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What predicts teachers' acceptance of students with special educational needs in kindergarten?[1]

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ABSTRACT

Despite attempts of educators and policy makers in promoting inclusive education through training and provision of extra resources, it remains unclear what is the most influential factor that may reduce teachers' resistance to and increase their advocacy of inclusive education. Teachers who have been trained in special education are usually expected to be more accepting of inclusive education. With training, kindergarten teachers would probably be more positive about placing students with special educational needs in regular settings with students without special educational needs. Trained kindergarten teachers in Hong Kong (N = 275, all female) were surveyed on three factors (their knowledge about policies regarding inclusive education, efficacy in teaching in inclusive settings, and government initiatives) that might influence two outcomes of advocacy (their resistance to inclusive education or endorsement of the inclusion of students with special educational needs). Confirmatory factor analysis defined the five distinct factors. Structural equation modelling found that of the three predictors, teachers' sense of efficacy was the strongest predictor of both advocacy outcomes. The findings imply that increasing teachers' knowledge through training or providing teachers with more resources may not be sufficient to increase teachers' advocacy of inclusive education. Instead, to better promote inclusive education, teacher education and governmental support should focus more on building teachers' efficacy in inclusive settings.

Key words: Special education, special needs, inclusive education, early childhood, kindergarten

INTRODUCTION

Inclusion is a global trend that involves the idea of making education accessible to all children (Bryant, Smith, & Bryant, 2008). Through decades of hard work and promotion, students with special educational needs (SEN) are now included in regular classrooms in many developed countries, and learn together with other students as one community in their local schools (Loreman, 2007). Teachers seem to generally agree with the concept of inclusion, although their acceptance of inclusion is not universal. The lack of knowledge and training, time, resources, supports from school and government, and coordination with teaching staff and parents are known to be some of the major factors for teachers' rejection of inclusion (Horne & Timmons, 2009; Khoche Radford, 2012; Van Reusen, Shoho, & Barker, 2001).

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In real classroom situations, teachers do experience significant difficulties when students with SEN are included in their classrooms (Curcic & Rodrigues, 2006). However, among a range of influential factors, it has remained unclear which are the most influential ones for teachers to adopt a positive or negative response to inclusion. Especially for teachers in early childhood education settings, it is important to identify and understand which factors are most influential in reducing teachers' resistance to inclusive education (Zhang, 2011). If we can identify such factors, then we may be able to device useful strategies to enhance teachers' acceptance of inclusion so that students with SEN will benefit from inclusive education at the earliest stages of life. In the present study, kindergarten teachers who had been trained in special education were surveyed on three potentially influential factors – including two internal factors (knowledge about policies regarding inclusive education, efficacy in inclusive education) and one external factor (government initiatives) – that might influence two outcomes (resistance to inclusive education, acceptance of students with SEN). The findings will provide an evidenced basis for educators and policy makers to wisely allocate resources and support to better promote inclusive education.

Teachers' Advocacy and Resistance towards Inclusion

Given that teachers' attitudes toward inclusive education have received unprecedented interest over the past few decades, a line of research has been conducted to investigate the effects of teachers' attitudes. International research in inclusive education has indicated a complex mix of somewhat positive teacher attitudes (e.g. Scruggs & Mastropieri, 1996; Shevlin & Flynn, 2011), negative teacher attitudes (e.g. Vaughn et al., 1996) and widely mixed differences (e.g. Bowman, 1986; Curcic & Rodrigues, 2006). What is clear, however, is that even when teachers recognize the benefits of inclusion, it is quite common for teachers to report a low sense of efficacy in teaching students with SEN which, no doubt, has a significant impact on the evolution of practice toward inclusive learning environments (Crucic, 2009; Scruggs & Mastropieri, 1996; Shevlin & Flynn, 2011). Although research in this area is well established, research into teacher attitudes in Hong Kong is still emerging, and as such, of great interest. Moreover, the current literature calls for more attention to be given to this issue within early childhood education in Hong Kong (Zhang, 2011). The current study takes up this challenge by focusing specifically on the attitudes of Kindergarten teachers.

Inclusive Education in Hong Kong – Advocacy and Resistance

In Hong Kong, the movement toward inclusive education practice is consistent with the global trend of focusing on human rights, social justice and anti-discrimination (Forlin & Lian, 2008). In 2001, after the advent of the *Code of Practice on Education* (Equal Opportunities Commission, 2001), the Education and Manpower Bureau implemented a whole school approach to cater for students with SEN (Education Department, 2000; Hong Kong Government circular, 82/2003). Since then, students with different types of SEN were being included in the regular classrooms, and many teachers have voiced concerns regarding their capability to work in an inclusive learning environment.

In early childhood settings in Hong Kong, programs that include students with SEN are known as *integrated* early childhood education (Cheuk & Hatch, 2007). Whereas teachers in these settings have mostly been trained to teach students with SEN, mainstream teachers may lack the necessary expertise or motivation for implementing appropriate interventions to help students with SEN. In a study conducted by Chong, Forlin, and Au (2007), Hong Kong pre-service secondary teachers were found to be marginally prepared to implement inclusive practices. In another study on teachers' attitudes toward inclusive education in Hong Kong (Lian, 2004 ;Yuen, Westwood &Wong, 2004) regular teachers were found to lack training in inclusive education and to have negative feelings about teaching students with SEN.

Leung and Mak (2010) investigated 51 Hong Kong primary school teachers' acceptance of inclusion. A large number of teachers (74.5%) reported negative attitudes and expressed concerns about students' learning progress. They expressed a fear of increased difficulty in managing the classroom environment and also noted the insufficiencies relating to their schools' resources as well as limited support from the government. Hue (2012) reported that the guidance teachers in secondary schools believed that students with particular types of SEN needed to have more support and would be better educated in special schools. In sum, even though the concept of inclusion was introduced to

Hong Kong a few decades ago, many regular primary and secondary teachers are not accustomed to including students with SEN in their classroom (Poon-McBrayer, 2004).

Critical Factors Influencing Teachers' Advocacy and Resistance towards Inclusion

Due to the belief that successful implementation of inclusive practice is largely dependent on educators' attitudes toward it, a large body of research was conducted to investigate teachers' acceptance and its impact on inclusion (Avramidis & Norwich, 2002). Research has suggested that teachers' attitudes might be influenced by a number of factors which are interrelated. Moreover, most of the factors are related to practical concerns about how inclusive education can be implemented in the classroom (Burke & Sutherland 2004; Scruggs & Mastropieri, 1996). For example, Bradshaw and Mundia (2006) found that teachers' attitudes are strongly influenced by factors such as types and severity of the student's disability, teachers' knowledge and training, availability of physical and human resources, as well as government policy.

According to the typology used by Avramidis and Norwich (2002), factors influencing teachers' attitude could be categorized as 'child-related' variables, 'teacher-related' variables, and 'educational-environment' variables. For the study of child-related variables, teachers generally exhibit a more positive attitude toward the inclusion of students with physical and sensory impairments than to those with a learning disorder or emotional-behavioural disorder. Moreover, the majority of findings indicated that the degree of acceptance by teachers for the inclusion of students with SEN declined rapidly with a converse increase in the severity of the student's disability (Forlin, 1995). For teacher-related variables, a number of studies examined a host of teacher variables such as gender, age, years of teaching experience, grade level, experience with students with SEN, and other factors which might impact on teachers' acceptance of inclusion. Evidence regarding teacher-related variables are however, inconsistent and none of them alone could be regarded as a strong predictor of teachers' attitudes (Avissar, Reiter, & Leyser, 2003; Parasuram, 2006; Gal, Schreur & Engel-Yeger, 2010).

Environmental factors are understood to comprise physical support (resources, teaching materials, equipment, curriculum, etc.) and human support (teaching assistants, school administrators and staff, school culture, therapists, etc.). Research findings support the notion that the availability of physical and human support is consistently associated with positive attitudes toward inclusion (Ainscow et al., 2012; O'Donoghue & Chalmers, 2000). A positive school culture and the cooperation of staff within a school are significant factors that usually contribute to the success of inclusion (Ainscow & Sandill, 2010; Shevlin & Flynn, 2011).

Despite the different categories of factors discussed by researchers, teachers' attitudes can be viewed by using the typology of first- and second-order barriers developed by Brickner (1995). First-order barriers to inclusive education refer to a number of external factors that influence teachers' attitudes toward inclusion. Second-order barriers are 'intrinsic' to teachers and refer to beliefs about teaching and learning, and their perceived efficacy in inclusive classrooms (Zoniou-Sideri & Vlachou, 2006). In the present study, two internal factors (knowledge of policy, efficacy in inclusive education) and one external factor (government initiatives) were examined to find out which are most influential to shaping teacher attitudes towards inclusion.

Knowledge of policy. One major factor that may foster a positive attitude of teachers toward inclusive education is training (Bradshaw & Mundia, 2006). This factor is conceptualised as an internal (personal) factor since knowledge gained from training through constructing links to pre-existing knowledge and understandings is personal although the training process itself is not. Through training, teachers get to know more about the characteristics of each type of disability and how students with SEN can learn better. Through training, teachers also get to know more about policies associated with inclusive education and the appropriate ways to address learning issues.

Efficacy in inclusive education. Teachers' efficacy is a personal sense of competence in facilitating learning through pedagogical processes. This may be an important factor that leads to a range of outcomes as one's self-efficacy beliefs are powerful in influencing one's attitudes and behaviours, leading to significant changes (Bandura, 1986; Brownell & Pajares, 1999).

***Government initiatives*.** An important external factor that may have significant influence on stakeholders' advocacy of inclusive education or resistance to it is government initiatives. Nevertheless, whereas government initiatives that are advocated by teachers may lead to positive outcomes, initiatives that are not accepted and supported could contribute to negative consequences (Ainscow, 2005; Clark et al., 1999).

The Present Investigation

The overarching aim of the study is to critically examine these three potentially significant factors that may influence Hong Kong kindergarten teachers' advocacy of or resistance to teaching students with SEN in regular classrooms through inclusive education practices. We predict that teachers' knowledge of policy and efficacy in inclusive classrooms (that is, internal factors) would positively influence teachers' advocacy for inclusive education, and negatively influence teachers' resistance to inclusive education.

METHOD

Participants

The participants were kindergarten teachers in Hong Kong (*N*=275, all female), age between 20 and 50 years. Kindergarten students in Hong Kong are typically aged three to six years. All of the teachers in the current study were trained in early childhood education and all had some forms of formal training in special education. Half of the participants had 6 to 15 years' teaching experience (53%), while 17% had 1 to 5 years' experience, and 30% had 16 years or more. They all speak Chinese, which is one of the official languages and the mother tongue of the students they teach in Hong Kong.

Material and Procedure

The survey was designed by the current researchers to ask teachers in pre-primary education settings about five factors: (a) knowledge of policy, (b) efficacy, (c) government initiatives, (d) resistance to inclusive education, and (e) acceptance of students with SEN. Each scale included multiple items (see Appendix). The alpha reliability of each factor was acceptable (alphas = .80, .67, .88, .63, and .83 for knowledge, efficacy, government, resistance, endorsement, respectively). The participants responded to each of the 21 items on a five-point scale (1=low to 5=high). Printed questionnaires were mailed to kindergartens for the teachers to complete. Those who consented and completed the questionnaires returned them in sealed envelopes. The five factors of interest were:

Knowledge of policy. Four items asked the teachers about the extent to which they know the policies regarding inclusive education.

Efficacy. Four items asked the teachers about their sense of efficacy in teaching students with SEN in an inclusive setting.

Government initiatives. Four items asked teachers about the initiative from the government regarding supporting students with SEN: guidelines for action, assessment support, schooling arrangements for students with SEN, etc.

Resistance to inclusion. Four items asked teachers about the extent to which they resist to the idea of inclusion (e.g., with beliefs that the inclusion of students with SEN would be a burden and would cause disruption to a regular classroom).

Endorsement of SEN. Five items asked teachers about the extent to which they endorsed the inclusion of students within a specific type of SEN. Hence the five items included five types of SEN (autism, attention-deficit hyperactivity disorder, learning disability, gifted and talented, and language and speech disorder).

Data Analysis

First, Cronbach's alpha reliability was estimated for each *a priori* scale. Then confirmatory factor analysis (CFA) was conducted. Model 1 tested the ability of the 21 items to form five factors with

each containing multiple indicators. Model 2 tested a one-factor model comprising all 21 items. Model 1 was hypothesized to provide a better model fit than Model 2, supporting the distinctiveness of the factors. Based on Model 1, structural equation modelling (in Model 3) was used to test the relative predictions of the three potentially influential factors of the two outcomes (resistance; endorsement of SEN).

The procedures for conducting CFA have been described elsewhere (e.g., Byrne, 1998; Jöreskog and Sörbom, 2005) and are not further detailed here. The goodness of fit of the CFA models was evaluated with an emphasis on the Tucker-Lewis index (TLI, also known as the non-normed fit index) as the primary goodness-of-fit index. However, the chi-square test statistic and root mean square error of approximation (RMSEA) and the comparative fit index (CFI), are also reported. In general, for an acceptable model fit, the values of TLI and CFI should be equal to or greater than .90 for an acceptable fit and .95 for an excellent fit to the data. For RMSEA, according to Browne and Cudeck (1993), a value of .05 indicates a close fit, values near .08 indicate a fair fit, and values above .10 indicate a poor fit. Based on commonly accepted criteria (see Browne & Cudeck 1993; Jöreskog & Sörbom 2005), support for an acceptable model requires (a) acceptable reliability for each scale (i.e., alpha=.70 or above), (b) an acceptable model fit (i.e., TLI and RNI=.90 or above and RMSEA<.08), (c) acceptable factor loadings for the items loading on the respective factors (>.30), and (d) acceptable correlations among the latent factors such that they would be distinguishable from each other (r<.90).

RESULTS

Distinctiveness of Each Factor

CFA Model 1 testing a five-factor model resulted in an acceptable model fit (TLI=.90, CFI=.91, RMSEA=.06). Model 2 testing a one-factor model assuming that all 21 items could be treated as a single factor did not provide a reasonable fit (TLI=.34, CFI =.41 RMSEA=.15). 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 (ranging from .40 to .90). The factor correlations ranged from -.48 to .55. The factor loadings and latent correlations suggest that the five factors were well defined and differentiable from one another. In sum, Model 1 supports five distinct factors for subsequent analysis.

The latent correlations (Table 2) display a clear pattern of relations among the factors. In support of the validity of the advocacy measures, resistance to inclusive education and endorsement of SEN are negatively correlated (r = -.48). Of the three predictors, efficacy is positively related to endorsement of SEN (r = .55) but negative related to resistance to inclusive education (r = -.37). These results indicate that the kindergarten teachers' sense of efficacy in inclusive settings is associated with their level of advocacy or resistance to inclusive education. Neither advocacy nor resistance seems to have any association with either knowledge of policy or government initiatives. It seems that teachers' advocacy of inclusive education or resistance to it is mainly dependent on their sense of efficacy in inclusive settings.

Predicting Resistance to, and Endorsement of, Inclusive Education

Model 3 (Table 1) is a SEM testing the paths from three predictors (knowledge of policy, efficacy, and government initiative) to two advocacy outcomes (resistance and endorsement of SEN). The paths are shown in Figure 1. Consistent with the pattern of latent correlations shown in Table 2, efficacy is the only predictor that has significant influences on both resistance to inclusive education (β = -.50) and endorsement of students with SEN in regular classrooms (β = .65). That is, the higher sense of efficacy, the less likely are teachers to resist inclusive education, and the more likely they are to endorse the inclusion of students with the five specific SEN

Table 1. Goodness of Fit of Models

Model	χ^2	*df*	TLI	CFI	RMSEA
1. 5 Factors	353.31	179	.90	.91	.06
2. 1 Factor	1359.72	189	.34	.41	.15
3. SEM	353.31	179	.90	.91	.06

Note: *N*=275. Number of items=21. TLI=Tucker-Lewis index. CFI=Comparative fit index. RMSEA=Root mean square error of approximation.

Table 2. Solution of CFA Model

	Knowledge	Efficacy	Government	Resistance	Endorse	Uniqueness
Alpha	.80	.67	.88	.63	.83	
Mean	3.15	3.55	2.59	3.53	3.37	
SD	0.60	0.48	0.65	0.56	0.64	
Factor Loadings						
Knowledge 1	.77*					.40*
Knowledge 2	.80*					.35*
Knowledge 3	.55*					.70*
Knowledge 4	.70*					.51*
Efficacy 1		.53*				.72*
Efficacy 2		.68*				.54*
Efficacy 3		.61*				.63*
Efficacy 4		.40*				.84*
Government 1			.67*			.55*
Government 2			.77*			.41*
Government 3			.84*			.29*
Government 4			.90*			.20*
Resistance 1				.48*		.77*
Resistance 2				.63*		.60*
Resistance 3				.47*		.78*
Resistance 4				.62*		.62*
Special needs 1					.68*	.54*
Special needs 2					.74*	.45*
Special needs 3					.78*	.39*
Special needs 4					.58*	.67*
Special needs 5					.76*	.42*
Factor Correlations						
Knowledge	-					
Efficacy	.42*	-				
Government	.48*	.40*	-			
Resistance	.02	-.37*	.05	-		
Endorsement	.11	.55*	.08	-.48*	-	

Note: N=275. *p<.05.

in regular classrooms. Neither knowledge of policy nor government initiatives had any significant bearing on the advocacy outcomes (whether positive or negative).

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DISCUSSION

The aim of the present study was to test whether internal or external factors best explain teacher acceptance of or resistance to inclusive practices of kindergarten teachers in Hong Kong. This study investigated three factors including: knowledge of policy, teacher efficacy, and government initiatives. The statistical rigor of the current study provides important information about the capacity

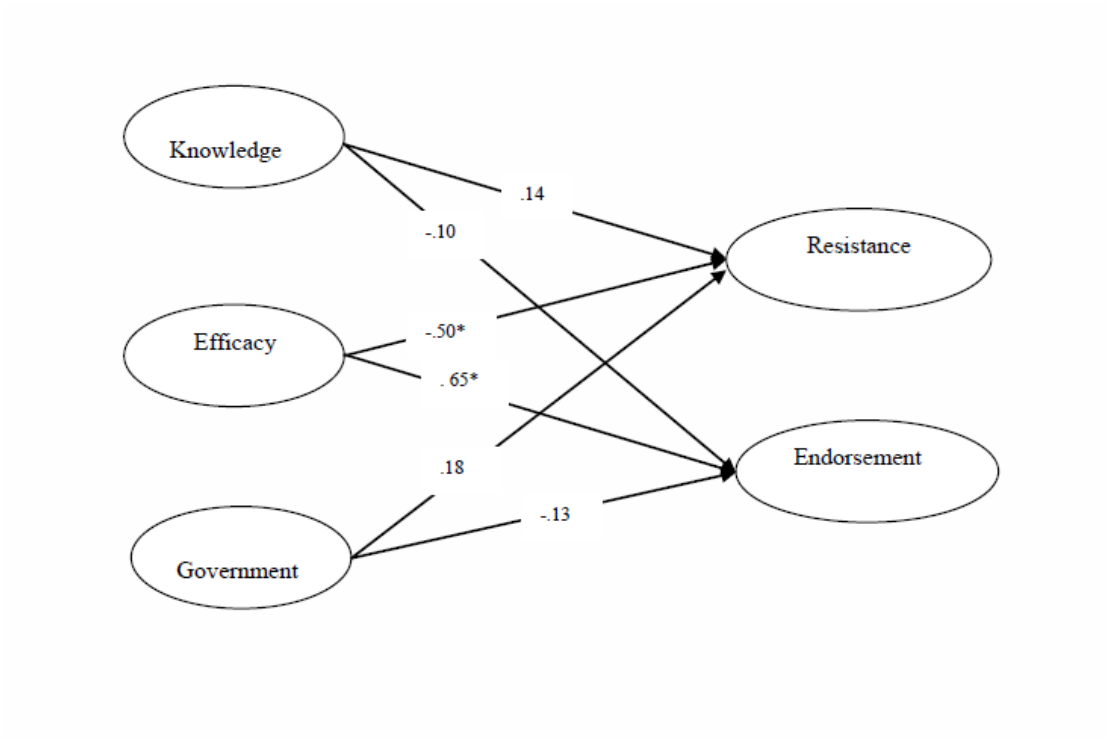

Figure 1. SEM: Paths from 3 predictors to 2 outcomes.

of these three factors to predict teachers' attitudes towards inclusion. Although valuable, the literature cites many more potentially influential variables that have not been considered in the current analysis.

Results showed that self-efficacy is connected to teachers' acceptance and is a similar finding reported by other studies (Soodak et al., 2000; Weisel & Dror, 2006). That is, the more teachers believe they are able to implement inclusive practices, the more positive their attitudes toward inclusion are. As revealed by Tschannen-Moran and Hoy (2001), teachers' self-efficacy is significantly related to many meaningful educational outcomes such as teacher commitment and instructional behaviour, as well as to student outcomes such as achievement and motivation. Results of the present study are encouraging because they indicate that teachers with a high self-efficacy believe that students with SEN can be taught, can be provided with extra support and these teachers utilize more individualized learning methods to help their students with SEN learn.

It is well documented that negative attitudes are a major barrier of inclusive education. Numerous studies suggest that negative attitudes are often more related to practical concerns than ideological opposition (Burke & Sutherland, 2004; Scruggs & Mastropieri, 1996). This implies that even for teachers who endorse the concept of inclusion, when the reality of including students with SEN brings about practical difficulties in the classroom, teachers' support for inclusion could be impaired. Teachers have been found to report concerns about inadequate resources and materials, and lack of support from the government (Ammah & Hodge, 2005; Koh & Robertson, 2003) as major barriers to the implementation of inclusive education.

The present study found that in comparison with external factors such as government policy and resources, teachers' perception on how they were able to influence student learning in the classroom affects their attitude toward inclusion. Many teachers claimed lack of knowledge and training to be the major reasons for their negative attitudes toward inclusion (Minke & Bear, 1996), making it hard to meet the needs of students with SEN. However, even though teachers in this study had received training in special education policy, increasing teachers' knowledge through training did not seem to be sufficient to enhance teachers' positive attitudes toward inclusion. It is therefore recommended that the enhancement of teachers' efficacy in classroom settings should be given much more emphasis in education policy and practice as well as in pre- and in-service teacher education.

Conclusion

The findings of the present study are in line with the growing interest of studying the importance of teachers' self-efficacy and its impact on teachers' attitude toward inclusion.

Teacher education programs should aim at enhancing teachers' positive beliefs and capabilities to successfully implement inclusive educational programs which promote the application of policies in schools and classrooms. Policy makers and educators should put in more effort and resources to promote a positive sense of efficacy within teachers and to incorporate this significant construct into the teacher education curriculum to equip pre- and in-service teachers for a better command of the teaching strategies that would help students with SEN. As Hong Kong continues to advocate and implement inclusive education, it is essential that research, such the current study, provides evidence-based directions for generating success for all students, including those with SEN.

REFERENCES

Ainscow , M. (2005). Developing inclusive education systems: What are the levers for change? *Journal of Educational Change, 6(2),* 109 -124.

Ainscow, M., Dyson, A., Goldrick, S., & West, M. (2012). *Developing equitable education systems*. London: Routledge.

Ainscow, M., & Sandill, A. (2010). Developing inclusive education systems: The role of organizational cultures and leadership. *International Journal of Inclusive Education,* 14(4), 401–16.

Ammah, J., & Hodge, S. (2005). Secondary physical education teachers' beliefs and practices in teaching students with severe disabilities: A descriptive analysis. *The High School Journal, 89*(2), *40-54*

Avissar, G., Reiter, S., & Leyser, Y (2003). Principals' views and practices regarding inclusion: The case of Israeli elementary school principals. *European Journal of Special Needs Education, 18*(3), 355–69.

Avramidis, E., & Norwich, B. (2002). Teachers' attitudes towards integration/inclusion: A review of the literature. *European Journal of Special Needs Education, 17*(2), 129–47.

Bandura, A. (1986). *Social foundations of thought and action: A social cognitive theory.* Englewood Cliffs. NJ: Prentice-Hall.

Bowman, I. (1986). Teacher training and the integration of handicapped pupils: Some findings from a fourteen nation UNESCO study. *European Journal of Special Needs, 1*, 29-38.

Bradshaw, L., & Mundia, L. (2006). Attitudes and concerns about inclusive education: Bruneian inservice and preservice teachers. *International Journal of Special Education, 21*(1), 35-41.

Brickner, D. (1995). The effects of first and second order barriers to change on the degree and nature of computer usage of secondary mathematics teachers: A case study. Unpublished doctoral dissertation, Purdue University, West Lafayette, IN.

Browne, M. W., & Cudeck, R. (1993). Alternative ways of assessing model fit. In K. A. Bollen & J. S. Long (Eds.), *Testing structural equation models* (pp. 136–162). Newbury Park, CA: Sage.

Brownell, M. T., & Pajares, M. F. (1999). Teacher efficacy and perceived success in mainstreaming students with learning and behavior problems. *Teacher Education and Special Education, 22*(3), 154–164.

Bryant, D. P., Smith, D. D., & Bryant, B. R. (2008). *Teaching Students with Special Needs in Inclusive Classrooms*. Boston, MA: Pearson Education, Inc.

Burke, K., & Sutherland, C. (2004). Attitudes towards inclusion: Knowledge vs. experience. *Education, 125*(2), 163–72.

Byrne, B. M. (1998). *Structural equation modeling with LISREL, PRELIS, and SIMPLIS: Basic concepts, applications, and programming*. Mahwah, NJ: Erlbaum.

Cheuk, J., & Hatch, J.A. (2007). Teachers' perceptions of integrated kindergarten programs in Hong Kong. *Early Child Development and Care, 177*(4), 417-432.

Chiner, E., & Cardona, M. C. (2013). Inclusive education in Spain: how do skills, resources, and supports affect regular education teachers' perceptions of inclusion? *International Journal of Inclusive Education, 17*(5), 526-541.

Chong, S. C. S., Forlin, C., & Au, M. L. (2007). The influence of an inclusive education course on attitude change of pre-service secondary teachers in Hong Kong. *Asia-Pacific Journal of Teacher Education, 35*(2), 161–179.

Clark, C., Dyson, A., Millward, A. & Robson, S. (1999). Inclusive education and schools as organisations. *International Journal of Inclusive Education, 3*(1), 37-51.

Curcic, S. (2009). Inclusion in PK-12: An international perspective. *International Journal of Inclusive Education, 13*(5), 517-538.

Curcic, S., & Rodrigues, E. (2006). *The praxis and practice of inclusion within K-12: A research synthesis*. Paper presented at the 6th Annual Disability Studies in Education Conference, May 2006, at Michigan State University, East Lansing, MI, USA.

Education and Manpower Bureau. (2003) Circular memorandum No. 314/2003. http://www.emb.gov.hk

Education Department (2000). Curriculum development council – review of the direction in special education curriculum development in Hong Kong for the 21st century. In Towards integration [CD-ROM]. Hong Kong: Education Department.

Equal Opportunities Commission (2001). Code of Practice on Education under the DDO. Hong Kong: EQ.

Forlin, C., & Lian, J. (2008). Contemporary trends and issues in educational reform for special and inclusive education. In C. Forlin & M-G. J. Lian (Eds.), *Reform, inclusion, teacher education: Towards a new era of special education in Asia-Pacific Region* (pp.3-12). New York: Routledge.

Forlin, C. (1995). Educators' beliefs about inclusive practices in Western Australia, *British Journal of Special Education, 22*(4), 179–185.

Gal, E., Schreur, N., & Engel-Yeger, B. (2010). Inclusion of children with disabilities: Teachers' attitudes and requirements for environmental accommodations. *International Journal of Special Education 25*(2), 89–99.

Horne, P. E., & Timmons, V. (2009). Making it work: Teachers' perspectives on inclusion. *International Journal of Inclusive Education, 13*(3), 273-286.

Hue, M. (2012). Inclusion practices with Special Educational Needs students in a Hong Kong secondary school: teachers' narratives from a school guidance perspective. *British Journal of Guidance & Counselling, 40*(2), 143-156.

Jöreskog, K. G., & Sörbom, D. (2005). *LISREL 8.72: Structural equation modeling with SIMPLIS command language*. Chicago: Scientific Software International.

Khochen, M., & Radford, J. (2012). Attitudes of teachers and headteachers towards inclusion in Lebanon. *International Journal of Inclusive Education, 16*(2), 139-153.

Koh, M. S., & Robertson, J. S. (2003). School reform models and special education. *Education and Urban Society. 35*(4), 421-442.

Leung, C. H., & Mak, K. Y. (2010). Training, understanding, and the attitudes of primary school teachers regarding inclusive education in Hong Kong. *International Journal of Inclusive Education, 14*(8), 829-842.

Lian, M. G. J. (2004). Inclusion education: Theory and practice. *Hong Kong Special Education Forum, 7*(1), 57–74.

Loreman, T. (2007). Seven pillars of support for inclusive education: Moving from 'Why?' to 'How?' *International Journal of Whole Schooling, 3*(2), 22-38.

Minke, K. M., & Bear, G. G. (1996) Teachers' experiences with inclusive classrooms: implications for special education reform, *Journal of Special Education, 30*(2), 152–186.

O'Donoghue, T., & Chalmers, R. (2000). How teachers manage their work in inclusive classrooms. *Teaching and Teacher Education 16*(7), 889–904.

Parasuram, K. (2006). Variables that affect teachers' attitudes towards disability and inclusive education in Mumbai, India. *Disability and Society, 21*(3), 231–42.

Poon-McBrayer, K. F. (2004). To integrate or not to integrate: Systemic dilemmas in Hong Kong. *The Journal of Special Education, 37*(4), 249-256.

Rajovic, V., & Jovanovic, O. (2013). The barriers to inclusive education: Mapping 10 years of Serbian teachers' attitudes toward inclusive education. *Journal of Special Education and Rehabilitation, 14*(3-4), 78-97.

Scruggs,T. E., & Mastropieri, M. A. (1996). Teacher perceptions of mainstreaming/inclusion, 1958–1995: A research synthesis. *Exceptional Children, 63*(1), 59–74.

Shevlin, M. & Flynn, P. (2011). School Leadership for Special Educational Needs. In H. O'Sullivan & J. West-Burnham (Ed.), Leading and Managing Schools (pp. 126–40). London: Sage.

Soodak, L. C., & Erwin, E. J. (2000). Valued member or tolerated participant: Parents' experiences in inclusive early childhood settings. *The Journal of the Association for Persons with Severe Handicaps, 25*(1), 29–41.

Sukbunpant, S., Arthur-Kelly, M., & Dempsey, I. (2013). Thai preschool teachers' views about inclusive education for young children with disabilities. *International Journal of Inclusive Education, 17*(10), 1106–1118.

Tschannen-Moran, M., & Hoy, A. W. (2001). Teacher efficacy: Capturing an elusive construct. *Teaching and Teacher Education, 17*(7), 783–805.

Van Reusen, A. K., Shoho, A. R., & Barker, K. S. (2001). High school teacher attitudes toward inclusion. *The High School Journal, 84*(2),7-20.

Vaughn, S., Schumm, J. S., Jallad, B., Slusher, J., & Samuel, L. (1996). Teachers' views of inclusion. *Learning Disabilities Research and Practice, 11*(2), 96-106.

Weisel, A., & Dror, O. (2006). School climate, sense of efficacy and Israeli teachers' attitudes toward inclusion of students with special needs. *Education, Citizenship and Social Justice, 1*(2). 157-174.

Yuen, M., Westwood, P., & Wong, G. (2004). Meeting the needs of students with specific learning difficulties in the mainstream education system: Data from primary school teachers in Hong Kong. *The International Journal of Special Education, 20*(1), 67–76.

Zhang, K.C. (2011) Early childhood education and special education: How well do they mix? An examination of inclusive practices in early childhood educational settings in Hong Kong. *International Journal of Inclusive Education, 15*(6), 683-697.

Zoniou-Sideri, A., & Vlachou, A. (2006). Greek teachers' belief systems about disability and inclusive education. *International Journal of Inclusive Education, 10*(4/5), 379-394.

APPENDIX

Scales and Sample Items

Knowledge of policy

1. I understand Government policies regarding support of diversity of children's learning needs.
2. I know the procedures for assessing children's diverse needs in learning.

Efficacy

1. In teaching, I use various methods to help different children with various learning needs.
2. I will find out how to design curriculum to suit various learning needs of children.

Government initiatives

1. The Government provides adequate resources to help children with learning diversity.
2. The Government has clear guidelines for assessing children with special needs.

Resistance to inclusion

1. Children with special needs are a burden to the teacher in the mainstream classroom.
2. Children with special needs will upset normal classroom routines and progress.

Special needs endorsement

1. I think students with autism can be included in a regular classroom.
2. I think students with ADHD can be included in a regular classroom.