

Teacher Perceptions of Factors for Successful Inclusive Early Childhood Education in Hong Kong

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In this study the authors aimed to examine the differentiability of 5 factors that preschool teachers may perceive as essential for successful implementation of inclusive education in regular classrooms. The 5 hypothetically influential factors were teamwork, curriculum, school support, government support, and stakeholders' attitudes. Teachers from half-day kindergarten and full-day childcare centre settings in Hong Kong with varying teaching experience were surveyed ($N = 461$). Confirmatory factor analysis defined the 5 distinct factors, all of which displayed high scores ($M_s > 4$ on a 5-point scale). A 2 (experience: low; high) \times 2 (school type: half-day kindergarten; full-day childcare centre settings) multivariate analysis of variance (MANOVA) found some subtle group differences. Less experienced teachers found stakeholders' attitudes to be important, and more so than more experienced teachers, whereas full-day childcare centre teachers found teamwork, curriculum, and stakeholders' attitudes more important than did half-day kindergarten teachers. The findings imply that whereas all 5 factors are perceived by teachers as important for the success of inclusive education, some factors are of greater concern to teachers working in full-day childcare centres than teachers working in half-day kindergartens. The findings provide advice on how best to allocate limited resources across settings with the intention of promoting inclusive education.

Keywords: special education, special needs, teacher perceptions, inclusive education, early childhood, Hong Kong

Following decades of debate, the social justice imperative to include students with disabilities alongside their peers without disabilities in inclusive education is now widely espoused throughout developed countries around the world (Freire & César, 2003; Lesar, Čuk, & Peček, 2006; Vislie, 2003). Inclusion is characterised by all students, regardless of their diversity, being educated in mainstream schools in regular classrooms at their local schools (Loreman, 2007). Inclusive education, according to the UNESCO (2005), is “a dynamic approach of responding positively to pupil diversity and of seeing individual differences not as problems, but as opportunities for enriching learning” (p. 12). Students with special needs have the right to be educated in regular classrooms

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with their peers (Smith et al., 2010). An inclusive school is a place where all students learn together and “where special education needs students are supported and cared for by their peers and other members of the school community” (Forbes, 2007, p. 67). Nevertheless, although the philosophy underpinning inclusive education is supported by the majority, educators continue to grapple with the challenge of how to successfully implement inclusive education to the benefit of all stakeholders (McLeskey & Waldron, 2011; Sikes, Lawson, & Parker, 2007). As a result, the research literature has been saturated with lively discussion about the factors that may either assist or impede the realisation of inclusive education (Black-Hawkins, Florian, & Rouse, 2007; Vaughn, Klingner, & Hughes, 2000). Although a few educators seem to continue to caution against the imprudent adoption of inclusive education models (e.g., Mock & Kauffman, 2002), most educators have moved beyond considering *if* inclusive education should be implemented to reflecting on *how* inclusive education can be best implemented (Florian, 1998; Gersten, Chard, & Baker, 2000; Grima-Farrell, Bain, & McDonagh, 2011).

Inclusive Education in Hong Kong

Like much of the developed world, Hong Kong has also embraced the notion of inclusive education on the grounds of both social justice and human rights (Equal Opportunities Commission, 2012; Forlin & Lian, 2008). Progress towards inclusive education was evident as early as the late 1970s when the government initiated the directive entitled ‘Integrating the Disabled in the Community: A United Effort’ (Hong Kong Government, 1977). More recently, the advancement of inclusive education has been assisted by the commitment of the Education Bureau of Hong Kong to direct both policy and funding to support students with disabilities in mainstream primary and secondary settings (Forlin & Rose, 2010). Consequently, there are a burgeoning number of primary and secondary settings under the auspice of the Education Bureau striving to adopt a whole-school approach to inclusive education (Forlin, 2010). However, because preschool education is not mandatory, there is minimal government support for preschool inclusive programs (Chan & Chan, 2003). It is not surprising, therefore, that regular preschool teachers have remained focused on regular students’ academic achievement and other outcomes rather than on students’ diverse needs (Wong, 2002). As Zhang (2011) notes, it appears that the rights and educational needs of young children with special needs have not received adequate attention in Hong Kong.

Preschool Settings in Hong Kong. In Hong Kong, all preschool institutions are privately run and market driven (Li, Wong, & Wang, 2010). Traditionally, Chinese parents regard preschool as preparation for primary school. A highly academic-oriented preschool curriculum is expected to prepare children to seek admission into primary schools that boast high levels of student academic achievement and a good reputation (Leung, 2012).

Prior to 2005, there were two settings that provided preschool education for young children in Hong Kong, namely kindergartens and childcare centres. Kindergartens, to which young children aged 3 to 6 years were enrolled, were supervised by the Education Bureau. Childcare centres were overseen by the Social Welfare Department and provided services for children aged 2 to 6 years (Chan & Chan, 2003). These two settings, however, differ in other significant ways apart from the age of the children they support. First, childcare centres provide whole-day programs whereas kindergartens mostly operate half-day programs for young children. Second, even though both kindergartens and childcare centres have a strong focus on pre-academic activities and appear to follow the same type of curriculum and program (Oppen, 1989), it is generally believed that the half-day kindergartens focus more on children’s academic development and the full-day childcare

centres provide more opportunities to engage children in academic activities as well as social skill activities (Clark & Kirk, 2000). Starting from 2005, the Education Bureau has become the sole supervisor of all services for children aged between 3 and 6 years. This has resulted in childcare centres now being registered with the Education Bureau.

Both the history and current standing of inclusive education in preschool settings in Hong Kong is complex. In the 1970s and 1980s, young children identified with special needs were referred to training programs in different preschool settings by the Social Welfare Department. Students with significant disabilities requiring a high level of support were enrolled in special childcare centres, and students with mild special needs were placed in 'integrated' programs offered by full-day childcare centres in which they could participate in learning activities with students without disabilities. In response to the rapid demand of services for children with special needs, the Education Bureau (formerly named Education Department) launched the integrated program in half-day kindergartens in 1985. This policy allowed parents of young children with special needs to have their children enrolled in half-day kindergartens or full-day childcare centres. Unexpectedly, the half-day integrated programs provided by kindergartens were phased out in 2005 because of insufficient enrolments (Education and Manpower Bureau, 2003). As a result, children with special needs had to wait for a long time before they could be admitted in the full-day integrated childcare centres (Social Welfare Department, 2003).

To investigate the difficulties of the implementation of an integrated kindergarten program, a study conducted by Cheuk and Hatch (2007) showed that kindergarten teachers' attitudes toward integration were not entirely positive. A number of constraints embedded in the Hong Kong early childhood education context hindered the implementation of integrated programs in kindergarten. Several studies on teacher attitudes towards inclusion (e.g., Avramidis, Bayliss, & Burden, 2000) have reported that the curriculum, parents' and peers' attitudes, collaboration among teaching staff, school support, and government support and resources are barriers to the implementation of integrated programs in kindergartens (Cheuk & Hatch, 2007).

The high demand for full-day integrated programs, yet low demand for half-day integrated programs urged the educators and policymakers to further explore plausible strategies for the successful implementation of inclusive education in early childhood settings in Hong Kong. Because of different requirements in their respective workplace environments, the perceptions of teachers in full-day childcare centres and half-day kindergartens may differ with regard to the perceived importance of factors that lead to successful inclusive education. However, as shown in previous research, demographic variables such as age, gender, and teaching experience may not be strong predictors of teachers' attitudes (e.g., Avramidis et al., 2000).

Factors Seeding the Success of Inclusive Education

Of interest to educators and researchers are two major questions: What do preschool teachers in Hong Kong believe to be the factors that seed successful inclusive education in preschool settings? Do these perspectives vary depending upon the full-day and half-day models and years of experience of the teacher? The international literature proposes a copious number of potential factors that may indeed impact on the success, or otherwise, of inclusive education (e.g., Alquraini & Gut, 2012; Berry, 2011; Gal, Schreur, & Engel-Yeger, 2010; Lindqvist, Nilholm, Almqvist, & Wetso, 2011). The literature, however, has failed to adequately address these questions in the context of Hong Kong. The current study focuses on the perceived influence of five key factors: teamwork, curriculum, school

support, government support, and attitudes of stakeholders (parents and peers). Given the dearth of research with preschool settings in Hong Kong, these factors were considered important because of their prominence in studies primarily conducted within Western cultures and primary settings, as will be described. Our preliminary consultation with preschool administrators also supported the importance of these factors in the local setting.

Teamwork. Teachers regularly cite the importance of the classroom environment, teamwork, collegial support, teacher–student ratio, and the capacity to collaborate with para-professionals in order to maximise the effectiveness of inclusive education (Alquraini & Gut, 2012; Berry, 2011; Glazzard, 2011; Korkmaz, 2011). Zhang’s (2011) qualitative investigation of three preschool settings in Hong Kong also found that teachers championed the importance of collaboration as essential to supporting inclusive education. Based on such findings, Forbes (2009) suggested that it is critical to undo traditional professional boundaries and create new identities as collaborating practitioners to progress inclusive education. Glazzard (2011) concluded that large class size and lack of teamwork and collegial support are major barriers to effective inclusion in school, which are essentially a matter of optimal personnel deployment and team collaboration.

Curriculum. Adopting an inclusive education model has significant implications for the curriculum that is delivered within regular classrooms (Saracho & Spodek, 2003). Teachers readily recognise the adaptation of curriculum as fundamental to boosting inclusive education (Alquraini & Gut, 2012; Berry, 2011; Rakap & Parlak-Rakap, 2011). Korkmaz (2011) emphasised that the standard curriculum, which has been developed for students without disabilities, may not suit those with special needs, and therefore teachers are responsible for adapting and developing additional curriculum for students with disabilities. Key features of such adaptations include individualised education programs (Zhang, 2011), small group instruction (Lindqvist et al., 2011), and differentiated instructions, and these adaptations have been increasingly applied to inclusive classrooms (Mastropieri & Scruggs, 2006; Tomlinson, 2014).

School Support. Much of the literature on inclusion describes that for inclusive education to succeed, support needs to extend beyond the classroom and embody whole-school support (Booth, 2005; Laluevein, 2010; Robinson & Carrington, 2002). This whole-school support has been operationalised as adjustments to the school environment including textbooks and teaching aids (Lindqvist et al., 2011), assistive technology and administrative support (Alquraini & Gut, 2012), and changes to the physical environment (Zhang, 2011). According to a study of preschool teachers in Malaysia, an attentive, knowledgeable school administration that has a clear understanding of the true concept of inclusive education is definitely an essential part of inclusive education (Razali, Toran, Kamaralzaman, Salleh, & Yasin, 2013).

Government Support. Recently, inclusion has become a ‘global agenda’ (Meijer, Pijl, & Hegarty, 1997). The governments of many countries have responded positively with public policies that promote inclusion for children (Irwin, Lero, & Brophy, 2000). For many teachers, however, inclusive education policy and directives are in conflict with how they ‘experience this education process’ (Rogers, 2007, p. 66). For example, Frankel (2004) reported that a lack of government funding was identified by early childhood teachers as one of the key barriers to inclusive education across three Western countries. The perceived importance of government support in facilitating inclusive education is of particular interest in Hong Kong given the history and disparity in how preschool

settings (that is, full-day childcare centres and half-day kindergartens) are supported by the government.

Attitudes of Stakeholder. There is a long-established history of the importance of teacher attitudes in facilitating inclusive education (e.g., Burke & Sutherland, 2004; Scruggs & Mastropieri, 1996). Recent research has also considered the impact of the attitudes held by parents and peers. Glazzard (2011) interviewed primary teachers and teaching assistants in England and reported that one of the main inhibitors responsible for undermining inclusive education was the resistance of parents who had children without disabilities. Similarly, Korkmaz (2011) found that teachers in Turkey observed that parents of children without disabilities were concerned about the negative influence of inclusive education. Thus, Korkmaz (2011) argued that it is important for parents of children with or without disabilities to have positive attitudes towards inclusive education to boost its effectiveness.

The Present Investigation

The overarching aim of the study was to examine the previously mentioned factors (teamwork, curriculum, school support, government support, and stakeholders' attitudes) and explicate which were perceived by teachers as most essential for the successful implementation of inclusive education in regular classrooms. The specific research questions were:

1. Are the five hypothetically influential factors for success in inclusive education distinct factors as perceived by teachers?
2. Do preschool teachers find the five hypothetically influential factors important for inclusive education?
3. Do teachers with different teaching experience differ in the perceived importance?
4. Do teachers from different school types (half-day kindergartens and full-day childcare centres) differ in the perceived importance?

Hong Kong provides an interesting context to conduct such an inquiry. Given the recent changes to preschool education (Li et al., 2010) and the great concern for early intervention, there is still much to learn about factors that are perceived to seed success for early inclusive programs. As highlighted by Zhang (2011), "although there has been an extensive investigation in the field in the Western countries, early childhood education and special education in Hong Kong have received relatively little attention from investigators" (p. 684).

Methods

Participants

The participants were teachers from preschool education settings in Hong Kong ($N = 461$, age ranging from 20 to 50 years). Two preschool school types were included: half-day kindergartens, and full-day childcare centres. Over 95% of these teachers in preschool education settings were female. About half of them had more than 10 years' teaching experience and about 15% held a university degree. Over 76% had received some training in special education; 60.5% were half-day kindergarten teachers, whereas 39.5% were full-day childcare centre teachers. This sample of teachers spoke Chinese, which is one of the official languages and the mother tongue of most children in Hong Kong.

Research Design

A survey design was adopted to collect quantitative data at one time point from participants. The research followed ethics procedures approved by the Hong Kong Baptist University. Printed questionnaires were sent to principals of kindergartens and childcare centres by mail or by hand (randomly selected from over 800 registered with the Education Bureau of Hong Kong) for their staff to complete. A cover letter was attached that explained the purpose of the survey and assured participants' confidentiality and anonymity. Those who consented and completed the questionnaires returned them by mail in envelopes provided by the researchers. A total of 498 completed surveys were returned (the return rate was 95.8%). Due to missing data, the analysis presented in this paper used $N = 461$.

Materials and Procedure

The development of the survey was informed by a literature review and aimed to ask teachers in preschool settings about the perceived importance of five factors that are known to be essential for success in inclusive education: (a) teamwork, (b) curriculum, (c) school support, (d) government support, (e) attitudes of stakeholders. Each scale included three items. The scales and items used in the study are presented in the Appendix, but they were presented in a randomised order on the actual survey form. The participants responded to each of the 15 items on a 5-point scale, coded 1 = *low* to 5 = *high*. Other information collected included age, teaching experience, and training in special education. The scales with three items each included:

Teamwork. Three items asked the teachers the extent to which they found the three teamwork-related areas important. They included other teachers, other professionals, and teacher–student ratio (see Appendix).

Curriculum. The teachers were asked to rate the level of importance for adapted curriculum, small group learning activities, and personalised learning opportunities (see Appendix).

School Support. Three items asked teachers about three kinds of support provided by the school: information and communication technology, initiative to facilitating a whole-school approach, and facilities to enable successful inclusion (see Appendix).

Government Support. Three items asked teachers about the support obtained from the government: guidelines for action, continual assessment support, and schooling arrangements for students with special needs (see Appendix).

Attitudes of Stakeholders. Three items asked teachers about stakeholders whose attitudes may influence the success of inclusive education. The stakeholders included parents of students with special education needs, children who do not have special needs, and parents of children who do not have special needs (see Appendix).

Data Analysis

The teachers' responses to the survey items were coded such that higher scores reflected higher perceived importance. First, Cronbach's alpha reliability was estimated for each a priori scale. As the scales were newly designed, we first conducted principal components analysis for a five-factor solution. Then confirmatory factor analysis (CFA) was conducted. The procedures for conducting CFA have been described elsewhere (e.g., Byrne, 1998; Jöreskog & Sörbom, 2005) and are not further detailed here. Model 1 tested the ability

TABLE 1
Goodness of Fit of Models

Model	χ^2	df	TLI	CFI	RMSEA
1. Five factors	240.40	80	.946	.959	.066
2. One factor	1318.33	90	.631	.683	.172

Note. $N = 461$. Number of items = 15. CFI = comparative fit index; TLI = Tucker–Lewis index; RMSEA = root mean square error of approximation.

of the 15 items to form five factors with each containing three items. Model 2 tested a one-factor model comprising all 15 items. Model 1 was hypothesised to provide a better model fit than Model 2, supporting the distinctive factors that may influence success in inclusive education. Then, based on the factors derived from the CFA, a 2 (experience: less than 10 years vs. 10 years or over) \times 2 (type: kindergarten vs. childcare) multivariate analysis of variance (MANOVA) was conducted with scores on each factor.

Results

Distinctiveness of Each Factor

The alpha reliability of each scale was acceptable (alphas = .76, .79, .83, .88, and .83 for teamwork, curriculum, school, government, and attitudes, respectively). In preliminary analysis, principal components analysis yielded the five factors explaining 75.3% of total variance. The factor loadings were reasonable (mostly $> .5$, except for the second item in the teamwork scale $> .4$). Both CFA models resulted in proper solutions (see Table 1). CFA Model 1 testing a five-factor model resulted in a good model fit (TLI = .946, CFI = .959, RMSEA = .066). Model 2 testing a one-factor model, assuming that all 15 items could be treated as a single factor, did not provide a reasonable fit (TLI = .631, CFI = .683, RMSEA = .172). Hence, Model 1 was accepted as a better fitting model, the parameter estimates of which are presented in Table 2.

As can be seen in Table 2, the factor loadings were good (all factor loadings $> .50$). The factor correlations ranged from .50 to .88. These correlations suggest that the five factors were well defined and differentiable from one another. In sum, in answering research question 1, the factor loadings and the factor correlations supported the model with five distinct factors (Model 1).

Perceived Importance of Factors Seeding Success

For research question 2, the mean score of each of the five factors (see Table 2) was high (all $M_s > 4$ on a 5-point scale), indicating that the preschool teachers found all five hypothetically influential factors important for inclusive education. The means and standard deviations of the factors for four different groups (two experience groups and two school types) are presented in Table 3. The consistently high mean scores for all four groups (all above 4 on a 5-point scale) further supported that the teachers' perceived importance of the five factors was high, irrespective of experience, and irrespective of school type (which also reflected the age of the children they were teaching).

Perceived Importance of Factors Based on Type and Experience

The results of the 2 (experience: less than 10 years vs. 10 years or over) \times 2 (type: kindergarten vs. childcare) MANOVA are presented in Table 3. The main effect of experience

TABLE 2
Solution of CFA Model

	Teamwork	Curriculum	School	Government	Attitudes	Uniqueness
Alpha	.76	.79	.83	.88	.83	
<i>M</i>	4.48	4.33	4.08	4.36	4.30	
<i>SD</i>	0.47	0.53	0.58	0.67	0.53	
Factor loadings						
Teamwork 1	.62*					.62*
Teamwork 2	.83*					.32*
Teamwork 3	.71*					.50*
Curriculum 1		.66*				.56*
Curriculum 2		.78*				.39*
Curriculum 3		.82*				.33*
School 1			.77*			.41*
School 2			.78*			.39*
School 3			.80*			.36*
Government 1				.72*		.49*
Government 2				.91*		.17*
Government 3				.93*		.14*
Attitude 1					.62*	.62*
Attitude 2					.89*	.20*
Attitude 3					.90*	.20*
Factor correlations						
Teamwork	–					
Curriculum	.88*	–				
School	.61*	.62*	–			
Government	.56*	.50*	.53*	–		
Attitudes	.68*	.57*	.70*	.50*	–	

Note. *N* = 461. **p* < .05.

was statistically significant for attitudes only, $F(1, 457) = 5.87$, $MSE = 0.27$, $p < .05$, $\eta^2 = .01$, and not significant for the other four factors. An inspection of the mean scores (see Table 3) found that teachers with less experience perceived higher importance of stakeholders’ attitudes toward inclusive education. Less experienced teachers in kindergarten ($M = 4.34$) were higher than more experienced kindergarten teachers ($M = 4.17$), whereas less experienced childcare centre teachers ($M = 4.41$) were also higher than more experienced childcare centre teachers ($M = 4.34$) in the attitude factor.

The main effect of school type was statistically significant for the factors of teamwork, $F(1, 457) = 6.26$, $MSE = 0.22$, $p < .05$, $\eta^2 = .01$, curriculum, $F(1, 457) = 9.02$, $MSE = 0.28$, $p < .05$, $\eta^2 = .02$, and attitudes, $F(1, 457) = 5.49$, $MSE = 0.27$, $p < .05$, $\eta^2 = .01$ (see Table 3). For the teamwork factor, childcare centre teachers were higher in their perceived importance ($M_s = 4.57$ and 4.52 for less experienced and more experienced teachers, respectively) than kindergarten teachers ($M_s = 4.46$ and 4.41 , respectively). For curriculum, again, childcare centre teachers were higher in their perceived importance ($M_s = 4.43$ and 4.42 , respectively) than kindergarten teachers ($M_s = 4.32$ and 4.22 , respectively). A similar pattern was found for the attitude factor. Again, childcare centre teachers were higher in their perceived importance ($M_s = 4.41$ and 4.34 , respectively) than kindergarten teachers ($M_s = 4.34$ and 4.17 , respectively). The main effect of school type was not statistically significant for school and government support factors. None of the Experience \times School Type interaction effects was statistically significant.

TABLE 3
Means and Standard Deviations for Five Factors by Experience and School Type

	<i>n</i>	Less than 10 years		10 years or over		MANOVA results, $F(1,457)$; * $p < .05$						
		Kindergarten	Childcare	Kindergarten	Childcare	Experience (E)		Type (T)		E x T		
		<i>F</i>	η^2	<i>F</i>	η^2	<i>F</i>	η^2	<i>F</i>	η^2	<i>MSE</i>		
Teamwork	<i>M</i>	4.46	4.57	4.41	4.52	1.24	.00	6.26*	.01	0.01	.00	0.22
	<i>SD</i>	(0.45)	(0.44)	(0.50)	(0.45)							
Curriculum	<i>M</i>	4.32	4.43	4.22	4.42	1.24	.00	9.02*	.02	0.73	.00	0.28
	<i>SD</i>	(0.55)	(0.44)	(0.58)	(0.48)							
School	<i>M</i>	4.09	4.15	4.03	4.08	1.12	.00	0.90	.00	0.00	.00	0.34
	<i>SD</i>	(0.53)	(0.52)	(0.66)	(0.57)							
Government	<i>M</i>	4.39	4.45	4.32	4.31	2.79	.01	0.18	.00	0.21	.00	0.44
	<i>SD</i>	(0.58)	(0.57)	(0.71)	(0.78)							
Attitudes	<i>M</i>	4.34	4.41	4.17	4.34	5.87*	.01	5.49*	.01	1.10	.00	0.27
	<i>SD</i>	(0.50)	(0.46)	(0.56)	(0.52)							

Hence, for research question 3, the MANOVA found that less experienced teachers tended to find the attitudes of stakeholders more important in influencing the success of inclusive education than do more experienced teachers. However, given the small effect size ($\eta^2 = .01$), the difference should not be overemphasised. Overall, the high scores for teachers irrespective of experience (all $M_s > 4$) indicate that all five factors were perceived as important.

For research question 4, childcare centre teachers were consistently higher in their perceived importance of three factors: teamwork, curriculum, and stakeholders' attitudes. However, these subtle differences are not large (η^2 ranging from .01 to .02). Again, with the consistently high scores across all four groups ($M_s > 4$), it may be concluded that all five factors were perceived as important.

Discussion

The burgeoning commitment to inclusive education throughout the developed world has served as the catalyst for a plethora of research to identify the factors that teachers believe promote the success of inclusive education (e.g., Alquraini & Gut, 2012; Glazzard, 2011; Korkmaz, 2011). This line of enquiry is crucial as educators continue to struggle with how to optimise the implementation of inclusive education (McLeskey & Waldron, 2011; Sikes et al., 2007). The current study makes a unique contribution to this investigation. It calls attention to the seeds for successful inclusive education in a geographical, cultural, and educational context that is under-researched (i.e., preschool settings in Hong Kong; Zhang, 2011). Of most significance, the current study not only explicates the perceived importance of various factors, but also applies sophisticated analysis to differentiate the perceived importance of factors relative to one another. This examination, therefore, is well placed to provide tangible recommendations about how the currently limited resources in preschool education should be allocated to maximise the success of inclusive education.

The first research question investigated whether the five proposed factors for successful inclusive education were confirmed as distinct factors. The findings show that the five factors can be analysed and discussed with some confidence in the current study. The second research question endeavoured to ascertain if the participating preschool teachers perceived the five factors (i.e., teamwork, curriculum, school support, government support, and attitudes of stakeholders) as important features of successful inclusive education in early education settings. Results of the study suggest that teachers, regardless of their years of experience and preschool operation models, believe that all five factors are influential in determining the success of inclusive education (all $M_s > 4$ on a 5-point scale). This finding provides new insight into teachers' perceptions on inclusion in Hong Kong, and implies that Hong Kong preschool teachers' attitudes towards effective inclusion seem to be similar to their Western counterparts (e.g., Alquraini & Gut, 2012; Berry, 2011; Glazzard, 2011).

However, does the perceived importance of these contributing factors vary among teachers with different years of experience and working in different preschool settings? This is a critical question to consider, especially within the context of Hong Kong given the differential adoption of inclusive education within preschool settings and its evolution over time. Research questions 3 and 4 attempted to address these central substantive issues. Results demonstrated that less experienced teachers rated the attitudes of stakeholders (i.e., peers and the parents of both children with special needs and those without) as more important in facilitating inclusive education than did teachers with more experience. This would be welcoming news for parents of children with special needs as too often research purports their undervaluing by educators (Gasteiger-Klicpera, Klicpera,

Gebhardt, & Schwab, 2013). This finding may also be related to the Hong Kong early childhood setting, which is market driven and mostly dependent upon parental choice, thus gaining support from parents is likely to be deemed critical for less experienced teachers. It is perhaps unsurprising that novice teachers rated attitudes of stakeholders as more important than more experienced teachers given that beginning teachers rank communication with students and their parents as one of the most important factors affecting their performance in the early years of teaching (Ilaiyan, 2013). The challenge is to ensure that less experienced teachers are appropriately equipped to work with stakeholders and in particular improve the attitudes of the parents who have children without a disability as the research demonstrates that these parents' poor attitudes can undermine inclusive practices (Glazzard, 2011). Consequently, apart from the knowledge of special needs, initial teacher education courses should provide training such as differentiating the curriculum as well as working collaboratively with other adults. However, due to the small effect size, the difference in attitudes between the novice teachers and experienced teachers needs to be further explored.

It is interesting to note that teachers working at full-day childcare settings rated the importance of three of the five factors significantly higher than did their half-day kindergarten counterparts. These factors were teamwork, curriculum, and the attitudes of stakeholders. Although all teachers felt that it was important for teachers and professionals to work together, it appears that teachers in childcare settings would provide greatest support for Forbes' (2009) call to relax traditional professional boundaries and cultivate collaborating partnerships among practitioners to further inclusive education. As reported in other studies, collaboration in classrooms can be a demanding process with many challenges (Scruggs, Mastropieri, & McDuffie, 2007; Zigmond & Matta, 2004). One of the barriers to collaboration is insufficient planning time (Weiss & Brigham, 2000), although planning time has been widely recognised as an essential element for successful collaboration between teachers (Arguelles, Hughes, & Schumm, 2000; Hobbs & Westling, 1998). In reality, it is a particular challenge for half-day kindergarten teachers because they have to teach two half-day programs per day. The tight schedule and limited time hinders teachers from effectively collaborating with colleagues and other professionals. The tight schedule of half-day kindergarten may lead to a more teacher-centred approach, less teamwork, and less individual attention to students.

Teachers in full-day childcare settings rated the importance of curriculum adaptation higher than their half-day kindergarten counterparts. This is an interesting finding given the apparent similarities in curriculum delivery. As noted earlier, some studies (e.g., Li et al., 2010) in early childhood education in Hong Kong claim that partly due to the unification of monitoring mechanisms for the education of children aged 3 to 6 in 2005, childcare centres and kindergartens in Hong Kong would become more similar. This is because they have the same benchmarks for teacher qualifications, receive similar government funding, and follow the same curriculum guidelines issued by the Education Bureau. This is illustrated in Ho's (2008) case studies of two schools, which reported no differences between views on program quality held by the school management, staff members, and the parents from full-day childcare and half-day kindergarten settings. However, our current study has revealed that teachers from full-day childcare centres and half-day kindergartens may hold different views toward the importance of curriculum adaptation. Perhaps this is because of the operation mode of these two settings. As kindergarten teachers have to offer a 3-hour program each for two cohorts of students on the same day, limited time and a tight schedule become a significant issue, which may create obstacles for the effective adaptation of the curriculum to suit every individual. Consequently, they are required to

fit all of the assigned activities into the 3-hour slots, which may lead them to push the children to complete the activities or prematurely complete the activities in order to meet the limited time demands (Cheuk & Hatch, 2007). Compared to the half-day kindergarten teachers, full-day childcare teachers may have more time to spend on smaller groups, individual activities, and child-selected activities, which are of particular importance for students with special needs (Lee, Burkam, Ready, Honigman, & Meisels, 2006).

Teachers working in full-day childcare settings felt that the attitudes of stakeholders were more critical than did their half-day kindergarten counterparts. Previous studies have indicated that a key factor contributing to the successful implementation of inclusive education is the effective and trusting parent–teacher partnership in school (Hanson et al., 2000; Soodak & Erwin, 2000). By maintaining a supportive school climate through open communication with families with children with or without special needs, all stakeholders can work together to promote an inclusive environment. It seems that teachers from full-day childcare centres are more likely to build a positive relationship through the cooperation with different stakeholders.

Strengths and Limitations

The findings of the current study are based on survey responses provided by preschool teachers. Although it is useful to consider the perspectives of key stakeholders, it is important to recognise that self-report data provide a limited assessment of any issue. Future research would benefit from incorporating a mixed-method approach where data from multiple sources are compiled to elucidate the issues further and hence reduce subjectivity. For example, as parents are important stakeholders of early childhood education, research needs to consider how parents perceive inclusion. Another question is the impact of programs provided by childcare centres on children with special needs. Although the current study has revealed insight into teachers' perceptions toward inclusion, the relationship between these perceptions and the implementation of inclusive programs remains unclear and further explanation is warranted.

Despite the need for further explanation into the relationship between perceptions and implementation, the results of the current study can be applied to provide practical advice to teachers, education leaders, and government policymakers to support their endeavour to promote inclusive education in Hong Kong. Given the concern and advocacy for more inclusive practices, examining significant factors that have the potential to seed success in inclusive education is an important step in the current education reform in Hong Kong. To deploy resources efficiently, it is helpful to identify which factors are perceived as most salient for different contexts and settings. This will determine where resources and training should be allocated to best promote inclusive education. The point of difference between the perceptions of teachers across the two settings indicates that although teachers of the two settings value the importance of teamwork, curriculum adaption, school support, government, and gaining support from parents and peers, because of differences in operation mode and practice, policymakers and teacher education institutions should provide different support and training to meet the needs of teachers from these different settings. In addition, as over 70% of preschoolers are enrolled in half-day programs provided by kindergartens and some of them may have special education needs, more studies are required to resolve the problem of limited time and tight schedules in kindergarten settings so as to better promote inclusion.

As Hong Kong continues to endorse inclusive education, it is pertinent that researchers conduct empirical investigations with key stakeholders to identify the ingredients that

foster success. The consequences of such research are tangible recommendations that can assist to bolster the effectiveness of inclusive education in Hong Kong and beyond. This endeavour is of critical importance for children just embarking upon their life of learning — those in early childhood.

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Appendix

Scales and Items Used

Teamwork

1. Special education and mainstream teachers help with teaching.
2. Teachers work together with professionals.
3. Appropriate teacher–student ratio.

Curriculum

1. School adapts curriculum to suit children’s needs.
2. Children are provided with appropriate small group activities.
3. Children are engaged in personalised learning.

School Support

1. School provides suitable information and communication technology (ICT) equipment.
2. School initiates whole-school participation approach.
3. School provides suitable facilities and set-up.

Government Support

1. Government provides clear guidelines for identification and referral.
2. Government provides continual assessment.
3. Government provides suitable schooling arrangements.

Attitude of Stakeholders

1. Attitude of the parents of children with special education needs.
2. Mainstream students’ acceptance of peers with special education needs.
3. Mainstream parents’ acceptance of other children with special education needs.