

Leading Change in the Singapore Pre-School Education Sector: Challenges and Opportunities

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Abstract — Pre-school education is the first major milestone in a child's educational journey and has been identified as one of the key factors determining subsequent academic success of students. In addition, the years from birth until age five are critical in developing the foundations for cognitive, behavioral and emotional well-being. More recently, studies have demonstrated that the culture of play is important for children's development and learning, and that it is impossible to separate children's play, learning, development and well-being. Other studies have also found that parental involvement lends significant influence on children's educational engagement, achievement, and self-esteem, during their formative years in pre-school. With these substantial findings regarding pre-school education, several significant changes have been made to the pre-school education curriculum and system in Singapore. As a result, the roles and expectations of pre-school educators and leaders have also changed. Parents and society in general expect more out of pre-school education, and from pre-school educators and leaders. This paper discusses key findings drawn from interviews eliciting the views of senior pre-school educators and leaders on how they lead change in pre-school education in Singapore along with the attendant challenges and issues.

Keywords — *pre-school, teachers, leadership, reform, policy, Singapore*

I. INTRODUCTION

For many countries, human capital development remains a core focus of those countries' education and human resource development policies. Often, sound and comprehensive policies on education as well as progressive development in schools and educational strategies, have brought about overall individual well-being, higher levels of literacy and academic

attainment, as well as better opportunities for employment [1], and have been attributed as one of the best investments any country or government can make in human capital development [2]. Research has substantially found that the first five years of a child's life form the critical period in developing a strong foundation for the child's behavior as well as their cognitive and emotional well-being [3]. It has been suggested that pre-school education has significant and lasting effects on a child's cognitive abilities, school progress (which includes grade level progress and high school graduation), and social behavior [4]. However, it has also been suggested that children who come from economically disadvantaged families with limited resources and readiness for school, tend to have less access to books and educational games, less exposure to out-of-home and out-of-classroom educational experience, such as visits to the zoo or museums, and limited role-modeling that can influence positive behavior [3]. In addition, sufficient research has shown that access to effective teachers lead to better student outcomes for the longer term [5], and in many research studies, it has been found that what is considered one of the most important aspects of quality preschool education is quality teaching performance [6], thus the quality of teacher training programs is paramount. Hence, policies on pre-school education and teacher professionalism and training would need to ensure there is sufficient support, funding, resources and accessibility allocated to pre-school programs and teacher professional development [4].

II. BROAD DEVELOPMENTS IN THE SINGAPORE PRE-SCHOOL EDUCATION SECTOR

In Singapore, significant changes have taken place in the pre-school education sector. Beyond the government-led and government-funded initiatives (which are discussed in another paper by the authors of this paper), there are three broad directions where specific initiatives are encouraged to be implemented

by the pre-school operators in Singapore. These are (i) the focus on learning through play; (ii) deployment of more trained teachers, teacher assistants and educators; and (iii) the greater involvement of parents in learning activities.

A. Learning Through Play

Learning through play has been identified as important for children's development and learning, and it is practically impossible to separate children's play, learning and development [7]. In fact, it has been suggested and demonstrated that unstructured play, preferably done outdoors, leads to enhanced levels of the child's attention (cognitive), affiliation (social), and affective (emotional) development [8]. Play, which has been described as "an attempt to overcome the discrepancy between personal abilities and behavioral patterns that are important for successful integration into society" [7], can be distinguished into four broad categories. These are (i) functional (mastery) play; (ii) symbolic (imaginary) play; (iii) construction (building) play; and (iv) didactic play (play with rules) – all of which are equally important in ensuring the holistic development of the child. In addition, it is believed that learning at play, which accords freedom of choice, self-determination, and social learning, should continue to be the central elements of early learning [9].

For the revamped pre-school education sector in Singapore, purposeful play has been identified as a key approach to learning for pre-school children. Purposeful play is achieved "through enjoyable activities that are intentionally planned to achieve learning outcomes, (where) children will engage in lively discussions with their teachers and friends to build on ideas and concepts together" [10]. This is in tandem with studies that have established the important synergies among play, environment, and the teacher-child relationship in fostering desirable social and emotional learning among pre-school children [11].

In addition, providing the social and community context to support learning through purposeful play provides a more authentic and relevant learning environment for the child. Hence, pre-schools in Singapore are encouraged to embark on more collaborative activities with the community in order to create this more authentic and relevant learning environment.

B. Trained Teachers, Teacher Assistants and Edu-Carers

Less than a decade ago in 2012, pre-school education quality in Singapore varied across providers. A study was carried out in 2012 by the Economic Intelligence Unit, commissioned by Lien Foundation Singapore. The study set out to devise an index to rank preschool provision across 45 countries, encompassing the Organisation for Economic Co-operation and Development (OECD) and major emerging markets. It was found that the Nordic countries, particularly Finland, Sweden and Norway, topped the index largely because of "sustained, long-term investments and prioritization of early childhood

development, which is now deeply embedded in society" [12]. Singapore ranked 29th out of the 45 countries, despite having high average per capita income. It was determined that even though quality pre-school programs existed in Singapore, these were "not available or affordable to all strands of society, while minimum quality standards vary widely".

Most significantly, it was found that while Singapore ranked average in terms of availability and affordability of pre-school education, she ranked below average in terms of quality of pre-school education. The quality index was determined by factors such as (i) teacher-student ratio; (ii) average pre-school teacher salary; (iii) curriculum guidelines; (iv) pre-school teacher training; (v) health and safety guidelines; (vi) data collection mechanisms; (vii) linkages between pre-school and primary school; (viii) parental involvement and education programs.

Several of these factors could be addressed through better and more coordinated training of pre-school teachers and other pre-school teaching personnel, which would result in having more quality trained pre-school teachers and teaching personnel, hence improving teacher-student ratios. Once pre-school teachers and teaching personnel are professionalized through better training and clear professional development pathways, salaries will be more competitive, and quality will eventually improve.

Pre-school operators were encouraged to focus on strengthening their teachers' professional development, other than just requiring that new pre-school teachers possess at least a Certificate in Early Childhood Care and Education (ECCE) or Diploma in ECCE. Such pre-school teacher training and qualifications are provided by various pre-school training providers such as Temasek Polytechnic, Ngee Ann Polytechnic, Institute of Technical Education, SEED Institute, and several accredited private training agencies (PTAs) [13].

In addition, beyond undergoing training, attaining benchmarked standards or being certified, pre-school teachers would also need greater support for the sharing of best practices, opportunities to observe one another in action, as well as learning from and being mentored by more experienced colleagues [14; 15]. These provisions would make it easier for pre-school teachers to integrate theory and practice, and apply what they learn to the actual context and environment for teaching their students. These provisions also seem to fit naturally into the pre-school and early childhood education's concept of practice and leadership that revolves around the ethics of care and working collectively [15].

The Singapore Early Childhood Manpower Plan launched in late 2016 laid the plans to provide more opportunities for individuals to join and develop a career in the pre-school education sector, including recognizing prior work experience for early childhood and pre-school teachers [16]. Another objective of this Plan was to bring about greater respect and recognition for pre-school teachers. Studies have demonstrated that there is a gross societal marginalization of early childhood and pre-school

educators, the majority of whom are female [17]. As a result of this marginalization, the status of early childhood and pre-school educators is reduced, wages are depressed, and opportunities for educational and career progression are limited [18].

Many experts and practitioners in the early childhood and pre-school sector have agreed that as portrayed in the United Nations Convention on the Rights of the Child, the child is an active participant and has a contribution to make to society's present and future, and is not just an invisible or marginal being. In other words, a young child's perspectives and meanings must be listened to and considered, which inadvertently should shape the content and approaches of learning in the early years [19]. Hence, it is imperative that our early childhood and pre-school educators are adequately trained to be able to create that conducive learning and contributing environment for our young children.

C. Greater Involvement of Parents

The involvement of parents in early childhood and pre-school education cannot be sufficiently emphasized. Research has shown that parental involvement has positive effects on children's academic achievement, self-esteem and character development, and significantly reduces absenteeism and behavioral problems [20]. Parental involvement exists on a spectrum with some parents being much more involved in every stage of their children's cognitive, emotional and social development, while there are parents whose involvement are more confined to being there for significant events in their children's lives. Some research studies have managed to determine examples of what good practices of parental involvement are. These include activities that help to establish a connection between home and school, involving parents when children do their homework, or in parent-child co-reading and conversations [21]. Regardless of the differences, extent and depth of parental involvement, what is consistent is the consensus parents have shown towards the importance of early childhood and pre-school education, and recognizing that their children's social and cognitive skills can be developed and enhanced through their involvement in early childhood and pre-school education [22].

Teachers have an equally important role to play in ensuring parents continue to be actively involved in their children's cognitive, emotional and social development. Among the initiatives early childhood and pre-school teachers can implement are teacher home visits, parent-teacher conferences, online or offline communication platforms for the teacher to provide updates to parents and vice versa, and daily updates for families at drop-off and pick-up times [23]. These initiatives are important in enhancing communication and in cementing the collaborative relationship between teachers and parents.

In Singapore, the Early Childhood Parenting Landscape Study that involved more than 3,800 parents of young children from birth until age 8 [24], revealed interesting insights into the extent of child

development and early years knowledge that parents possess. These include their parenting goals, attitudes, values, beliefs and practices; home learning environments; and parenting issues and challenges in raising young children from birth to eight years. Among the recommendations made by ECDA were to create more opportunities for parents to be involved through the pre-school centers in various collaborative projects with relevant partners; and for pre-school centers to engage parents through interactive workshops that would allow both practitioners and parents to share strategies on how to support their children's learning and development. These clearly demonstrate that ECDA is leading the way in ensuring greater parental involvement in pre-school children's learning and development in Singapore

III. LEADING CHANGE IN THE SINGAPORE PRE-SCHOOL EDUCATION SECTOR

The Singapore pre-school education sector has undergone significant changes in the last five to ten years. Among the significant changes introduced were the setting up of the Early Childhood Development Agency (ECDA) in 2013; the setting up of the Ministry of Education Kindergartens (MKs) in 2014; the introduction and implementation of the Skills Framework for Early Childhood Care and Education (ECCE), and the Early Childhood Manpower Plan (ECMP) in 2016; the doubling of budget for the ECCE sector from S\$612 million to S\$1.2 billion by 2023; the establishment of the National Institute of Early Childhood Development (NIEC) in 2017; and the enactment of the Early Childhood Development Centers (ECDC) Act in 2018.

As with changes introduced in the pre-school education sector in other countries or jurisdictions, a proper plan for change management and leadership is needed. For the pre-school education leaders, there are several key leadership functions deemed necessary. These are (i) articulating the vision for change; (ii) setting defined goals to achieve this vision; (iii) working through challenges that may arise; and (iv) identifying how teachers, students and other related individuals align with the leadership approach taken [25].

With these significant changes introduced and implemented in the pre-school education sector in Singapore, it is interesting to understand how pre-school leaders manage and lead these changes, and consequently, what are the impact of these changes on the pre-school leaders, teachers, children and their parents. The following research questions define the scope of this small-scale study and paper.

A. Research Questions

1. What are pre-school leaders' thoughts on working with other key stakeholders such as parents or community partners?

2. What are some current challenges or issues that need to be addressed to develop the pre-school sector further?

3. What are some areas of opportunities in the pre-school sector for current and future pre-school leaders and/or teachers?

B. Method

Individual face-to-face interviews were carried out with a select group of 15 experienced pre-school education leaders and teachers (n = 15), who responded to an email invitation that was sent out to more than 50 pre-school education leaders and teachers. The interviews were carried out during the period March to April 2019. Out of the 15 participants, six of them were from the anchor operator (AOP) pre-schools while the remaining nine were from the non-AOP pre-schools (refer to Table I for the list of participants and corresponding basic demographic information).

The interviews were carried out either on the premises of each participant's pre-school or at a location decided on by the participant. Each interview lasted between 60 to 90 minutes. Each interview session was audio-recorded, and the audio recordings were subsequently transcribed.

IV. FINDINGS

The participants were asked the three research questions (RQs) of this project. From the interviews carried out, the 15 participants shared their views on working with stakeholders of the pre-school education sector, as well as their views on the challenges that needed to be addressed, and the opportunities identified for current and future pre-school teachers and leaders.

A. Working with Stakeholders – Parents and Community Partners

The participants viewed parents as partners who are engaged with their respective pre-school centers, and who have a shared responsibility with the pre-school centers, instead of being just customers using services provided. A few of the participants shared that their pre-school centers institutionalized this partnership with parents in the form of parent support groups or parent involvement groups where they contributed to the pre-school center by planning events and activities of the center, such as Teachers' Day celebrations and Kindergarten Graduation Concerts (Participants 6; 7; 12; and 14).

One participant shared that parents also acted as facilitators for the regular operations of the pre-school center. Insufficient manpower in the pre-school center resulted in difficulty monitoring day-to-day operations and activities. The parents that were engaged in this pre-school center supported the teachers by managing the children during their daily operations and activities, as well as providing classroom and learning support to the teachers when they were teaching in the classrooms (Participant 7).

A few of the participants also expressed that parents were getting more highly educated and more vocal these days. They actively questioned the pre-school centers' teachers, particularly actions or decisions made which were not readily justified. This

added some amount of stress especially on teachers who were less experienced or unable to answer parents' queries effectively. The older and more experienced teachers were often sought to provide guidance in terms of external stakeholder management in this case (Participants 4; 8; and 14).

At the same time, the pre-school centers were also required to update their IT systems to keep up with the use of technology in today's context, such as communication with parents to update them of their children's progress, or the provision of a platform for parents to provide feedback. Through these technological tools used in communicating with parents, the pre-school centers also managed to bring parents on board school events as parent volunteers. The participants also shared that the older teachers generally would require some guidance from the younger teachers in harnessing technology in reaching out to and engaging parents (Participants 2; 4; and 14).

Pre-school centers viewed community partners as authentic educational resources where students were able to interact with members of the public and learn in an authentic environment beyond the classroom. This supplements what was taught in the classroom and supported the children's learning through concrete interaction (Participant 12). The participants also expressed that community partners provided invaluable learning opportunities for the children, particularly lessons that could not be easily taught within the classroom – such as character building, values education, and attitude and disposition inculcation, which were more easily nurtured and developed through engagement with different stakeholders such as elderly residents or individuals with special needs living in the immediate community (Participants 1; 7; and 14).

As much as possible, the pre-school centers tried to maintain a consistent relationship with community partners. However, the suitability of partnership was evaluated and assessed constantly to ensure that learning and safety objectives were met. The level of commitment by different community partners differed, with some partnerships resulting in visitations or interactions weekly, monthly, with some less frequently such as once or twice a year. Participants expressed that they observed an increase in engagement with community partners due to stipulations endorsed by the ECDA Singapore Pre-school Accreditation Framework (SPARK) (Participants 1; 2; 6; and 11).

B. Challenges That Needed to Be Addressed

Among the challenges identified was that there were too many ECDA initiatives being rolled out at the same time or within a short time of one another, and it was deemed very confusing for operators to implement and adhere to these changes all at once. For instance, the criteria for employing a pre-school teacher were changed multiple times over a few years (e.g. minimum qualifications for entry to be a preschool teacher) resulting in further confusion (Participants 4; and 13). It was also felt that having too many initiatives happening at the same time also limited the amount of

feedback that pre-school teachers and leaders had to give to ECDA to improve the pre-school programs and landscape. This, in turn, resulted in pre-school center management not being able to cope effectively with the changes implemented and a resultant decrease in effectiveness of the initiatives implemented (Participant 4).

The entry of the Ministry of Education Kindergarten (MK) into the pre-school sector also had a serious impact on the existing pre-school center operators. The government subsidies, grants, and affiliation to primary schools that were available in the MKs only, also seemed to deter parents from enrolling their children with the other privately-run pre-schools, even though they were established operators. Some of the participants expressed their concern that parents saw the nationalization of the pre-school sector (i.e. the establishment of the MKs) as a move towards putting in place a more rigid form of learning that conformed and adhered to what was taught in mainstream primary schools, which they felt significantly differed from the learning through engagement or learning through play approaches that were taught in their pre-school centers (Participants 8; 11; and 12). The participants were concerned this went against the drive towards differentiated instruction and did not take into account individual differences, especially for students with special needs (Participants 06; and 12).

Participants also expressed their concern that with more MKs being established, this would eventually leave the existing privately-run pre-school centers to focus solely on early years education (i.e. ages 0 to 3 years old) and childcare services only. In addition, government grants and subsidies that are provided for early years education and childcare services only, as well as MKs' affiliation to mainstream primary schools, made the kindergartens run by the privately-run pre-schools less attractive to parents.

As a result, one, it was felt that the existing privately-run pre-school centers had little choice but to focus only on early years education and childcare services and had to give up their kindergarten curricula and enrolment to the MKs (Participant 4). Two, it was observed that there was an overall attrition of teachers from the privately-run pre-school centers, who went on to join the MKs instead (Participant 13). Three, it was felt that this 'monopoly' of the kindergarten sector by the MKs would deprive parents and children of options for kindergarten education (Participant 12). Since all the 50 MKs had the same standardized curriculum, it was felt that there was little room left for the customization of kindergarten education, for example, for children with special needs, which may be better provided by the privately-run kindergartens.

A few participants felt that the early childhood sector (for ages 0-3 years old) generally had fewer quality teachers compared to those teaching older children. The participants attributed this to the relatively lower demand for pre-school education for this younger age group. This was also reflected in the pay scale where those teaching this younger age group received less pay. Another reason was that teachers who taught children in the older age group

needed to have at least a diploma in early childhood education, while those who taught children in the younger age group did not need to have such qualifications. Hence, there was the perception that those who did not manage to get a diploma would end up teaching the younger children (Participants 7; and 14).

The participants shared that there were professional development courses conducted by ECDA and the National Institute of Early Childhood (NIEC) to help train pre-school educators. However, these courses were done in addition to their regular work commitments and full-day schedules. Hence, the schedules of the teachers were very packed, and the teachers were overwhelmed with the amount of work and commitments that they had to handle as a result (Participant 6).

It was observed by the participants that there appeared to be a lack of leadership capacity in the pre-school sector, particularly for pre-school centers run by the voluntary welfare organizations (VWOs). With the implementation of the ECDA Act, it was observed that a number of pre-school center leaders had to vacate their leadership positions to assume teaching positions made vacant by pre-school teachers who had to leave the service as they did not have the requisite early childhood teaching qualifications (Participant 12). It was also observed that pre-school leaders in the privately-run pre-school centers did not have the requisite leadership training; that requirements for the assumption of pre-school leadership positions were not stringent enough; and that there were too many pre-school leaders (principals) who were promoted and who were without sufficient experience or qualifications (Participants 3; and 7).

C. Opportunities Identified for Current and Future Pre-School Teachers and Leaders

With the merging of several pre-school centers into mega centers, there were additional savings made (resources and monetary) through economies of scale in setting up the mega centers. It was proposed that these savings be channeled towards the professional development of the pre-school teachers to ensure that they were sufficiently qualified for the job responsibilities that they had to undertake (Participant 7).

There were currently more courses available for the professional development of teachers which showed an increased emphasis on improved quality of pre-school teachers. Furthermore, subsidies and sponsorship for degrees (bachelors and masters) drove teachers to voluntarily seek these opportunities to upgrade themselves. As a result, there were more qualified teachers in the pre-school sector, and this trend is a positive one which should continue (Participant 4; and 5).

One of the participants also suggested that other than content-based skills training, content knowledge, and pedagogies, the structure of professional pre-school teacher training could place less emphasis on extrinsic motivational incentives and instead appeal to

a pre-school teacher's moral obligation and intrinsic motivational appeal. This could help ensure that teachers who decided to embark on a pre-school teaching profession would do so with the right mindset and heart, i.e. to improve teaching and learning in the pre-school education sector (Participant 8).

A few of the participants felt that the curriculum for the pre-school sector could be further enhanced to include the teaching of life skills, values, dispositions, attitudes, creativity, decision making, and other topic areas apart from the usual subject-based content knowledge and skills. A few of the participants also suggested that the government, through the Infocomm and Media Development Authority (IMDA) increase funding to pre-school centers to introduce more digital initiatives to the pre-school curriculum, and increase the space and frequency for digital literacy and learning through play for the children (Participants 12; 13; and 14).

Two of the participants also suggested that there could be more coordination by the National Institute of Early Childhood Education (NIEC) to synchronize the pre-school teacher education curriculum across all pre-schools, so as to develop and identify clear trained pre-school teacher outcomes. This, in turn, will ensure a more consistent quality of trained teachers among the pre-school centers, whether MKs, or the privately-run pre-school centers (Participant 13; and 14). Yet another participant felt that the NIEC should consolidate the training of teachers across all the pre-school centers, so as to ensure that the quality of new hires is standardized and consistent. It was felt that the current teacher training is haphazard and highly dependent on the private institution that the pre-school teacher obtained the certification from. The standardization and consistent teacher training standards and outcomes would result in lower attrition rates (among pre-school teachers) as teacher quality is assured if NIEC is the sole arbiter of pre-school teacher training (Participant 1).

Other than the professional development and training aspects, a few of the participants felt that there was an opportunity to instill a collaborative culture within the pre-school sector, and to develop teachers and leaders with the ability to think and exercise more autonomy. Having a collaborative culture would spur teachers towards becoming more professional as an educator and would create a self-sustaining focus on continuing professional development and learning through formal and informal means (Participant 3). In addition, it was felt that there was the opportunity to improve the perception of pre-school teachers and leaders through greater professional recognition, and the reshaping of public opinion towards pre-school teachers. This, in turn, could have a positive impact on having more people wanting to choose to work in the pre-school sector, to make up for the shortage of teachers in the sector (Participant 06; and 14).

A few of the participants expressed that Singapore was lagging behind other countries in terms of pre-school education. Singapore could learn

from more advanced countries such as Japan and Finland and could exchange best practices with these countries in order to learn from them and adapt some of the lessons learnt, to our local context. ECDA, NIEC and the government needed to work more closely together to bring about this change (Participants 1; and 11). It was also felt that Singapore could better utilize the expertise from the ECDA fellows (i.e. experienced pre-school leaders identified by ECDA) to provide advice on policy matters that could improve the pre-school education sector. The sharing of ground sentiments was important and there should be deeper and more deliberate engagements with the ECDA fellows to ensure the feasibility and alignment of policy implementation (Participant 8).

V. DISCUSSION

A. Working with Stakeholders – Parents and Community Partners

It was generally agreed that parents were crucial partners for pre-school teachers. They were seen to be better educated, more well-informed, and wanted to be involved in their children's pre-school education journey. Hence, they were perceived as being more demanding and had much higher expectations of teachers [26]. Technology has been an important platform in the communication between pre-school teachers and parents. Parents were kept updated of their children's activities in the pre-school as well as their learning progress and personal development. This provision helped parents to ensure the habits, behaviors and concepts learnt in school can continue at home. The use of technological tools for communication between pre-school teachers and parents has proven especially useful during times when social interactions and gatherings are restricted, such as during the COVID-19 pandemic [27]. Hence, the ability in using technological tools effectively, particularly in communicating with parents, have become essential skills for pre-school teachers.

Community partners were also seen to be important stakeholders for pre-schools to forge good work relationships with. Community partners were able to help provide authentic learning environments beyond the pre-school center, where the pre-school children were able to develop enhanced understanding of the community in which they live, and develop a sense of empathy towards others, especially those less privileged. It has been found that children develop the most information about the people and world around them in the first five years of their lives, hence establishing good relationships with community partners from an early age is beneficial [28]. In Singapore, the government started the "Dream Big, Start Small" initiative in 2015 to "encourage pre-schools to create authentic platforms for children to innovate, problem-solve and tap on their unique strengths to help others" and to "encourage young children to use their own resources and creativity to give back to society, and in the process, instill the spirit of giving and good values such as care for

others, humility, kindness and compassion" [29]. Hence, there had been increased engagements and partnerships between pre-school centers and community partners in Singapore since such provisions were prescribed and supported as national pre-school initiatives.

B. Challenges That Needed to Be Addressed

Over the past five to ten years, there had been a number of significant legislative and policy changes implemented in the pre-school sector, as described earlier. As a result of these changes, plans for significant changes to leadership planning, resources, funding, training, curriculum and assessment were made to the pre-school sector. Many pre-school centers had to re-organize their strategies and goals, or even had to re-look their target markets.

The setting up of the MOE Kindergartens (MKs), which were government-run and funded, had posed significant challenges to some of the smaller privately-run kindergartens such as those by the volunteer welfare organizations (VWOs) or non-profit organizations (NPOs), and even religious organizations. They had difficulty competing with the lower and heavily subsidized fees offered by MKs, as well as the primary school affiliation and guaranteed primary school placement that the MKs had to offer. With the decreasing number of children enrolled in kindergartens because of both lower birth rates and increasing popularity of full-day childcare centers to support working parents, the privately-run kindergartens saw dwindling enrolment from year-to-year, and imminent closure of their centers [30; 31]. The intent of the setting up of the MKs was a good one – as it allowed the provision of affordable and good quality pre-school (kindergarten) education for the general population, and one which was regulated by the government. Nevertheless, kindergartens run by VWOs, NPOs or religious organizations found that their business was affected, and they had to re-look their target market segments. Among the arguments for the kindergartens run by the VWOs, NPOs or religious organizations was that these kindergartens catered for a niche market – parents who wanted a pre-school education environment with a specific system of values espoused. As some parents cited, these niche kindergartens run by the VWOs, NPOs or religious organizations, provided a "...strong emphasis on the child's character and emotional development, and a certain "kampung spirit" that is evident in how principals and teachers know every child by name." [31].

Another challenge that the pre-school sector faced was the shortage of qualified or trained pre-school educators and leaders [26]. With the government's move to expand pre-school provision and services to many more young parents so that they can continue to pursue their professional development and careers even after having children, the number of qualified and trained pre-school educators and leaders had to increase to meet this demand and promise made. However, it was not easy to recruit

and retain enough qualified and trained pre-school educators, particularly for the early years pre-school segment. Among the recommendations made by researchers and academics in the sector, in a bid to recruit and retain more pre-school educators, was the review of pre-school educators' salaries [32; 31]. Pre-school educators generally earned less compared to similar professionals in other sectors, and their salary ranges were not made public. This, in turn, created the impression that pre-school educators were not as highly valued or given proper recognition or remuneration for the work they did.

C. Opportunities Identified for Current and Future Pre-School Teachers and Leaders

Other than increasing the salaries of pre-school educators, another means of recruiting and retaining enough pre-school educators was the provision of greater support and options, as well as more funding for the professional development of pre-school educators [26]. For instance, there were more entry pathways for people to join the sector as pre-school educators, which included the place-and-train program, and professional conversion program, for mid-career entrants to join the sector and be adequately trained. The setting up of the NIEC also ensured that the pre-school and early childhood training ecosystem was consolidated and better regulated, and the quality of training and professional development programs could then be enhanced. A more regulated pre-school sector, better qualified pre-school educators, and more competitive salaries for pre-school educators, were believed to help improve the recognition of, regard for and respect towards pre-school educators. This, in turn, would help attract more professionals to the sector.

It was also felt that there were many opportunities to better integrate the learning of values, attitudes and life skills in the pre-school curriculum, for both students and teachers. For the pre-school teachers, this would include specially curated training and professional development programs that would allow the teachers to have a better understanding and appreciation of the learning of values and life skills, as well as purposeful play, that would be relevant for their young charges [33]. For the pre-school students, this would include more learning through play, and the integration of digital literacy skills. However, it had been found that in integrating both learning through play and digital literacy skills in the pre-school curriculum, parents played an especially critical role in its success [34; 35; 36]. While the Singapore government advocated the integration of learning through play, digital literacy skills, or even values education, it was ultimately parental involvement and support that determined the success of its integration. Hence, the development of strategies and plans to introduce and integrate new learning approaches in the pre-school curriculum such as learning through play, digital literacy skills, and even values education, would need more parental inputs and involvement.

Yet another area of opportunity identified was in improving and strengthening the inclusion of children with developmental challenges or special needs in pre-schools. At present, there is no legislation in Singapore that mandates the provision of a conducive learning environment for children with special needs in the pre-school sector [37], where “provisions for inclusion are currently limited to only the primary and secondary school systems. Pre-school children in Singapore with special needs typically access services provided by voluntary welfare organizations, family community services, moral charities, public hospitals, and private organizations.” Another study conducted among 35 thought leaders in the Singapore pre-school sector found that with more pre-school children diagnosed with developmental challenges or special needs, pre-schools needed to work much more closely with early intervention providers [32]. Hence, this is an area that the pre-school sector in Singapore needed to work on improving and strengthening, as it had been determined that a more inclusive pre-school environment would not just benefit the child with special needs. In fact, an inclusive pre-school environment would help build a more supportive, compassionate and sensitized society [38]. It is thus encouraging that the Ministry of Social and Family Development had convened a workgroup to study ways in which children with developmental challenges or special needs could be better included in the pre-school environment [39].

VI. CONCLUSION

This study has several limitations: (i) it is a small-scale study with very few participants, hence, the findings of this study may not necessarily be generalized to the wider population in Singapore; (ii) this is an interview-based qualitative study where the inputs were obtained during a once-off engagement, and there was no follow-up to ascertain any changes or deviations to the views initially obtained; and (iii) as with many interview-based studies, it is difficult to determine the authenticity or accuracy of the responses, where these responses were not just socially desired or politically correct ones. Nevertheless, despite its limitations, this study has provided interesting insights and opinions that pre-school leaders had about working with stakeholders, as well as the attendant challenges and opportunities that needed to be addressed in the Singapore pre-school sector. It is hoped that these insights and opinions would contribute to the current body of literature and knowledge on provisions and concerns surrounding the pre-school sector in Singapore and southeast Asia, and that these may, to some extent, shape the development of better policies for the pre-school sector in both Singapore and southeast Asia.

TABLE I. INTERVIEW PARTICIPANTS' INFORMATION

Participant	Male/ Female	No. of years of pre- school teaching experience	No. of years of pre- school leadership experience	Pre-school (AOP / POP / VWO or Faith-based / Others)
1	F	6	16	Others
2	F	1	16	AOP
3	F	8	20	VWO or Faith-based
4	F	12	14	AOP
5	F	5	16	VWO or Faith-based
6	F	5	10	AOP
7*	F	N.A.	N.A.	AOP
8	F	0	22	VWO or Faith-based
9	F	2	11	AOP
10	F	1	16	VWO or Faith-based
11	F	12	11	VWO or Faith-based
12	F	0	7	VWO or Faith-based
13	F	3	11	Others
14	F	4	6	AOP
15	F	8	3	POP

*participant did not provide number of years of pre-school teaching and leadership experience

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