Driving programme quality with pedagogical leadership: A case study in Singapore

Sandra Wu

Catherine Chua

Abstract

The preschool education landscape in Singapore comprises diverse operators that offer various care and educational services for children from birth to six years of age. This diversity has resulted in varying levels of quality and standards in early childhood education. Since positive child outcomes are strongly linked to high quality early childhood educational programmes, this paper discusses how a competent preschool leader establishes quality programmes through pedagogical leadership. The authors posit pedagogical leadership as a key driver for programme quality. By examining the effectiveness of pedagogical leadership using a case study, this article offers valuable insights into the roles and practices of a childcare centre principal that contribute to good teaching and learning practices in her centre curriculum. The case study investigates the enactment of pedagogical leadership through multiple perspectives – the principal, a kindergarten one teacher, six kindergarten one children and eight parents. Employing purposeful sampling, an exemplary childcare centre with the Singapore Preschool Accreditation Framework (SPARK) Commendation Award was chosen for this study. Data collection included artefacts, classroom observations, questionnaires, interviews and a survey. Analytic induction, coding and qualitative content analysis were used for data analysis. Through detailed descriptions, the narrative account provides insights into how an effective pedagogical leader has advanced programme and centre quality. Overall, the findings illustrate how this pedagogical leader had led her centre to achieve the SPARK Commendation Award for teaching and learning, and provided high quality programmes for the children in the centre.

Keywords: Pedagogical Leadership, Leadership Roles and Practices, Programme Quality, Early Childhood Education

Introduction

Early childhood is a critical period in which children grow, learn, and develop rapidly. In early childhood education (ECE), the holistic development of children in the cognitive, social, emotional, physical and language domains is promoted and supported through the preschool educational programmes they attend. In Singapore, ECE spans from birth to six years of age before children enter primary school at the age of seven. Preschool education prepares children for formal education in areas that they will come to learn in primary school. It lays the important foundations for each child's later learning trajectory and future outcomes. The early years determine children's educational continuum for positive outcomes. Beyond educational goals, preschool education ought to be developmentally appropriate and support children's learning and development. Globally, there have been increased government efforts across countries to promote and provide access to quality preschool education as it is regarded as an important investment in the generation of human capital for the country. From an economic perspective, Heckman (2012) argued for the investment in early childhood education from birth to five to reap the highest returns for quality early childhood development for later success in life, reduced social costs and economic growth.

The Singapore government has uplifted the quality of preschool education over the years with over $13 million invested in training early childhood teachers and leaders to give children the best possible start in life (Ang, 2022; Teng, 2022). This is because while the preschool landscape is government regulated, it comprises a wide range of providers of uneven quality where stark fee differences contribute to unequal levels of access to preschool education (Wu, 2022a, November; Dikshit et al., 2021; Lipponen et al., 2019). Despite prevailing government subsidies, parents continue to grapple with the choice of centres that they can afford according to their financial abilities and socioeconomic standing. This is due to the marketisation of preschool education

which contributes to social inequalities amidst government efforts to uplift quality (Lim, 2017) as a diverse market driven landscape that affords choice and variety to parents also creates barriers to entry such as access issues due to expensive school fees, demand for reputable centres and the proliferation of enrichment programmes.

The complex relationship between the best interests of the child and the quality of preschool education within a market model has important implications on children's lives and future outcomes. In the market system, private operators maximise profits by cutting down on costs, which inevitably affects teacher salary, as it is one of the running costs for centre operations. While there have been government efforts to peg early childhood educators' salary to market rate, manpower issues persist (Ng, 2022). This in turn affects programme quality due to teacher quality, high attrition rate and turnover issues as teachers are the direct implementers of curriculum (Lipponen et al., 2019). Although the market model offers parents choices, it also creates an illusion that price equates to quality. The demand for quality preschool services and market forces inevitably pushes up the costs of ECE services coupled with inflation in recent times. Consequently, the Singapore government pledged greater support in the preschool sector with the aim "to improve access to quality and affordable preschools, and give every child a good start" (ECDA, 2022, October 29).

Given the issues confronting the ECE field, preschool leaders need to manage and come up with creative solutions to circumvent or resolve numerous challenges in their centres. The role of leaders thus becomes more complex as they keep up with the many policy changes and developments in the sector, manage centre operations such as enrolment and staff retention, meet quality standards, and fulfil the profit-driven expectations of their organisations (Lipponen et al., 2019). Research indicates that effective leaders are key drivers for quality, hence, one postulation

is that good preschools are led by good leaders (Aubrey et al., 2013; Fullan, 2021; Hallinger, 2003; Kagan & Bowman, 1997; Leithwood & Jantzi, 2000; Macfarlane et al., 2011; Sergiovanni, 1998). Likewise, preschools with high quality programmes are attributed to effective leaders.

Overview of Singapore and its Preschool Education Landscape

Singapore is a Southeast Asia country located at the southern tip of the Malay Peninsula. It is a multiracial and multicultural nation with a population of about 5.9 million as of June 2023, with four primary ethnic groupings: 75.6% Chinese, 15.1% Malay, 7.6% Indian and 1.7% other ethnicities (National Population and Talent Division, 2023). With a landmass of about 728 km² (Department of Statistics Singapore, 2022), the island state is also devoid of natural resources. Hence, its population's skills and trade are the primary bases for its economic development. The Singapore government recognises the importance of education in developing the country's only resource and best asset – its people for human capital.

The role of education, that is, literacy is strongly tied to the Singaporean Government's narrative of national survival (Chua, 2008). Since Singapore gained independence in 1965, education has been an ongoing national priority to equip its people to participate in the workforce and global economy. Given the importance of education in Singapore's economic growth and success, preschool education, a precursor to compulsory education becomes a national priority when the government realised how quality preschool education affects children's later learning trajectory and future outcomes.

Prior to compulsory education which begins at Primary 1 at the age of seven, children receive preschool education which begins from 18 months to six years of age, and at least 99% of children have received one year of preschool education (Karuppiah & Poon, 2021). However, one year of preschool education would not adequately prepare children for the demands of primary

schooling and most parents would send their children for early childhood education (ECE) as soon as they are able and can afford to. Over the years, numerous policies were rolled out to raise the quality of ECE. In 2013, the government set up the Early Childhood Development Agency (ECDA) to oversee ECE, harmonising a once fragmented early childhood education sector that used to be under two different ministries in charge of childcare centres and kindergartens respectively. In the same year, the Singapore Pre-school Accreditation framework (SPARK) was also set up to provide a set of quality assurance guidelines and benchmarks for preschool education settings. The National Institute of Early Childhood Development (NIEC) was formed in 2018 to standardise teacher training for the sector. These major milestones in ECE are significant as they signal the government's commitment towards the quality of ECE before children enter primary school.

Primary to pre-tertiary education fall under the centralised education system of the Ministry of Education (MOE). MOE "formulates and implements education policies on education structure, curriculum, pedagogy, and assessment" for all government-run primary, secondary and high schools (MOE, 2021). Historically, ECE was overseen by two ministries but with the formation of ECDA, the sector was unified. In addition, MOE began setting up MOE kindergartens (MK) since 2014 to offer access to affordable quality preschool education to five- and six-year-old children and with 62 kindergartens to date, MOE has successfully penetrated the ECE sector with their flagship kindergarten programmes applying the Nurturing Early Learners framework to demonstrate how the framework translates into practice and to offer good quality kindergarten education for the masses (MOE, 2024).

Despite so, the market-based system had created and perpetuated social inequalities and gaps in children's early childhood education because the transition to primary school depends on the quality of preschool education received. As quality varies in the preschool education landscape,

every child enters primary school with varying abilities, depending on a range of factors such as their family background, socioeconomic status (OECD, 2018). Theoretically, the market model seems to be sound in ensuring quality. In reality, the varying quality of ECE services suggests the self-regulatory mechanism of the market system does not work for preschool education.

Three prominent studies, Starting Well, Vital Voices for Vital Years One and Two on the ECE landscape reflected the issues confronting the sector (Watson et at., 2012; Ang, 2012; Lipponen et al., 2019). The Starting Well report ranked Singapore at 29th out of the 45 countries assessed according to international preschools standards while two Vital Voices for Vital Years reports discussed quality issues such as EC leadership, manpower shortage, teacher training and teacher quality (Watson et al., 2012; Ang, 2012; Lipponen et al., 2019). While the government had invested in the quality of ECE and increasing the access, affordability, and availability of EC services for children, quality issues persist (Wu, 2022a, November).

The ECE landscape comprises childcare centres and kindergartens that offer preschool care and educational services for children under seven years of age. Childcare centres provide infant-toddler care programmes for infants aged two months to 18 months, and childcare services for children from 18 months to six years of age. They offer full-day, half-day, and flexible programmes (ECDA, 2020). Kindergartens serve Kindergarten 1 and Kindergarten 2 children aged five and six years, and some may also provide Playgroup, Pre-Nursery and Nursery services. Most kindergarten sessions are between two and four hours (ECDA, 2020). Under the 2017 Early Childhood Development Centres (ECDC) Act, both childcare centres and kindergartens are also known as ECDC and are licensed and regulated by ECDA-(SSO, 2017; 2018). There is a range of operators that consists of private operators, government funded operators, namely Anchor

Operators (AOps) and Partner Operators (POps), MOE kindergartens (MKs), voluntary welfare organisations and religious operators (Wu, 2017).

Children learn in two languages, with English as the first language, and their Mother Tongue Language (MTL), which can be Chinese, Malay or Tamil as their cultural language that is tied to their ethnic group (Wu, 2018). As preschool education prepares children for formal schooling when they enter primary schools, it facilitates a crucial transition to primary schooling. The emphasis on academic achievement has always been a priority for Singapore where people are regarded as the nation's natural resource and human capital. As such, a child's English language proficiency has serious implications on their learning as most of the subjects they learn in primary school are taught in English, other than their MTL (Wu, 2018). There are many curriculum models in the sector, which is why children who attend different programmes enter primary school with varying levels of preparedness and proficiency (Wu, 2022b, November).

Since parents choose the kind of centres that they wish to send their children to, invariably, operators market themselves according to the perceived needs of the society – success and academic achievement, and parents would send their children to the 'best' early childhood development centres that they can afford for their children's future. Consequently, preschool leaders are often caught between promoting programmes that are developmentally appropriate and meeting parents' expectations of academic preparation for primary school, which directly fuelled the pressure that preschool leaders face in ensuring that the delivery of quality programmes that meet the expectations of parents as well as the needs of young children.

The Importance of Preschool Leaders

Preschool leaders play a critical role in the provision of quality care and services to children and families and manage organisational and teachers' professional development needs to meet the

needs of their stakeholders (Aubrey et al., 2013). They are responsible for the quality of care and education that the children receive. Furthermore, with the shifting needs of society and the increasing demands of the global economy, preschool leaders also need to meet the evolving needs of parents and children and deal with parentocracy (Lipponen et al., 2019). In their centres, they play a critical role in ensuring that they meet the expectations of parents, the government and the society at large. They need to run their centre operations, guide their teachers and oversee staff development to ensure that the curriculum and programmes are developmentally appropriate and aligned with their centre's philosophy and curriculum model. At baseline, they are expected to safeguard the health and safety of the children and promote the holistic development of every child.

In the ECE settings, there are five dimensions in the leadership framework for the early years, which are 1) Administration, 2) Pedagogy, 3) Advocacy, 4) Community and 5) Conceptual Leadership (Kagan & Bowman, 1997). This demonstrates the multifaceted role of preschool leaders as they need to manage the administration of their centres; ensure that developmentally appropriate programmes and pedagogical practice are delivered; advocate for children's best interests and rights; collaborate and form partnerships with parents, families and the community to support children's learning and development; and have the vision to set the direction and goals for their centres to achieve the desired outcomes of preschool education (Kagan & Bowman, 1997).

Pedagogical Leadership in Early Childhood

As discussed, preschool education should facilitate children's learning and support children's holistic development. Preschool curriculum includes both care and educational components, which are essential to the healthy and positive development of young children. The care component means that preschool leaders are take on the role of a pedagogical leader with a strong knowledge of child development and the skills to plan for programmes that promote young

children's learning and development. The educational component requires preschool leaders to advance programme quality and ensure that sound pedagogies are in place in their settings. Pedagogies are the "approaches to curriculum, learning and teaching that recognise the complex interconnectedness of health, welfare and education in young children's lives" (Cheeseman, 2007, p. 244). Pedagogical leaders ensure that educators align their practice with the centre's philosophy and curriculum model. In ECE, pedagogical practice is closely linked to child development, health and safety, and the quality of programmes and curriculum.

Pedagogical leadership is defined as "leadership focused on curriculum and pedagogy with an emphasis on educational purposes such as establishing educational goals, curriculum planning, and evaluating teachers and teaching pivotal for children's learning and development" (Ord et al., 2013, p. 1). Pedagogical leaders should possess the necessary knowledge and skills to lead their team of teachers towards quality programmes, positive child outcomes and educational goals. They need to be equipped with sound knowledge in child development that foregrounds their pedagogical knowledge to implement a holistic and developmentally appropriate curriculum. This knowledge base is critical to supporting teacher implementation of the centre curriculum and its accompanying pedagogies. Therefore, they need to provide leadership in the design and delivery of the curriculum especially when positive child outcomes are highly dependent on the quality of ECE services children receive in the early years (Ang, 2012). As operators and preschool leaders are responsible for the quality of programmes in their centres, pedagogical leadership becomes significant towards promoting positive child outcomes as the centre curriculum can have a major impact on young children's learning and development, and later trajectory in life.

In a market driven preschool education landscape, a deeper investigation into good preschools is needed to find out how effective pedagogical leaders establish high quality

programmes in their settings. More importantly, the relationship between effective leadership and school quality substantiates the need to explore pedagogical leadership and programme quality in the ECE field amidst the multiple roles of preschool leaders. In preschool education, programme and curriculum is one of the key indicators of quality as it affects children's learning and development and future outcomes. As such, this paper presents a case study that investigated pedagogical leadership in Singapore's preschool context to examine the roles and practices of pedagogical leadership. While there are other studies on pedagogical leadership, they were situated in the Western context (Cheeseman, 2007; Heikka, 2013; Heikka & Waniganayake, 2011; Jäppinen, 2012; Macfarlane et al., 2011; Ord et al, 2013). In this study, the following eight dimensions were used to investigate pedagogical leadership based on literature:

1. Vision and goal setting

2. Values based leadership

3. Motivation

4. Capability building/human capital

5. Management, and knowledge of curriculum and instructional programmes

6. Cross-disciplinary work in Early Childhood Care and Education

7. Collaboration, partnerships and relationship building

8. Child outcomes

In exploring pedagogical leadership, these dimensions were mapped against the roles and practices of a preschool leader in a case study.

Using Bronfenbrenner's Ecological Theory as the Theoretical Framework

Bronfenbrenner's ecological systems theory emphasises the child at the centre of the ecosystems and provides a lens to examine the interactions and the impact of the different levels of the ecosystem on the child (Bronfenbrenner, 1994). This theoretical framework provides the lens to examine the structures of society impacting on the child at varying levels (Wardle, 2009) and exemplifies how they come to affect child development. The varying levels of ecosystems can affect the child, for example, through policies at the country's level; the quality of relationships the child has with their parents, caregivers, teachers and peers in context of the child's home and centre surroundings (Bronfenbrenner, 1994) (See Figure 1).

Figure 1

Ecological Systems of the Preschool Landscape (Adapted from Bronfenbrenner, 1994)
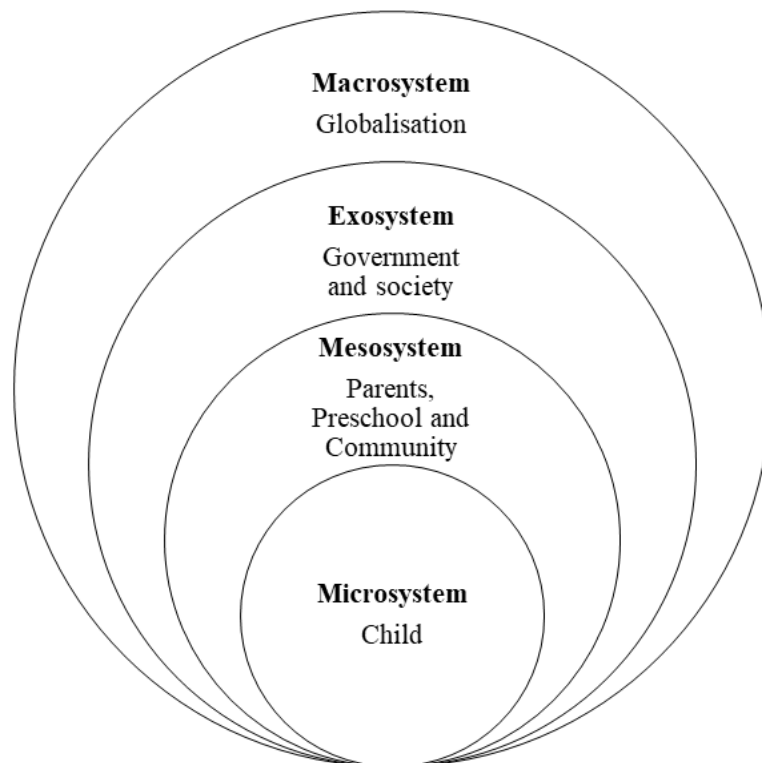
According to Bronfenbrenner (1994), human development and socialisation are influenced by the mediating influences of the different levels of the ecosystems that are underpinned by three

key assumptions – an individual is an active agent who can exert influence over one's environment; one can adapt to the conditions and boundaries of the environment that one is in and the environment has different entities across the ecosystems in reciprocal relationships. It provides a broad overview of how different ecosystems interact with and exert influence, power and pressure across and between one another. The child is at the centre of this framework surrounded by the ecosystems situated in the sociocultural context of the child. The child-centredness thus aligns with the pedagogical leadership model which has a strong emphasis on the 'whole child' (Wardle, 2009).

Methodology

The research site chosen for this study is an Anchor Operator (AOp) childcare centre, a government funded centre that operates in a public housing estate. ECDA offers AOp centres funding to ensure that fees are kept affordable for families and to promote access to ECE (Wu, 2022a, November). The choice of a government-funded centre is to find out how effective pedagogical leadership can be enacted in an early childhood development centre that caters to the average Singaporean child in a market system. It was chosen because the centre's demographics is more representative of children who come from an average Singaporean family living in public housing as most Singaporeans live in Housing Board Development (HDB)[1] flats. This site is located in the largest town in the Western part of Singapore, and houses an estimated 258,100 HDB residents (HDB, 2022a). The demographics of the resident population in this municipality tend to be middle class families.

---

[1] Over 80% of Singapore's resident population live in HDB flats, which makes up the majority of the Singaporeans (HDB, 2022b).

The centre serves 125 children in this suburban area of Singapore and has a total of five classes: Toddler, Playgroup, Nursery, Kindergarten 1 and 2 (see Table 1) at the point of data collection.

Table 1
Centre Demographics

Class type	Age group	No. of children	No. of teachers
Toddler	18 – 30 months	24	3
Playgroup	30 – 42 months	24	3
Nursery	4 years	26	2
Kindergarten 1	5 years	27	2
Kindergarten 2	6 years	24	2

In this centre, the leader is addressed as the principal and the teacher of the selected kindergarten 1 (K1) class for this study is addressed as K1 English teacher. There are two K1 teachers in the class and the English teacher is selected as the case study looks at the curriculum aspects of the K1 programme in English. The K1 class was selected as children of this age group can express themselves better than younger children. K2 children were not selected as they would be graduating and preparing for Primary school, as such, conducting research would be disruptive to their transition.

Four types of data are collected for this study – artefacts, classroom observations, semi-structured interviews, and parent survey. The artefacts collected from the research site include SPARK reports, notes of meetings, curriculum plans, daily schedule, teacher observations, samples of children's works, children's portfolios and communication booklets, principal's teacher observation notes for coaching. A questionnaire was first administered with the principal and the K1 teacher to understand the profiles of the participants through questions such as age, gender,

years of experience, qualifications, personal beliefs, values and philosophy in ECE to inform the design of the interview questions. The interview questions were crafted according to the eight dimensions of pedagogical leadership such as vision and goals setting, capability building and curriculum and programme tailored according to the principal and teacher profiles. Classroom and teacher observations were conducted and documented through field notes and a set of rubrics that was developed based on the eight dimensions of pedagogical leadership. A parent survey was administered with the parents of selected K1 children in the class to solicit their perspectives on their child's preschool experience, centre leadership, relationships and partnerships with the centre, teacher and principal. Semi-structured interviews were conducted with the principal and K1 teacher to uncover the enactment of pedagogical leadership in the centre, and informal interviews were conducted with children to find out about their perceptions and feelings about their preschool experience. The interviews were audio-recorded to ensure the accuracy of transcription and to capture direct quotations from the participants about their personal perspectives and experiences on pedagogical leadership to form the case study (Patton, 2002). The parent survey gathered parents' perceptions of the centre programme and leadership, as well as their child's preschool experience.

The data was analysed using interpretive analysis methods of analytic induction, coding and categorical aggregation, and triangulation. An interpretive analysis of the data was used to construct meanings through "making inferences, developing insights, attaching significance, refining understandings, drawing conclusions and extrapolating lessons" (Hatch, 2002, p. 180). As the analytic induction began early in the study and is nearly completed by the end of data collection, data collection and analysis occurred concurrently (Bogdan & Biklen, 2007). At each phase of data collection, a progression of data analysis helped to build up the case. Codes were written during

the analysis of the data such as interviews and survey, observation notes and artefacts like curriculum and lesson plans, and the SPARK reports according to the dimensions of pedagogical leadership. Three key roles emerged from this case study to shed light on the roles and practices of the principal as a pedagogical leader and provided insights to the practices that have led to the attainment of the SPARK commendation certification. The themes were triangulated against the SPARK reports in 2012 and 2015 to track the progress made in the three years. The SPARK report in 2012 indicated that the centre had attained emerging level in the SPARK Assessment, with areas for improvement stated for the centre to work on, and the report in 2015 SPARK Re-certification Report indicated that the centre had achieved the standard for SPARK certification (Commendation) in its assessment outcome. The findings were validated using Leximancer, a text mining software to ensure that the themes identified through qualitative content analysis are accurate (see Appendix 1 for sample concept analysis). Leximancer facilitates both conceptual and relational analyses where in the former; it can locate the presence and frequency of concepts and in the latter, measures how concepts are related to one another in the text data.

As this is an exploratory study, the findings of this study are not generalizable, however, the narrative accounts of this in-depth inquiry provide useful insights to the roles and practices of effective pedagogical leadership in the Singapore preschool context.

Key Findings

In this section, the enactment of pedagogical leadership is discussed according to the key findings from the case study. The main theme that emerged from the analysis was programme and curriculum for positive child outcomes, which consists of three dimensions of pedagogical leadership: 1). To manage and is knowledgeable about curriculum and instructional programmes; 2). Engage in cross-disciplinary work and 3). Support and promote positive child outcomes. Under

the main theme, three roles and the accompanying leadership practices of effective pedagogical leadership were identified.

Effective pedagogical leadership was found to be one of the main drivers for programme quality. The three roles – a gatekeeper, a reviewer, and an assessor demonstrated that the principal's leadership practices supported the delivery of programme quality through the teacher's classroom implementation that in turn lead to positive child outcomes. These three roles also corresponded to the principal's knowledge of curriculum and instruction underpinned by her knowledge of child development theories and her leadership in the design and delivery of the curriculum that has led to the quality of programme and curriculum in her setting.

Role as a Gatekeeper

The study found that the principal's primary role was to ensure the centre's teaching practices uphold curriculum quality according to the expected standards. For example, the principal made sure that teachers start their lessons on time and the classroom curriculum and environment are in line with the centre curriculum.

> I'm like the gatekeeper so I make sure the teachers start the class on time, make
>
> sure the children are not drinking water for 10 minutes, 20 minutes, you know.
>
> I think that is the kind of thing I do in terms of curriculum, environment set up…
>
> Quality must be throughout the centre… Purposeful play should look the same
>
> from toddler class to K2, and the English to the Chinese.

This was validated by the SPARK report, which stated that there was evidence of progression in the centre's curriculum plans from nursery to kindergarten levels. It corroborated the principal's role in ensuring that there is progression, and quality is consistent throughout the centre's curriculum. In addition to the smooth running of the centre curriculum, the principal also

demonstrated requisite knowledge of child development and developmentally appropriate curriculum through programme evaluation through her assessment of children's behaviours in the classrooms when she does a centre walkabout. She shared that she would look at children's level of engagement, the quality of interactions in the classroom and the emotional, physical, and cognitive well-being of children, which reflects a child centred approach that prioritised children's holistic development, which is one of the care components of pedagogical leadership.

This child-centred approach also received positive feedback from parents. For example, one parent commented that her daughter was learning well at the centre, she "can speak, count and write well" and "is able to help her friends, share her things with others and play along well in a group". She was able to see that her daughter had acquired language, literacy, numeracy, and pro-social skills and reflected that her daughter "is developing well holistically".

Role as a Reviewer

The second role that the study found was that the principal emphasised teachers' pedagogical practice and interactions with children where she made sure that her teachers were clear about the centre curriculum and the accreditation criteria for centre programmes and quality. In leading the design and delivery of the curriculum, she used a centre-wide approach to help her teachers stay knowledgeable about the criteria for the SPARK accreditation framework. At the time of the research, the SPARK framework was only available in English, and she had translated the document into Chinese for her Chinese teachers to ensure alignment and consistency in the centre's bilingual programmes.

> I took a good 3 months to translate the SPARK into Chinese… Quality must be throughout the centre; everybody is on the same page. Purposeful play should look the same from toddler class to K2, and the English to the Chinese. So it

cannot be that only the English teachers are doing it but the Chinese teachers are not… So I say, 'teachers you need to know what is in this book, so you can better your own teaching in terms of the Chinese language'… this is why I call myself a reviewer. To me, I am looking at the bigger picture. For the teachers, of course they are just looking purely on curriculum but I'm looking as a whole… how everything affects the centre's curriculum.

The principal's dedication was indicative of an integrated programme and a holistic curriculum where her leadership practice clearly showed an effective translation of policy for quality assurance in her centre.

This was confirmed by the K1 teacher who shared that the principal would go through the centre curriculum and discuss learning outcomes with teachers to support them in their curriculum planning and classroom implementation. The principal also empowered her teachers according to their abilities, for example, senior teachers would do their planning before reviewing them with her while more guidance and support were given to less experienced teachers. The K1 teacher shared that,

Before each term starts, we actually have to do our termly plan. So there's this learning goals and learning outcomes that we want the children to achieve. So usually, we will just list out the learning goals we want the children to achieve… So, before the term starts, [the principal] will go through it with us, then she will give us additional pointers like what you can improvise, what you can do better. Then sometimes she will like, give us other alternatives to implement the curriculum in a better way.

Such an approach adopted by the principal was also congruent with the SPARK assessment report that indicated an integrated and holistic curriculum in the centre.

Role as an Assessor

The study also found that the principal acted as an assessor. As an assessor, the principal attended teachers' meetings to guide her teachers' discussions and conducted classroom observations to review how lessons are carried out in the classes, which showed that she was responsible for the quality of programme and curriculum in establishing and maintaining teacher quality in her centre.

> I say I am an assessor because how well the teachers are delivering the curriculum, is not about whether you deliver or not, but how well, you know. That comes in when I have the classroom observations. When teachers have the meetings, I actually sit in the meetings to listen what the teachers discuss about, you know, putting in my fair share. So that I know, ok, based on my conversations, or the teachers' conversations, this is the level the teachers are. So, are they reaching the next level or are they still maintaining?

Through classroom and teacher observations, the principal would help teachers improve by giving them feedback and guidance. She also shared that these observations were useful for helping her gauge teacher quality and the quality of lesson delivery. The K1 teacher shared that the classroom observations with the principal had been useful in improving her practice. This was in line with the SPARK report which stated that the principal had conducted classroom observations with written feedback on teachers' teaching strategies with follow-up actions and this was an improvement from the SPARK assessment report in 2012.

In addition to assessing teacher and classroom quality, the principal also assessed children's learning and development through the children's portfolios. The K1 teacher used an observation log and checklists to record children's learning and learning goals, and these were reviewed by the principal. The observation schedules were used as a guideline for the learning areas to look out for documentation, and the teacher would also collect samples of children's works for evaluation and reflection to assess if the learning goals set for each lesson were met. These documentations were vetted by the principal before sharing with the parents, which was indicative of the principal's accountability in tracking children's learning and development and is confirmed by the SPARK report 2015 which stated that teachers observed and used a variety of methods to record children's holistic development.

The positive responses in the parent survey and from the children reinforced the quality of the preschool programme as most parents reported that their children were learning well and the children also shared that they enjoyed learning in their centre. The positive responses from the children and their ability to share on the activities they enjoyed in class were evident of their positive learning experiences in the classroom. For example, one child described her positive relationship with her teacher and positive learning disposition of perseverance when faced with challenges.

I like squares… Like pink square and yellow square and blue square don't have. But dark blue square have. *(Interviewer (I): So what do you do with all these squares?)* I build a princess. *(I: Can you show me later how you build a princess?)* Yes, but it's very hard. But I can still build. Because teacher learning *(she meant teaching)* words… I don't know how to mix the words and don't know how to

do… *(Interviewer: So do you like teacher's teaching?)* Because teacher got learn

(she meant teach) us new words and try to teach us new words.

The positive responses from the children and their ability to share on the activities they enjoyed in class were evident of their positive learning experience in the classroom, which were reinforced by parents' survey responses. Children were able to cite their favourite activities and resources that they enjoyed playing with as well as communicate the learning that took place through recounting what they have learnt.

Discussion

This study highlighted that the key roles of a pedagogical leader are a gatekeeper, a reviewer and an assessor to ensure programme quality and that the centre principal embodies these roles in her leadership practice coupled with her conviction and commitment towards early childhood education and the teachers and children under her care. The principal used a child-centred approach and upheld children's rights and best interests. This study showed that leaders who build teachers' capability translate into quality programmes and curriculum in their classroom practice as the 'care' component is crucial to supporting and promoting positive learning and development in young children (Moen & Granrusten, 2013) Teacher quality is central to classroom implementation as teachers play a critical role in programme quality, and they too, take on the role of pedagogical leadership through working collaboratively with centre leaders and colleagues to develop and implement quality programmes (Heikka & Waniganayake, 2011; Macfarlane et al.*,* 2011; Watsons et al., 2012).

This study showed that effective pedagogical leaders develop intellectual capital that enables teachers to become more effective in enhancing the learning and development of children by putting in time, structures and resources for their professional development (Sergiovanni, 1998).

More importantly, pedagogical leaders ensure that their teachers are able to understand and implement the different policies and curriculum reforms by translating and communicating them effectively. Essentially, the component of care and a child-centred approach set pedagogical leadership apart from other leadership theories. In the delivery of a high-quality programme that contributes towards positive child outcomes, the centre leader played a critical role in driving and ensuring centre quality. Pedagogical leaders drive quality by having in place a strategic plan, setting the vision and goals for their centres while keeping it bite size for teachers to help them understand and implement them in the classrooms. As the centre principal shared:

> Frankly speaking, teachers do not know the full scale of it because I don't think
> the teachers are at the level of understanding the strategic plan and if I put the
> strategic plan to them, as in the full piece, I think they will freak out, and yah, I
> don't think they will be motivated or (they will be) be very stressed out. So what
> I do is, I actually break out into pieces, to slowly engage them in the action plan
> of it.

In the pedagogical leadership model, there is an emphasis on the whole child and child-centred pedagogy, which is "a relational and holistic approach to working with people and within pedagogy, learning, care and upbringing are interwoven and connected" (Heikka & Waniganayake, 2011, p. 503)

In the Singapore context, pedagogical leadership becomes pivotal to driving programme quality given the capitalistic nature of the market system which the preschool education landscape operates in. Interestingly, this case study also revealed tensions that the principal experienced in ensuring quality while meeting key performance indicators such as enrolment numbers for profitability and sustainability. The clash of values between the principal's personal beliefs in

providing quality ECE was evident when she shared that she was willing to compromise the centre's financial performance and the organisation's focus on enrolment numbers, which translates into income for the organisation in order to safeguard the best interests of the children and her teachers. Similar tensions can be seen in some of the parents' emphasis on academic achievement as compared to the principal's focus on children's holistic development in her centre programme. Parents who felt that their children did not meet their expectations in terms of academic achievement from the centre would send their children for enrichment classes to supplement their learning. Social inequalities surfaced in a market system that privileges the rich, thereby creating differentiated access to quality programmes for young children. For parents who feel that the centre programme does not fully prepare their children for primary schooling, they would turn to enrichment centres to prepare their children's academic learning for primary education. While this AOp centre offers quality programmes, compared to private centres that have more resources and better qualified teachers that charge a premium fee, children from a higher socioeconomic status (SES) and background tend to have an advantage over those who attend AOp centres that cater to the masses simply because the parents can afford to send their children to such private centres and are able to give children more exposure to experiences and resources compared to parents of children from lower SES who cannot afford.

Having said that, while the preschool education sector operates in a market system and is impacted by the macrosystem forces at work, such as globalisation, the economy and market forces, this case study demonstrated that in a diverse landscape where standards vary across early childhood settings, effective pedagogical leadership can lead to a high-quality centre programme. The role of the pedagogical leader is thus central to positive child outcomes as many factors need

to come together to support children's best interests, and it is only with an effective leader that these factors can work towards the same goals.

Conclusion

This chapter discusses that in Singapore, pedagogical leadership is pivotal to driving programme quality, as seen in this case study. This is because in a diverse landscape, quality standards vary, resulting in unequal starting points for children entering primary school, as the centres they are enrolled in are not the same. In addition, centres under the same organisation may differ because of teacher quality and centre leadership. Without a centralised system to ensure quality standards are uniform across preschool education settings, the market system continue to perpetuate social inequalities. Nonetheless, the study effective pedagogical leadership plays a critical role in ensuring a high-quality centre programme and can make a difference in children's lives regardless of their family backgrounds.

In summary, this paper demonstrates the pedagogical leader role is pivotal to promoting positive child outcomes. Essentially, the roles of pedagogical leaders are gatekeepers, reviewers, and assessors, and early childhood leaders play these roles to ensure programme quality and that their centre curriculum promotes positive child outcomes with children at the heart of the work that they do. Pedagogical leaders adopt a child centred approach and uphold children's rights and best interests. They emphasise values such as integrity, nurturance, relationship building, service excellence, and teamwork. Pedagogical leaders are able to inspire and motivate their teaching staff by setting goals and extending an ethic of care towards for teacher well-being. They build their teachers' capability by supporting them in their professional development and putting in time, structures and resources that support this. Pedagogical leaders build relationships with their teachers, parents and children, encourage teamwork among teachers, facilitate clear

communication and build partnerships with parents. They engage community partners to collaborate with the centre to provide children with opportunities to be involved in their community. Pedagogical leaders are a game changer in a market system as they are key drivers of programme quality in early childhood education.

References

Ang, L. (2012). *Vital voices for vital years: A study of leaders' perspectives on improving the early childhood sector in Singapore*. Lien Foundation. http://www.lienfoundation.org/pdf/publications/vitalvoices.pdf

Ang, H. M. (2022, February 18). *Budget 2022: Singapore to continue 'investing heavily' in children to give them 'best possible start in life'*. Channel News Asia (CNA). https://www.channelnewsasia.com/singapore/kidstart-uplift-budget-2022-children-preschool-subsidy-low-income-2506456

Aubrey, C., Godfrey, R., & Harris, A. (2013). How do they manage? An investigation of early childhood leadership. *Educational Management Administration & Leadership*, *41*(5), 5-29.

Bogdan, R. C., & Biklen, S. R. (2007). *Qualitative research for education: An introduction to theories and methods (5th ed.)*. Pearson Education Inc.

Bronfenbrenner, U. (1994). Ecological models of human development. *International encyclopedia of education*, Vol. 3, 2nd edition. Elsevier.

Cheeseman, S. (2007). Pedagogical silences in Australian early childhood social policy. *Contemporary Issues in Early Childhood*, *8*(3), 244-254.

Chua, C. S. K. (2008). Singaporean educational planning: Moving from the macro to the micro. In: A. J. Liddicoat & R. B. Baldauf, Jr. (Eds.), *Language planning in local contexts* (pp. 183-198). Multilingual Matters.

Department of Statistics Singapore. (2022). *Environment*. https://www.singstat.gov.sg/find-data/search-by-theme/society/environment/latest-data

Dikshit, A., Sukumar, D., Lim, T. J., Kaur, S., & Goh, Z. A. (2021). *Preschools for the people: An examination of Singapore's early childhood education landscape* (part 1). https://roosevelt.commons.yale-nus.edu.sg/2021/08/03/preschools-for-the-people-an-examination-of-singapores-early-childhood-education-landscape-part-i/

Early Childhood Development Agency (ECDA). (2020). *About us*. https://www.ecda.gov.sg/pages/aboutus.aspx

Early Childhood Development Agency (ECDA). (2022, October 29). *Government announces key preschool moves to better support families and boost early childhood careers*. https://www.ecda.gov.sg/news/press-releases/government-announces-key-preschool-moves-to-better-support-families-and-boost-early-childhood-careers

Fullan, M. (2021). *The right drivers for whole system success*. Centre for Strategic Education. https://michaelfullan.ca/wp-content/uploads/2021/03/Fullan-CSE-Leading-Education-Series-01-2021R2-compressed.pdf

Hallinger, P. (2003). Leading educational change: Reflections on the practice of instructional and transformational leadership. *Cambridge Journal of Education*, *33*(3), 329-352.

Hatch, J. A. (2002). *Doing qualitative research in education settings*. University of New York Press.

Heckman, J. J. (2012). *Invest in early childhood development: Reduce deficits, strengthen the economy.* Heckman the economics of human potential. https://heckmanequation.org/resource/invest-in-early-childhood-development-reduce-deficits-strengthen-the-economy/

Heikka, J., & Waniganayake, M. (2011). Pedagogical leadership from a distributed perspective within the context of early childhood education. *International Journal of Leadership in Education: Theory and Practice*, *14*(4), 499-512, http://dx.doi.org/10.1080/13603124.2011.577909

Heikka, J. (2013). Enacting distributed pedagogical leadership in Finland: Perceptions of early childhood education stakeholders. In E. Hujala, M. Waniganayake & J. Rodd (Eds.), *Researching leadership in early childhood education* (pp. 225-273). Tampere University Press

Housing & Development Board (HDB). (2022a). *About us: Jurong West*. https://www.hdb.gov.sg/about-us/history/hdb-towns-your-home/jurong-west

Housing & Development Board (HDB). (2022b). *Public housing – A Singapore icon.* https://www.hdb.gov.sg/about-us/our-role/public-housing-a-singapore-icon

Jäppinen, A. K. (2012). Distributed pedagogical leadership in support of student transitions. *Improving Schools*, *15*(23), 23-36, http://imp.sagepub.com/content/15/1/23

Kagan, S. L., & Bowman, B. T. (1997). *Leadership in early care and education*. National Association for the Education of Young Children.

Karuppiah, N., & Poon, K. (2021). *Early childhood education in Singapore*. In L. P. Symaco & M. Hayden (Eds.), *International handbook on education in South East Asia*. Springer International Handbooks of Education book series (SIHE). https://link.springer.com/chapter/10.1007/978-981-16-8136-3_4-1

Leithwood, K., & Jantzi, D. (2000). Transformational school leadership effects: A replication. *School Effectiveness & School Improvement*, *10*(4), 451-479.

Lim, S. (2017). Marketization and corporation of early childhood care and education in Singapore. In Li, M., Fox, J., Grieshaber, S. (Eds.), *Contemporary Issues and Challenges in early childhood education in the Asia-Pacific region*, 17-32.

Lipponen, L., Ang, L., & Lim, S. (2019). *Vital voices for vital years 2: Perspectives on early childhood development in Singapore*. Lien Foundation.

Macfarlane, K., Cartmel, J., Nolan, A., Keevers, A., & Clark, J., A. (2011). *Developing and sustaining pedagogical leadership in early childhood education and care professionals*. Australian Learning and Teaching Council, Australian Government Department of Education, Employment and Workplace Relations. www.ecceleadership.org.au

Moen, K. H., & Granrusten, P. T. (2013). Distribution of leadership functions in early childhood centers in Norway following organizational changes. In E. Hujala, M. Waniganayake & J. Rodd (Eds.), *Researching leadership in early childhood education* (pp. 76-96). Tempere University Press.

Ministry of Education Singapore (MOE). (2021). *Introduction*. https://www.moe.gov.sg/about-us/our-mission-and-vision

Ministry of Education Singapore (MOE). (2024). *MOE Kindergarten (MK)*. https://www.moe.gov.sg/preschool/moe-kindergarten

National Population and Talent Division, (2023, September 24). *Population In Brief*. https://www.population.gov.sg/files/media-centre/publications/population-in-brief-2023.pdf

Ng, W. K. (2022, October 29). *Pre-school educators' pay to rise by 10-30% amid review of working conditions.* The Straits Times. https://www.straitstimes.com/singapore/parenting-education/pre-school-educators-pay-to-rise-by-10-30-amid-review-of-working-conditions

Organisation for Economic Co-operation and Development (OECD) (2018), "Overview: Promoting quality early childhood education and care, child development and learning", in *Engaging Young Children: Lessons from Research about Quality in Early Childhood Education and Care*, OECD Publishing, Paris. https://www.oecd.org/en/publications/engaging-young-children_9789264085145-en.html

Ord, K., Mane, J., Smorti, S., Carroll-Lind, J., Robinson, L., Armstrong-Read, A., Brown-Cooper, P., Meredith, E., Rickard, D., & Jalal, J. (2013): *Developing pedagogical leadership in early childhood education*. Childcare Association.

Patton, M. Q. (2002). *Qualitative research & evaluation methods (3rd ed.).* Sage Publications Inc.

Sergiovanni, T. J. (1998). Leadership as pedagogy, capital development and school Effectiveness. *International Journal of Leadership. Education, 1*(1), 37-46.

Singapore Statues Online (SSO). (2017). *Early Childhood Development Centres Act 2017*. https://sso.agc.gov.sg/Acts-Supp/19-2017/Published/20170511?DocDate=20170511

Singapore Statues Online (SSO). (2018), *Early Childhood Development Centres Regulations 2018*. https://sso.agc.gov.sg/SL-Supp/S890-2018/Published/20181228?DocDate=20181228

Teng, A. (2022, July 13). *Over $13 million invested in training early childhood educators: Sun Xueling.* The Straits Times. https://www.straitstimes.com/singapore/parenting-education/more-than-13-million-invested-in-training-early-childhood-educators-sun-

xueling#:~:text=SINGAPORE%20-%20The%20Early%20Childhood%20Development%20Agency%20%28ECDA%29,Social%20and%20Family%20Development%2C%20on%20Wednesday%20%28July%2013%29.

Wardle, F. (2009). *Approaches to early childhood and elementary education: Education in a competitive and globalising world series*. Nova Science Publishers, Inc.

Watson, J., Vadaketh, S., Suresh, T., & Vohra, M. (2012). *Starting well: Benchmarking early education across the world, Economist Intelligence Unit*. Lien Foundation, http://www.lienfoundation.org/pdf/publications/sw_report.pdf
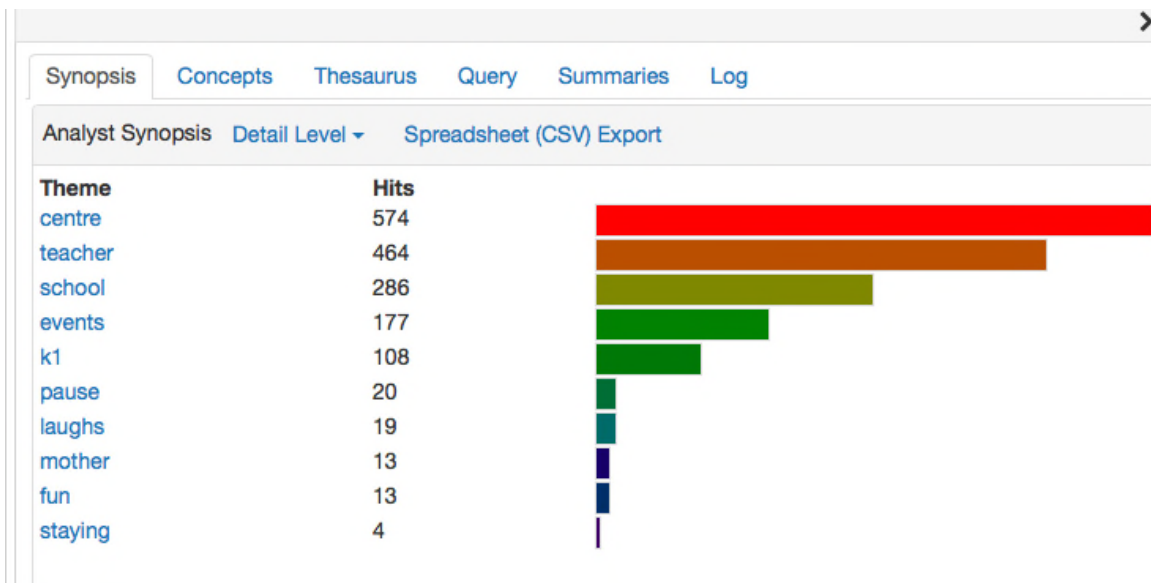
Wu, P-H. S. (2017). *Exploring pedagogical leadership in the early childhood context of Singapore*, EdD dissertation, Nanyang Technological University.

Wu, P-H. S. (2018). Translation of language policy from pre-school to primary school. In Chua, C. S. K.; Chew, P. G. L.; Taylor-Leech, K., & Williams, C. (Eds.), *Un(intended) Language Planning in a Globalising World: Multiple Levels of Players at Work* (pp. 267-289). De Gruyter Open.

Wu, P-H. S. (2022a, November). Access in Early Childhood Education (Singapore). *Bloomsbury Education and Childhood Studies*. Bloomsbury, 2022.

Wu, P-H. S. (2022b, November). Bilingualism and Multilingualism in Early Childhood Education (Singapore). *Bloomsbury Education and Childhood Studies*. Bloomsbury, 2022.

Appendix 1 Leximancer Concept Analysis

Synopsis	Concepts	Thesaurus	Query	Summaries	Log

Analyst Synopsis   Detail Level ▾   Spreadsheet (CSV) Export

Theme	Hits	
centre	574	
teacher	464	
school	286	
events	177	
k1	108	
pause	20	
laughs	19	
mother	13	
fun	13	
staying	4	

Theme: centre
Concepts: centre, centre, centre, benefit, children, children, children, child, child, child, teachers, teachers, teachers, learning, learning, learning, parents, parents, parents, curriculum, curriculum, curriculum, terms, things, things, development, development, development, activities, activities, activities, holistic, chinese, chose, previous, language, language, english, experience, experience, teaching, mrs, programme, child's, check, quality, spoken, values, answers, parent's, values, values, character, cognitive, enrolled, goals, preschool, home, needs, bring, class, read, understand, felt, environment, outcomes, care, student, comes, indicate, look, perspective, able, parent, best, different, course, plan, effective, preparing, relationship, survey, start, working, improve, enrolment, spark, results, change, hands, feedback, hq, coming
Hits: 574

On the scale of (0 to 10), the centre effectiveness in preparing for primary is 5 out of 10 on the scale. The reason why is school curriculum seem more on child development and activities, not much for primary preparation in terms of learning.

Preschool experience
In terms of parents��� perception of their child���s overall preschool experience and holistic development, six parents gave positive responses while two reported that it is average and a NIL reply for holistic development. The gaps indicated were reading ability of child, moral education and the lack of gym equipment for children.

Preparation for Primary School
Out of the eight respondents, six parents felt that the centre adequately prepares their child for primary school, while one felt that the centre focused on child development and activities instead of preparation for primary school learning.

Programme and Curriculum
Seven parents reported positively on the curriculum and teachers whereas the last parent felt that his child was more active in nursery class. In terms of centre programme, six reported positively although one parent indicated that the programme and curriculum needs improvement and the centre is not bright and colourful enough.

So I took the liberty, ok, lets look at the SPARK programme, SPARK book, change it all into chinese as best as I could, and explaining to the chinese teachers, yes you are only focusing on chinese language but, but, lets take it this way. When you do activities in your chinese lesson, do you not include math?

Biographies

Sandra Wu

Dr Sandra Wu is lecturer and programme leader for the Doctor in Education programme (Educational Leadership and Change) at the Policy, Curriculum and Leadership department in the National Institute of Education, an institute of the Nanyang Technological University, Singapore. She is involved in teacher education and professional development programmes. She currently teaches preservice teachers, postgraduate students, and supervises doctoral students. She conducts professional development for educational leaders such as the Management and Leadership in Schools programme for key personnel in schools and Principal Matters Plus programme for early childhood education leaders. She also serves at the Singapore Centre for Character and Citizenship Education. She has conducted research in the local pre-school and primary school contexts. Her research interests include policies and leadership in education and character education. She has published on the image of the Singapore child, quality of infant-toddler programmes, various pre-school curriculum models, values education in early childhood, pedagogical leadership in early childhood education, religious harmony and multiculturalism in Singapore.

Email: sandra.wu@nie.edu.sg

Catherine Chua

Dr Catherine CHUA is a Senior Education Fellow at Ngee Ann Polytechnic, Singapore. Her research expertise includes educational policy, work-integrated learning, leadership development, language policy and planning, globalisation and educational reforms. She holds a PhD in Education from the University of Queensland, an MA in English from the University of

New South Wales, and a professional teaching qualification from the National Institute of Education Singapore. Catherine worked as an Assistant Professor with the National Institute of Education Singapore from 2006 to 2016. In 2016, she joined the Faculty of Education at the University of Calgary, where she taught graduate courses in leadership and policy studies. Her current research focuses on the impact of SkillsFuture initiative on continuous learning, skills development, and workplace transformation in Singapore.

Email: catherine_chua@np.edu.sg