

# Examination of Chinese Teachers' Attitudes Towards Inclusive Education

Jun (AJ) Ai, Ph.D., BCBA (Corresponding Author)

ORCID: 0000-0003-4735-5258

Juniper Gardens Children's Project

University of Kansas

Email: [aijunaj@ku.edu](mailto:aijunaj@ku.edu)

Phone number: +1-785-727-3784

Address: 444 Minnesota Avenue, Suite 300. Kansas City, KS 66101-2914

Jihong Zhang, M.Ed.

Department of Educational Measurement and Statistics

University of Iowa

Email: [jihong-zhang@uiowa.edu](mailto:jihong-zhang@uiowa.edu)

Phone number: +1-785-330-3082

Address: 435 S. Linn Street Unit 217, Iowa City, IA 52240

Eva Horn, Ph.D., Professor

Department of Special Education

University of Kansas

Email: [evahorn@ku.edu](mailto:evahorn@ku.edu)

Phone number: +1-785-864-0615

Address: Joseph R. Pearson Hall, Rm. 502, University of Kansas, 1122 W. Campus Rd., Lawrence, KS 66045-3101

Hao Liu, Ph.D., Associate Professor

School of Early Childhood Education

Capital Normal University

Email: [liuhao@cun.edu.cn](mailto:liuhao@cun.edu.cn)

Address: #5, Bei San Jie, Fu Cheng Road, Hai Dian District, Beijing, China 100875

Jingjing Huang, M.Ed.

Director

Beijing Wise Inclusive Education and Rehabilitation Center, Beijing, China

E-mail address: [shuishihaizi@126.com](mailto:shuishihaizi@126.com);

Phone number: 86+13141296306

Yanjuan Ma, M.Ed.

Director of Department of Teaching and Research  
Beijing Modern Art Preschool, Beijing, China  
E-mail address: yanjuanma1227@163.com;  
Phone number: 86+18701102273;

### Abstract

The purpose of this study was to understand the status and influential factors of preschool teachers' attitudes towards inclusive education, given the evidence that attitudes predict successful inclusion for young children with or at risk for developmental delays or disabilities. We translated the *Multidimensional Attitudes Toward Inclusive Education Scale* (MATIES, Mahat, 2008) to Simplified Chinese (MATIES-C). We then administered the MATIE-C to a representative sample of in-service preschool teachers ( $N = 481$ ) in Beijing, China. The confirmative factor analysis and reliability tests suggested an acceptable construct validity and internal reliability of the MATIES-C. We also found preschool teachers in Beijing held positive attitudes towards inclusion across cognitive, affective, and behavioral dimensions of attitudes. The ANOVA results indicate teachers' experience and knowledge about children with disabilities had statistically positive associations with favorable attitudes. Preschool area, teacher age, and educational background were also found to have a statistically significant impact on teacher attitudes.

*Keywords:* preschool teacher attitudes, inclusive education, early childhood special education, teacher education

---

### EXAMINATION OF CHINESE TEACHERS' ATTITUDES TOWARDS INCLUSIVE EDUCATION

Inclusive education has become a global effort to ensure the right to education for all children regardless of their abilities and backgrounds (e.g., UNESCO, 2005; Individuals with Disabilities Education Act, 2004). Since the 1980s, inclusive education has received increasing attention in China (Deng & Zhao, 2019). The *Revised Compulsory Education Law of the People's Republic of China* (National People's Congress, 2006b) states that regular schools should include children with disabilities who can study in the general classroom and provide assistance in learning rehabilitation for students with disabilities. However, no legislation in China mandates general education schools to provide a free and appropriate education for students with disabilities. As an educational reform, opening general education classrooms to children with disabilities was implemented as a series of pilot projects, mostly in economically and culturally developed cities (Deng & Manset, 2000). These pilot projects, however, typically required students with disabilities to meet a specific set of criteria (e.g., minimal disruptive behaviors) to be enrolled in regular classrooms (Deng & Poon-McBrayer, 2012). In addition, simply placing students with disabilities in regular classrooms may not guarantee targeted supports, especially when most general education teachers may receive minimum preparation (e.g., one course in special education

during a four-year undergraduate program of study) in inclusive education (Deng & Zhao, 2019). Thus, inclusive education in China continues to be only accessible for a limited number of students with disabilities.

Although the *Revised Compulsory Education Law of the People's Republic of China* (National People's Congress, 2006b) only applied to students attending elementary school through high school, the Chinese government has an increasing interest in extending the promotion of inclusive education to early care and education. The *Revised People's Republic of China on Protection of Disabled Persons Act* (National People's Congress, 2008) clearly stated that young children with disabilities have the right to attend public early childhood programs. According to the *Eleventh Five-Year Plan* (National People's Congress, 2006a), public schools should strive to provide quality resources and qualified personnel to meet the increasing needs for early intervention and early childhood special education services. In short, both educational legislation and national plans suggest that public preschool inclusion should be the primary avenue for providing education for young children with disabilities in China.

Beijing, as the capital city, has always played a leadership role in educational innovations and reforms. With the central government's financial and policy supports, the city of Beijing committed to leading preschool inclusion (Beijing Municipal Commission of Education

[BMCE], 2010; Hu et al., 2011). To support early childhood inclusion, the BMCE implemented a series of pilot projects beginning in 2004. Initially, four programs participated with an additional 16 public preschools (i.e., geographically representing each of the 16 school districts in Beijing) added between 2006 and 2008, with the number of pilot inclusion preschools in Beijing more recently increasing to around 70 (Cao, 2011).

Nevertheless, as a complicated endeavor that demands collective efforts from various stakeholders, early inclusive education is still in its infancy within mainland China (Hu & Szente, 2010; Kritzer, 2011). Specifically, compared to the percent of students with disabilities who have access to general education (i.e., 49.15%), only 2% of under-school-age children with disabilities were enrolled in general education (National Bureau of Statistics of the People's Republic of China, 2012; The Ministry of Education of People's Republic of China, 2019). Scholars have identified several challenges that inhibit quality inclusive education in Chinese contexts. Those challenges include the lack of an early screening and referral system, the lack of legislative support and financial resources, the lack of collaboration and teaming among professionals, and the lack of strong personnel preparation and professional development programs to prepare teachers who are competent and confident in implementing inclusive practices (Malinen, 2013). Furthermore, a limited evidence base exists to provide sufficient information about how to effectively promote preschool inclusion in Chinese contexts, pointing to a significant need for further investigation (Deng & Poon-McBrayer, 2012; Kritzer, 2011). The purpose of the current study is to understand Chinese preschool teachers' attitudes towards inclusive education given the evidence that attitudes are a significant predictor of successful inclusion for young children with or at risk for developmental delays or disabilities in educational settings (Smith et al., 2015).

### Teachers' Attitudes Towards Inclusive Education

Over several decades, teachers' attitudes have been recognized as a critical factor in the success of inclusive education across different cultural, social, and economic contexts (European Agency for Development in Special Needs Education, 2011 Smith et al., 2015). In the United States, a national survey revealed that teachers' beliefs and attitudes were identified as the highest-rated category of challenges to quality preschool inclusion (Barton & Smith, 2015). In its report *Guidelines for Inclusion: Ensuring Access to Education for All*, UNESCO (2005) urged that overcoming negative attitudes and values about inclusion is one of the key steps to move from exclusion to inclusion in education.

The key reason for studying attitudes lies in the assertion that attitudes are among the best predictors of behavioral intentions (Ajzen, 2011). A more favorable attitude is associated with a stronger intention to perform

the behavior; thus, examining an individual's attitudes can help understand their behaviors (Ajzen, 1991). With an international trend towards inclusive education, worldwide researchers have conducted a significant number of studies to examine teachers' attitudes toward inclusive education.

Since the 1980s, scholars across multiple countries have examined teachers' attitudes towards inclusive education for students of all age groups. Two main research questions have been addressed in these studies: 1) What are teachers' attitudes towards inclusion (i.e., positive, moderate, or negative)? and 2) What factors impact teachers' attitudes? Some studies suggested that teachers had positive attitudes towards including students with disabilities in general education classrooms (e.g., Bhatnagar & Das, 2013; Krischler & Pit-ten Cate, 2018). In contrast, other studies indicated either negative (e.g., Vaughn et al., 1996) or moderate (e.g., Blackman et al., 2012) teacher attitudes towards inclusion. Those contradictory findings were influenced by teacher-level or environmental-level factors (Avramidis & Norwich, 2002).

Regarding factors that influence teachers' attitudes, the majority of scholars agree that teachers' knowledge (e.g., training in special education or inclusive education; Avramidis et al., 2000) and experiences (e.g., personal and professional experiences with people with disabilities; Avramidis & Kalyva, 2007; Parasuram, 2006) are the two major categories of factors that impact attitudes towards inclusion. Overall, the research found a positive association between knowledge/experience and favorable attitudes. The more educated and experienced a teacher is about people with disabilities or inclusive education, the more positive their attitudes are (Beacham & Rouse, 2012).

Other factors, including gender, age, type and severity of the disability (Cook, 2001; De Boer et al., 2011), class size (Gu, 2009), and available supports and resources (Walker, 2012) were also found to influence teacher attitudes towards inclusion. Through an international lens, Forlin et al. (2009) compared attitudes about inclusive education among pre-service teachers from Canada, Hong Kong, Australia, and Singapore. They revealed a range of variables (i.e., level of qualification, previous training, previous teaching experience regarding students with disabilities) affected the change of pre-service teachers' attitudes and perceptions about inclusive education. Similarly, Mónico et al. (2018) found that in-service teachers' attitudes differ by country and additional training is a key aspect influencing attitudes. In summary, scholars across continents agree that the investigation of teachers' attitudes towards inclusive education plays a significant role as we progress towards quality inclusive education for all.

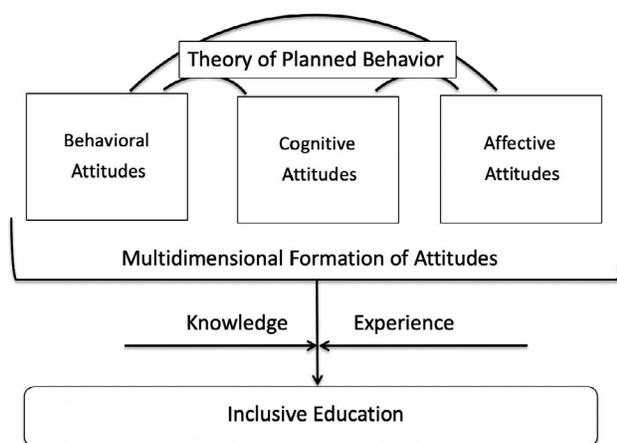


Figure 1: *Conceptual Framework*

### Current Study

Several attitude studies in mainland China also found that knowledge and experience were critical factors influencing attitudes (e.g., Centeio, 2014; Deng, 2008; Gu, 2009; Malinen, 2013). There are four main gaps, however, that exist in the literature of Chinese teachers' attitudes towards inclusive education. First, few attitude studies have adopted a well-established theoretical framework to delineate the multiple aspects of attitudes. Second, most studies have focused on school-age teachers' attitudes towards inclusive education, while limited research has explored preschool teachers' attitudes. Third, the field lacks psychometrically sound instruments in Chinese to measure attitudes towards various aspects of inclusive education. Fourth, most of the prior studies used convenience sampling methods, thereby compromising the representativity of the results. The purpose of this study is to close those literature gaps and obtain an accurate picture of Beijing preschool teachers' attitudes towards inclusive education via the lens of the theory of planned behavior (Ajzen, 1991) and the theory of multidimensional attitudes (Mahat, 2008). We also aim to put forward a psychometrically validated attitude scale in Chinese.

**Conceptual Framework**The conceptual framework (See Figure 1) of this study centers on the theory of multidimensional attitudes (Mahat, 2008), which originates from the theory of planned behavior (TPB, Ajzen, 1991). According to TPB, the most critical determinant of a person's behavior is behavior intent. There are three conceptually independent determinants of intentions (Ajzen, 2011): attitudes toward the behavior, subjective norms and the degree of perceived behavioral control. In line with TPB, the formation of intentions is influenced by three aspects of attitudes (i.e., multidimensional attitudes), including 1) attitudes toward the behavior (i.e., behavioral attitudes), 2) attitudes that are framed by subjective norms - perceived social pressure to perform or not perform the behavior (i.e., cognitive attitudes), and 3) attitudes that are

impacted by perceived behavioral control - perceived ease or difficulty of performing the behavior (i.e., affective attitude).

**Research Questions**Three research questions guided this study: (1) What are the validity and reliability of the Chinese version of the *Multidimensional Attitudes Towards Inclusive Education Scale* in the present data? (2) What is the current status of Beijing preschool teachers' attitudes towards inclusive education? (3) What are the associations between teachers' attitudes towards inclusive education and teacher characteristics?

## MATERIALS AND METHODS

### Multidimensional Attitudes Toward Inclusive Education Scale

We selected the MATIE (Mahat, 2008) for (1) its psychometric adequacy, (2) its repeated use by other researchers (Barnes & Gaines, 2015; DeBoer et al., 2012; Gaines & Barnes, 2017; Srivastava et al., 2017; Weng et al., 2015; Yan & Sin, 2015), (3) its theoretical relevance to the current study, and (4) its brevity and easy administration (DeVellis, 2016). The MATIES has 18 items that measure affective (items 1-6), cognitive (items 7-12) and behavioral (items 13-18) dimensions of attitudes towards inclusion. Participants are asked to rate each item on a six-point rating scale of (1) strongly agree, (2) agree, (3) somewhat agree, (4) somewhat disagree, (5) disagree, and (6) strongly disagree. Higher points indicate more positive attitudes towards inclusive education. Models within both item response theory and classical test theory were applied by Mahat (2008) to construct and calibrate items and subscales of the MATIES. The results of Mahat's initial study (2008) suggest the final three subscales successfully met standards for internal reliability (i.e., alpha coefficients between .78 and .91) based on Cronback and colleagues' (1965) recommendation, content validity, construct validity, criterion validity, and convergent validity.

### Chinese Translation of MATIES

Dr. Mahat, the MATIES developer, granted permission for developing the Chinese version of the MATIES. We deployed forward and backward translation, a minimum requirement for cross-cultural adaptation of established scales (Brislin, 1970), to validate the translation accuracy. The first author completed the forward-translation (i.e., English to Chinese). The translated MATIES items were reviewed and discussed by an expert panel to test working acceptability. The expert panel comprised the first author, the fourth author, and two Chinese preschool directors (i.e., the fifth and sixth authors). The first author revised the translations based on the feedback from the expert panel. Two Ph.D. students in special education then completed back-translation (i.e., Chinese to English). The original MATIES and the back-translated English versions

were compared, and inconsistencies were resolved through consensus meetings. The Chinese version was finalized when no dispute or new suggestions remained. All individuals involved in the translation are fluent in both languages and experts in special education. In MATIES, inclusive education was defined as “the education of all students in age-appropriate regular classrooms, regardless of the degree or severity of a disability. It involves students accessing the regular curriculum with the necessary support, and within a welcoming social atmosphere.” For the current study, we adapted this definition by direct translation and we also contextualized the definition of inclusive education to reflect the Chinese culture. Specifically, we described the concept of “learning in regular classrooms” - a special term that was put forward by leading educators and scholars to describe inclusive education in mainland China (Deng & Manset, 2000).

### Sampling and Participant Recruitment

Participants were in-service teachers from preschools in Beijing, China. Upon IRB approval of the first author’s university, we applied a stratified random sampling approach (Cozby & Bates, 2015) to recruit preschools from Beijing municipality. Beijing includes 16 districts divided into urban, suburban, and rural areas. Based on the latest nationwide census reports (National Bureau of Statistics of the People’s Republic of China, 2012), the population of urban, suburban, and rural areas is 11,716,620 (59.74%), 6,321,797 (32.23%), and 1,573,951 (8.01%) respectively. Seven sample districts (i.e., urban: Haidian, Xicheng, Dongcheng; suburban: Changping, Tongzhou; rural: Yanqing, Miyun) were selected to represent urban, suburban, and rural areas. We used a random number generator created by Randomness and Integrity Services Ltd. (<https://www.random.org/>) to finalize a recruitment list of preschools, including 24 (i.e., 60%) urban preschools, 12 (i.e., 30%) suburban preschools, and four (i.e., 10%) rural preschools. This composition of the sample proportionately (6:3:1) represents the population of the urban, suburban, and rural districts in Beijing.

We contacted preschool administrators of each of the selected seven districts by email or phone. All of them agreed to participate and then received a link to the online survey in their email or via Wechat, an online communication application (<https://web.wechat.com/>). The survey included a description of the study, an informed consent form, a demographic information form, and the MATIES-C. The online survey server Wenjuanxing.cn was used for formatting the survey. The administrators then invited the sampled preschool principals to distribute the survey to their teachers. The principals were asked to invite all teachers who were practicing teaching in classrooms at the time of recruitment, which may include teachers who also had administration roles (e.g., curricular director, assistant

director). The participation to the survey was anonymous and voluntary; no incentives were provided to the district administrators, preschool principals, or teachers. Only the researchers had access to the survey responses. The total number of recorded responses was 481 with no missing data, as all questions in the survey were set as required. Thus, all 481 responses entered analysis. Table 1 presents a summary of respondent characteristics.

### Data Analysis

Data analyses consisted of two phases. The first phase involved using confirmatory factor analysis (CFA) to examine the validity of MATIES-C via the Lavaan package in R (Rosseel, 2012) and conducting an internal reliability test in R (R Core Team, 2017). The second phase involved running a series of analyses of variance (ANOVA) to examine the associations between teachers’ multidimensional attitudes towards inclusive education and teacher variables via SPSS 25.0 (IBM, 2017).

The CFA parameters were estimated using robust maximum likelihood estimation (MLR estimator), robust to non-normality and non-independence observations (Muthén & Muthén, 1998-2017). Comparative fit index (CFI), Tucker-Lewis index (TLI), root mean square error of approximation (RMSEA), and standardized root mean square residual (SRMR) were used to assess the goodness of fit of the models. For the CFI and TLI indices, values greater than .90 indicate an acceptable fit to the data, and values greater than .95 are considered to reflect a good fit to the data (Hu & Bentler, 1999). RMSEA values smaller than 0.08, and SRMR values smaller than 0.06 indicate good fit (Hu & Bentler, 1999). The standard factor loading of each item was tested to demonstrate item quality. Omega reliability coefficients (McDonald, 2013) for each of the three subscales were also examined to indicate internal reliability.

## RESULTS

### Validity and Reliability of the MATIES-C

The results of CFA concluded that the MATIES-C scale variables confirmed the anticipated three-factor structure of teachers’ attitudes towards inclusive education in the Beijing data. A revised three-factor model that allows negatively worded items 2, 5 and 6 to be loaded on a method factor generated an acceptable global model fit to the data ( $\chi^2(129, N = 481) = 487.133$ , CFI = 0.894, TLI = 0.874, RMSEA = 0.076, SRMR = 0.115). Standardized factor loadings indicated the quality of each item (See Table 2). Omega coefficients indicated the internal reliability of each subscale. That is 0.614 for the cognitive subscale, 0.888 for the affective subscale, and 0.919 for the behavioral subscale. Overall, the results suggested an acceptable level of validity and reliability of the MATIES-C.

Table 1  
*In-service Beijing Preschool Teacher Characteristics (N = 481)*

Teacher variables		Percentage (N = 481)
Area	Urban	21.41
	Suburban	37.63
	Rural	40.96
Gender (female)		98.75
Age (year)	18-25	43.87
	26-30	30.56
	31-40	16.84
	41-50	7.69
	51-60	0.83
	≥61	0.21
Education (highest degree)	High school	4.78
	Associate's	40.54
	Bachelor's	53.22
	Master's	1.04
	Doctoral	0.21
	Other	0.21
Major for the highest degree	Early childhood education	83.37
	Special education	6.03
	Other education	3.95
	Psychology	0.42
	Other	6.24
Role in the program	Direct provider	94.39
	Direct provider with administrative roles	5.61
Is your school implementing inclusive education practices? (yes)		71.10
Have you received training on special education? (yes)		32.85
Have you received training on inclusive education? (yes)		37.01
Have you taught or are you currently teaching children with disabilities? (yes)		27.65

**Beijing Preschool Teachers' Current Attitudes Towards Inclusive Education?**

The scores of each MATIES-C subscale ranged from 6 to 36 (medium = 21). A score above 21 indicated a positive attitude, score 21 showed moderate attitudes, and a score below 21 indicated negative attitudes. The results suggest that, on average, teachers held positive attitudes towards inclusive education across all three attitude dimensions - cognitive attitudes ( $M = 24.03, SD = 4.57$ ), affective attitudes ( $M = 22.68, SD = 6.47$ ), and behavioral attitudes ( $M = 27.40, SD = 5.55$ ). The means and standard deviations of subscales for teacher variables are presented in Table 3 and Table 4. The scores of all subgroups of teachers indicated positive attitudes across three dimensions, except three subgroups of teachers' scores indicated negative affective attitudes towards inclusive education. Those are teachers who held master's degrees ( $n = 5$ ) and teachers who majored in education other than early

childhood education or special education ( $n = 19$ ) and whose majors were "Other (i.e., neither education nor psychology)," ( $n = 30$ ).

**Associations Between Teachers' Attitudes Towards Inclusive Education and Teacher Characteristics**

ANOVA results indicate that nine teacher variables were statistically significantly associated with at least one of the three dimensions of teachers' attitudes. Table 3 and Table 4 display ANOVA results for subscales scores and teacher variables. For preschool locations, urban teachers ( $n = 103$ ) held the most positive attitudes towards inclusive education across all three dimensions of attitudes. For teacher age, teachers between the ages 18 and 25 years ( $n = 211$ ) showed the most positive cognitive attitudes. For teacher education, teachers who held master's degrees ( $n =$

Table 2  
Standard Factor Loading of MATIES-C Items

Items	Factor 1	Factor 2	Factor 3
1. 我认为融合性的学校应支持所有学生在学业上的进步，不管其能力如何。 [I believe that an inclusive school is one that permits academic progression of all students regardless of their ability.]	0.621		
2. 我认为残障学生应该在特殊学校就学。 [I believe that students with a disability should be taught in special education schools.]	0.651		
3. 我认为融合教育能够促进所有学生之间的适当社交行为。 [I believe that inclusion facilitates socially appropriate behavior amongst all students.]	0.808		
4. 我认为只要课程能够根据个人需求进行调整，任何学生都可以在学校的普教课程中学习。 [I believe that any student can learn in the regular curriculum of the school if the curriculum is adapted to meet their individual needs.]	0.681		
5. 我认为残障学生应该被隔离教学，因为改造学校的物理环境太昂贵。 [I believe that students with a disability should be segregated because it is too expensive to modify the physical environment of the school.]	0.614		
6. 我认为残障学生应该在特殊学校就学，这样的话，他们就不会有在普通学校里被排斥的经历。 [I believe that students with a disability should be in special education schools so that they do not experience rejection in the regular school.]	0.897		
7. 当我和残障学生交流有困难时，我会觉得受挫。 [I get frustrated when I have difficulty communicating with students with a disability.]		0.650	
8. 当残障学生无法跟上班级课程进度时，我会觉得烦恼。 [I get upset when students with a disability cannot keep up with the day-to-day curriculum in my classroom.]		0.788	
9. 当我没法理解残障学生时，我会感到急躁。 [I get irritated when I am unable to understand students with a disability.]		0.763	
10. 将残障学生和非残障学生一起安排在普通班级中，我会觉得不舒服。 [I am uncomfortable including students with a disability in a regular classroom with other students without a disability.]		0.762	
11. 不考虑残障的严重程度，而将残障学生安排在普通班级中，会让我觉得无所适从。 [I am disconcerted that students with a disability are included in the regular classroom, regardless of the severity of the disability.]		0.738	

5) had the most positive cognitive attitudes, while showing the most negative affective attitudes.

In comparison, teachers who held associate's degrees ( $n = 195$ ) had the most positive affective attitudes. Teachers' majors in college and roles in their current preschools also had statistically significant associations with cognitive attitudes. The results showed that teachers who majored in special education had the most positive cognitive attitudes. Direct providers with administrative roles had more positive cognitive attitudes than teachers whose roles were only direct providers.

For variables related to teachers' knowledge and experiences with special education and inclusive education, all four variables of interest showed significant impacts on teachers' cognitive and behavioral attitudes. In contrast, only two of the variables had statistically significant impacts on affective attitudes (See Table 4). In summary, teachers who had received training in inclusive education or special education, those who had experiences working with students with disabilities, and those whose programs were implementing inclusive education showed more positive cognitive attitudes and behavioral attitudes compared to their counterparts who did not have that

Table 2, *continued*

12. 当我需要调整课程以适应所有学生的个体需要时, 我会觉得沮丧。 [I get frustrated when I have to adapt the curriculum to meet the individual needs of all students.]	0.823
13. 我愿意鼓励残障学生参与到普通班级的所有社交活动中。 [I am willing to encourage students with a disability to participate in all social activities in the regular classroom.]	0.744
14. 我愿意调整课程以满足所有学生的个体需求, 不管他们的能力如何。 [I am willing to adapt the curriculum to meet the individual needs of all students regardless of their ability.]	0.754
15. 在有必要支持的情况下, 我愿意将有严重残障的学生安置到普通班级中。 [I am willing to physically include students with a severe disability in the regular classroom with the necessary support.]	0.752
16. 我愿意改造物理环境以接纳残障学生在普通班级入学。 [I am willing to modify the physical environment to include students with a disability in the regular classroom.]	0.885
17. 我愿意调整我的沟通方式保证所有有情绪行为障碍的学生能够成功融合到普通班级中。 [I am willing to adapt my communication techniques to ensure that all students with an emotional and behavioral disorder can be successfully included in the regular classroom.]	0.881
18. 我愿意调整对学生个体的评价方式, 以促进融合教育的开展。 [I am willing to adapt the assessment of individual students in order for inclusive education to take place.]	0.848

Note. Factor 1 = cognitive attitudes, Factor 2 = affective attitudes, Factor 3 = behavioral attitudes. MATIES - C = Multidimensional Attitudes toward Inclusive Education Scale - Simplified Chinese.

knowledge and experience. Only teachers' training experiences in inclusive education or special education had a significant impact on the affective attitudes. Both groups had more positive attitudes than those who did not receive training.

## DISCUSSION

The purpose of this study was to investigate Beijing preschool teachers' attitudes towards inclusive education and the relations between teachers' attitudes and teacher characteristics. A Simplified Chinese version of *Multidimensional Attitudes Toward Inclusive Education Scale* (MATIES-C) was validated using confirmative factor analysis and omega coefficients. Given the acceptable validity and reliability of the MATIES-C, data collected from the MATIES-C were then analyzed to address the research questions. The results suggest that Beijing preschool teachers held positive cognitive, affective, and behavioral attitudes towards inclusive education. This finding is consistent with that of the existing attitudes studies (e.g., Blackman, et al., 2012; Czyż, 2018). The ANOVA results indicate that several demographic teacher variables (i.e., area, age, education, major, role) had statistically significant associations with

teachers' attitudes towards inclusive education. Four variables related to teacher knowledge and experience were statistically positively associated with their attitudes. That is, teachers who had training in special education or inclusive education, who had experience working with children with disabilities, and whose preschools were implementing inclusive education had more favorable attitudes towards inclusion. These findings were also consistent with the results of prior attitudes studies across the globe.

This study contributes to the literature by offering a psychometrically sound attitude scale in Simplified Chinese. Multiple aspects of the MATIES-C validity and reliability were tested, which warranted the use of this instrument to accurately measure teachers' attitudes. The application of MATIES-C could be expanded in various ways. First, MATIES-C is applicable to examine attitudes of professionals who work in a range of positions, including administrators, lead teachers, assistant teachers, paraprofessionals, intervention therapists, and school psychologists. Future researchers can examine the current status of attitudes towards the inclusion of different professionals. They can also conduct comparative studies to understand

Table 3  
Descriptive Statistics and ANOVA Results for MATIES-C Subscales

Teacher Variable (N = 481)		Cognitive Subscale			Affective Subscale			Behavioral Subscale		
		M ± SD	P	η <sup>2</sup>	M ± SD	p	η <sup>2</sup>	M ± SD	p	η <sup>2</sup>
Area	Urban (n = 103)	27.04±4.51	<b>.000</b>	<b>.119</b>	24.63±5.29	<b>.001</b>	<b>.03</b>	29.03±4.94	<b>.003</b>	<b>.024</b>
	Suburban (n = 181)	23.23±4.22			22.69±6.73			27.06±5.67		
	Rural (n = 197)	23.19±4.26			21.64±6.57			26.87±5.59		
Gender	Female (n = 475)	24.03±4.58	.987		22.62±6.47	.113		27.39±5.56	.626	
	Male (n = 6)	24.00±4.29			26.83±5.08			28.50±4.46		
Age (year)	18-25 (n = 211)	24.82±4.46	<b>.022</b>	<b>.03</b>	23.58±6.73	.071		28.09±5.39	.084	
	26-30 (n = 147)	23.41±4.59			22.24±6.45			27.34±5.95		
	31-40 (n = 81)	23.10±4.43			21.59±5.99			25.85±4.93		
	41-50 (n = 37)	24.22±4.83			21.30±5.67			27.27±5.82		
	51-60 (n = 4)	24.22±4.83			21.30±5.67			27.27±5.82		
	≥61 (n = 1)	21.00±null			20.00±null			26.00±null		
Education	High school (n = 23)	23.74±3.73	<b>.004</b>	<b>.036</b>	22.78±8.56	<b>.009</b>	<b>.032</b>	28.43±6.27	.153	
	Associate (n = 195)	24.77±4.59			24.01±6.16			27.95±5.43		
	Bachelor (n = 256)	23.41±4.49			21.70±6.39			26.89±5.52		
	Master (n = 5)	25.00±5.34			19.80±2.77			25.60±6.19		
	Doctoral (n = 1)	34.00±null			24.00±null			30.00±null		
	Other (n = 1)	31.00±null			24.00±null			36.00±null		
	Other Education (n = 19)	22.47±4.50			20.47±4.17			25.68±3.61		
Major	ECE (n = 401)	23.79±4.52	<b>.000</b>	<b>.048</b>	22.81±6.65	.138		27.29±5.56	.089	
	SPED (n = 29)	27.76±3.74			24.21±3.80			29.93±4.13		
	Psychology (n = 2)	26.00±0.00			24.50±6.36			28.00±2.83		
	Other (n = 30)	24.43±4.55			20.70±6.77			27.53±7.05		
Role	Direct Provider (n = 454)	23.90±4.55	<b>.013</b>	<b>.013</b>	22.61±6.49	.331		27.28±5.58	.053	
	Direct Provider with Admin Roles (n = 27)	26.15±4.47			23.85±5.99			29.41±4.59		
Is your school implementing inclusive education practices?	Yes (n = 342)	24.50±4.71	<b>.000</b>	<b>.027</b>	22.72±6.56	.805		27.93±5.42	<b>.001</b>	<b>.022</b>
	No (n = 139)	22.86±3.99			22.56±6.26			26.10±5.66		
Have you received training on special education?	Yes (n = 158)	25.76±4.35	<b>.000</b>	<b>.07</b>	24.11±6.35	<b>.001</b>	<b>.024</b>	29.09±5.11	<b>.000</b>	<b>.045</b>
	No (n = 323)	23.18±4.44			21.97±6.41			26.58±5.57		

Table 3, *continued*

Teacher Variable (N = 481)		Cognitive Subscale			Affective Subscale			Behavioral Subscale		
		M ± SD	P	η <sup>2</sup>	M ± SD	p	η <sup>2</sup>	M ± SD	p	η <sup>2</sup>
Have you received training on inclusive education?	Yes (n = 178)	25.64±4.62	<b>.000</b>	<b>.073</b>	23.65±6.55	<b>.011</b>	<b>.013</b>	29.12±5.15	<b>.000</b>	<b>.057</b>
	No (n = 303)	23.08±4.27			22.10±6.35			26.39±5.53		
Have you taught or are you currently teaching children with disabilities?	Yes (n = 133)	25.95±5.19	<b>.000</b>	<b>.068</b>	23.33±6.70	.17		29.18±5.38	<b>.000</b>	<b>.039</b>
	No (n = 348)	23.29±4.08			22.43±6.37			26.72±5.46		

Note. ECE = early childhood education, SPED = special education; statistically significant results are bold. MATIES - C = Multidimensional Attitudes toward Inclusive Education Scale - Simplified Chinese.

the gaps between the attitudes of professionals who have diverse experiences and responsibilities. Second, the MATIES-C can also be used to examine teachers who work with a range of groups of students who differ in age, grade, types of disabilities, and severity of disabilities. Third, future Chinese teacher educators may use the MATIES-C to conduct pre- and post-tests to examine the extent to which an inclusive education teacher preparation program shifts pre-service teachers' attitudes towards inclusion. Last, administrators can use the MATIES-C to explore the effect of an inclusion-focused professional training project on changing teachers' perceptions about inclusive education.

Based on the theory of planned behavior (TPB, Ajzen, 1991) and multidimensional attitudes theory (Mahat, 2008), preschool teachers' attitudes towards inclusion should be understood from three separate dimensions. The findings confirmed the theoretical premise of this study. Cognitive attitude was found to be statistically associated with most of the teacher demographic variables (i.e., area, age, education, major, role), which may suggest the cognitive dimension of attitudes is most susceptible to change. Noticeably, urban teachers had the most positive attitudes across all three dimensions, suggesting that contextual factors around the school location (e.g., local policy, financial support for inclusion) may greatly contribute to differences in attitudes. Nevertheless, education and major may not necessarily affect teacher attitudes, particularly behavioral attitudes, which further indicates that other factors (e.g., urban or rural) may weigh more heavily in shaping teachers' attitudes.

Additionally, the preschool-implemented inclusive education elicited no significant difference in affective attitudes among teachers, but this contextual factor was

positively associated with cognitive and behavioral dimensions of attitudes. This result implies that cognitive and behavioral aspects of attitudes may be more susceptible to external contextual influence. Whether the teachers had received previous training in special education or inclusive education resulted in the broadest impact on all three dimensions of attitudes towards inclusion. This result implies that education or professional development might be the most impactful way to shape individuals' attitudes towards inclusion.

Prior research suggests that teachers' knowledge and experience play a primary role in their attitudes towards inclusion (Forlin et al., 2009; Mónico et al., 2018). The current study provides further evidence on this count and expands the literature by adding specific data regarding in-service preschool teachers' attitudes towards inclusion in Chinese contexts. Mainly, this study implies that training on special education and inclusive education should be included in teacher preparation programs in universities and in-service teachers' professional development opportunities.

### Limitations and Future Research Directions

One limitation of the current study is that when the teachers were asked whether their preschool was implementing inclusive education practices, it is likely preschools claimed they were practicing inclusion yet with no child with a disability enrolled in their programs. Further studies should use more specific questions to obtain accurate contextual factors, such as whether the preschool implements inclusion. Another limitation is that there were only six male teachers among the participants. It would be interesting to know if one gender experiences more stress

in the inclusive classroom than the other gender or if gender is even a factor in this consideration. Additionally, an essential question of TPB application - the predictive validity of attitudes (Ajzen, 2011) was beyond this study's scope. Future research should examine to what extent the change of attitude leads to the change of behaviors, or whether a positive attitude towards inclusion is correlated with actual inclusive practices. Moreover, future studies should explore why certain groups of teachers may have different attitudes across those three dimensions to further strengthen the theoretical and empirical evidence for the multidimensional attitudes theory. Finally, we did not gather information on the nature and variations of trainings that teachers have received. Teachers who only attended an online webinar about inclusive education and those who received extensive ongoing professional development that support inclusive education may have significantly different experiences and perceptions about inclusive education. Future research should further examine how the characteristics of training may impact teachers' attitudes toward inclusive education.

### CONCLUSION

This study provides empirical evidence for the multidimensional attitudes theory towards inclusion. We also put forward a theoretically and psychometrically sound attitude scale in Simplified Chinese. The results revealed the status and influential factors of preschool teachers' attitudes towards inclusion based on a representative sample from Beijing, China. Inclusive education must be examined within its complex, dynamic, and unique cultural social contexts; more research is needed to fully examine challenging and facilitating factors of effective inclusion in Mainland China (e.g., nationwide and local policy, attitudes and competency of leadership, practitioners and parents and other stakeholders). Within the scope of this study, we focused on teacher attitudes as one of the prominent factors of successful educational inclusion and offered a practical tool and insightful information to policymakers, teacher educators, and administrators of early care and education agencies that aim to prepare and support quality early childhood personnel for inclusive education in mainland China.

### REFERENCES

Avramidis, E., Bayliss, P., & Burden, R. (2000). Student teachers' attitudes towards the inclusion of children with special educational needs in the ordinary school. *Teaching and Teacher Education*, 16(3), 277-293. [https://doi.org/10.1016/S0742-051X\(99\)00062-1](https://doi.org/10.1016/S0742-051X(99)00062-1)

Avramidis, E., & Kalyva, E. (2007). The influence of teaching experience and professional development on Greek teachers' attitudes towards inclusion. *European*

*Journal of Special Needs Education*, 22(4), 367-389. <https://doi.org/10.1080/08856250701649989>

Avramidis, E., & Norwich, B. (2002). Teachers' attitudes towards integration / inclusion: A review of the literature. *European Journal of Special Needs Education*, 17(2), 129-147. <https://doi.org/10.1080/08856250210129056>

Ajzen, I. (1991). The theory of planned behavior. *Organizational Behavior and Human Decision Processes*, 50(2), 179-211. [https://doi.org/10.1016/0749-5978\(91\)90020-T](https://doi.org/10.1016/0749-5978(91)90020-T)

Ajzen, I. (2011). The theory of planned behaviour: Reactions and reflections. *Psychology & Health*, 26(9), 1113-1127. <https://doi.org/10.1080/08870446.2011.613995>

Barton, E. E., & Smith, B. J. (2015). Advancing high-quality preschool inclusion: A discussion and recommendations for the field. *Topics in Early Childhood Special Education*, 35(2), 69-78. <https://doi.org/10.1177/0271121415583048>

Beacham, N., & Rouse, M. (2012). Student teachers' attitudes and beliefs about inclusion and inclusive practice. *Journal of Research in Special Educational Needs*, 12(1), 3-11. <https://doi.org/10.1111/j.1471-3802.2010.01194.x>

Barnes, M., & Gaines, T. (2015). Teachers' attitudes and perceptions of inclusion in relation to grade level and years of experience. *Electronic Journal for Inclusive Education*, 3(3). <https://corescholar.libraries.wright.edu/cgi/viewcontent.cgi?article=1173&context=ejie>

Beijing Municipal Commission of Education (BMCE). 2010. *北京市中长期教育改革和发展规划纲要 (2010-2020年)* [Outline of Beijing Municipality Plan for Medium and Long-term Education Reform and Development (years 2010 - 2020)]. <http://fazhan.ncut.edu.cn/info/1090/2091.htm>

Bhatnagar, N., & Das, A. (2013). Attitudes of secondary school teachers towards inclusive education in New Delhi, India. *Journal of Research in Special Educational Needs*, 14(4), 255-263. <https://doi.org/10.1111/1471-3802.12016>

Blackman, S., Conrad, D., & Brown, L. (2012). The attitude of Barbadian and Trinidadian teachers to integration. *International Journal of Special Education*, 27(3), 158-168.

Brislin, R. W. (1970). Back-translation for cross-cultural research. *Journal of Cross-Cultural Psychology*, 1(3), 185-216. <https://doi.org/10.1177/135910457000100301>

Cao, S. (2011) *对我国学前融合教育的思考* [Reflection of Current Practice of Early Childhood Inclusion in China]. *学前教育 [Journal of Preschool Education]*. 3, 30-35.

Centeio, J. (2014). Kindergarten teachers' attitudes towards inclusive education of children with disabilities in the regular

- classroom in Wuhan, China [Unpublished master's thesis]. Central China Normal University. <http://hdl.handle.net/10961/3484>
- Cook, B. G. (2001). A comparison of teachers' attitudes toward their included students with mild and severe disabilities. *The Journal of Special Education, 34*(4), 203-213. <https://doi.org/10.1177/002246690103400403>
- Cozby, P. C., & Bates, S. (2015). *Methods in behavioral research* (12th ed.). McGraw-Hill Education.
- Cronbach, L. J., Schönemann, P., & McKie, D. (1965). Alpha Coefficients for Stratified-Parallel Tests. *Educational and Psychological Measurement, 25*(2), 291-312. <https://doi.org/10.1177/001316446502500201>
- Czyż, A. K. (2018). Attitudes of Polish schools' teachers towards the idea of inclusive education for disabled people. *International Journal of Social Sciences, 4*(1), 542-554. <https://doi.org/10.20319/pijss.2018.41.542554>
- De Boer, A. Pijl, S. J., & Minnaert, A. (2011). Regular primary schoolteachers' attitudes towards inclusive education: A review of the literature. *International Journal of Inclusive Education, 15*(3), 331-353. <https://doi.org/10.1080/13603110903030089>
- De Boer, A., Timmerman, M., Pijl, S. J., & Minnaert, A. (2012). The psychometric evaluation of a questionnaire to measure attitudes towards inclusive education. *European Journal of Psychology of Education, 27*(4), 573-589. <https://doi.org/10.1007/s10212-011-0096-z>
- DeVellis, R. F. (2017). *Scale development: Theory and applications* (4th ed.). SAGE.
- Deng, M. (2008). The attitudes of primary school teachers toward inclusive education in rural and urban China. *Frontiers of Education in China, 3*(4), 473-492. <https://doi.org/10.1007/s11516-008-0031-5>
- Deng, M., & Manset, G. (2000). Analysis of the "learning in regular classrooms" movement in China. *Mental Retardation, 38*(2), 124-130. <https://doi.org/10.1352/0047-6765>
- Deng, M., & Poon-McBrayer, K. F. (2012). Reforms and challenges in the era of inclusive education: The case of China. *British Journal of Special Education, 39*(3), 117-122. <https://doi.org/10.1111/j.1467-8578.2012.00551.x>
- Deng, M., & Zhao, H. (2019). 新时期我国融合教育现状和发展趋势 [Current situation and development tendency of inclusive education in China in the new era]. *残疾人研究 [Disability Research], 00*(1), 12-18.
- European Agency for Development in Special Needs Education. (2011). *Key principals for promoting quality in inclusive education: Recommendations for policy makers* (pp. 89-91). <https://www.european-agency.org/sites/default/files/Key-Principles-2011-EN.pdf>
- Forlin, C., Loreman, T., Sharma, U., & Earle, C. (2009). Demographic differences in changing pre-service teachers' attitudes, sentiments and concerns about inclusive education. *International Journal of Inclusive Education, 13*(2), 195-209. <https://doi.org/10.1080/13603110701365356>
- Gaines, T., & Barnes, M. (2017). Perceptions and attitudes about inclusion: Findings across all grade levels and years of teaching experience. *Cogent Education, 4*(1), 1-11. <https://doi.org/10.1080/2331186X.2017.1313561>
- Gu, D. (2009). *Teachers' attitudes toward kindergarten inclusion in China* [Doctoral dissertation, The Pennsylvania State University]. Penn State Electronic Theses and Dissertations for Graduate School. <https://etda.libraries.psu.edu/catalog/10150>
- Hu, L., & Bentler, P. M. (1999). Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. *Structural Equation Modeling: A Multidisciplinary Journal, 6*(1), 1-55. <https://doi.org/10.1080/10705519909540118>
- Hu, B., Roberts, S. K., Wang, Y., & Zhao, H. (2011). The initiation of early childhood inclusion in China: A case study from Beijing. *International Journal of Early Years Education, 19*(2), 111-131. <https://doi.org/10.1080/09669760.2011.596396>
- Hu, B. Y., & Szente, J. (2010). An introduction to Chinese early childhood inclusion. *International Journal of Early Childhood, 42*(1), 59-66. <https://doi.org/10.1007/s13158-010-0005-7>
- IBM Corp. Released 2017. *IBM SPSS Statistics for Windows, Version 25.0*. Armonk, NY: IBM Corp.
- Individuals with Disabilities Education Act, 20 U.S.C. § 1400 (2004).
- Krischler, M., & Pit-ten Cate, I. M. (2018). Inclusive education in Luxembourg: Implicit and explicit attitudes toward inclusion and students with special educational needs. *International Journal of Inclusive Education, 24*(6), 1-19. <https://doi.org/10.1080/13603116.2018.1474954>
- Kritzer, J. (2011). Special education in China. *Eastern Education Journal, 40*(1), 57-63. [https://castle.eiu.edu/edjournal/Spring\\_2011/Special\\_education\\_China.pdf](https://castle.eiu.edu/edjournal/Spring_2011/Special_education_China.pdf)
- Mahat, M. (2008). The development of a psychometrically-sound instrument to measure teachers' multidimensional attitudes toward inclusive education. *International Journal of Special Education, 23*(1), 11. <https://files.eric.ed.gov/fulltext/EJ814377.pdf>
- Malinen, O. (2013). *Inclusive education from teachers' perspective: Examining pre- and in-service teachers' self-efficacy and attitudes in mainland China* [Doctoral dissertation, University of Eastern Finland]. University of Eastern Finland Repository. <http://epublications.uef.fi/>

- pub/urn\_isbn\_978-952-61-1167-4/urn\_isbn\_978-952-61-1167-4.pdf
- McDonald, R. (1999). *Test theory: A unified treatment* (1st ed.). Psychology Press.
- Ministry of Education of the People's Republic of China (MEPRC). (2019). *Number of children in pre-primary education by age (total)*. [http://www.moe.gov.cn/s78/A03/moe\\_560/jytjsj\\_2019/qg/](http://www.moe.gov.cn/s78/A03/moe_560/jytjsj_2019/qg/).
- Mónico, P., Mensah, A. K., Grünke, M., Garcia, T., Fernández, E., & Rodríguez, C. (2018). Teacher knowledge and attitudes towards inclusion: A cross-cultural study in Ghana, Germany and Spain. *International Journal of Inclusive Education*, 24(5), 1-17. <https://doi.org/10.1080/13603116.2018.1471526>
- Muthén, L. K., & Muthén B. (1998-2017). *Mplus user's guide* (8<sup>th</sup> ed). Los Angeles, CA: Muthén & Muthén.
- National Bureau of Statistics of People's Republic of China (2012) *中国2010年人口普查分乡、镇、街道资料*; [China 2010 census reports]. China Statistics Press: Beijing
- National People's Congress (2006a) *中国残疾人事业十一五发展纲要* [The eleventh five-year plan]. [http://www.law-lib.com/law/law\\_view.asp?id\\_160570](http://www.law-lib.com/law/law_view.asp?id_160570)
- National People's Congress (2006b) *中华人民共和国义务教育法* [The revised compulsory education law of the People's Republic of China]. [http://www.gov.cn/flfg/2006-06/30/content\\_323302.htm](http://www.gov.cn/flfg/2006-06/30/content_323302.htm)
- National People's Congress (2008) *中华人民共和国残疾人保障法* [The revised People's Republic of China on protection of disabled person's law]. [http://www.cdpc.org.cn/special/6dh/2013-09/15/content\\_30451989.htm](http://www.cdpc.org.cn/special/6dh/2013-09/15/content_30451989.htm)
- Parasuram, K. (2006). Variables that affect teachers' attitudes towards disability and inclusive education in Mumbai, India. *Disability & Society*, 21(3), 231-242. <https://doi.org/10.1080/09687590600617352>
- R Core Team (2017) *R: A language and environment for statistical computing*. R Foundation for Statistical Computing. Vienna, Austria. <http://www.R-project.org/>
- Rosseel, Y. (2012). Lavaan: An R package for structural equation modeling. *Journal of Statistical Software*, 48(2), 37. <https://doi.org/10.18637/jss.v048.i02>
- Smith, B. J., Barton, E. E., & Rausch, A. L. (2015). Preschool inclusion challenges and solutions. In E. E. Barton & B. J. Smith (Ed.), *The preschool inclusion toolbox: How to build and lead a high-quality program* (pp. 45-62). Paul H. Brookes Publishing Company.
- Srivastava, M., Boer, A. A. de & Pijl, S. J. (2017). Preparing for the inclusive classroom: Changing teachers' attitudes and knowledge. *Teacher Development*, 21(4), 561-579. <https://doi.org/10.1080/13664530.2017.1279681>
- UNESCO (2005). *Guidelines for inclusion: Ensuring access to education for all* (pp. 1-40). [http://www.ibe.unesco.org/sites/default/files/Guidelines\\_for\\_Inclusion\\_UNESCO\\_2006.pdf](http://www.ibe.unesco.org/sites/default/files/Guidelines_for_Inclusion_UNESCO_2006.pdf)
- Vaughn, J. S., Schumm, J., Jallad, B., Slusher, J., & Saumell, L. (1996). Teachers' views of inclusion. *Learning Disabilities Research and Practice*, 00 (11), 96-106.
- Walker, T. J. (2012). *Attitudes and inclusion: An examination of teachers' attitudes toward including students with disabilities* [Doctoral dissertation, Loyola University]. Loyola eCommons. [https://ecommons.luc.edu/cgi/viewcontent.cgi?referer=https://www.google.com/&httpsredir=1&article=1400&context=luc\\_diss](https://ecommons.luc.edu/cgi/viewcontent.cgi?referer=https://www.google.com/&httpsredir=1&article=1400&context=luc_diss)
- Weng, C. S., Walker, Z., & Rosenblatt, K. (2015). Special education teachers' attitudes toward including students with SEN in mainstream primary schools in Singapore. *Asia Pacific Journal of Developmental Differences*, 2(1), 63-78. <https://repository.nie.edu.sg/bitstream/10497/16646/1/APJDD-2-1-63.pdf>
- Yan, Z., & Sin, K. (2015). Exploring the intentions and practices of principals regarding inclusive education: An application of the Theory of Planned Behaviour. *Cambridge Journal of Education*, 45(2), 205-221. <https://doi.org/10.1080/0305764X.2014.934203>

## CORRESPONDENCE

Jun (AJ) Ai, Ph.D., BCBA (Corresponding Author)

ORCID: 0000-0003-4735-5258

Juniper Gardens Children's Project

University of Kansas

Email: [ajunaj@ku.edu](mailto:ajunaj@ku.edu)

Phone number: +1-785-727-3784

Address: 444 Minnesota Avenue, Suite 300. Kansas City, KS 66101-2914