her sense of, the nature of real-life teaching situations. Along with other interviewees, she was impressed by the lecturer being able to engage them in the institutional coursework through the integration of practical tasks. A number of interviewees stated that the types of practical task that were set gave them opportunities to try out what they had learned in the courses. This allowed them to enhance their knowledgeable reasoning and integrate the ideas in their practices, and thus to proceed with the body of knowledge in a more comprehensive manner.

4.2.2. Practicum placements

As stated in the programme curriculum, each PSKT on this programme must complete two compulsory in-service placements – a fieldwork placement and an advanced placement – comprising a total of approximately 600 hours of professional in-service training throughout the programme. This study's findings particularly indicate that the in-service placements were one of the most important learning experiences for developing the PSKTs' ideas of teacher competence in kindergarten education. All of the interviewees addressed their learning experience in these placements.

4.2.2.1. In-service placements

Here, the in-service placements refer to both of the PSKTs' kindergarten-based practicum experiences during the training programme. During these placements, the PSKTs work in a local kindergarten on a full-time basis for a month to assist with daily operations and designing and delivering a series of lessons for the children. Many of the interviewees found the in-service placements important to their development of teacher competence, and some even described these learning experiences as 'unique' and 'irreplaceable'. One reason why the interviewees found these learning experiences made such an impression was because the placements provided them with opportunities to try out and apply the learned content from the institutional coursework on their own in a real situation. An illustrative example comes from Interviewee 4-F, who shared her experience of designing and implementing a series of activities on the topic of 'plants' (Picture 5). She guided each child to plant a mung bean and asked them to observe its growth during her lessons:



Picture 5. The mung bean planted by the children in Interviewee 4-F's class during her placements.



Picture 6. Interviewee 10-F was able to lead storytelling sessions confidently in her second placement because she was already adept at designing and leading such activities based on experience gained in her first placement.

The in-service placements were very important to me because I gained first-hand experience in everything I learned. Although I could acquire lots of technical knowledge by attending class, it could only be regarded as passive learning, which is lacking in practical application and experience. Whereas, during in-service placements, I needed to do all the work myself, from activity design to its implementation, and at the same time had the chance to be with children for one month.

According to the programme curriculum, each PSKT must complete the two compulsory in-service placements, with the fieldwork placement serving as a pre-requisite for undertaking the advanced one. These two-stages of the fieldwork learning experience had different impacts on interviewees in terms of their development of teacher competence. In the first in-service placement, some interviewees expressed that they did not know in advance what kinds of pedagogy and practice would work for the children. They thus tended to take up the role of a learner in the workplace. For example, Interviewees 10-F mentioned observing and asking questions cautiously in their practicum:

I had no idea about teaching and learning at all [in the first in-service placement]... When confronted with difficulties in my first year in fieldwork placement, I always approached the teacher educators [lecturers and fieldwork supervisor] and asked them questions, to compile the knowledge to conduct a lesson plan on our own and make sure my plan worked. (Interviewee 10-F)

Both the in-service placements were characterised by a pressing need to work in an almost entirely realistic working context. Interviewee 10-F shared more about her experience with storytelling activities, which she failed to lead successfully in her first placement. Due to picking a book that was unsuitable for the children's learning abilities and needs, she failed in guiding the class to participate in the lesson as the children did not know what she was doing and what the story was about (further discussion in Section 5.2.1.). Interestingly, the increased volume of the learning experience of the fieldwork placement benefited the interviewees when undertaking their advanced placements. For example, Interviewee 10-F discussed the storytelling activities she led in her second-year advanced placement (Picture 6):

The first-year fieldwork placement extended to the second-year advanced placement. During my second-year advanced placement, because I already

knew how to implement practical teaching skills, I was already adept at designing and leading activities. Therefore, I did not encounter the same problems during the rest of my practicum.

Even though they were in a new context of a different kindergarten in the advanced placement, the interviewees were more prepared to take up the teacher role and teach in ways that they had not been during their previous experiences in the first placement:

This [second] practicum placement gave me a chance to work with a classroom of children so I could understand their learning abilities, interests and backgrounds; also, the designing of classroom activities allowed me to gain more professional knowledge. (Interviewee 11-F)

I knew that I did not know much about teaching, especially when I started the first practicum in the second semester of my first-year studies... During my first year in fieldwork placement, I was often focused on only one aspect of an incident; for example, in a classroom, I would ask questions like ‘what happened?’ and ‘what is the situation of the children?’ During my second-year practicum placement, I already learned to do much more; I started to exchange ideas on teaching methods with the teacher educators, to discuss the implementation of different teaching methods and their applicability to children. (Interviewee 12-M)

The interviewees had a narrow focus during the first in-service placement, concentrating primarily on their student role by observing and asking questions about the kindergarten environment. Later, in the advanced placement, when their learning experiences had increased, the interviewees tended to pay more attention to their teaching practices and applying what they had learned. This finding resonates with the discussion presented by Körkkö et al. (2016), who state that student teachers will gradually broaden and deepen their understanding of theory and practice in each practicum and so develop their practice.

The findings point to the learning experience of how higher diploma-qualified pre-service kindergarten teachers place emphasis in their journey on what is important to their development of teacher competence in fieldwork placement. Overwhelmingly the interviewees expressed that they had developed the ideas of teacher competence to work with

the children in kindergarten through their in-service placements. These interviewees' responses to some extent reflect the context that the programme as undertaken by the interviewees is vocational orientated and have a strong emphasis on workplace learning. This perspective also echoes to their development of teacher competence (further discussed in Section 4.3.), which the findings indicate that receiving feedback from kindergarten superintendents and the institutional fieldwork supervisor was important to their placement learning.

4.2.2.2. Presentation day

The interviewees regarded their learning experience during the presentation day as another important activity for their development of teacher competence. The presentation day is generally held on the day two weeks after the last day of each placement. In the presentation day, the institutional fieldwork supervisor divides the PSKTs into groups of around 20 and asks each of them to deliver a ten-minute presentation on their lesson plan, teaching experience and their reflections from their placement. The fieldwork supervisor then gives the PSKTs feedback and evaluates whether they have achieved their placement objectives and fulfilled the vocational requirements and expectations for their practicum. A full group discussion then follows for any key issues raised by either the PSKTs or the fieldwork supervisor:

Presentation day is a major event for the students... it is a place where fellow students report the activities they led during their placement... Upon completion of the placement, during a one-day sharing session, all the PSKTs met to share their practicum experience and explore ways to make improvements on the activities they led. Each student had to make a ten-minute presentation. Under the guidance of a supervisor, approximately 20 or so fellow students gave me their comments. (Interviewee 1-F)

An interesting finding of this study is that the interviewees appreciated the role of the observer in the presentation day. They valued the experience of observing their peers' work in the placement because it offered an opportunity for them to compare their pedagogical practices and identify the differences. As Interviewee 9-F shared (Picture 7):



Picture 7. Interviewee 9-F shared her lesson design, teaching materials and how she led activities in her placement practicum during the presentation day.



Picture 8. At the presentation day, Interviewee 13-F learned things from the activity designs of her classmates that she could apply herself in future.

I could take this chance to reflect upon my practicum journey and compare my experience with other people in areas like teaching and learning, teaching materials, topic selection, etc., and at the same time think of why others were able to perform better than me in certain areas.

Interviewee 13-F also shared how she learned things from the activity designs of her classmates that she could apply herself in future (Picture 8):

I believe the learning process during the presentation day was also very important. During presentation day, I could listen to many of my fellow students share details about their activities. From that, I could refer to them or even make improvements to my teaching activity design. Although our teaching activity designs differed from one another, there were certain similarities, and I could learn a lot from their designs for my future reference. (Interviewee 13-F)

This observation process not only facilitated the interviewees comparing other students' works with their own, but also challenged them to review their practice from their peers' perspectives and to reflect for a better approach. As Interviewee 13-F continued:

Apart from my activity designs, I could also refer to the activity designs of my classmates; for example, take 'rice' as an activity topic. I could design many N1 nursery programme activities based on it. During the full presentation day, I could also discover different ideas from other comments during sharing sessions, and they will surely become a new source of inspirations for me. These new ideas will also help to reshape my future activity designs; therefore, I believe presentation day is essential. (Interviewee 13-F)

Interviewees 1-F and 9-F also pointed out how these comparisons with their peers' work helped to enhance their implementation of the teaching materials in their future practice:

I once saw one of my classmate's hand-made teaching materials, and I thought it was meticulously made. That classmate made a 'bathroom sink', and it even had a drain, which I thought was very thoughtful. Although I did not know how

he used his teaching materials, I recognised every material in my future practices must give the children a sense of realism. (Interviewee 1-F)

One fellow student once set an activity with ‘money’ as a topic. That student then shared with us that, even if we printed the word ‘SAMPLE’ on photocopies of money as a teaching material, it would still be regarded as an unlawful act. To me, this was something new at the time, and I will not suffer from this issue in my future practices. (Interviewee 9-F)

Interestingly, I found that my interviewees found the learning experience of the presentation day important to their development of teacher competence. This was because they could observe their peers’ work from the placement and make realistic adjustments to their current understanding of teaching practices.

4.2.3. Extra-curricular activities

Alongside the institutional coursework and practicum placements in the formal programme curriculum, interviewees found extra-curricular activities crucial in developing their ideas of teacher competence. For instance, interviewee 4-F thought that visiting special schools could enhance her understanding on characteristics of the children with special education needs. Interviewee 7-F found that the career talk held by the department helped her to reflect the role of kindergarten teacher. Interviewee 15-M shared that joining the departmental choir brought him memorable experience in working with the children. Particularly, there were two extra-curricular activities – voluntary work on an information day and participating in an exchange programme – that the interviewees also found crucial in developing their teacher competence.

4.2.3.1. Volunteering on information day

Every year, Institution A organises an information day, which is a two-day event that provides an opportunity for the general public and industrial partners to learn more about the tertiary programmes offered and the diverse student community. Some of the interviewees thought that undertaking voluntary work for the information day was important. They could choose to be ambassadors sharing information about the programme content with secondary-level students (Interviewee 9-F), to organise carnival games (Interviewee 10-F) or to present an artistic performance for the visitors (Interviewees 2-F & 3-F). These interviewees found these

learning experiences particularly important near the beginning of their studies in the training programme, when they lacked competence in undertaking the duties of a kindergarten teacher:

At the time [the school only just began for a few months], it happened that there was an activity which required us to design a game for the children to play. However, we were not familiar with the teaching tools or lesson plans, nor did we know how to play with children. We did not know what was appropriate for their age-specific development, and we pretty much knew nothing. (Interviewee 3-F)

At the time of the beginning of the study, we had had few chances to meet with children, but when taking part in this work, you can come across different children, and you get to meet their parents. From this, you can have a better understanding of their needs, and simultaneously you can learn how to help them in their development. (Interviewee 10-F)

The interviewees also found that the experience was useful because it allowed them to apply their learned pedagogical knowledge in practice. As Interviewees 9-F and 10-F shared:

It gave us an opportunity to try, and it helped us realise we could complete the appropriate activities. Before I started my study about childhood education, I did not know what transition activity meant. (Interviewee 9-F)

I think this work offered me a chance to put the things I learned into practice. Because in institution [coursework], we are taught academic theories, and it is also a place where instructors may share their working experience. Apart from learning theories, putting your knowledge into practice is also very important. (Interviewee 10-F)

Another interviewee explained how it offered her an opportunity to apply her learnings in the role of a teacher:

I felt embarrassed when I asked the external visitors to ‘please follow what I do’. However, after I began my work, I realised I should think like this... external visitors are not childhood educators, perhaps they do not know what I

am doing – they might even laugh at me. But after this time, I could tell them, as a kindergarten teacher, this is how it should be done. (Interviewee 2-F)

One-time participation in the information day as a volunteer offered the interviewees chances to take up duties that required elements of teacher competence at the beginning of the programme. Particularly, as in the examples illustrated above, it provided a practical context for connecting PSKTs to the profession and for their decision-making about how they could take up the role of a kindergarten teacher.

4.2.3.2. Exchange programme

The interviewees mentioned that, every year, the department organises exchange programmes for the PSKTs. All of these are short-term programmes, within which the PSKTs take a trip to China, Taiwan or Singapore over two weeks in the summer break. Among my interviewees, only three had taken part in the exchange programme. However, they all reported that the programme had a strong impression on them because it allowed them to learn more about pedagogical approaches that they could not learn about in the training programme in Hong Kong:

The picture book-based teaching method has yet to be introduced in Hong Kong, therefore in school, we were not taught this teaching method... I had never come across so many picture books until I joined this exchange programme. During this programme, I visited many picture-book workshops and saw vast collections of picture books. When the instructor gave a lecture on the picture book-based teaching method, he shared a lot of teaching techniques that I had not thought about before. (Interviewee 11-F)

The programme was mainly on the topic of infant massage, but once I arrived, I realised the programme was more than that what I was learning in the institution... the local instructors also taught lessons about the development stages of 0–2-year-olds, and even on how to design an appropriate living environment for them. There were even classes that taught us how to make use of natural materials and incorporate them into our teaching curriculum. (Interviewee 12-M)

This foreign exchange experience offered the students a unique opportunity to learn in another country and study at a host institution. The interview responses indicated that the three interviewees who took part not only learned about pedagogical knowledge and practices in other countries, but also improved their collaborative approach. For the duration of the exchange programme, they lived and worked with their peers in the host university. These intensive experiences with their peers during the programme enhanced their collaborative competence, as discussed by Interviewee 2-F:

A vital aspect is how we get along with each other. During the exchange programme, I needed to get along with other PSKTs, and even though I did not know them before, I had to share a dormitory with them. We had to adjust ourselves to accommodate each other. We had to coordinate each task, such as when to take our showers, do our laundry, and take out the trash, and getting the meal boxes. At night, we had to hold meetings because we had to create PowerPoint Presentations to report our learning outcomes, and then we had to prepare materials for sharing sessions. In short, we had many opportunities to work together. (Interviewee 2-F)

Only three of the interviewees took part in the exchange programme. However, all those who did so were appreciated in residing in a foreign country. This experience of learning abroad provided them with an opportunity to learn about new pedagogical practices used by other countries' professional communities, and the intensive experiences moved them away from dependence to being more adventurous in the sense that they became more collaborative with their peers.

4.3. Process of reflection: The development of teacher competence

Further to the crucial learning experiences identified, the second research sub-question can be addressed: **how do PSKTs develop their competence in kindergarten education during the teacher training program?** Kolb's experiential learning cycle is employed as a heuristic device for data analysis to demonstrate how PSKTs' teacher competence is developed through reflection in the training programme. The reflection process is divided into four phases, with interviewees' quote provided for each. The four phases are:

1. conception of teacher competence in the early stages (Section 4.3.1);

2. observation in the learning experience for further reflection (Section 4.3.2);
3. forming new ideas based upon reflection (Section 4.3.4);
4. modifying existing concepts for further application (Section 4.3.4).

4.3.1. Conception of teacher competence in the early stages

Chang-Kredl and Kingsley (2014) conducted a study on PSKTs' memories of prior experiences and their reasons for entry into the profession. They found that PSKTs' prior personal experiences from the areas of school, family and work had already formed their perceptions of teacher competence in kindergarten education. Similarly, in the current study, the concrete experience obtained before or during the early stages of undertaking the programme – e.g. getting along with relatives and neighbours' children or with children in church, in the secondary school or through a part-time job – had already formed my participants' conceptions around the teacher competences required to fulfil the duties of kindergarten education:

... I had worked with the little kids in my church every weekend. Even though I do not know whether they were hearing what I said or really knew who Jesus Christ was, they were earnest about the reception of Jesus, so before entering the programme, I thought kindergarten teachers should be able to help the children's growth just as I did in the church. (Interviewee 7-F)

Another example, referring to the experience of working with a neighbour's children, was shared by Interviewee 3-F:

I always played with the neighbour's children. He used to take a book for me to read with him, and to teach him to do homework. I enjoyed chatting with the children very much... At that time, I thought [the duty of] kindergarten teachers, mainly play with and take care of children. What I just said, [I thought the required teacher competence was] mainly to get along with them, maybe to teach them to sing and to dance. (Interviewee 3-F)

In the early stages of their studies, the interviewees mostly thought that the primary duties of kindergarten teachers were to 'play with the children' (six Interviewees 3-F, 4-F, 7-F, 11-F, 15-M, 17-F) and 'take care of the children' (six Interviewees 2-F, 3-F, 5-F, 12-M, 13-F & 14-

F). For example, Interviewee 2-F highlighted that they thought teacher competence in kindergarten education simply involved ‘only [being] there to play with kids’:

At the time, I thought kindergarten teachers did not need to be knowledgeable in a broad academic spectrum, unlike being a secondary school teacher who is required to be adept in subjects like physics and chemistry. The knowledge taught at a kindergarten should be rather trivial, such as proper social behaviour, standard etiquette and being courteous to others, and academic subjects should be taught at primary and secondary schools... Perhaps I did not even see kindergarten as ‘teaching’ work, only [being] there to play with kids... (Interviewee 2-F)

The interviewees further explained that their initial ideas of ‘playing with kids’ were based around requiring some basic artwork techniques (Interviewee 5-F), dancing and singing skills (Interviewee 3-F) and some basic knowledge (Interviewee 12-M). At the stage where their learning was just beginning, their understanding of teacher competence was at the surface level (as summarised in Table 11). However, the interviewees soon started to recognise that their understanding was superficial and found themselves not yet competent to work effectively in a kindergarten when they started receiving their PSKT training:

I never thought that teaching children demanded an understanding of such a variety of knowledge. Even more, some of the knowledge is rather complicated and requires a year to acquire, such as children’s developmental ability and some practical skills in the classroom. (Interviewee 15-M)

This lack of competence was centred firmly around the learning experiences in the early stages of the programme and the study of the origins of the knowledge in the institutional coursework. This finding echoes the discussion in [Section 4.2.1](#), which highlighted that the interviewees thought the learning experiences from the institutional coursework helped them to grasp the relevant knowledge around children’s characteristics and childcare practices at the beginning of the training programme. For instance, the interviewees mentioned learning about how to implement green education (Interviewee 1-F) and a project approach (Interviewee 8-F) in class, assess children’s development from psychological perspectives (Interviewee 6-F), produce teaching materials (Interviewee 9-F) and design a lesson plan for teaching children (Interviewee 15-M). The interviewees’ concerns about their knowledge

Ideas of teacher competence initially held by interviewees in the beginning of the programme	Interviewee																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Playing with children			✓	✓			✓			✓	✓				✓		✓
Take care of children		✓	✓		✓				✓			✓	✓	✓			
Artwork techniques					✓												
Dancing skills			✓														
Singing skills			✓														
Basic knowledge		✓										✓		✓			
Love the children								✓	✓		✓						
Did not mention	✓					✓		✓	✓	✓						✓	

Table 11: Ideas of teacher competence initially held by interviewees in the beginning of the programme

were distinctly attributable to their ideas about the teaching competences required to work as a kindergarten teacher, which were different from their preconceptions before the start of the programme. While their learning in the coursework corresponded to the activities in demonstrating their new expectations of taking up duties in a kindergarten, these concrete learning experiences served as bedrock of what happened next to create an evolution in the participants' development of teacher competence and of their own conceptions.

4.3.2. Observation within learning experiences for further reflection

Further to the concrete experience the participants had already gathered during the early stages of the programme, they recalled various learning activities and then observed their experience to assimilate the abstract concepts around the competence to create new implications of further action. As discussed in [Section 4.2](#), experiences such as institutional coursework, in-service placements and extra-curricular activities provided the interviewees with valuable observation opportunities that brought up questions to challenge their original ideas of teacher competence and encourage their further reflection. For example, in the exchange programme, while Interviewee 12-M was observing the host institution's tutor using natural materials in their curriculum, they considered how they could incorporate such materials into their own teaching. In their in-service placement, while Interviewee 15-F was observing a kindergarten teacher teaching a class, they questioned where they should stand in the classroom so that the children could focus on their learning and receive the teacher's instruction. Another illustrative example comes from Interviewee 16-F, who discussed a set of observational questions about the teachers' competence in their placement learning:

The kindergarten teachers each had their own set of ideas, and they differed in their understanding of what professionalism means. Sometimes, when faced with the same scenario, teacher A and teacher B would resolve it in two completely different ways. Seeing this made me think about what a kindergarten teacher needs to do to become a professional. What kind of ability is regarded as professional? Is it essential to hold a degree? If you only had passion, would that be insufficient? Seeing this kind of situation made me wonder, how can childish kindergarten teachers be regarded as professionals? What is the ability that makes one a professional? Is it the academic position that important? Is it true that heart is not enough? (Interviewee 16-F)

These kinds of observational questions prompted them to re-examine their original ideas of the competences that a kindergarten teacher should acquire, stepping away from the straightforward preconception and definition of teacher competence that they had formed before the start of or at the beginning of the programme.

My findings show that these kinds of observational questions were frequently prompted during the PSKTs' in-service placements. Referring to the work of Nickel et al. (2010), if more educated, experienced and skilled practitioners could prompt PSKTs to consider a question that helped them to observe the learning experience in more depth, the PSKTs could improve their fieldwork practices. This finding also aligns with the current study, in which the interviewees found that the feedback of kindergarten superintendents (Interviewees 1-F & 2-F) and their institutional fieldwork supervisor (seven Interviewees 1-F, 3-F, 6-F, 12-M, 14-F, 16-F & 17-F) was important. An illustrative example comes from Interviewee 3-F. She shared her experience in the advanced placement (Picture 9) and how feedback from the institutional fieldwork supervisor offered her additional viewpoints on teaching practices and widen the approach to observation in the in-service placement:

There was one activity in which I taught 'to roll'. My fieldwork supervisor said that I needed to assume a child does not understand the concept 'to roll', and he asked me: 'Is there a more obvious teaching method?'. He asked me to think harder, and he gave me an example as a reference: 'You can try to put up a paper figure; when the wheels roll, you can see the paper figure in a rolling motion'. He gave me a lot of valuable examples as references; for example, to stir up a child's motivation in an activity, I held up two hand puppets. He then asked me: 'Why don't you go straight into showing the wheels to attract the children's motivation for learning?'

Some interviewees also revealed that such feedback also provoked their curiosity around the relationship between teachers and children (Interviewee 2-F), how to attract children's motivation for learning (Interviewee 3-F), how to use questioning skills to develop children's thinking (Interviewee 6-F), and the functions of knowledge and practice (Interviewee 12-M). Interestingly, by sharing a poor experience of working with a kindergarten superintendent in an in-service placement, Interviewee 8-F explained how they found such feedback important in their in-service placement learning:



Picture 9. Interviewee 3-F led the lesson in the topic of ‘to roll’ in her placement.⁹

⁹ At the beginning of the lesson, Interviewee 3-F divided the children into groups of three and asked them to stand behind the yellow lines. Then, she told them the topic for the day and started the lesson by asking the children to deliver the green cube from one side to the other as shown Picture 9. Next, she asked the children to do the same with the red yoga ball – to move it from one side to the other side. After that, she asked the children about the experience and helped them to observe the difference between the green cube and the yoga ball. At the end of the lesson, she explained to the children that they could ‘roll’ the yoga ball because it was round and they could not ‘roll’ the green cube because it was square-shaped.

Even if you wished to ask for their comment, it was rather difficult, and their response was terse. As a result, it was challenging for me to know what my performance was like during my practicum. Of course, having self-appraisal on your performance does not bear as much fruit as the comments you get from others. With the advantage of having someone else's viewpoint, you will be able to see things from a broader perspective; only then can you engage in self-reflection on things you have never thought about before. As my kindergarten superintendent has not given me any comments this year, it is tough for me to reflect upon my shortcomings in teaching and the areas that require improvement. (Interviewee 8-F)

To sum up, the interviewees were unavoidably observing and perceiving the experiences in their situated learning activities. Their responses also revealed that feedback from the kindergarten superintendents and the institutional fieldwork supervisor are vital. This is because such feedback further engaged interviewees in their view of their learning experience and thus led to the reframing of their conception of teacher competence in the next phase.

4.3.3. Forming new ideas based upon reflection

After observing their involvement in and experience of the learning activities, according to Kolb's learning cycle, the interviewees should then have been contemplating those experiences through reflection by evaluating, analysing and drawing up alternatives for further action based on the questions from the previous phase. As demonstrated in [Section 4.2.2](#), for instance, in the in-service placements, Interviewees 10-F and 12-M evaluated the recurring issues in their kindergarten and shaped new ideas of teaching practices. During the presentation day, interviewees 1-F and 9-F renewed their understanding of teaching materials.

Notably, in the previous phase, a kindergarten superintendent's or institutional fieldwork supervisor's adequate feedback could sometimes assist interviewee to observe various experiences. These observational questions then led interviewees to renew their thinking about their practice. For example, Interviewee 6-F received feedback from the institutional fieldwork supervisor that the lesson she had designed during her in-service placement had little connection with the children's life experiences. The interviewee then made further observations around this experience by comparing her own work with that of her peers, and her ideas on lesson design were broadened. Another example was mentioned by Interviewee

14-F – the institutional fieldwork supervisor asked them to review a teaching experience related to the issue of classroom management:

My instructor told me that he liked my castle very much as it required the children to queue up for an activity in an orderly fashion, which exemplified good class management. I then had the sudden thought that, ‘Yes, I had practised good class management without even realising it...’ (Interviewee 14-F)

For Interviewee 13-F, the institutional fieldwork supervisor’s feedback provided her with insight regarding daily practices such as classroom seating arrangements:

It was discovered during practicum. In the same classroom, children were divided into three groups: A, B, and C. The first group of children were taught in thematic teaching, the second group played with toys in the middle of the classroom, and the third group were engaged in picture-colouring activities at the back of the classroom. That day, I was playing with toys with the children in the middle of the classroom... During the supervision, the institutional fieldwork supervisor asked me to re-examine my standing position and ask me why. I had no idea at first, but I started realising that I was not standing in a perfect position because my back was facing the other two groups of children. After his feedback, I recognised that, as a kindergarten school teacher, I had to be very attentive to details. Even the arrangement of classroom seating involves a display of a teacher’s professional skill set. (Interviewee 13-F)

Delaney (2015) highlights that veteran teachers unavoidably involved in the negotiation between the dissonance of varied conceptions, expectations and assumptions about what is best for their practice. Similar to his argument, my findings indicate that receiving thought-provoking feedback in the observational stage helped to shift interviewees’ reflection towards examining the meaningful learning experiences in the programme that challenged their preconceived notions of their practice. This reflection was also associated with active experimentation in the next phase. Once the interviewees had successfully consolidated new ideas by reviewing their learning experience, they would then take them into account for further decisions and actions.

4.3.4. Modifying existing concepts for further application

From the above-mentioned abstract concepts, the participants would move to the next phase of 'active experimentation' through execution and trials. At this point, the responses indicated evidence of an emergent review of the concept of teacher competence in kindergarten education. As mentioned earlier in this discussion, during the first phase of the experiential learning cycle, my interviewees began with a surface-level understanding of teacher competence in kindergarten education, largely related to the concepts of taking care of and playing with children. However, these understanding changed during the learning experience, when they were able to shift their gaze from their preconceptions towards deeper reflection on their practice, as described in the last two sections. The newly emerging concepts of teacher competence in kindergarten education were confirmed in the last phase of the cycle. This will be discussed in the next chapter, which will focus on their awareness of teaching practices, influence on children's development, as well as the teacher-parent, teacher-principal and colleague-colleague relationships involved in kindergarten teaching.

4.4. Discussion: PSKTs' learning experiences of developing teacher competence

This chapter responds to the first and second research questions in this thesis. This in-depth, qualitative analysis of the interviewees' responses provides some examples of how the programme developed the interviewees' awareness of being a kindergarten teacher. It also provides insights into how their perspective and understanding on teacher competence developed during their training. Before moving onto chapter 5 to explore more of the definitions of teacher competence, I review more critically the findings for the discussion, which is what I address in the following:

Section 4.2 described those learning experiences that influenced the interviewees' ideas of teaching competence for kindergarten education. First, I outlined how the practical tasks in the **institutional coursework** served as a stepping stone to equip the PSKTs with relevant content knowledge to help them to perform better when taking on tasks in later classes or in real-life settings. I then pointed out that all PSKTs recognised their learning experiences in **practicum placements** as an opportunity to observe other teachers' practices in kindergarten settings and to apply their learned knowledge in practice. More importantly, the interviewees also found taking on the role of an observer in the presentation day vital. This was because

they could observe their peers' work from the practicum placements and use it to make realistic adjustments to their own conceptions around teacher competence in kindergarten education.

Notably, in this study, the **interviewees' learning experiences in extra-curricular activities were often unique**. For example, volunteering for the information day or taking part in the exchange programme pushed some interviewees to re-examine the competences required to work in a kindergarten. The experience of voluntary work changed some interviewees' decision-making about how they take up the position of a kindergarten teacher, while the experience of residing abroad during the exchange programme challenged some interviewees' ideas of collaboration and pedagogical practices in kindergarten teaching. These quotes provided insights regarding the contributions of extra-curricular activities in the development of PSKTs' competence in kindergarten education. However, given the detail of the quotes and the wide diversity of different interviewees' learning experiences, further study focusing on these kinds of learning activity is still required.

In Section 4.3, careful analysis of the interviewees' process of reflection based on Kolb's experiential learning cycle provided insight regarding PSKTs' development of teacher competence in kindergarten education. The discussion detailed their shifts from being outsiders, developing their competence based on their preconceived notions, to engaging in observation and reflection in the training programme, and thus refining their existing conceptions for further application in the workplace. Tracing this process through Kolb's framework clearly demonstrated how reflection helped to develop the PSKTs' competence in kindergarten education. Notably, **the findings indicate that receiving feedback from kindergarten superintendents and the institutional fieldwork supervisor was important**. This is because their feedback encouraged interviewees to make diverse enquiries in multiple scenarios and pushed them to observe their learning experiences in more depth. Where the interviewees could re-examine their practices in a more integrated and in-depth manner, they could then redefine the appropriateness of their decisions and actions in the workplace.

Kolb's experiential learning cycle supported the theming of the interviewees' reflection processes around teacher competence in kindergarten education. However, as Miettinen (2000) argues, Kolb did not present any concept of how the phases of the model connect with each other. Bergsteiner and Avery (2014) also present the criticism that Kolb's model pays

insufficient attention to the nature of reflection and neglects other learning processes such as information assimilation and memorisation. The most important is that the reflective process is unobservable and dynamic (Collin et al., 2013), and so **the findings might not be able to capture all the elements of the reflection process.** It is not difficult to understand that a single model with one learning cycle may struggle to encompass all the learning scenarios in this study. Kolb's framework still remains intelligible, however, and thus has provided us with insights around how PSKTs develop their teacher competence during a training programme. Perhaps, in future study, more empirical data should be gathered for evidence on how the identifiable stages are indispensably related to and determined by each other.

Chapter 5: The Definition of Teacher Competence in Kindergarten Education

5.1. Introduction

In the previous chapter, I discussed where and how PSKTs' competence is developed throughout various learning experiences in the teacher training programme. In this chapter, I report the findings that respond to the last research question – how do pre-service kindergarten teachers define teacher competence in kindergarten education? As highlighted in Section 4.3., interviewees shifted their gaze from their preconceptions of teacher competence to the newly emerging concepts at the end of programme (as shown in Table 12). Therefore, this chapter draws on the interviewees' vignettes in relation to the teacher competencies framework (ACTEQ, 2003; 2006; 2009) to help explore the various dimensional aspects of PSKTs' competence in a collective way. Based on the ACTEQ Teacher Competence framework, the findings are divided into the domains of 'teacher and learning', 'student development', 'school development', 'professional relationships and services' and 'underpinned core values' (as summarised in Table 13). The last section of this chapter contains a discussion of the findings and points out PSKTs' definition of teacher competence in kindergarten education has a tendency to the pedagogical practices.

5.2. The domain of 'teaching and learning'

According to the ACTEQ's framework, the domain of teaching and learning refers to teacher competence in relation to the dimensions of knowledge and application of teaching strategies and skills, the usage of teaching methods that motivate student learning in a planned lesson, assessment to measure the effectiveness of learning and teaching, and the appropriateness of using language as a medium of instruction. In this domain, my interviewees believed that a kindergarten teacher should be competent to teach in real time with a sound and broad pedagogical approach, including: 1) assessing children's learning needs and abilities; 2) making a lesson plan for teaching children; 3) giving children instruction in the lesson; and 4) creating teaching materials for children's learning.

Ideas of teacher competence held by interviewees at the end of the programme	Interviewee																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
1. Assessing children's learning needs and abilities				✓			✓		✓	✓				✓		✓	✓
2. Making a lesson plan for teaching children	✓								✓	✓				✓			✓
3. Giving children instruction in the lesson	✓									✓			✓			✓	✓
4. Creating teaching materials for children's learning		✓								✓	✓					✓	✓
5. Acting as a role model for children		✓		✓		✓		✓	✓				✓				
6. Treating children with patience		✓			✓	✓			✓				✓				
7. Building a positive learning environment in the kindergarten	✓	✓			✓	✓											✓
8. Communicating with parent about their children's schooling	✓		✓	✓	✓						✓	✓			✓		
9. Collaborating with colleagues		✓	✓				✓		✓						✓		
10. Communicating with the kindergarten principal	✓				✓			✓	✓			✓	✓				
11. Passion for teaching excellence			✓	✓				✓				✓			✓	✓	
12. Passion for continuous learning			✓			✓						✓	✓				
13. Others	✓			✓	✓	✓	✓										

Table 12: Ideas of teacher competence held by interviewees at the end of the programme

Domain	Teaching and learning	Student development	School development	Professional relationship and services
Dimensions	1. Assessing children’s learning needs and abilities (Section 5.2.1) 2. Making a lesson plan for teaching children (Section 5.2.2) 3. Giving children instruction in the lesson (Section 5.2.3) 4. Creating teaching materials for children’s learning (Section 5.2.4)	5. Acting as a role model for children (Section 5.3.1) 6. Treating children with patience (Section 5.3.2)	7. Building a positive learning environment in the kindergarten (Section 5.4.1) 8. Communicating with parents about their children’s schooling (Section 5.4.2)	9. Collaborating with colleagues (Section 5.5.1) 10. Communicating with the kindergarten principal (Section 5.5.2)
Underpinning core values	11. Passion for teaching excellence (Section 5.6.1) 12. Passion for continuous learning (Section 5.6.2)			

Table 13: PSKTs' definition of teacher competence in kindergarten education

5.2.1. Assessing children's learning needs and abilities

My interviewees suggested that, as part of their teaching role, a kindergarten teacher should be capable of assessing children's learning needs and abilities. For example, Interviewee 4-F regarded this competence as distinguishing between kindergarten teachers and those who do not work in this profession:

There are different significant points of views on children's abilities between a kindergarten teacher and the public, but that is also what makes us professionals – kindergarten teachers should be left the image as established by the public, but should assess the children's abilities and needs by both theories and teaching experiences. (Interviewee 4-F)

Echoing Kinkead-Clark's (2018) findings, my interviewees highlighted the importance of a teacher's recognition of children's learning needs and abilities, especially as the standardised kindergarten-based curriculum does not lend itself to every children's learning ability. Competence in assessing children's learning ability could help teachers to select pedagogical practices that fit the children's learning needs. As Interviewee 10-F stated:

If we do, the teaching will be completely responsive to their learning abilities and needs, to help them learn joyfully. It is a required professional competence of a kindergarten teacher because this can help the children to explore the world, to learn more information, and even facilitate them to learn and to explore by themselves in their lives.

Interviewee 9-F also described how the competence of assessment was important in teaching in her class:

Children's learning abilities and needs entirely dominate the qualities of my teaching and whether my class can be delivered smoothly. If you are not designing the class by considering children's learning abilities and needs, they can also annoy the teachers and ignore our instructions. Then the teachers might induce a punishment to try to manage the class. However, the children won't be involved in the class, and the penalty will be useless to them.

As the interviewees illustrated, assessing children's learning needs and abilities must be emphasised in teaching and learning in a kindergarten. If not, the kindergarten teachers' work will suffer. For example, as Interviewee 10-F stated:

For example, if you want to deliver a lesson by storytelling, you first have to assess the children's learning abilities and needs well and pick a book that is suitable for them. If not, where the book outranges their abilities and interest, the children will not be involved in the lesson because they will not know what the teachers are doing and will not learn. As such, the teaching is meaningless.

In line with the findings of Avgitidou et al. (2013), my interviewees revealed that kindergarten teachers should be able to contemplate the differences between children at different developmental ages, instead of strictly applying a theoretical framework to grasp how a child should be and overlooking the complete picture of the whole child in reality. For example, Interviewees 7-F and 16-F reiterated that kindergarten teachers should determine the children's learning needs and abilities based on their individual circumstances by co-operating with the children. Interviewee 4-F described an example that illustrated why a kindergarten teacher should be able to assess children's situations in a lesson rather than simply push them towards a distant learning objective conceptually:

There was a child in my class whom everyone might think was naughty. The professional competence of a kindergarten teacher is, we should be able to assess his naughtiness, to know the hidden message and meanings of his actions, and to understand the teaching might not be responsive to his ability, and so the naughtiness occurs. I do emphasise this competence because every teacher should be sensitive in their teaching by knowing the children's abilities.

To be aligned with the ACTEQ's framework, teachers should be competent in assessing students' abilities and catering to their needs. In particular, as revealed by the interviewees in this study, a kindergarten teacher should not merely rely on the framework alone to determine every child's learning needs and abilities at a given stage. Rather, a kindergarten teacher should be capable of recognising that children's performance often veers off the knowledge

framework; therefore, they should take children's differences into account to assess their learning needs and abilities to guide their pedagogical practices.

Many of the interviewees commented that they should make the teaching materials (see Section 5.2.4) as well as design and deliver the lesson (see Section 5.2.2 and 5.2.3) around the children's learning abilities and needs, this perspective seems to reflect a hidden belief that their pedagogical practices should be child-centred, rather than assuming a lesson taught is a lesson learned, and rejecting to put themselves in children's shoes and to think about what children need to learn. This observation aligns to one major industry expectation in the field of kindergarten education in Hong Kong that the children's learning should always respond to their characteristics and developmental stage because kindergarten teachers' priority should be their children's benefit.

5.2.2. Making a lesson plan for teaching children

In their interviews, my participants generally indicated that a kindergarten teacher should be capable of making a written lesson plan for their teaching. For example, Interviewee 9-F stated the following:

Education is already regarded as a specialised profession; otherwise, why must a kindergarten school hire someone with a bachelor's degree in childhood education? Because teachers have learned to, having tailored to the children's ability, compose lesson plans and design teaching procedures; just like if, at the beginning, I was asked to lead an activity, but without having learned how to compose a lesson plan, I would not know how to do it.

A lesson plan should be well-organised and contain details of the lesson objectives and teaching procedures, as illustrated in this statement by Interviewee 1-F:

Once you have to prepare a good lesson plan, you then need to think about how to set learning objectives and what the teaching procedures should be, with regard to time allocation as well.

Furthermore, in a lesson plan, the kindergarten teacher should be able to justify their selection of the methods and materials to be used in the lesson to fit the children's learning needs and abilities, as highlighted by Interviewee 10-F:

For children with relatively poor language skills, they may not know the actual words, but they may be able to learn via picture book to understand their meanings. Composing a lesson plan means to pick my teaching materials and to design an activity to attract their attention and allow them to explore a topic further.

Interviewee 1-F also raised another example of how to plan a lesson:

When faced with children with different learning abilities, a teacher can plan to use different teaching methods to assist them in becoming better at learning; for example, picture book-based teaching works well for some non-Chinese-speaking children. For [Chinese-speaking] children, lesson plans based on inquiry-based activity, programme-based activity and Montessori teaching methods are all considered to be quite appropriate.

Writing a lesson plan was not mentioned solely in relation to the children's learning itself. For the interviewees, a well-planned lesson could have a function in helping them to teach in the classroom. The plan should be clear about the teaching steps, and so allow the teacher to be prepared for unexpected situations. As Interviewee 1-F continued:

Having a lesson plan in place will help us determine what we need to do in class. Of course, in reality, we would surely be unable to anticipate the children's reactions, but at the very least I know what my next step is, and I will be able to lead the class by adhering to the lesson plan's step-by-step instructions.

Interviewee 14-F also discussed how a well-planned lesson allows the teacher to be prepared to teach in the classroom:

Having a good lesson plan in place does not mean that, in reality, you can complete all the steps contained therein. For example, I planned a

procedure where the first step was to open the book, and the second step was to hold a pencil; but if a child's second step was to close the book, what should you do at this moment? As a teacher, we need to anticipate the different results of each step so that, even if a child fails to follow the steps in a lesson plan, we could still know how to respond appropriately.

Generally, the interviewees thought that a kindergarten teacher should be able to incorporate appropriate objectives, teaching methods and materials in their lesson plans, which should be responsive to their teaching in the classroom. In this way, they can teach by following the most desirable steps systematically and in an orderly manner while also ensuring that they can react to children's unexpected responses in the class. Therefore, making a good lesson plan can also give them direction while teaching in the lesson.

According to the programme curriculum (discussed in Section 3.4.2.2), every student must complete two in-services placements throughout their journey. In each placement practicum, they are compulsorily required to deliver a series of lessons on the subject physical activities, music, language, science and mathematics. To ensure covering their course curriculum and school practice, students are required to hand in a lesson plan to both kindergarten superintendents and the institutional fieldwork supervisor before the classes, because every of their lessons must be on the track to ensure that the school children were possibly hit their designed learning objectives and needs. While the lesson plan writing is one of the major assessments in the practicum placement, interviewees' emphasis on the importance on the lesson plan writing might be subject to the learning context that they situated.

5.2.3. Giving children instruction in the lesson

Often, according to the interviewees, what kindergarten teachers are able to implement was often as same as the planned lesson. Even if they could create a perfect lesson plan, the written plan could still fall short and not be practical at all. Therefore, in accordance with Hu et al.'s (2018) argument in the domain of teaching and learning, the interviewees thought that a kindergarten teacher must also be capable of giving children instruction in the lesson.

Interviewee 1-F stated the following:

For example, if a specific problem arose in the classroom, the children would feel very bored, or if it was very complicated, the children would

feel lost. Therefore, my instruction and interaction with the children became very important...

Interviewee 13-F also shared why giving children instruction is important in leading a lesson:

During the teaching [as a kindergarten teacher], you need to know how to work with them and explain it clearly to the children. If you do not, or use the wrong instructional guidance, the children might not understand, and your attempt at teaching would become a failure.

Some of the interviewees pointed out the possible consequence of the children not learning what the teacher intended to teach during the lesson if they presented a narrow and repetitious range of instructional guidance. Hence, similar to the point made by Flynn and Schachter (2017), the interviewees determined that a kindergarten teacher should make their instructions more precise and execute instruction according to the different level of each class:

Just like the K1 class I am teaching now; K1 and K3 are quite distinct from each other, because when you tell K1 children to hold up a box underneath when they eat, or otherwise the food will drop to the floor, you have to repeat it. (Interviewee 10-F)

Interviewee 13-F also illustrated the difference between giving instructions in K1 and K3 classes:

For K1 children, generally, you need to repeat your instructions over and over again. You need to explain it to them very clearly until they begin to understand. For K3 children, they are good at receiving information and often you only need to say it once, and they will get it.

Sometimes, as Interviewee 1-F shared, instructions can be delivered in a non-verbal way, which can also assist kindergarten teachers in encouraging the children to get involved in the lesson:

For example, I would use my body movements. When I put my hands next to my ears, this might seem like a bit of exaggerated movement, but the children love exaggeration very much. When I asked the children

questions, if they felt bored or lacked interest, they would sit quietly and would not raise their hands. That was the time when I realised I needed to offer better instruction to build up the learning atmosphere and stir up their interest to get involved in the class activity...

The ACTEQ's framework points out that a teacher should be able to deliver appropriate verbal instruction during lessons. In line with this, my interviewees suggested that kindergarten teachers should be capable of giving children proper instruction to engage them more effectively in classes. Furthermore, for the interviewees in this study, these instructions can also be non-verbal, and they should take into consideration the education level of the children being taught.

5.2.4. Creating teaching materials for children's learning

From the analysis above, interviewees pedagogical demanded teacher competence in the dimensions such as assessing children's learning needs and abilities, making a lesson plan for teaching children and giving children instruction in the lesson. The final dimension of teacher competence in this domain is the creation of teaching materials for children's learning. This dimension echoes the ACTEQ's framework, which highlights that a competent teacher should be able to motivate student's learning through teaching methods and tools. In this study, the interviewees primarily emphasised that kindergarten teachers should be able to create teaching materials in line with the proposed learning objectives:

As a teacher, if you do not have the professional ability to create teaching materials, such as making a doll which functions properly, then you're not qualified to be a teacher, because there is a fine line between making a handcraft and teaching materials. (Interviewee 2-F)

Creating teaching materials that align with the proposed learning objectives was also thought to be essential for a kindergarten teacher by the interviewees because they believed that it allows children to try out something that could link up with the lesson content:

We teach the children to braid, to twist and to hold chopsticks, as these actions can help to train their fine motor skills. As the teachers themselves are well trained, they should be able to create teaching

materials for the children to mould their fine motor skills with regard to their specific stage of development. (Interviewee 2-F)

For creating teaching materials for children's learning, the interviewees thought that kindergarten teachers should have artistic skills so that they could improvise with the resources available, as indicated by this illustrative quote from Interviewee 10-F:

Teaching materials can consist of many learning elements. For example, if someone wants to make a fake tomato, and he wants to create a more genuine and real-looking one, he might first create a ball and then wrap it in paper, which then makes it look more like a real tomato... I think, as a kindergarten teacher, you need to improvise with the materials available. You need to convert these ordinary materials into teaching materials to facilitate children in their learning journey.

Some of the interviewees thought that, alongside self-made teaching materials that require artistic skills, a kindergarten teacher should also be able to create materials that can assist with the informational aspect of teaching: worksheets, charts, infographics, etc.

You can make a record board. For example, after exploring the apple, let the children fill in the colour, or maybe set up a voting chart, or make some creative teaching materials to help to organise their learning experience. (Interviewee 11-F)

My interviewees viewed teaching materials as a vital supplement for a kindergarten teacher for the enhancement of children's learning. As such, a kindergarten teacher should be capable of creating teaching materials which offer children's opportunities to practise or to assimilate the information in the lesson. It was, therefore, one of the competencies that the interviewees thought a kindergarten teacher should be committed to developing. From my observations in the field of kindergarten education in Hong Kong, the industry used to desire a kindergarten teacher that would be able to support children learning by their hand-made teaching materials which are tailored to the teaching content and the students. Although there were institutional modules teaching the students to produce their teaching toolbox, paradoxically the design and implication of the teaching materials are parts of the assessment in their in-service placements. As some of the interviewees saw making teaching materials as part of the teacher competence

in kindergarten education, whereas this finding reflects my observation on the industrial context in Hong Kong that it assumes kindergarten teacher would be able to create their own teaching materials for their classes.

5.3. The domain of ‘student development’

In the ACTEQ’s framework, the next subset is student development. Under this domain, the framework refers to the competence of the teacher being aware of the importance of establishing a rapport with students, interacting with students in a generally appropriate manner and showing respect, care and consideration for them. My interviewees emphasised two areas of competence in this domain in the field of kindergarten education: acting as a role model for children, and reacting to children’s misbehaviour with patience.

5.3.1. Acting as a role model for children

In this study, the interviewees assumed that a kindergarten teacher should be a positive role model for the children they teach, because the children always observe and adopt teachers’ behaviour and took up to the teachers as a role model.

This competence reminds you that you must set a good example for the children. Because a kindergarten school not only provides children with learning experience or new knowledge, it may even shape the children’s moral values. (Interviewee 8-F)

It is easy for children to pick up a teacher’s behaviour as they consider a teacher to be their role model. Therefore, they will learn from you in whatever you say or do. (Interviewee 13-F)

To the interviewees in this study, being a role model referred to the actions of showing genuine politeness, respect and appreciation to others in conversations. Interestingly, to act as a model for children, the interviewees thought that they should always be attentive to their own poor behaviours, because being a role model could backfire. If a teacher did not realise how much their students looked to them as an example, the children could learn inappropriate behaviours:

The way the teacher and children interact can affect children’s future development... That is, if the first person who comes into a child’s life is

mischievous, then the child will recognise that 'being mischievous' is correct. A child might regard the teacher to be god-like, as if whatever he/she says is correct, and the child will unconsciously follow every action and every word spoken by a teacher. (Interviewee 2-F)

A teacher is a child's model. Apart from their parents, the teachers are the ones who have the most contact with the children, so it is easy for them to imitate their teachers. If I set a bad example for them, it will harm their future growth and development. (Interviewee 6-F)

Interviewee 4-F raised a specific type of example of why they should always be attentive to their own poor behaviours:

When a teacher sees a child hitting another child, and the teacher's mindset is that 'the weak are meant to be bullied', then their teaching would be encouraging a child to fight back to resolve the situation. This is where the problem lies, because the child will learn to adopt this attitude to resolve all their problems.

While the interviewees thought that kindergarten teachers should pay attention to their own inappropriate behaviours, they also demonstrated that they must know what the desires in their private life could be acted out as the children's role model. Harwood et al. (2013) support this stance, stating that kindergarten teachers must be able to discriminate between their desires and their values in action. An illustrative example was suggested by Interviewee 9-F:

As a teacher, you have to adopt proper conduct, and you always have to lead by example. For instance, if you were to smoke or drink in the street and you were seen by the children's parents, then they would question whether you are fit to teach their children. Of course, if I put aside my occupation as a teacher, I am just an ordinary person with a lifestyle that I want to pursue. However, being a teacher who commands respect from others, you need to make a much-unseen sacrifice in your private life.

My interviewees stated that children always observe and adopt teachers' behaviour and look up to their teachers as role models; therefore, a kindergarten teacher should be capable of

being attentive to their own misbehaviours and actions, because any inappropriate behaviours on their part could backfire for the children. As such, the interviewees mentioned that they should pay attention to their personal desires which were worthwhile for children modelling, and in align to their understanding of a competent kindergarten teacher.

5.3.2. Treating students with patience

The next distinct competence identified in the subset of student development in my study was that a kindergarten teacher must be capable of treating children with patience. According to the interviewees, children's behaviours in the classroom might sometimes make them angry and annoyed as teachers if their expectations were not being met. This could involve, for example, the children getting stuck in the class (Interviewee 13-F), struggling to communicate with others (Interviewee 6-F) or rejecting to explore the experience the teacher has designed (Interviewee 2-F). However, these interviewees stated that kindergarten teachers should remain patient, meaning that they must be able to self-control their emotional expression.

I know that, being a teacher, there will always be times where you will be frustrated. However, we must not lose our patience or throw a tantrum in front of the children. (Interviewee 6-F)

As a teacher, you must be patient when teaching a class. When a child does something wrong or does something that does not meet the teacher's expectations, he must not immediately scold them. (Interviewee 13-F)

Even if a child does something you do not like or something wrong, you must not immediately scold the child. Because if the teacher often engages in scolding, the children will pick up this behaviour from the teacher and will, in turn, scold others. That means, in any case, the teacher must remain gentle when talking to the child, even if the child is throwing a tantrum. (Interviewee 2-F)

Throughout the interviews, the participants emphasised that impatience serves not just as an emotional expression but also to exacerbate the children's school life. In line with this, they explained why treating children with patience is important for a kindergarten teacher:

Patience is very important. Sometimes, the child's behaviour may not be up to par with the teacher's expectations, but the teacher must not scold him/her because of this. Because they are only children and they just want to do what they want to do and be told what they want to be told, or perhaps they could not just comply [with the teacher's instruction]. As a teacher, it is important to have patience, because you need to understand the children's needs more than others... (Interviewee 9-F)

To a teacher, a child is still a child. Some children may have certain weaker abilities than others, but the teacher must not lose patience or throw a tantrum. As teachers, we must realise that it is our job to be there to assist the children in helping them learn because there are many things that children do not understand. (Interviewee 5-F)

If a kindergarten teacher can treat children with patience, this could give rise to an understanding of children's learning situations and difficulties, and they can then focus on appropriate actions to respond to their learning needs:

I think it is important to explain patiently to the child why during class everyone must remain quiet and not cause disturbance to others. Otherwise, if the child does not realise that he has committed a wrong behaviour, he will only continue to repeat his actions the same way. (Interviewee 13-F)

During the practicum period, there was a child who worked on his homework very slowly, and he did not know how to write word characters. The teacher became impatient when he saw this, and he started to use a more critical tone with the child. The children had only started to learn how to hold a pencil, and they needed more time to practise... we must let the children know that, as their teacher, no matter how long it will take, I will help them finish the task at hand. (Interviewee 6-F)

A study by Hu et al. (2018) showed that competent teachers were more capable of perceiving and understanding emotions, which contributed to higher sensitivity in their interactions with children. Although the current study has not directly evidenced how teachers' sensitivity contributes to the teacher–children relationship, treating children with patience was one of the

distinct competencies for a kindergarten teacher emphasised by the interviewees. According to the analysis of their responses, they should have the capability of self-control regarding their emotional expression and awareness of children's situations which may require patience¹⁰. In this section, the interviewees revealed that children influenced a lot by imitating the actions of teacher around them, and so it is important that they present themselves in the way that could be modelled. At the same time, the interviewees also illustrated that in the real situation the children usually act different from that of their expectation and test their patience multiple times a day. The interplay between the interviewees and the children in the workplace reflects the challenges that a kindergarten teacher commonly faced in Hong Kong. From one direction, a kindergarten teacher should be a good model to the children that they are keeping the standard of behaviours all the time. From another direction, a kindergarten teacher should understand children often acted in undesirable ways. From my observations, the ideas of patience should not be merely viewed as a personal temperament in addition the interviewees' quotes illustrated a valuable area for practice development where kindergarten teachers are providing quality childcare and facilitating children's development.

5.4. The domain of 'school development'

According to the ACTEQ's framework, the third domain of teacher competence concerns school development. In this domain, the framework refers to teachers who are capable of cultivating a caring and inviting school climate and implementing policies, procedures and practices or continuous school development. Additionally, in a broader sense, they should be aware of societal changes and their impact on the school, as well as being able to communicate and build trust with parents; for example, by getting involved in parent-related activities and understanding their students' family backgrounds. My interviewees acknowledged two competences of kindergarten teachers related to this domain: building a positive learning environment in the kindergarten, and communicating with the parents about their children's schooling.

¹⁰ In the current study, interviewees used the specific term 'patience' in referring to the need to avoid building up unnecessary frustration and becoming angry when working with children in a kindergarten throughout the day. From my observation, this term is commonly used in the Hong Kong context in relation to a kindergarten teacher's quality of respecting their students' choices and loving the children to help them deal with each child's learning situation.

5.4.1. Building a positive learning environment in the kindergarten

For one competence related to the domain of school development, the interviewees stated that kindergarten teachers should be able to build up a positive learning environment where all children could immerse themselves in the lessons and activities. One characteristic of the learning environment refers to the physical setting, which can fundamentally influence children's concentration in their lessons. Particularly in the Hong Kong context, the interviewees thought that a kindergarten teacher should be attentive to the size and limitations of the kindergarten environment:

If the kindergarten teachers hope that the children can concentrate on their learning, they must start by creating a good learning environment.

Particularly in Hong Kong's kindergarten schools, you do not have unlimited access to classrooms – you need to partition a classroom to create different learning spaces, and also need to minimise distractions for the children. (Interviewee 1-F)

Interviewee 8-F also explained how the classroom's physical setting could influence children's concentration in their lessons:

The children have their own activity time. They may go to the family corner or the library; when there is a sudden sound, the children will look around because they are easily attracted to other things. Therefore, if teachers hope that the children can concentrate on their learning, they must start by creating a good physical learning environment.

While classroom size was thought to be highly relevant to children's concentration in their lessons, the meaning of the learning environment was not limited to the physical setting. Rather, similar to the findings of Di Santo et al. (2017), my interviewees also highlighted that the environment refers to a social atmosphere that is supportive and interactive during the time in kindergarten. As such, a kindergarten teacher should be able to rephrase their instruction by moving away from any negative imperative wording.

I feel that teachers need to teach children positively. If you always give them criticism, the children's self-esteem will be affected. If you do not let the children do this and that, they might feel 'Oh, I will not do it,

and then I will only do what you say'. The children will think that they are only allowed to do things they are asked... So, do not say to them 'do not do this or do not do that', but start with 'please'; for example, 'Please keep your voice down, you might scare the other children, please do this, and that', and the children will follow suit. (Interviewee 2-F)

Do not talk to children with words of discouragement. For example, if you want a child to sit down, you would say, 'please sit down' instead of, 'do not walk around'. Sometimes, maybe you need to deny him of something by telling him not to do this, and he does not know what to do. (Interviewee 5-F)

To move away from any negative imperative wording of the instruction, the interviewees suggested that a competent kindergarten teacher should be able to help children interactively engage with others on a daily basis, as Interviewee 6-F illustrated:

We can give praise to a child in the classroom. For example, the teacher can say, 'he has progressed a lot. What can we praise him for?'. The child will respond: 'He has made progress'. Then we shall praise him together; not only can we foster him to learn to give praise to others, but we can also instil politeness in him to respond to others' appreciation, and thereby establish a positive learning environment.

Interviewee 1-F also shared a relevant experience from the first week of her practicum:

In the first week of residing in the kindergarten, all the children called me Ms A. I realised that I need to memorise the name of each child. It is very important because I should not call out to them by way of 'this child' as this would not promote our mutual interaction in class. To establish a good learning environment, I worked hard to call each child by their name. In the second week, every child started to give me hugs and proactively talk to me, sharing details about what they had for breakfast. I think a teacher must establish a good learning environment.

The learning environment comprises both the physical setting and the social atmosphere, and my interviewees stated that kindergarten teachers should be able to build up a positive one. Furthermore, a kindergarten teacher was viewed as a key ingredient in determining the atmosphere in the class. Hence, to build up a positive learning environment, my interviewees thought that a kindergarten teacher should be competent in using supportive wording and helping children interactively engage with others in daily.

5.4.2. Communicating with parents about their children's schooling

Another competence the interviewees defined in this domain was the capability of communicating with parents about their children's schooling. The interviewees insisted that working with the parents is becoming a significant part of kindergarten teachers' duties nowadays. This is because communication with parents can help them to engage in their children's schooling.

Communicating with parents is very important because it enables me to understand each child's background, developmental abilities, and even special learning needs. With this information, I can help each of them too, like in devising a teaching plan, and this helps to better cater to the children's development. (Interview 11-F)

When you work with different parents, you need to adjust the way of communication constantly. Because each parent's background and personality are different, you need to know how to communicate well so that you can collaborate with them to devise a teaching method specific to the child and get feedback from the parents on the child's performance. This is an ability that kindergarten teachers must have. (Interviewee 12-M)

Additionally, communication with parents can help the parent to understand their children's situation in the school:

At kindergarten school, we should notify the parents about a child's injury involving a small wound, and they can become quite nervous as a result. Therefore, good communication between teachers and parents is very important. If you have established rapport with the parents, and there is a high

level of mutual trust, the parents may be more forgiving in the event that these unfortunate incidents occur. (Interview 4-F)

In terms of how to communicate with parents, the interviewees thought that kindergarten teachers should be informative and keep updating the parents their children's schooling accurately if necessary. That is, they should communicate what went on with the children during the school day in detail, not just discuss behavioural problems:

Parents like one specific trait that a teacher has; that is, the teacher knows how to pay special attention to their children – the teacher regards the trivial things about the child as being important. She will remember clearly the child's subtle behaviour details. For example, parents often enjoy listening to the teacher about their child's day at school, and they consider that a teacher cares deeply about their child. Parents might even ask, 'What did my children do during that time?'. As a teacher, it is not possible to refer to the child's portfolio at this time. Instead, the teacher should be well prepared in advance to report any observations to the parents. (Interviewee 3-F)

Another example was given by Interviewee 15-M:

Assuming that the child was feeling unwell a few days ago, and the parents ask the teacher about the child's situation on that day. The teacher cannot simply tell the parents that 'your child is OK', because the parents would be very worried. As a kindergarten teacher, we must first let the parents feel comfortable letting us take care of their children. When the parents want to know their child's latest situation, we must exhibit our professionalism and try to explain enough detail to them so that they can rest assured.

Keeping parents informed about their children's situations can build up communication channels with them. Sometimes, particularly if their child has suffered an injury or accident in school, a kindergarten teacher needs to recognise the parents' emotions:

When the parent loses his temper, and might I quarrel with him, it does not help the situation at all. For example, if a child is injured and the parents become upset, as the child's teacher, we need to explain the situation to them.

Sometimes you need to calm them down instead of getting into a dispute with them about who is right or wrong. (Interviewee 1-F)

For my interviewees, those working with children in a kindergarten should embrace parents' involvement. This is because getting constructive feedback from parents on the child's performance can help the teachers to engage in students' schooling and learning. However, sometimes children's suffering in the school presents the challenges for the teacher to communicate with the parents. As such, they thought that a kindergarten teacher should always be ready to communicate with parents about their children's performance and to respond to parents' emotions when their children have had a bad experience during school time.

5.5. The domain of 'professional relationships and services'

According to the ACTEQ's framework, a teacher should have 'a basic grasp of current education policies' and should pay 'attention to the possible implications of these new initiatives on [their] own teaching work'. Additionally, the framework states that a teacher should have a 'general understanding of the division of work within the school' and maintain 'cordial relationships with colleagues to fulfil the assigned duties'. In the current study, there were some responses related to this domain, with the interviewees mentioning that teacher competence in kindergarten education involves collaborating with colleagues and communicating with the kindergarten principal.

5.5.1. Collaborating with colleagues

The interviewees who emphasised this dimension of teacher competence stated that working with colleagues is an inescapable task of a kindergarten teacher in the workplace. They highlighted that collaboration with colleagues is important to a kindergarten teacher because a collaborative work relationship can lay the groundwork for excellence in their kindergarten duties:

Once the school was hosting a carnival event, and the teachers gathered around to prepare balloons and snacks together. It was a tough task as each of us made more than a hundred balloons. We blew up the balloons with our mouths, and it made our hands sore, but everyone provided moral support to each other.

Although my hands were very tired, I did not feel it was hard work at all, and

this experience was indeed very memorable, and it made me very happy.

(Interview 3-F)

For example, during the practicum period, I needed to keep in touch with the class master. As we switched between classes, the whole process needed to be well coordinated. For example, when the class master was leading the children to queue up for the bathroom, I immediately started to prepare the class for the next activity. There is also the teaching plan. If we cooperate well together, we can apply the same teaching method, and we shall get twice the result with half the effort. (Interviewee 15-M)

Our interviewees also mentioned that, frequently, working with colleagues did not guarantee collaboration. If a disagreement occurs between colleagues, kindergarten teachers might not think and act alike as a team:

I think the working relationship amongst colleagues is very important. During the second year of the practicum period, the teacher relationships at the school were not very harmonious, and the teachers divided themselves amongst many groups. Each group hurled negative comments at each other and showed animosity to each other. (Interviewee 7-F)

Another illustrative example was shared by Interviewee 2-F, demonstrating how the disagreement between the colleagues had suffered children's learning:

Let me give you an example. At the kindergarten school where I had my practicum, there were two teachers; one was relatively less experienced, and the other had been teaching for 20 years. They differed in the ways they taught. Their lesson plans differed as each had their unique teaching method, and conflicts were bound to happen... Therefore, the differences in their teaching methods even rendered the children at a loss, as they did not know whose teaching method to follow, and they did not know which teacher was right.

Being respectful was highlighted by the interviewees as an element that a collaborative work relationship requires. They sometimes found it challenging to work with other kindergarten teachers when the colleagues had different viewpoints in the same issue. As such, a competent kindergarten teacher should respect every colleague they work with, as well as their views.

I think a teacher needs to have the professional attitude to be able to adapt accordingly if another teacher has a different teaching method; or, through mutual adjustment, both teachers should devise a specific teaching method together that is most suitable for the children. (Interviewee 2-F)

Interviewee 9-F further detailed the importance of respect in colleague–colleague collaborative relationships:

I feel that, as a kindergarten teacher, we need to have team spirit, because we need to work with others as just one individual cannot complete each task. Most of the time, we are not making personal decisions, but we need to be able to work with others whom we are not too familiar with. At the same time, each person's ability may be different. Their ability may be better than yours, but you need to fully assert yourself without being intimidated and try to let others respect the way you are as well.

Some interviewees shared that working with colleagues could be uncomfortable at times. However, as kindergarten teachers, the interviewees thought they must still be able to work with colleagues respectfully. Whether in organising a joint teaching session or carrying out daily routine activities, a kindergarten teacher should respect their colleagues' views and the differences between their colleagues and themselves, as they are all equally important to the collaborative process.

5.5.2. Communicating with the kindergarten principal

Alongside collaborating with colleagues, the interviewees also highlighted that kindergarten teachers must inevitably communicate with the principal of their kindergarten. My interviewees suggested that a kindergarten teacher should be able to report to the principal tactfully:

The work of a kindergarten teacher involves different levels of cooperation, and frequently it involves holding meetings. The school principal always asks us about our thoughts in these meetings, and many decisions are made based on group discussions. If you cannot speak tactfully, they might not take your views into account... (Interviewee 9-F)

...if the school principal asks you about your teaching plan and its content, you need to share your work with him briefly on what you have accomplished. (Interviewee 8-F)

Similar to the results in Baker and Dever's (2005) study of novice teachers, the interviewees regarded principals as authority figures who are in charge of the kindergarten. As such, to communicate effectively with the principal, Interviewees 5-F and 12-M shared that kindergarten teachers should consider the staff hierarchy.

When you talk to with a class of three-to-six-year-olds, you can make commands with your speech, speed of enunciation and voice to them; and when you are speaking to your colleagues, you should adopt a tone of voice which allows you to share and exchange your opinion. But when you're confronting the school principal, your rank is lower than theirs. If you speak to your school principal in the same way that you would speak to a child, then communication problems are bound to arise, because you are not treating them with enough respect. (Interviewee 12-M)

As the Principal is the person who is in charge of the kindergarten, my interviewees highlighted that a kindergarten teacher should have the ability to communicate with their Principal tactfully. Additionally, subject to the staff hierarchy, the interviewees also revealed that they should be able to demonstrate their subservience as a feature of their competence in communicating with the kindergarten Principal:

When confronted with the school's Principal in a state of anger, I need to make sure that I swallow my pride and ensure to explain everything as slowly and as calmly as I can to him. (Interviewee 1-F)

When they [Principal] give you advice, it does not mean they are blaming you. Instead, you need to adopt a good attitude, keep your mind open to their suggestions and consider whether they can be useful to you. (Interviewee 13-F)

From the current study's observations, the interviewees commonly demonstrate their subservience to the Principal because the teacher-principal relationship is directly connected to their job security. While the interviewees for this study thought that they should be able to

demonstrate their subservience when speaking to the Principal, they indeed had little experience in working with a Principal; rather, they picked up this perspective from their peers and other teachers when working in kindergarten. Hence, this observation is interesting that the perspective seems to be in line with the situation in Hong Kong, where the Principal is the person who is in charge of the kindergarten and responsible for hiring new teachers, evaluating the teachers' performance and approving the teachers' duties and school schedule.

5.6. Underpinning core values

Alongside the above-mentioned dimensional competences, the ACTEQ's framework also includes elements that refer to teachers' distinct values, including the following: 'belief that all students can learn'; 'love and care for students'; 'respect for diversity'; 'commitment and dedication to the profession'; 'collaboration, sharing and team spirit'; and 'passion for continuous learning and excellence'. While the framework does not have a clear and precise definition that covers all its valued competences, my results have identified two core values that a kindergarten teacher should have: a passion for teaching excellence, and a passion for continuous learning.

5.6.1. Passion for teaching excellence

Displaying a view aligned with the findings of Harwood et al. (2013), the majority of the interviewees in the current study thought that they should have a passion for teaching. However, in Harwood et al.'s study, this passion comprised several dimensions, including a love of children, a desire to help children and their families and a passion for the work, while in the current study the interviewees particularly emphasised their passion for teaching excellence:

A teacher should adopt a professional attitude, which means to treat every task with utmost seriousness and to try his best at teaching. (Interviewee 3-F)

The difference between an occupational and a professional teacher is, if you love your job of being a teacher, then it is regarded as your occupation, but if you have passion in teaching, then you are regarded as a professional teacher. (Interviewee 12-M)

One of the teacher's missions is to let the children acquire new knowledge from playing games. The children must not be pushed to gain knowledge;

rather, they should be allowed to have fun and to be happy in their learning... If we allow this attitude to change, and we consider being a kindergarten teacher is only a job and we have lost the passion for teaching. (Interviewee 16-F)

My interviewees viewed passion as an important and desirable personal trait in teaching. Unlike the competences in the other domains of teaching and learning that I have discussed above, the passion is the personal attitudinal aspect of teaching excellence. The interviewees mentioned that this passion drives them to endeavour to keep preparing their lesson content to encourage children's learning.

... like, sacrificing their own time for class preparation to ensure the important lesson points are well explained so that the students can achieve better learning. (Interviewee 4-F)

For example, we need to devise a very detailed teaching plan, and not just jot down a couple of sentences; also, the teaching method needs to be well established. You may also get comments from the parents, and you may also test out the teaching tools beforehand. (Interviewee 8-F)

Showing passion for preparing lessons was viewed by our interviewees as an essential element for PSKTs in keeping the lesson that fit to children's learning needs and abilities because otherwise, they could just repeat the same plan year by year, regardless of the learning needs of their current students:

Repeated use of the same lesson plan year by year is possible, but since time is always changing and the children's attitudes differ each year, using the same teaching plan may sometimes no longer be suitable. In the past, free play was emphasised. When a kindergarten teacher played with the children, the use of basic maths was sufficient; modern teaching methods are becoming more advanced. For example, I can take the best elements from the use of the free play method and other teaching methods to design a new lesson plan that is adapted to the children's needs. It will allow the children to have fun but, at the same time, to learn more new things. (Interviewee 15-M)

Similarly to Hobbs (2012), my findings indicate that passion for teaching excellence reflects an individual's subjective commitment to the classes they teach and to preparing the lesson content in a way that meets the perceived learning needs of the children they are teaching. My interviewees also thought that a kindergarten teacher should be passionate about teaching excellence because this core value could drive a teacher to prepare and deliver lessons of the highest possible quality.

5.6.2. Passion for continuous learning

Those interviewees who thought that a passion for continuous learning was vital emphasised that a kindergarten teacher could never acquire all the available pedagogical knowledge or conduct a lesson perfectly. Hence, they thought that a kindergarten teacher should be passionate about continuous learning to keep improving the quality of their teaching practices:

If you do not have this passion, you will stop learning, just like being afraid to step beyond a cliff edge – you know you do not have enough knowledge, but you stop and stay complacent with the knowledge you have. You think you have enough knowledge to address the children's needs, but this, in my mind, is an act of failure. (Interviewee 12-M)

In terms of learning, this relates first to subject knowledge, as mentioned by Interviewee 6-F:

As teachers, although we are not as proficient at everything, we must have an idea about everything. At present, unlike primary and secondary schools that only teach Chinese and English, kindergarten schools in Hong Kong have integrated different subjects into their curriculum. So, teachers need to teach different subjects, such as STEM education. This is a trend, and this has given rise to a need for teachers to adopt a work attitude – a teacher needs to continue to learn and acquire new knowledge. (Interviewee 6-F)

However, this type of learning is not limited only to subject knowledge; it also concerns pedagogical knowledge, as illustrated by Interviewee 13-F:

For example, implementation of classroom rules, teaching methods, how to attract the children's attention, or in what ways you can calm down a child with SEN. Although we may have come across the relevant methods to

address each scenario during our studies, when it comes to practical implementation, as each child has different characteristics, persistent learning is required to know how to deal with them. (Interviewee 13-F)

Another interesting finding of this study is that the interviewees thought that their reflection on teaching practices was important for developing this kind of passion. This is because they could figure out their own learning needs though re-examining their teaching experience.

In the education sector, there are many different teaching methods, and the number is ever-growing; for example, the free-play method and the project approach method. Of course, it is easy to get through one class and never think about it again. However, we need to engage in self-reflection – why are children required to learn the things we are teaching?... We then need to learn other teaching methods and try to get the very best from them and apply them to our everyday teaching practice. (Interviewee 3-F)

My interviewees revealed that kindergarten teachers could sometimes lack competence, not in terms of failing to manage the children in a class, but in acquiring and applying subject-related and pedagogical knowledge in conducting their lessons. As discussed in Hu et al.'s (2018) study, teachers' attitudes influence their teaching practice as well as their self-assessment of their teaching strengths and weaknesses. Similar cases emerged in my findings where my interviewees thought that they should have the awareness that to keep re-examining their teaching practices and to identify changeable aspects of where they could improve. As such, my interviewees suggested that a competent kindergarten teacher should be passionate about learning to teach because only continuous learning can widen their knowledge and diminish the unknown elements of the most suitable teaching practices for each situation.

It is worth mentioning again that the interviewees were all higher diploma-levelled pre-service kindergarten teachers. In terms of the programme curriculum (discussed in section 3.4.2.1), it is designed to 'equip them with the necessary practical and professional knowledge and skills, initially at paraprofessional level'. From my observations in the department, it is common that the graduates felt that they were not adequately skilled as a teacher of kindergarten-aged children, even they were already qualified to teach under the Education Ordinance at the end of the programme. They normally accepted that they needed to further develop their competence by either teaching in the kindergarten or completing the bachelor

degree. This observation might reflect a level of ambivalence as to their viewpoints of the underpinned core values of a kindergarten teacher, with the interviews were conducted after the completion of the programme when most of them were transiting to the next phase in their life.

5.7. Discussion: Tendency of PSKTs' definition of teaching competence

This chapter's findings from the interviewees' responses have offered insights into how PSKTs define teacher competence in kindergarten education. Given that there might be a less noticeable concern on the findings than I found, a closer look at the results constructed additional insights for this chapter.

First and foremost, it is interesting that the interviewees' statements were mostly presented in the domain of teaching and learning, according to the ACTEQ's framework. Impressively, even their underpinned core values were related to their teaching practices. This phenomenon reflected a definition of teacher competence focused on pedagogical practices, which was very characteristic of the interviewees. A possible explanation for this is that the interviewees' learning experiences discussed in this study were based within the research context of a vocational institution in Hong Kong. Inspired by the study of Hodge and Smith (2019), based on the mission of vocational education, an institution might assume that PSKTs' practical abilities in the classroom are the foundation of being a kindergarten teacher; as such, their training might mainly focus on exploring practical knowledge related to teaching and learning. Smith and Blake (2009) also found that a vocational training approach expected much more learning in the form of reproducing practices for specific working situations in comparison with PSKTs' learning experience in a university, where understanding, abstraction and deep personal growth were valued most highly. Pinpointing the learning experience in a vocational education context, O'Shea et al. (2012) also illustrated that the PSKT training in vocational institutions tends to be competency- and skills-oriented and to focus on practical skills required for work in the profession. Although this chapter did not identify the correlation between the vocational education setting and PSKTs' learning outcomes, it is still interesting to note that, in their interviews, most of my participants emphasised the teaching and learning subset as most characteristic of their understanding across all the domains. This phenomenon seems consistent with the vocational education context.

I have taken a closer look at particular dimensions within each domain of the ACTEQ's framework. As discussed in Chapter 4, this framework is not a formal checklist to measure or assess teachers' competence. However, it is still acutely interesting that my data lacked findings in all the dimensions relating to education policy and organisational culture, including policies, procedures and practices, school vision and mission, culture and ethos, and involvement in policies related to education. I suggest two explanations to illustrate how this phenomenon might occur. The first is that the programme curriculum at Institution A excludes related teaching content, instead merely focusing on the vocational component in the domains of child studies, parental involvement and administrative management, foundations of early childhood education, the curriculum in early childhood education, and children with diverse needs. Thus, the curriculum's content on educational policy and school culture was perhaps not as sufficient as the practical knowledge element. This tendency could have been especially influential for our interviewees, because their characterisation and definition of teacher competence was primarily and contextually centred on what they had learned during the teacher training programme (Pruitt, 2011).

The second potential explanation is that the PSKTs interviewed might have lacked working experience in executing such policy in their practices. Baum (2011) conducted a qualitative case study to report on teacher preparation programmes as a means of forming novice kindergarten teachers' curricular decision-making for instructional practice. He concluded that those kindergarten teachers who lacked working experience might be unable to understand the profession in depth and from a broad perspective. Furthermore, Birbili and Myrovali (2020) explored how policy contexts can mediate kindergarten teachers' relationships with the official curriculum. Their discussion indicated that increments of working experience might provoke novice kindergarten teachers to become more familiar with the policy–practice relationship and discover the importance of it. Hence, alongside the design of the programme curriculum, I suggest that further studies could focus on how individual experience continually developing PSKTs' competence after they enter the workforce; in particular, if this transformation is experience-based and entirely tied to their unique working context (Caudle & Moran, 2012) and working experience (Baker & Dever, 2005).

Although this chapter has put forward the meaning of teacher competence as perceived by students in a pre-service training programme in Hong Kong, some attention still needs to be

drawn in the light of the interviewees' responses that are not discussed in the findings. For instance, interviewee 1-F shared that kindergarten teachers should be able to recognize their standard of performance even when the kindergarten did not acknowledge their specific work tasks. Interviewee 4-F thought that practical engagement in the special schools was the competence that a kindergarten teacher should have. Interviewees 6-F found that a kindergarten should be able to take good care of infants by feeding them milk and changing their diapers. Interviewee 7-F found that punctuality is a trait that every kindergarten teacher should be aiming for. Interviewee 8 thought that a kindergarten teacher should be competent in managing the administrative work in the workplace. I suggest two explanations to illustrate why their responses are not discussed in the findings. The first reason is that the analysis was guided by ACTEQ teacher competencies framework (ACTEQ, 2003; 2006; 2009) and these responses are the aspects that I could not find evidence in the framework. The second explanation comes to follow the first one. While those responses were not covered in the existing framework, at the same time, they had been respectively identified and coded in their interviews. Based on these two explanations, I had not put them in the findings but further exploration of these responses and focusing on the single case would possibly contribute to the discussions.

Overall, these findings suggest that there was a tendency in my interviewees' definitions of teacher competence in kindergarten education towards more awareness of the dimensions of teaching and learning practices, but less consideration of education policy and kindergarten organisational culture. This disposition is not surprising given that the PSKTs received their teacher training in a vocational education context and subject to the designed programme curriculum. Furthermore, the interviewees were just at the start of their teaching journey, and their future working experiences might enhance their competence in those dimensions that were absent from the findings.

Chapter 6: Conclusion

6.1. Introduction

This chapter summarises the discussion and findings of this thesis alongside the implications of the findings for higher education sectors and suggestions for future research. By reviewing the thesis, it revisits the research aim and summarises the answers to the research questions. It then outlines the implications for the higher education sectors and identifies some areas for future research. At the end of the chapter, the closing thoughts of this thesis are stated.

6.2. Revisiting research aim and questions

This study examined how PSKTs' competence in kindergarten education is developed during a teacher training programme in Hong Kong. Through the historical developmental stages of the kindergarten teaching profession in Hong Kong, with a trend towards enhancing the quality of QKTs, the government has gradually upgraded the mandatory qualification requirements for kindergarten teachers to enter the workforce. A linear relationship between improved credential level of PSKT training and teacher competence was assumed and also favoured. However, this assumption is problematic because the influence of teacher training programmes on the development of PSKTs' competence is under-researched. Hence, the aim for this study is opening up; it is urgent to focus on **how PSKTs' teacher competence is developed during teacher training programmes in Hong Kong.**

As an integrated set of knowledge, skills, and attitudes that leads teachers to act appropriately in their roles, teacher competence is not an attribute that kindergarten teachers suddenly acquire when they obtain a certain qualification. Nevertheless, some kindergarten teachers developed their competence deliberately, mostly as a result of their learning in PSKT training programmes. Guided by the review of the existing literature, this study aimed to question the credential–competence assumption and then to incorporate the current limited understanding of PSKTs' training programmes and the development of teacher competence in Hong Kong.

In this regard, this research aim was then narrowed down to three research questions.

Addressing **the first research question (RQ1)** involved researching the complex and diverse learning experiences of PSKTs that have an influence on their ideas of teacher competence. Based on the findings from the 17 participant-led photo-elicitation interviews, PSKTs' competence in kindergarten education is developed through their learning experiences in

institutional coursework, which can equip them with relevant content knowledge to help them to perform better when taking on tasks in future classes. Also, all the interviewees recognised their learning experiences in practicum placements as an opportunity to observe other teachers' practices in kindergarten settings and to apply their learned knowledge in practice. Interestingly, some of the participants also highlighted the importance of extra-curricular activities such as exchange programmes and volunteering to work at information day events. The findings also suggest that it is worthwhile to explore further how extra-curricular activities differ in promoting PSKTs' development of teacher competence, because the interviewees' learning experiences in extra-curricular activities were often unique.

Then, I designed **the second research question (RQ2)** while studying their process of reflection, which depicted their development of teacher competence during the course of a teacher training programme in their perspective. Facilitated by experiential learning cycle (Kolb, 1984; 2014), I found that the PSKTs interviewed had already grasped the concept of teacher competence at the surface level before or at the beginning of their enrolment. Through actively observing and reflecting upon various learning activities, they formed new ideas and modified their existing conceptions of teacher competence for further application. A discussion point worth noting in relation to this question is the importance of the institutional placement supervisors' feedback, which might provoke the PSKTs to re-examine their experiences and their practice in their in-service placements.

By exploring how PSKTs narrate what teacher competence in kindergarten education means to them, I also addressed **the third research question (RQ3)** regarding how PSKTs define this concept. Guided by the ACTEQ's framework, I demonstrated how the interviewees described their most recent concept of teacher competence in kindergarten education in the domains of teaching and learning, students' development, school development, professional relationship and services, and underpinned core values. Interestingly, among all the domains and core values, the results for the subsets revealed that the perspectives of interviewees were narrowly focused on the domain of teaching and learning, whereas the least emphasis was given to the dimension of educational policy and organisational culture. This phenomenon seems consistent with the discussion of vocational education and the situation of PSKTs, who are just at the start of their teaching journey. This perspective could offer additional insights to future research concerning the effectiveness of PSKTs' training programmes in the context of vocational education.

6.3. Implications

To move beyond the research questions, from reviewing the findings so far, I note that there are two important characteristics that might contribute to the success of a PSKT training programme. First, as evidenced in Section 4.2, it was found that the participants appreciated the practical elements in various activities throughout the training programme because they could ‘work out’ the knowledge, which gave them a new sense of what decision and action they should take in the role of a kindergarten teacher. Second, the findings highlighted the importance of the institutional placement supervisors’ guidance in PSKTs’ in-service placements, because their feedback might provoke the PSKTs to re-examine their experience and their practices in the kindergarten environment.

It is in these contexts that the greatest potential for the enhancement of training programmes is seen; therefore, the following three implications are suggested. These are not limited to the department and programme at Institution A, but could also apply to other tertiary institutions and teacher educators in related fields:

1. Reviewing PSKT programme curricula by connecting theory to practice (Section 6.3.1.)
2. Embedding reflective practices in the programme curriculum (Section 6.3.2.)
3. Providing adequate training to institutional placement supervisors (Section 6.3.3.)

6.3.1. Reviewing PSKT programme curricula by connecting theory to practice

The PSKTs appreciated the practical tasks in the training programme from a number of different perspectives. For instance, as stated in Section 4.2, the interviewees emphasised the practical tasks in the practicum placement that provided them with knowledge about industry standards and what kinds of pedagogical approach would work in a kindergarten environment as they were learning to be QKTs. In the same section, some interviewees also appreciated the practical tasks in the module coursework and voluntary work because they allowed them to work through and apply the knowledge they had acquired so far.

In acknowledging these influential practical elements of interviewees’ learning experience, concerns are raised over the debate around the theory–practice dynamic in teacher preparation programmes; these findings suggest that institutions should keep reviewing the connections between these aspects of their programmes. Dye (1999) has previously urged that teacher training programmes should balance their theory–practice dynamics and that both

elements should warrant serious consideration for inclusion within the students' learning. For example, at the programme level, the design of institutional coursework could be connected to the fieldwork placements, which would help PSKTs to internalise the theoretical knowledge. At the module level, the lecturers leading the institutional coursework could provide the PSKTs with time and space to explore their patterns of thinking about theory, practice and how they can connect them. Mitchell (2013) raises the concern of how the learned knowledge in teacher education could be used to develop the practices that would help prepare PSKTs for the complexity of teaching in schools. She suggests that teacher training programmes should be designed in a manner that provides pre-service teachers with recurring opportunities to generate knowledge from and within practice through investigating and articulating their personal standpoints and experiences. In this regard, referring to Reid's (2011) discussion, I suggest that institutions should continuously review their teacher training programmes 'holistically' and thereby explicitly bring the functions of the subject, modules and placement together in synthesis and fully recognise the limitations, affordances and linkages of each of them in the programme scope. A holistic approach to programme review is important because, if PSKTs can apply their theoretical knowledge to developing their practice, teacher training programmes can support the development of their teacher competence through the offering of learning activities.

6.3.2. Embedding reflective practices in the programme curriculum

In Section 4.3, it was evidenced that the interviewees had examined their original ideas about teacher competence and formed a new definition for their further application through the reflective process in the programme. Hence, for the next implication, the key point to highlight concerns the utility of the programme curriculum. Institutions should embed reflective practices in the programme curriculum to ensure that PSKTs have the opportunity to learn to observe and examine their own learning experience. For example, as advocated by Cornish and Jenkins (2012), institutions could implement a structured approach to developing PSKTs' habits of critical reflection throughout the training programme by incorporating reflective exercises in different kinds of applied tasks and even embedding them in the assessment or articulation of their knowledge in institutional coursework. Cheng (2020) agrees that reflective practices can only be effective in improving PSKTs' learning performance if the PSKTs are willing to construct meaning and are devoted to the learning process. As such, the institutions should establish meaningful connections between PSKTs'

awareness and their fieldwork experiences by various means of reflective practices that could deepen their understanding of children, their emotions and the teaching material. An example is presented by Kim and Kim (2020). In a fieldwork placement, an institution might provide PSKTs with an exercise to walk around and observe the community of their kindergarten, encouraging them to reflect on the multi-layered relationships between themselves and the stakeholders in the area. This could help them to avoid narrowing down to a technical focus on the mastery of practical skills and to continue to reflect on their professional relationships in the workplace. It must be reiterated that reflection is a complex and context-specific process. Therefore, this thesis cannot prescribe a fixed set of reflective practices for any curriculum that will guarantee the in-depth development of PSKTs' teacher competence. However, based on the research findings, reflection is regarded as an essential task that every institution should consider including in their programme curriculum to provoke students to think, transform themselves and grow towards becoming kindergarten teachers who can work competently in the sector.

6.3.3. Providing adequate training to institutional placement supervisors

In Chapter 4, I found that all of the interviewees thought their learning experience in the practicum placements influenced their idea of competence in kindergarten education. Also, I pointed out that the feedback received from the institutional placement supervisor played a significant role in provoking PSKTs' observation and reflection during their in-service placements. The third implication suggested here is, therefore, that institutions should provide adequate training to institutional fieldwork supervisors to ensure that they can give PSKTs constructive feedback and guidance to help them progress their learning in in-service placements. Inspired by the poor experience of working with a kindergarten superintendent in an in-service placement of Interviewee 8-F in Section 4.3.2., PSKTs may feel fearful and anxious in these placements (Hardy, 2016; Hollingsworth & Knight-McKenna, 2018; Paro et al., 2019). As such, Cheng (2019) advocates, within their supervisory approach, institutional fieldwork supervisors must recognise that student inquiry is not the end goal, but rather an opportunity for the students to achieve productive growth. In a practical sense, as suggested by Beattie (1997), institutional fieldwork supervisors should move away from a one-way delivery model and towards an approach that recognises both teachers and learners as meaning makers. In this regard, they should be aware of the students' growth and be capable of listening to how the students make sense of things and of working with them to extend

their understanding of the experience. Therefore, I advocate that institutions should give individuals in this role training to help them to carefully consider PSKTs' inquiries, because their feedback has great potential to transform and optimise PSKTs' conceptions of the profession (Han et al., 2017). At least, institutional fieldwork supervisors should be able to understand PSKTs' learning to teach as a contextual practice that might be full of frustration and, ultimately, may be able to see their supportive guidance as an avenue for PSKTs to exercise their ongoing learning.

6.4. Suggestions for future research

By reviewing the research questions and findings, three implications were drawn for tertiary institutions and for individual teacher educators who aim to cultivate new generations of competent kindergarten teachers for the benefit of the profession. Thus, I have now outlined the contributions that helped enhance the quality of PSKT training programmes. Following the implications for higher education sectors, I must consider more critically the suggestions for the areas of future research, which is what I address in this section:

1. Influences of extra-curricular activities for PSKTs' development (Section 6.4.1.)
2. PSKTs' process of reflection in the teacher training programme (Section 6.4.2.)
3. Effectiveness of PSKT training programmes in vocational education (Section 6.4.3.)

6.4.1. Influences of extra-curricular activities for PSKTs' development

In Section 4.2, some of my interviewees considered the role of extra-curricular activities in establishing their competence as teachers in kindergarten education. Therefore, the last implication of the study to be raised relates to the statement in Section 4.4 that researchers need to carefully examine in more depth how extra-curricular activities differ in promoting PSKTs' development of teacher competence. Some researchers have already indicated that extra-curricular activities such as international exchange programmes (McCartney & Harris, 2014) and service-learning projects (Baumgartner et al., 2019) can be valuable for PSKTs' growth in particular training programmes. Similarly, in the current study, I found that some PSKTs thought that volunteering at the information day and taking part in the exchange programme had a distinctive influence compared with other learning activities in the training programme. However, a broader question remains, regarding how such extra-curricular activities can cultivate PSKTs' competence in kindergarten education in the current

educational context in Hong Kong. A decade ago, Wong et al. (2005) discussed the influence of local teacher training programmes, not in terms of how they support teaching practices, but regarding how they change pre-service teachers' values system in relation to their self-enhancement and teaching competence. They held that it was obvious that extra-curricular activities are just as important as the formal curriculum in pre-service teachers' development. However, this research area has since been absent in the academic discussion on the field of kindergarten education. Although these activities are seldom included as compulsory learning sections within programmes to obtain the credentials to work as a QKT, my finding implied that future studies could still explore the distinct differences between various types of extra-curricular activity in promoting PSKTs' professional development in particular learning contexts.

6.4.2. PSKTs' process of reflection in the teacher training programmes

In Section 4.3, I presented the theming of the interviewees' reflection processes around teacher competence in kindergarten education, supported by Kolb's experiential learning cycle. Reviewing the phases of the cycle connected with the narrated events brings out an important discussion in Section 4.4, that the development of my interviewees' teacher competence could be even more complex, and my findings might not be able to capture all the elements of their reflection process. Accordingly, this limitation is not rare in those studies in relation to teacher education and reflective practices. Collin et al. (2013) have drawn a critical portrait of reflective practice in teacher training programmes based on a review of both theoretical discussions and empirical studies. They pointed out that there are no specific reflecting steps that teachers-in-training must follow. Even if there were, the lack of shared terminology and theoretical grounding for reflection hinder the researchers in studying how the preservice teachers' reflection processes and contributes to their development further. Hence, there is much to be said that PSKTs' process of reflection in a teacher training programme is an important research area that needs further exploration. In future research, the researcher should at least clarify their theoretical ground and framework as part of their effort, 'using a sufficiently inclusive definition that is nevertheless not too general, in order to gather works on reflective practice under the same roof' (Collin et al. (2013, p. 115).

6.4.3. Effectiveness of PSKT training programmes in vocational education

The last suggestion for future research concerns the effectiveness of PSKTs' training programmes in the context of vocational education. The higher diploma programme in Childcare and Education offered by Institution A is similar to other PSKT training programmes in Hong Kong, in the respect that graduates can obtain a teaching permit and, therefore, fulfil the mandatory requirement for a position as a QKT. Subject to the researcher's position and upholding a methodical approach, the thesis focused on how PSKTs constructed their competence in kindergarten education during the programme in their perspective. Hence, Chapter 5 did not purposefully compare PSKTs' teacher competence with the full range of competences covered in the ACTEQ framework. However, it is interesting to note that the interviewees' statements were mostly presented in the teaching and learning subset across all the domains, and that political and school culture dimensions were absent. As explained in Section 5.7, this phenomenon seems consistent with the context of vocational education, and the PSKTs' learning experiences might be subject to their specific background in the context of Institution A's programme. While the characteristics of the programme potentially affected the PSKTs' learning experience and development, I suggest that future research could focus on the correlation between the PSKTs' learning outcomes and the training programme in the setting of vocational education. Evaluative studies may also offer an alternative way of capturing the effectiveness of PSKT training programmes on how they develop PSKTs' competence as teachers.

6.5. Closing thoughts

At the beginning of this chapter, I presented reviews on the research aim and questions of this research. My initial concern has emerged from the assumption, in the literature, that improving the credential level of training programme will lead to better kindergarten teachers' competence. This concern led this thesis to ask the following overarching question: **how is PSKTs' teacher competence developed during teacher training programmes in Hong Kong?** This question was then narrowed to three research questions, examining what learning experience influenced these PSKTs' perspective of competence in kindergarten education (**RQ 1**), how PSKTs develop their competence in kindergarten education during the teacher training programme (**RQ 2**), and how they define teacher competence in kindergarten education (**RQ 3**).

From revisiting the findings, it is clear that practical elements in various activities throughout the training programme helped PSKTs' new sense of what decision and action they should take in the role of a kindergarten teacher. Another point worth noting is the importance of the institutional placement supervisors' guidance in PSKTs' in-service placements, in which their feedback might provoke the PSKTs to re-examine their experience and their practices in the kindergarten environment. These solid observations highlighted that it was appropriate to raise implications for the benefit of the higher education sectors.

First, a wider way of conceiving of these pathways is perhaps to keep reviewing the programme design, aiming for the programme to map out various learning activities and connect them to different practical tasks that will help PSKTs to internalise the knowledge. Beyond the engagement of PSKTs in applying their learned knowledge within the programme's scope, it was also suggested that the institution should embed reflective practices in the curriculum. This is because constructive reflection can help PSKTs to take an additional step forward in their development of teacher competence. The study also demonstrated how feedback from the institutional fieldwork supervisor provided guidance for the PSKTs' observation and reflection in their work placements; therefore, the third implication was that, instead of focusing on the practice of reflection, the institution should train the institutional fieldwork supervisor in guiding PSKTs to develop their ongoing practices in the field.

Following these suggestions, I also recommend three future research areas to contribute to academic discussions on teacher competence and teacher education. Firstly, in Chapter 4, although this research has not addressed the importance of extra-curricular activities in great depth, some of the participants' responses implied that this could be a potential area for further research. Secondly, based on another discussion point in the same chapter, it was recommended that further studies would be beneficial to explore PSKTs' processes of critical reflection and transformative inquiry with a solid theoretical ground and framework. One interesting observation in Chapter 5 is that there was a tendency, in my interviewees' definitions of teacher competence in kindergarten education, towards more awareness of the dimensions of teaching and learning practices. Future study may also consider the research areas of vocational education for capturing PSKTs' learning outcomes and evaluating the effectiveness of the teacher training programme.

Committing to a multiple narrative case approach and photo-elicitation interviews greatly contributed to the overall picture of PSKTs' development and definitions of teacher competence in kindergarten education in this research. However, the findings were limited as the approach sacrificed some details of the individual cases, and the research was constrained by the specific institutional context and the selected heuristic devices. While not making a single story of every PSKT in detail, this thesis elicited subjective responses to the lived learning experience of PSKTs in Hong Kong, which does offer suggestions for consideration by tertiary institutions and teacher educators in terms of their pre-service teacher training programmes. As such, it is hoped that the findings will provide valuable insights for stakeholders that will facilitate opportunities to instigate structural and educational change for PSKT education, thereby achieving the mission of nurturing the competent kindergarten teachers of tomorrow.

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Appendix One: Report on the Pilot Study

The interview protocol refinement framework is a scheme designed to help the researcher systematically refine an interview protocol (Castillo-Montoya, 2016). In this appendix, I employ this framework as the lens for designing the evaluative procedure. As such, it comprises three procedures: checking the alignment between interview questions and research questions, reviewing an inquiry-based conversation, and receiving feedback on interview protocols.

(1) Checking the alignment between interview questions and research questions

It was expected that most of the targeted participants would have various experiences that cannot be neatly unravelled. To ensure the necessity of the designed interview questions and to confirm whether they respond to the project’s purpose, the alignment between the interview questions and research questions is particularly crucial to the interview protocol. First, I reviewed the interview questions with the interview protocol matrix checklist as shown in table 14.

	Background Information	Research Question 1	Research Question 2	Research Question 3
Interview Q1		✓		
Interview Q2		✓		
Interview Q3		✓		
Interview Q4		✓		
Interview Q5			✓	
Interview Q6			✓	
Interview Q7			✓	
Interview Q8			✓	
Interview Q9				✓
Interview Q10				✓
Interview Q11				✓
Interview Q12				✓
Interview Q13				✓
Interview Q14		✓		
Interview Q15			✓	
Interview Q16			✓	
Interview Q17				✓

Table 14. Interview Protocol Matrix

Evaluation: Overall, the interview questions were aligned with the main research questions. However, it was recommended to design one to two questions related to the participants’ background information.

(2) Reviewing the inquiry-based conversation

The researcher’s interview protocol is an instrument of inquiry that collects particular information related to the project aims. To balance inquiry and conversation in an interview, Castillo-Montoya (2016) suggests that the interview questions should comprise the following: (1) introductory questions, (2) transition questions, (3) key questions, and (4) closing questions. These types of question can help the researcher achieve the inquiry goals with the research act by starting the interview smoothly, soliciting valuable information for the main questions, and even offering chances for participants to provide information and reflect. To review the inquiry-based elements in the interview, the questions were checked against the checklist as shown in table 15:

Type of Question	Explanation	Picture 1	Picture 2	Picture 3	Additional Questions
Introductory Questions	Questions that are relatively neutral, elicit general and nonintrusive information, and are not threatening	Q1	Q5	Q9	Q13
Transition Questions	Questions that link the introductory questions to the key questions to be asked	Q2	Q6	Q10	Q14
Key Questions	Questions that are most related to the research questions and purpose of the study	Q3	Q7	Q11	Q15;16
Closing Questions	Questions that are easy to answer and provide an opportunity for closure	Q4	Q8	Q12	Q17

Table 15. Checklist for inquiry-based elements in the interview

Evaluation: Generally, the interview questions included the four key types of question. The practical aspect will be further discussed in the last section ([4] Refining the interview protocol).

(3) Receiving feedback on interview protocols

Gathering feedback on the interview protocol from the participants and from experts can enhance the protocol’s reliability and trustworthiness as a research tool. In other words, such feedback can provide the researcher with details on how the participants might understand the interview questions and whether they are close to the researcher’s original intention. Due to the importance of this process, an alumni (Participant A) and a colleague (Dr Wong-Wikki) were invited to review the interview questions based on the activity checklist before and after the pilot interview (Table 16) ; including, but not limited to, the questions’ language and relevance.

Evaluation: According to the feedback, two further actions needed to be taken: 1) to review Q14, Q15 and the photo-elicitation instructions; and 2) to design one or two questions related to the participants’ background information.

(4) Refining the interview protocol

To get a realistic sense of implementing the designed interview questions, and of whether the potential participants would actually be able to answer them, a pilot interview was conducted to try out the instrument and schedule. In the following sections, the above-mentioned results and the researcher's reflection on the practical elements were consolidated. Through this final revision, three necessary modifications for the main study were addressed.

Interview protocol

From reviewing the transcript and evaluation of the interview question, the protocol is viewed to be generally appropriate for the main study. The photo-elicitation approach can help the researcher to begin the conversation in the interview easily and discuss the topics in more depth gradually. Due to the nature of the semi-structured interviews, the participants are able to talk freely based on the questions asked, and the researcher can also use probing questions to follow up. However, according to the evaluation results, the expression or wording of some specific questions should be reviewed, and one or two questions related to the participants' background information should be designed.

Practical aspects

Interviewing participants about their experiences takes time and questions to follow up. For the pilot interview, the researcher drafted the script and rehearsed smoothly transitioning from one set of questions to another. The text was not read word-for-word during the actual interview, but this practice mentally prepared the researcher to keep the discussion going and maintain a conversational tone. However, it was sometimes not possible to explore pieces of information in layers one by one, so potential follow-up questions and prompts for utilisation in the interview protocol in practice will be considered further.

Refinement

As a result of the pilot work, three minor modifications were required before the main study:

1. Rephrasing the photo-elicitation on instructions in a more precise manner;
2. Adding one set of questions related to the participants' background information; and
3. Informally preparing follow-up questions and prompts.

Aspects of an Interview Protocol	Before the pilot interview (Responded by Dr Wong Wik-ki)			After the pilot interview (Responded by Participant A)		
	Yes	No	Improvement	Yes	No	Improvement
<i>1. Interview Protocol Structure</i>						
Beginning questions are factual in nature		✓	Suggested to add some questions related to the interviewees' demographic information	✓		
Key questions are the majority of the questions and are placed between the beginning and ending questions	✓			✓		
Questions at the end of the interview protocol are reflective and provide the participant with an opportunity to share closing comments	✓			✓		
A brief script throughout the interview protocol provides smooth transitions between topic areas	✓			✓		
Interviewer closes with expressed gratitude and any intents to stay connected or follow up	✓			✓		
Overall, the interview is organized to promote the conversational flow	✓			✓		
<i>2. Writing of Interview Questions & Statements</i>						
Questions/statements are free from spelling error(s)	✓			✓		
Only one question is asked at a time		✓	Suggested to review the Q14 & Q15 because they asked 2-3 questions with the same theme at a time	✓		
Most questions ask participants to describe experiences and feelings	✓			✓		
Questions are mostly open-ended	✓			✓		
Questions are written in a non-judgmental manner	✓			✓		
<i>3. Length of Interview Protocol</i>						
All questions are needed	✓			✓		
Questions/statements are concise	✓			✓		
<i>4. Comprehension</i>						
Questions/statements are devoid of academic language	✓			✓		
Questions/statements are easy to understand	✓				✓	A bit confused in choosing the metaphorical image. It is suggested that the photo-elicitation on instruction can be translated into Chinese, and some personal guidance could be given to the interviewee if necessary.

Table 16. Activity checklist before and after the pilot interview

Appendix Two: Photo-Elicitation Instructions

Please select and provide images to represent things that are important to your understanding of teacher competence, based on your positive or negative experiences of studying in the programme. You are encouraged to select images that are not only limited to the classroom or the kindergartens you worked in. Please choose three pictures representing:

- 1) A real photo of a key event where you learned about teacher competence during the programme;
- 2) A real photo of a campus situation that you think resemble some key events from your tertiary learning experience for forming your teacher competences;
- 3) A metaphorical representation/image of important competences for kindergarten teachers.*

Please bring these images to the interview. At the beginning of the interview, you will take charge of explaining what the images represent. To elicit more information, I will ask follow-up questions related to your sharing. Also, it is important to be aware of privacy protection and safeguarding issues; any images from which third parties could readily identify yourself or your friends or family members will not be used in dissemination of the findings, but only for the interview. Please note that the interview will last approximately one hour.

*Remarks: Example of metaphorical representation/image



How this image represents professional competence in the health care profession:

The light bulb represents solid knowledge of medicine and confidence in dealing with sickness. The ladder represents self-motivation.

Appendix Three: Interview Schedule

Participant background information

- What did you study before enrolling in this programme? Did you have any childcare working experience before your enrolment? Why did you want to become a kindergarten teacher?
- Why did you decide to study at this university / on this programme? Why did you enter the programme? What was your expectation at the beginning of the tertiary study?

Picture One: A real photo of a key event where you learned about teacher competence during the programme

1. Can you please tell me what you see in this photo – can you list each element you see; just name them?
2. What is happening in this image (list what is happening to individual things and/or also the whole image)?
3. How does the event and/or the whole picture relate to your learned teacher competence?
4. How does this picture best represent the key moment where you learned about the competence(s)? And why?

Picture Two: A real photo that you think represents some key events from your tertiary learning experience for developing teacher competences

5. Can you now look at the image you provided – can you list and describe what you see?
6. Can you remember anything about specific events – anything interesting and/or challenging about them?
7. In what ways did the experience(s) facilitate your teacher competence and growth as you mentioned previously?
8. How does this picture best represent the key event where you learned about the competence(s) so far in the programme? And why?

Picture Three: A metaphorical representation/image of important competence for kindergarten teachers

9. Can you please tell me what you see in the photo – can you list each element you see; just name them and describe what you see?
10. What is happening in the image (list what is happening to individual things and/or also the whole image)?
11. How do the element(s) and/or the whole picture relate to the competence of a kindergarten teacher?
12. How does this picture best represent your understanding of teacher competence in kindergarten education so far? And why?

Additional questions

13. How would you define teacher competence for a kindergarten teacher?
14. Has your learning experience changed your views?
15. What challenges did you experience during the study? Have the challenges changed your understanding of teacher competence? And what solutions could help address the challenges you experienced?
16. What other factors have influenced your understanding and development of teacher competence?
17. Are there any other comments that you would like to make about your understanding and/or development of teacher competence?

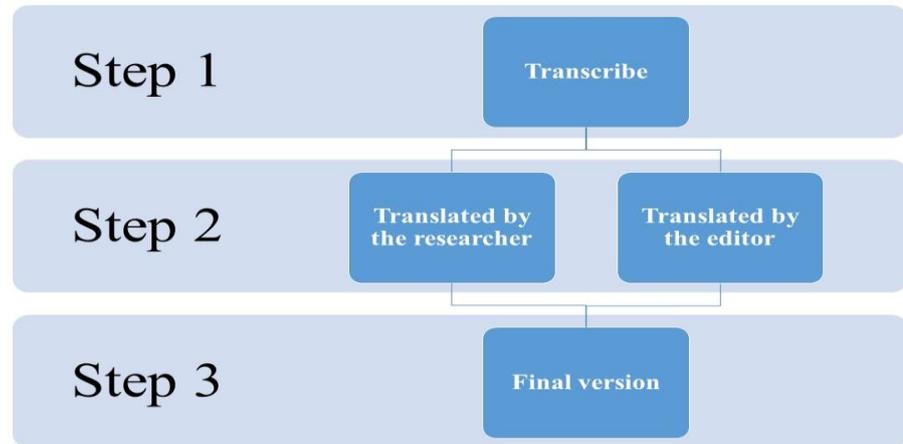
Appendix Four: Coding Sample

RQ3: How does pre-service kindergarten teacher define teacher competence in kindergarten education?

Theme: Making a lesson plan for teaching children	
<p>Interviewee #9: Education is already regarded as a specialised profession; otherwise, why must a kindergarten school hire someone with a bachelor's degree in childhood education? <u>Because teachers have learned to, having tailored to the children's ability, compose lesson plans and design teaching procedures; just like if, at the beginning, I was asked to lead an activity, but without having learned how to compose a lesson plan, I would not know how to do it.</u></p>	RQ3: Possible Code – Competence in making a lesson plan
	RQ3: Possible Code – <u>Respond to children learning ability</u>
	RQ3: Possible Code – <i>Helping teacher to teach</i>

Appendix Five: Translation Sample

The flow of translation:



Example: Interviewee #1		
Step 1	Transcribe	例如你可以看到我的動作，我是這樣放耳朵旁邊，很誇張般，但小朋友是很喜歡這樣的，然後我問小朋友問題的時候如果他們感到沒趣或沉悶的時候，他們會靜靜的坐在那不舉手，然後我覺得我需要給指示提升氣氛，令他們很想玩這個遊戲。
Step 2	Translated by the researcher	For example, as you see, I would use my body languages, like put your hand next to ears, be a bit exaggerated, usually the children do like that. When you asked the children questions, and they feel bored, they would just sit aside quietly and not raise their hands. That was the time when I realised I needed to offer a better instruction to build up learning atmosphere and stir up their interest to get involved in the class activity.
	Translated by the editor	For example, you could see my body movements, when I put my hands next to my ears, this might seem all a bit exaggerated movements, but the children love exaggeration very much. When I asked the children questions, if they felt bored or lacked interest, they would sit quietly and would not raise their hands. This is a time when I realised I needed to create a better atmosphere to stir up their interest by my instruction and to play this game.
Step 3	Final version	For example, I would use my body movements. When I put my hands next to my ears, this might seem like a bit of exaggerated movement, but the children love exaggeration very much. When I asked the children questions, if they felt bored or lacked interest, they would sit quietly and would not raise their hands. That was the time when I realised I needed to offer better instruction to build up the learning atmosphere and stir up their interest to get involved in the class activity.

Appendix Six: Theme and Illustrative quote

*Domain	Theme	Illustrative Quotes
Teaching and learning	Assessing children's learning needs and abilities	There are different significant points of views on children's abilities between a kindergarten teacher and the public, but that is also what makes us professionals – kindergarten teachers should be left the image as established by the public, but should assess the children's abilities and needs by both theories and teaching experiences. (Interviewee 4)
	Making a lesson plan for teaching children	Education is already regarded as a specialised profession; otherwise, why must a kindergarten school hire someone with a bachelor's degree in childhood education? Because teachers have learned to, having tailored to the children's ability, compose lesson plans and design teaching procedures; just like if, at the beginning, I was asked to lead an activity, but without having learned how to compose a lesson plan, I would not know how to do it. (Interviewee 9)
	Giving children instruction in the lesson	During the teaching [as a kindergarten teacher], you need to know how to work with them and explain it clearly to the children. If you do not, or use the wrong instructional guidance, the children might not understand, and your attempt at teaching would become a failure. (Interviewee 13)
	Creating teaching materials for children's learning	As a teacher, if you do not have the professional ability to create teaching materials, such as making a doll which functions properly, then you're not qualified to be a teacher, because there is a fine line between making a handcraft and teaching materials. (Interviewee 2)
Student development	Acting as a role model for children	This competence reminds you that you must set a good example for the children. Because a kindergarten school not only provides children with learning experience or new knowledge, it may even shape the children's moral values. (Interviewee 8)

	Treating children with patience	Patience is very important. Sometimes, the child's behaviour may not be up to par with the teacher's expectations, but the teacher must not scold him/her because of this. Because they are only children and they just want to do what they want to do and be told what they want to be told, or perhaps they could not just comply [with the teacher's instruction]. As a teacher, it is important to have patience, because you need to understand the children's needs more than others... (Interviewee 9)
School development	Building a positive learning environment in kindergarten	If the kindergarten teachers hope that the children can concentrate on their learning, they must start by creating a good learning environment. Particularly in Hong Kong's kindergarten schools, you do not have unlimited access to classrooms – you need to partition a classroom to create different learning spaces, and also need to minimise distractions for the children. (Interviewee 1)
	Communicating with parents about children's schooling	Parents like one specific trait that a teacher has; that is, the teacher knows how to pay special attention to their children – the teacher regards the trivial things about the child as being important. She will remember clearly the child's subtle behaviour details. For example, parents often enjoy listening to the teacher about their child's day at school, and they consider that a teacher cares deeply about their child. Parents might even ask, 'What did my children do during that time?'. As a teacher, it is not possible to refer to the child's portfolio at this time. Instead, the teacher should be well prepared in advance to report any observations to the parents. (Interviewee 3)
Professional relationships and services	Collaborating with colleagues	For example, during the practicum period, I needed to keep in touch with the class master. As we switched between classes, the whole process needed to be well coordinated. For example, when the class master was leading the children to queue up for the bathroom, I immediately started to prepare the class for the next activity. There is also the teaching plan. If we cooperate well together, we can apply the same teaching method, and we shall get twice the result with half the effort. (Interviewee 15)
	Communicating with the kindergarten principal	When you talk to with a class of three-to-six-year-olds, you can make commands with your speech, speed of enunciation and voice to them; and when you are speaking to your colleagues, you should adopt a tone of voice which allows you to share and exchange your opinion. But when you're confronting the school principal, your rank is lower than theirs. If you speak to your school principal in the same way that you would speak to a child, then communication problems are bound to arise, because you are not treating them with enough respect. (Interviewee 12)

Underpinned Core Values	Passion for teaching excellence	One of the teacher’s missions is to let the children acquire new knowledge from playing games. The children must not be pushed to gain knowledge, but rather they should be allowed to have fun and to be happy in their learning...If we allow this attitude to change, and we consider being a kindergarten teacher is only a job, and lost the passion for teaching. (Interviewee 16)
	Passion for continuous learning	When you don't have this passion, you will stop learning, just like being afraid to step beyond a cliff edge – you know you don't have enough knowledge, but you stop and stay complacent with the knowledge you have. You think you have enough knowledge to address the children’s needs, but this, in my mind, is an act of failure. (Interviewee 12)

Table 17. Themes and illustrative quotes about ‘the definition of teacher competence in kindergarten education’

Theme	Code	Explanation	Illustrative Quotes
Making a lesson plan for teaching children	Competence in making a lesson plan	Be capable of making a written lesson plan for their teaching	Education is already regarded as a specialised profession; otherwise, why must a kindergarten school hire someone with a bachelor's degree in childhood education? Because teachers have learned to, having tailored to the children's ability, compose lesson plans and design teaching procedures; just like if, at the beginning, I was asked to lead an activity, but without having learned how to compose a lesson plan, I would not know how to do it. (Interviewee 9)
	Illustration of lesson objectives and procedure	A lesson plan should be well-organised and contain details of the lesson objectives and teaching procedures	Once you have to prepare a good lesson plan, you then need to think about how to set learning objectives and what the teaching procedures should be, with regard to time allocation as well. (Interviewee 1)
	Justification of the methods and material	The kindergarten teacher should be able to justify their selection of the methods and materials to be used in the lesson	For children with relatively poor language skills, they may not know the actual words, but they may be able to learn via picture book to understand their meanings. Composing a lesson plan means to pick my teaching materials and to design an activity to attract their attention and allow them to explore a topic further. (Interviewee 10)
	Helping teacher to teach	A lesson plan should be clear about the teaching steps, and so allow the teacher to be prepared for unexpected situations	Having a lesson plan in place will help us determine what we need to do in class. Of course, in reality, we would surely be unable to anticipate the children's reactions, but at the very least I know what my next step is, and I will be able to lead the class by adhering to the lesson plan's step-by-step instructions. (Interviewee 1)

Table 18. Sample of the theme – Making a lesson plan for teaching children

----- End of thesis -----