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Teachers' versus parents' perceptions of professionalism of early childhood teachers: A mixed-methods study

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IT IS OF CONCERN THAT the professionalism of early childhood teachers (PECT) is nebulous in the eyes of the public, and parents' perceptions of PECT may become an obstacle to the school-home partnership. This study explores teachers' versus parents' perceptions of the various characteristics of PECT to identify gaps among them and suggest ways to close these gaps. A mixed-methods research methodology was employed with 219 teacher and parent participants in Singapore. The quantitative findings indicate first that the teachers perceived PECT to be composed of two dimensions as two levels of capacity: fundamental pedagogical capacity and accumulated classroom studies of children. In contrast, the parents perceived PECT as a single dimension. Second, the gaps between teachers' and parents' perceptions were identified as four factor items of PECT, including characteristics of understanding a child's needs, being able to create good relations with children, professional development and valuing of ethics. We discuss these findings and suggest how to reach coherent views on PECT and create better dynamics between the two parties.

Introduction

It has been a long-lasting concern in many countries that the professionalism of early childhood teachers (PECT) is nebulous in the eyes of the public (i.e. Grieshaber & Ryan, 2005). Even though a number of countries (such as Singapore, the context of this study) have regulated the qualifications for being a preschool or kindergarten teacher by setting up criteria to ensure the quality of teachers' educational backgrounds and academic qualifications, the scope and aspects of job performance are less concrete from a national viewpoint. In addition, it has also been questioned how parents perceive the profession of preschool teaching and whether they can view it as encompassing a wide range of knowledge and skills (Hargreaves & Hopper, 2006). Hargreaves and Hopper have pinpointed that parents have a limited scope of understanding of PECT and often draw from the old-time view of comprehending it as a form of child care such as by a nanny. This limited view among parents may lead to miscommunication between parents and

teachers, further becoming an obstacle to the home-school partnership (Coburn, Bay & Turner, 2008). Hence, there is a need to investigate how stakeholders, including parents and teachers, perceive the early childhood teaching profession, particularly regarding their perceptions of a number of characteristics (including capacities and skills), by comparing their perceptions, identifying the issues, and finding the gaps. In turn, suggestions can be made for ways to fill these gaps and harmonise perceptions of PECT between teachers and parents, with the aim of promoting better communication between the groups.

To do this, a number of characteristics of PECT are reviewed first, then we synthesise and specify the characteristics of PECT adopted in this study and our objectives in conducting this study.

The NAEYC's views

PECT has been defined as encompassing three characteristics by the National Association for the Education of Young Children (NAEYC) (2009a), namely

possession of pedagogical knowledge, skills of interacting with parents and children, and valuing of ethics. These three major characteristics can be seen in the various statements we quote and cite here. First, in terms of possession of pedagogical knowledge, the NAEYC's (2009b, p. 1) 'Where we stand on standards for programs to prepare early childhood professionals' suggests that early childhood teachers require 'specialized knowledge of child development, families, pedagogy, and academic disciplines to plan and implement culturally relevant curriculum that both supports and challenges young children, building competence in language, literacy, mathematics and other academic disciplines'. Second, in terms of skill in relating to children and parents, the NAEYC (2009b, p. 2) remarked that professional preschool teachers must view parents as partners: early childhood teachers 'create respectful, reciprocal relationships that support and empower families and ... involve all families in their children's development and learning'. In terms of ethics, the NAEYC notes that professional values and ethics, which guide one's commitment to, and behaviour in, the profession, are also important for professional early childhood teachers to advocate for young children and their families and make a stand when faced with ethical dilemmas or professional issues (NAEYC, 2005).

Singapore's kindergarten curriculum guide

Similar to the NAEYC's three major characteristics, the kindergarten curriculum guide developed by the Ministry of Education, Singapore (MOE, 2008, pp. 49–50) also indicates that PECT includes (1) the pedagogical capacities of using effective strategies to 'facilitate children's development', 'engaging children' in 'integrated learning' experiences, knowing and understanding the purpose of assessment, and using 'multiple assessment methods'; (2) creating good relationships with children by providing 'ample opportunities' for interaction between teacher and children and for 'working with parents as partners'; and (3) valuing of ethics through care and respect for children.

The socioconstructivist view

In addition to the previously mentioned characteristics of professionalism, socioconstructivists have elaborated the meaning of PECT by infusing into it the characteristics of the scholarship of teaching (i.e. Caulfield, 1997; Feeney, Christensen & Moravcik, 2006; McMullen, Alat, Buldu & Lash, 2004). As the NAEYC agrees, these capacities are mostly developed during teacher education programs and have to be continually reflected on, reconceptualised and reconstructed with practice. The enactments of reconceptualisation and reconstruction are what are referred to as 'the scholarship of teaching'. There are various ways to support the development of the scholarship of teaching, including attending conferences or workshops or doing classroom study through action research or lesson study, by which we can study the effectiveness of lesson plans,

modifying the original plans to optimise children's learning (Chokshi & Fernandez, 2004; Lewis, 2002). Moreover, narrative inquiry and reflection are also methods by which to enhance the scholarship of teaching (Connelly & Clandinin, 2006). In turn, the scholarship of teaching develops context-dependent knowledge about an individual child's needs, parents' expectations, and ways to teach (Ayers, 2001; Grieshaber & Ryan, 2005).

Earlier studies

Various earlier studies have explored teachers' and school directors' views on PECT, and have reported that 'years of teaching experience' is a defining characteristic of the teaching profession. For example, Martin et al. (2010) explored perceptions of the profession among preschool teachers and directors and showed that years of experience is a benchmark for the depth of understanding of children's needs and the level of professionalism in teaching. Other studies have supported the previously mentioned characteristics of PECT, including pedagogical knowledge, relations with children, and professional development. For instance, studies in both New Zealand (Dalli, 2008) and Sweden (Kuisma & Sandberg, 2008) reveal that distinct pedagogical style, (specialist) professional knowledge and practices, and collaborative relationships are standouts in the preschool teaching profession. A distinct pedagogical style means that the professional teacher shows affective dimensions such as respect, fairness and care to create good interactions with students. Professional knowledge and practice encompass the general knowledge of working with children and having reflective practices. Collaborative relationships refer to the professional teacher demonstrating support and respect while working with parents and the community.

On the other hand, a few studies which investigated parents' expectations of PECT found that parents view it through the ability of teachers to build relationships with them (Knopf & Swick, 2007; Rolfe & Armstrong, 2010). Knopf and Swick's (2007) study suggested that parents view the early childhood education practitioner as someone who creates a collaborative and communicative relationship with parents. Similarly, Rolfe and Armstrong (2010) indicated that a high frequency of communication, including child-focused topics as communication content, and the dominant mode of verbal communication through face-to-face interaction or the telephone are key to PECT. Regardless of these findings, there is less known about how parents perceive other characteristics of PECT such as knowledge of child development and the ethics of teaching. In addition, there is even less understanding of how parents' views are similar to or differ from teachers' views.

Purpose of the study

The purpose of this study is therefore to understand and identify the differences between teachers' and parents' perceptions of the various characteristics of PECT. We

are interested in whether a characteristic is identified less frequently by parents than by teachers, or vice versa. We believe the findings can inform which areas require attention to close the gaps between teachers and parents so that, ultimately, we can reach a coherent view of PECT and thus foster better dynamics between the two parties. With this aim in mind, the research problem and questions for this study follow.

Research problem

The research problem for this study is how teachers and parents perceive the various characteristics of PECT; the study aims to identify the differences between their perceptions.

Research questions

The research questions are as follows:

1. For teachers and parents, how do the various characteristics of PECT group together and become dimension(s) of teaching young children? What do they mean to teachers and parents?
2. How do teachers and parents rate the frequency of use of the various characteristics of PECT in early education? What are the differences?

Terms are defined in the following section.

Definitions of terms

Characteristics of PECT

In this study, we synthesise the preceding review, including the NAEYC, Singapore curriculum guide, scholars, and earlier studies, and generate 11 characteristics to conceptualise PECT: (1) years of teaching; (2) professional development; (3) knowledge of child development; (4) knowledge of diversity among families; (5) knowledge of assessing children; (6) skills of interacting with children; (7) skills of involving parents; (8) capacity to develop curriculum; (9) valuing of ethics; (10) advocacy for children; and (11) understanding a child's needs.

Perceptions

In addition, this study draws on Pickens's (2005) elaborations of perceptions when we adopt this term into our research questions. Pickens indicated that *perception* is how a person interprets an idea, phenomenon, or condition he/she comes across. He emphasised that perception is different from beliefs or attitudes; with the latter, a person reacts to something according to agreement or not, whereas perception is a thinking act whereby a person interprets an idea by describing the characteristics of that idea. In other words, exploring teachers' and parents' perceptions of PECT is akin to discovering their interpretations of PECT according to the various characteristics.

Method: A mixed-methods study

The study was conducted using a concurrent nested mixed-methods research design where both a quantitative questionnaire and qualitative interviews were used and analysed simultaneously (Hanson et al., 2005). The rationale for choosing this mixed-methods design is to tap into the strengths of each data collection form and provide triangulation and corroboration between the two data sets (Creswell, 2008). In this study, the prioritised data is the quantitative data gained from the questionnaire, while the less prioritised data are the qualitative data provided by the interviews (Hanson et al., 2005). The purpose of the questionnaire was to capture a general picture of the key stakeholders' perceptions of PECT, and the purpose of the individual interviews with a small group of key stakeholders was to validate and explain the quantitative findings.

Data collection and the instruments

Data collection took place from February to June 2012. The entire data collection procedure strictly followed the university's regulations and had the approval of the ethics review committee. There were two phases to the study: (1) a quantitative questionnaire, and (2) qualitative semi-structured interviews.

Questionnaire and reliability

In phase one of the study, questionnaires were given to the teachers and parents who consented to participate. The questionnaire consisted of two sections: (1) participants' demographic information, including gender, age, highest educational degree, years of experience in teaching (for teachers) or of enrolment of the child/children in preschool (for parents), and (2) perceptions of the preschool teaching profession. To examine participants' perceptions, the 11 questionnaire statements in Table 1 were used to investigate the 11 characteristics (variables) of PECT defined previously.

A five-point Likert scale ranging from 1 (almost never) to 5 (always) was used to rate the frequencies of interpreting PECT according to these 11 possible statements. The higher the scores, the higher the frequency of using a particular characteristic to perceive PECT. A high Cronbach's alpha of 0.96 indicates the good internal reliability of the scale. This will be addressed further in the section on instrument validation.

Interviews triangulating and explaining the quantitative findings

In phase two of the study, five teachers and eight parents participated in semi-structured interviews. The interviews were conducted either one-on-one or via telephone, at the convenience of the participants.

Table 1: Eleven statements related to the 11 characteristics of PECT in the questionnaire

Characteristics	Questionnaire items
1. Years of teaching	Have several years of teaching experience in an early childhood setting
2. Professional development	Upgrade themselves continuously through professional development activities (e.g. attending workshops, conferences and professional sharing sessions among colleagues or other professionals) to improve their teaching
3. Knowledge of child development	Use developmental knowledge to create healthy, respectful, supportive and challenging learning environments for children in their classrooms
4. Knowledge of diversity among families	Possess the knowledge and skills needed to support and engage diverse families through respectful, reciprocal relationships (e.g. respect for variations across cultures in family strengths, expectations, values, and child-rearing practices)
5. Knowledge of assessing children	Use systematic observations, documentation and other effective assessment strategies in a responsible way to positively influence the development of young children
6. Skills of interacting with children	Understand and use positive relationships and supportive interactions as the foundation for their work with young children (e.g. display warm, nurturing interactions with each child)
7. Skills of involving parents	Involve families and communities in many aspects of children's development and learning (e.g. update parents on children's learning, parental-involvement activities, organise field trips for children's learning)
8. Capacities to develop curriculum	Plan and implement developmentally appropriate curriculum that advance all areas of children's learning and development, including social, emotional, intellectual, and physical competence
9. Valuing of ethics	Know about and uphold ethical standards and other professional guidelines such as confidentiality, moral integrity, physical and psychological safety, value and respect diversity, etc.
10. Advocacy for children	Act as a voice for children to promote their wellbeing and rights (e.g. advise parents on relevant family services, express professional views on children or family issues to management or community groups or policy makers, etc.)
11. Understanding of a child's needs	Know and understand young children's characteristics and needs.

Five main questions exploring the participants' perceptions of PECT were asked:

1. What is your image of being a professional early childhood teacher?
2. How do you describe the preschool teaching profession?
3. What specific knowledge or expertise do you think early childhood teachers should have?
4. Is there anyone you know who is a 'professional' preschool teacher? Why and how?
5. Is there any difference between the profession of a preschool teacher and teachers who teach at other levels?

Participants

The 219 participants in this study were parents and early childhood teachers from multiple preschool settings in Singapore. Of these 219 participants, 108 were parents and 111 were early childhood teachers. Among these,

100 parents and 106 early childhood teachers completed the five-point scale questionnaire, while another eight parents and five early childhood teachers participated in the qualitative interviews. The participants were volunteers who had responded to an invitation to participate in this study. The selection criteria follow:

1. **Parents** who have a child or children currently enrolled in a preschool.
2. **Teachers** who have obtained an early childhood professional qualification in Singapore and are currently working in a preschool.

Data analysis procedure

The data was collected and analysed from August 2012 to May 2013. In this study, which used a concurrent nested mixed-methods research design, both quantitative and qualitative data were collected and analysed.

Exploratory factor analysis (EFA) and instrument validation

All of the quantitative data was keyed into the SPSS software for statistical analysis. EFA was performed with the method of principal component factoring and varimax rotation to uncover the underlying structure of the 11 characteristics of the teachers' and parents' perceptions of PECT in order to answer research question one. Before performing EFA, the Kaiser-Meyer-Olkin (KMO) indicators and Bartlett's test were adopted to examine the factorability of the 11 items of the five-point questionnaire following the procedures recommended by Costello and Osborne (2005). In addition, only items with a factor loading above 0.5 were kept to ensure the validity of the scale to conduct EFA. When performing EFA, an eigenvalue of about 1 was the criterion to determine the number of components (Stevens, 1996). The results are indicated in the following section.

t-test

In addition, the mean scores among each factorable item were generated and compared between teacher participants and parent participants. The t-test was adopted to identify whether there were any differences in the mean scores between teachers and parents (research question two).

Qualitative analysis

Analysis of the qualitative data was intended to validate the findings from the questionnaire for research questions one and two. The data analysis procedure was first to analyse the data by topic coding of each set of data, including those of the teachers and parents. The topic codings comprised the 11 characteristics of PECT adopted in this study and served as a starting point for the coding. Then, thematic coding was applied for each topic in each data set, and in each of the categories or patterns we found the ways participants explained or mentioned each topic (Creswell, 2008). Third, for each data set, analytic coding was deployed in cross-participant comparisons to identify shared responses (Richards, 2009). Finally, we compared and contrasted the two sets of data to find any similarities and differences in terms of teachers' and parents' responses. To further triangulate and validate the interpretations of the qualitative data, we shared the findings with all of our participants and with two critical friends to seek their agreement and suggestions, as suggested by Mathison (1988). The data analysis strategy in light of each research question is illustrated in Table 2.

Table 2. Data analysis

Research question	Type of data	Means of data analysis
1. For teachers and parents, how do the various characteristics group and form into dimensions of PECT? What do they mean to teachers and parents?	5-point questionnaire Interview	Exploratory factor analysis Topic coding, thematic coding, analytic coding
2. How do teachers and parents rate the frequency of use of the various characteristics to interpret PECT in early education? What are the differences?	5-point questionnaire Interview	Mean scores t-test Topic coding, thematic coding, analytic coding

Findings

Research question one: Teachers' versus parents' perceptions of the dimensions of PECT

Exploratory factor analysis (EFA) for the factor loadings of the 11 items was performed for both sets of data. Before performing EFA, factor loadings on all 11 items were at least 0.5, suggesting reasonable factorability. Second, the Kaiser-Meyer-Olkin measure of sampling adequacy was 0.87 and 0.90 for the data sets of teachers and parents, values that are above the recommended value of 0.6, and Bartlett's test of sphericity was also significant, $\chi^2(66) = 1182.641, p < 0.001$ for teachers, $\chi^2(66) = 955.224, p < 0.001$ for parents, which suggests suitability for performing EFA.

1. Teachers perceive PECT as composed of two dimensions: 'Fundamental pedagogical capacities' and 'accumulated classroom child studies'

The results gained from EFA indicate that the teachers perceived PECT as composed of two dimensions as shown below in Table 3. According to the table, dimension one includes nine of the 11 characteristics generated to conceptualise PECT; dimension two includes the two characteristics. For teachers' perceptions, the factor solution validated using varimax rotation explained 60.07 per cent of the variance. In particular, the initial eigenvalues showed that the first factor explained 49.87 per cent and the second factor 10.80 per cent of the variance. The factor loading matrix is presented in Table 3.

Table 3. Results of exploratory factor analysis for teachers

Eleven indicators	EFA loading	
	component 1	component 2
5. Knowledge of assessing children	0.82	
7. Skills of involving parents	0.82	
6. Skills of interacting with children	0.77	
8. Capacities of developing curriculum	0.76	
4. Knowledge of diversity among families	0.76	
3. Knowledge of child development	0.73	
10. Advocacy for children	0.73	
9. Valuing of ethics	0.65	
2. Professional development	0.56	
1. Years of teaching		0.87
11. Understanding of a child's needs		0.63

Qualitative findings explain the meanings of the two dimensions

The qualitative data validate the quantitative findings of these two dimensions with further insight into their meaning. Through thematic coding of the qualitative data, the recurring patterns among the five teacher participants show that PECT can be divided into the dimensions of 'fundamental pedagogical capacities' and 'accumulated classroom child studies'. These names are derived from our thematic analysis to capture and represent the meaning of the five teachers' responses.

Our qualitative data analysis shows that the possession of fundamental pedagogical capacities is expected of an entry-level teacher, as was expressed by all five participants, including knowledge of child development theories, the ability to design and implement a curriculum, ethics, advocating for children, classroom management and pedagogy of teaching. These characteristics are mostly prepared during a teacher's education and are expected during their work.

Moreover, four out of the five teacher participants expressed that PECT is a continual developmental process with the involvement of classroom research on individual children and their needs. This aspect of professionalism must be developed through continual classroom observation and accumulated over years of experience in reaching an

advanced level of professionalism. Following are excerpted quotations from one of the teacher participants (participant 8, 30 years old, three years of teaching), who indicated that PECT is:

A deeper level than saying 'I love children'. Not only patience, but researching each child's needs well by observation, continual reflection, and adapting your practices to fit each of their needs, from group management only. It has to accumulate across years of experiences. It can further enhance your level of professionalism.

2. Parents perceive that the various characteristics of PECT fall into one dimension only

In the parents' perceptions of PECT, none of the 11 items were separate. All were part of the same component and the factor solution validated using varimax rotation explained 63.85 per cent of the variance. The factor loading matrix is presented in Table 4.

Table 4. Results of exploratory factor analysis for parents

Eleven indicators	EFA loading
	component 1
6. Skills of interacting with children	0.883
5. Knowledge of assessing children	0.879
8. Capacities of developing curriculum	0.867
3. Knowledge of child development	0.827
7. Skills of involving parents	0.813
9. Valuing of ethics	0.811
2. Professional development	0.803
10. Advocacy for children	0.796
4. Knowledge of diversity among families	0.738
11. Understanding of a child's needs	0.714
1. Years of teaching	0.723

Qualitative findings explain the meanings of the one dimension

Similarly, the thematic analysis of the qualitative data confirms the quantitative findings that the parents perceive the 11 characteristics of PECT as clustered into a single factor structure. During the interviews, six out of the eight parents described that their perceptions of PECT always involve an integration of everything, including teaching children and relating with parents. In other words, they did not perceive the 11 variables as being grouped into different dimensions or levels of capacity. Following is an excerpt from one parent's comments:

The teacher has the content knowledge to teach literacy, knows phonics and how to teach reading and writing. Assessment of children's learning is what the teacher needs to do.

Table 5. The scores of teachers' and parents' ratings of the various indicators of PECT

Indicators	Teachers' perceptions	Parents' perceptions	t-value	Cohen's d value
1. Years of teaching	Mean: 3.94 (SD: 1.03)	Mean: 3.71 (SD: 1.57)	1.26	0.17
2. Professional development	Mean: 4.23 (0.72)	Mean: 3.94 (0.98)	2.37*	0.34
3. Knowledge of child development	Mean: 4.51 (0.61)	Mean: 4.33 (0.78)	1.84	0.26
4. Knowledge of diversity among families	Mean: 4.22 (0.73)	Mean: 4.05 (0.82)	1.56	0.22
5. Knowledge of assessing children	Mean: 4.30 (0.73)	Mean: 4.10 (0.89)	1.77	0.25
6. Skills of interacting with children	Mean: 4.58 (0.60)	Mean: 4.26 (0.89)	3.04**	0.42
7. Skills of involving parents	Mean: 4.09 (0.68)	Mean: 4.07 (0.82)	0.23	0.03
8. Capacities of developing curriculum	Mean: 4.47 (0.71)	Mean: 4.29 (0.78)	1.75	0.24
9. Valuing of ethics	Mean: 4.48 (0.66)	Mean: 4.21 (0.84)	2.56*	0.36
10. Advocacy for children	Mean: 4.21 (0.85)	Mean: 4.04 (0.97)	1.31	0.19
11. Understanding of a child's needs	Mean: 4.52 (0.67)	Mean: 4.24 (0.77)	2.78**	0.39

* $p < 0.05$; ** $p < 0.01$

This can be seen in the way the teacher writes the progress report of the child's learning. The ability to do the assessment of children's learning is professional work and also to advise parents on how they can help the children. Teachers need to know how to observe children's development and then be informative to parents. It's everything coming together as professionalism (Parent 8, male, three years of preschool experience).

In short, the teachers perceived two dimensions of PECT by differentiating between levels of professionalism, whereas the parents perceived a single dimension. In our interpretation, this is due to a different understanding of job professionalism among outsider parents. We infer that this is one of the discrepancies between teacher and parent understanding when viewing PECT.

Research question two: Teachers' and parents' ratings of the various characteristics of PECT—What are the differences?

Mean scores: Teachers' and parents' scores for perceptions

We also compared the differences between the teachers' and parents' ratings for the 11 items because they are all factorable items with factor loadings of at least 0.5, as reported earlier in the discussion of the instrument validation. Table 5 indicates the means and standard deviations of the various ratings of the items. As the teachers' mean scores are generally higher than the parents', we interpret that this may be attributed to the difference between 'insiders' (teachers) and 'outsiders' (parents) when rating their perceptions of job professionalism in early education. It is worth mentioning that our study aims to compare the differences between

the 'rating' of teachers' and parents' perceptions of the various characteristics of PECT. Therefore, we do not intend to compare the differences in the teachers' and parents' ordering of the mean scores.

t-test: To identify the statistically significant differences between teachers' and parents' scores on perceptions

An independent-samples t-test of the responses of the ratings of the teachers and parents was performed to identify the statistically significant difference between their ratings of the various factor items. The results suggest that both teachers' and parents' perceptions have an effect on the rating of the factor items 'professional development' ($M_{\text{teachers}} = 4.23$, $M_{\text{parents}} = 3.94$, $t(206) = 2.37$, $p < 0.05$); 'skills of interacting with children' ($M_{\text{teachers}} = 4.58$, $M_{\text{parents}} = 4.26$, $t(206) = 3.04$, $p < 0.01$); 'valuing of ethics' ($M_{\text{teachers}} = 4.48$, $M_{\text{parents}} = 4.21$, $t(206) = 2.56$, $p < 0.05$); and 'understanding a child's needs' ($M_{\text{teachers}} = 4.52$, $M_{\text{parents}} = 4.24$, $t(206) = 2.78$, $p < 0.01$). However, no difference was found for the remaining factor items. Details of the independent t-test results are provided in Table 5.

After examining the rating differences by t-test, effect sizes were also calculated to examine the significance of the rating differences between the teachers and parents. The effect size of a t-test is referred to as a Cohen's d value (Cohen, 1998), where $d = 0.2$, 0.5 , and 0.8 are considered small, medium, and large effect sizes, respectively. Hence, the results presented in Table 5 show that the differences in the ratings of the teachers and parents were not only statistically significant for four of the characteristics (professional development, skills of interacting with children, valuing of ethics and understanding of a child's needs), but also that the difference was substantial, with at least a small to medium effect size (Cohen's $d = 0.34$, 0.42 , 0.36 , and 0.39 , respectively).

Qualitative findings: To validate and explain the results of the t-test

The previously mentioned findings from the t-test reveal that the teachers rated four factor items significantly higher than the parents did: 'understanding a child's needs', 'professional development', 'skills of interacting with children', and 'valuing of ethics'. The qualitative findings validate these factor items and thus identify a gap in the perceptions of teachers and parents.

Understanding a child's needs

The t-test indicates that the mean score for teachers on this item is far higher than it is for parents. Similarly, the analytic coding discloses that teachers (four out of five) focused more on knowing an individual child's needs. They believe this is so-called child-centred teaching:

Reflective, be flexible ... as in meeting children's needs ... When you talk to parents, you will know what works for this child ... Hence, better knowing a child's needs and centering on his or her needs (Teacher 4, 27 years old, two years of experience).

On the other hand, our quantitative data indicate that the parents were more prone to viewing PECT from the knowledge they have (first ordered mean score) than from the ability to know a child's needs (fourth ordered mean score). Our qualitative data also triangulate this finding in that five out of the eight parents mentioned the previous factor item, whereas no parent mentioned the latter one. For example:

Professional early childhood teachers are those who have good training about child developmental stages and know how to develop good curriculum covering all learning and activities (Parent 1, female, 27 years old, one year of experience).

Skills of interacting with children

The t-test indicates that the teachers rated this factor item significantly higher than did the parents. The analytic coding supports the finding of the t-test in that all five teachers perceived the skills of interacting with children using appropriate verbal language and body language as far more important in their professionalism. Conversely, only two parents mentioned skills of interacting with children when they interpreted professionalism, whereas seven parents addressed that professionalism is mainly related to teaching content knowledge. As previously mentioned, parents still placed far more emphasis on upholding developmental knowledge than on skills of interacting with children. This difference can be seen in the following excerpts from parents and teachers:

The way the teacher interacts with gestures and body language will tell if she is a professional teacher (Teacher 3, 35 years old, 15 years of teaching experience).

The knowledge they have, including how to assess children's development and creating a curriculum to

teach knowledge, marks a professional early childhood teacher (Parent 4, 35 years old, one year of experience).

Professional development

Moreover, the result of the t-test indicates that teachers perceived PECT as involving significantly more professional development than did the parents. Our qualitative data also support this result. The analytical coding indicates that professional development is one of the major themes of professionalism in teachers' perceptions (four out of five teachers), as shown in the following excerpts. Conversely, no parent mentioned this factor:

In terms of qualifications, constant upgrading, the eagerness and passion to learn, to keep in touch with the latest research to know what is going on and not lagging behind (Teacher 2, 24 years old, one year of teaching experience).

Valuing of ethics

Similarly, the qualitative data also support the result of the t-test that teachers perceive 'valuing of ethics' in PECT is significantly more important than parents do. In our qualitative data, it is apparent that one of the major themes emerging from teachers is the importance of valuing ethics in the professionalism of early childhood education:

To raise the standards of teachers through professional ethics, and encouraging them to join the association and enforce the ethics of the teachers (Teacher 1, 42 years old, one year of teaching experience).

Conversely, no parent mentioned the ethics-related quality of PECT during the interviews.

Discussion

There are three major findings of this study. First, the 11 factorable characteristics fall into two dimensions to constitute teachers' perceptions of PECT, 'fundamental pedagogical capacities' and 'accumulated classroom child studies', which means there are two levels of capacities. Conversely, for parents, the various characteristics group together as a single dimension rather than falling into two dimensions. Second, parents, compared to teachers, perceive four characteristics of PECT as significantly less important than the teachers do. These characteristics are: (1) understanding a child's needs, (2) skills of interacting with children, (3) professional development, and (4) valuing of ethics. We discuss the significance of these findings as follows and make relevant suggestions.

Differentiate between two levels of capacities of PECT

Our findings reveal that insider teachers view PECT as constituted of two dimensions, whereas parents see it as a single entity. We interpret such a result as reflecting parents' limited understanding of PECT. They do not

differentiate levels or recognise the growing professionalism accumulated from classroom child studies. Furthermore, we infer that parents do not perceive the scholarship of classroom teaching and its significance to PECT.

Such findings are informative for policy-makers in acknowledging PECT by giving closer recognition to the two levels of job performance through supporting early childhood teachers in continuing the advancement of their professionalism and imbuing 'child study' into professional development programs. Although lesson study by examining the outcomes and effectiveness of lesson plans and delivery has been valued in many countries including Singapore (Chokshi & Fernandez, 2004; Lewis, 2002), child study is still neglected and has to be acknowledged for its importance in enhancing the professionalism of teaching children.

Promote parents' recognition of the four characteristics of PECT

In addition, the study also indicated that parents perceived as less important than teachers the factors of 'understanding a child's needs', 'skills of interacting with children', 'professional development' and 'valuing of ethics'. For the previous two factors, our qualitative findings indicate that this is due to parents being more focused on the capacities of teaching content knowledge and not seeing as much from the point of view of catering to individual children's needs and utilising various skills to communicate with them. For 'professional development', the findings mentioned previously that parents do not recognise the significance of accumulating professional studies along with experience can help explain why they lack awareness of the importance of continual professional growth. For 'valuing of ethics', referring to both the quantitative and qualitative data, we interpret this as due to parents viewing PECT mostly from the viewpoint of child development knowledge and curriculum development capacities, and because they have a deficiency in recognising stances supporting advocacy for children and underscoring diversity-related issues.

Based on the findings that the parents have weaker perceptions of four of the factor items than teachers, we suggest that (1) the factors of 'understanding a child's needs' and 'skills of interacting with children' should be further introduced to parents to help them understand that the two characteristics are child centred and to acknowledge the importance of these two factors in supporting the wellbeing of their children; (2) the factor of 'professional development' has to be elaborated for parents by teachers sharing the professional development information they learn with parents during teacher-parent conferences; and (3) the factor of 'valuing of ethics' has to be clarified for parents by demonstrating its importance in the classroom by addressing the pedagogy of celebrating each child's uniqueness and its importance to education and society.

Conclusion

Although PECT has been defined with its various characteristics and abilities by professional associations and theorists, the actual perceptions of stakeholders, including teachers and parents, are still not well understood. The contribution of our study is to identify the gaps that are crucial to promoting harmonious communication and relationships between the two parties (parents and teachers) and, moreover, to reach consensus in recognition of professionalism. Moving forward, we suggest that future studies can investigate ways to enhance parental appreciation of PECT. This can be accomplished by conducting comparative studies among the countries where PECT is strongly respected and acknowledged. Ultimately, it is our goal to promote recognition and coherent understanding of the professionals teaching in early childhood education.

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