

Inclusive Education for Students with Autism Spectrum Disorder in Elementary Schools in Vietnam: The Current Situation and Solutions

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Abstract

In Vietnam, the number of children identified as experiencing autism spectrum disorder (ASD) has rapidly increased. Inclusive education (IE) has been implemented with children with ASD for more than 20 years. The effectiveness with which IE has been implemented to date with children with ASD has previously not been assessed. In this study, we examined (a) the implementation of IE for children with ASD in elementary schools, (b) family and community participation in IE, and (c) factors affecting IE. A mixed-method research design was employed that included surveys and interviews. Surveys included multiple-choice questions on a broad range of IE practices. Ten professionals, community leaders, and school leaders, 263 teachers, and 114 parents of elementary-age children with ASD in Hanoi and Ha Giang participated in the study. Results revealed there were a number of children with ASD who were not attending elementary school. Where IE was implemented for children with ASD, teachers and families often did not receive adequate training and support, thus discouraging their efforts. Participants expressed a desire for more clearly articulated IE practices, training for teachers and families, and cross-disciplinary collaboration.

Keywords: Autism Spectrum Disorder, Elementary Education, Inclusive Education, Vietnam

Autism Spectrum Disorder in Vietnam

Vietnam began to attend to and address the needs of children and youth with autism spectrum disorders (ASDs) beginning in the early years of the 21st century. In January 2019, ASD was officially recognized as a type of disability. It is included in the category of neurodevelopmental disorders (Ministry of Labor, War Invalids, & Social Affairs, 2019). To date, statistical data on the number of students with ASD in Vietnam and the various supports individuals with ASD need are incomplete (Tran et al., 2015). Some researchers have suggested rates of children with ASD have been increasing in Vietnam (Tran & Nguyen, 2017). It is estimated that 0.5%-1% of children in Vietnam have ASD (Nguyen & Tran, 2017). Hence, with 7.7 million children ages 6 to 11 (General Statistics Office of Vietnam, 2019), it is estimated there are approximately 38,500 to 77,000 students with ASD in elementary schools in Vietnam.

Benefit of Inclusive Education for Children With Autism Spectrum Disorder

Hansen, Blakely, Dolata, Raulston, and Machalicek (2014) found children with ASD can benefit from increased opportunities to observe, initiate social interactions, and respond to the social and play bids of typically developing peers inclusive educational settings offer. Previous studies have shown children with ASD in inclusive classrooms have increased the development of social interaction in both communication skills and group activities (Runcharoen, 2014), and their untargeted verbal initiations greatly improved over baseline levels and often approximated the levels of their peers (Rotheram-Fuller et al., 2010). Twenty percent of children with ASD had a reciprocated friendship and also a high social network status (Kasari, Locke, Gulsrud, & Rotheram-Fuller, 2011). The majority of high functioning children with ASD, where high-functioning means a child has no intellectual disability or no clear intellectual disability (i.e., a tested IQ of 70

or above; Hiraiwa, 2012), struggle with peer relationships in general education classrooms, and only a small percentage of them appear to have social success (Kasari et al., 2011). Not only do students with ASD benefit from being included in a general educational setting, but their typical peers also benefit from being exposed to children with disabilities (Dybvik, 2004).

Research of Inclusive Education in the World

Inclusive education (IE) for children with ASD is an organizational and instructional practice in which children with ASD are in the same classrooms as others without disability. Inclusive education is considered the highest goal to facilitate access, success, and participation for children with ASD and the most preeminent educational setting for the development of the majority of children with ASD. Changes in legislation have led to an increased push for children with ASD to be educated in classrooms with typically developing peers (Hansen et al., 2014). The number of students with ASD detected in mainstream schools is increasing (Humphrey, 2008).

Across the world, studies of IE for children with ASD focus on (a) the effects of subjective and objective factors on the ability to learn inclusively for children with ASD (subjective factors include childrens' functional level, whether high functioning or low functioning autism, and the developmental history of each child; objective factors include education history, especially whether the child has had early intervention, and forms of IE; Eldar, Talmor, & Wolf-Zukerman, 2010; Zuki & Rahman, 2016); (b) effective IE measures (Davidson, 2015; Denning & Moody, 2013; Gavalda & Qinyi, 2012; Simpson, de Boer-Ott, & Smith-Myles, 2003; Wilson & Landa, 2019); (c) the effect of IE on the development of the areas of school skills, communication, and social interaction (Lal, 2005; Ncube, 2014; Runcharoen, 2014); (d) comparing the effectiveness of IE to specialized separate education (Waddington & Reed, 2017);

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and (e) the significance of applying specific methods, such as music, applied behavior analysis (ABA; Lovaas, 1987), or treatment and education of autistic and related communication handicapped children (TEACCH; Schopler, Mesibov, Shigley, & Bashford, 1984) and the effectiveness of IE, which focusing on the long-term effectiveness in the development of children with ASD (Koegel, Matos-Freden, Lang, & Koegel, 2012; Wiseman, 2015; Panerai et al., 2009).

Research of Inclusive Education in Vietnam

Vietnam is a developing country in the group of “low- and middle-income countries” (LMIC; World Bank, 2019), with very specific characteristics and difficulties associated with low and middle socioeconomic status. Vietnamese children with disabilities receive attention from society, and public policies reflect this. However, there is an unclear picture of the number of students with ASD and the services being provided to students, their parents, and teachers since ASD has only recently been officially recognized as a disability by the Ministry of Labor, Invalids and Social Affairs (2019).

There is limited understanding of ASD in Vietnam (Vu, Whittaker, Whittaker, & Rodger, 2014). Research on ASD in Vietnam has been conducted on various topics with most publications written in Vietnamese. Some research publications in English on ASD in Vietnam exist, including research on early identification and intervention services (Tran et al., 2015), family difficulties (Vu et al., 2014), and the operating standards of the agencies (Tran & Weiss, 2018). Publications in Vietnamese were found to be much more diverse, ranging from community knowledge and awareness, identification and intervention, and operations of agencies. For example, the content of these studies focused mainly on the current situation of early identification in the special centers and hospitals in Vietnam (Nguyen, 2014b) and application of early intervention methods and measures, such as TEACCH, picture exchange communication system (PECS), ABA, social stories, and Montessori (Nguyen, 2014a).

Researchers on community perceptions and perspectives on autism have shown stigma and discrimination against children with ASD and their families exist in Vietnamese community settings (Vu et al., 2014). Preschool teachers have serious misconceptions about the cause, diagnosis, and treatment of ASD (Vu & Tran, 2014). Researchers have also focused on community-based behavior interventions (CBI) effective for children with ASD (Tran, Vu, Nguyen, Vu, & Vo, 2018), solutions to early intervention issues for the children with ASD in the years 2011-2020 (Nguyen, 2014), and models of community-based ASD intervention. This research revealed symptoms and behavioral problems were reduced and some skills changed in communication, expression and text, family and community life, and play (Vu, Tran, & Tran, 2017).

Epidemiological studies indicate the rate of children with ASD in Vietnam is increasing at a rapid rate (Tran & Nguyen, 2017). The percentage of children with ASD in Vietnam is estimated to range between 0.5%-1% (Tran & Nguyen, 2017). The rate of children with ASD is increasing, and factors that have an important correlation with an increase in ASD include living in an urban environment, male gender, and mother's farming occupation (Hoang et al., 2019).

The Vietnamese National Center for Special Education (NCSE) has been conducting empirical research on IE since 1991, with the support of UNICEF, in 40 communes representing provinces from North, Central, and South Vietnam. In addition to collaborating with UNICEF, Radda Barnen-Sweden (now Sweden Save the Children) and Catholic Relief Services (in the United States) have also cooperated with NCSE to conduct pilot projects in some areas around the nation. Based on the pilot research results, the Ministry of Education and Training (MOET) determined in 2001 that IE should be the main model

of education for children with disabilities in Vietnam, including children with ASD.

Regarding broader issues, some studies have shown that policies, management systems, organization, and support for vocational education for individuals with ASD are still inadequate (Nguyen, 2014). The model of intervention classrooms in inclusive preschools has some conveniences, such as saving time, but there are a number of limitations in classroom management and communication among stakeholders (Le, Duong, Pham, Bui, & Tran, 2015). Researchers in some studies have examined the support for students with ASD in inclusive schools, such as solutions for enhancing the reading skills of students with developmental disorders in primary school (Mai & Le, 2018).

Some researchers examined psychological characteristics among children with ASD, such as cognitive characteristics (Ngo, 2009), adaptive behavior characteristics at school (Nguyen, 2014), language characteristics (Nguyen, 2018), and characteristics of children with ASD (Pham, 2013). Studies on gender education and vocational education for children are in the beginning stages of implementation.

The Important Role of Evaluation of Inclusive Education Status

The evaluation of IE for children with ASD in Vietnam is necessary for several reasons. First, the assessment of the situation helps to test the quality and effectiveness of IE for children with ASD. For example, previous studies have shown some children with ASD do not benefit from inclusive educational settings without additional planning and systematic instruction (Bellini & Akullian 2007; Koegel et al., 2012; Williams White et al., 2007).

Second, assessing the situation helps us recognize the difficulties and barriers that exist for IE for children with ASD. For instance, Eldar et al. (2010) examined the inclusion of children with ASD in regular classrooms in Israel and analyzed factors related to its success and failure. Thirty-seven inclusion coordinators participated in Eldar et al.'s study and conveyed views on their own experience. The qualitative methodology used in their study was comprised of regular bimonthly reports by the inclusion coordinators, a comprehensive report on one successful and one “problematic” student event, and open interviews with the inclusion coordinators. Two general categories emerged for success and failure: (a) the included student's functioning (behavioral, social, cognitive) and (b) the inclusion environment (collaboration, attitude, organizational aspects). Two general categories emerged from Eldar et al.'s analysis of success and difficulty factors: (a) the inclusion environment (didactic aspects, the environment's behavior) and (b) the student's functioning (personal/internal factors, social skills, stereotypical behavior, student's abilities).

Witoonchart and Huang (2018) identified four barriers to IE for children with ASD: (a) educational historical determinism, which referred to agendas related to educating children with autism but that had not yet been fully implemented; (b) government marginalization of the need of education for children with autism, which referred to unclear legislation on how to make laws related in educating these children plausible; (c) parental and societal lack of understanding of educating children with special needs, which referred to the misconception of these children's learning ability; and (d) unbalanced and unequipped special education professionals and the crucial reality consideration, which referred to the questionable skills of teachers in teaching this specific group of children. According to Lindsay et al. (2013), teachers also face several challenges in classrooms that include children with ASD, such as understanding and managing behavior, sociostructural barriers (i.e., school policy, lack of training, and resources), and creating an inclusive environment (i.e., lack of understanding from other

teachers, students, and parents). Teachers in their study recommended more resources, training, and support were needed to enhance the education and inclusion of children with ASD.

As mentioned previously, research on epidemiology, early identification, early intervention, and IE of children with ASD in Vietnam has been conducted. However, the number of studies is still quite small compared to the research conducted in other countries. Before this study, research on the reality of IE for children with ASD in Vietnam had not been conducted. The research reported in this article can provide a clearer view of the current situation. In this study, the situation was examined through a variety of perspectives: parents, teachers, school administrators, and autism experts in Vietnam. One of the important goals of this study was to explore the status of IE for students with ASD in rural, mountainous areas where there is difficulty in accessing assessments, interventions, and IE. The research findings will support policymakers and stakeholders in planning support for children with ASD and their families. The results of this study will provide a road map to better support children with ASD in elementary schools in Vietnam.

Our study focuses on two main questions: What is the current situation of IE for children with ASD in Vietnam? and What do teachers, parents, administrators, and community administrators want to improve the quality of IE for ASD children?

Methodology

As part of a state-level project, the research team was able to access a large and varied number of participants in both highly developed and under-developed areas of Vietnam. A combination of research methods was applied to acquire data in both width and depth dimensions. Data analyses were mostly descriptive.

Participants and Recruitment

A total of 387 participants took part in this study, including 263 teachers in inclusive schools; 114 caregivers of children

with ASD; and 10 professionals, community, and school leaders. Participant characteristics are presented in Table 1.

Research Procedures

Two provinces of Northern Vietnam were selected: Ha Noi and Ha Giang. Ha Noi is the capital of Vietnam and represents Vietnam’s developed urban areas. Ha Giang is a remote area that represents areas of the country with low socioeconomic status. The research team first contacted the Department of Education in the two provinces to seek their support in selecting schools in which students with ASD were enrolled. Subsequently, the research team developed an introduction letter and then contacted and visited the schools for data collection.

Survey questionnaires were completed by 263 teachers and 114 parents. Teachers who participated in the study were introduced to the researchers by the principals of the school where they worked. Researchers explained the purpose of the study, distributed the questionnaires, and collected them after they were completed. Parents of children with ASD were connected with the researchers through teachers who were teaching their children. Although the teachers completed the questionnaires themselves, the parents were interviewed as research assistants recorded their responses to the items on the survey questionnaires.

Finally, 10 professionals considered to have expertise in autism also participated in the study, including researchers from universities, research institutes, nongovernmental organizations, and private centers; school principals and vice principals; social workers; population service staff; a commune chairman; and medical staff. They were invited to participate and had 5 days to agree or decline to participate. If interested in participating, the researcher set up an appointment in an environment where the participant felt comfortable. Interviews lasted between 30 and 90 minutes. They were interviewed to ascertain their understanding and attitudes on statistics and trends related to educating students with ASD and their recommendations for improving IE for children with ASD in Vietnam.

Table 1. Participant Characteristics

Inclusive Teachers	Statistics
Total	263
Ethnicity	84% Kinh (major ethnic group in Vietnam); 16% other ethnicities
Gender	89.9% female; 10.1% male
Age	$M= 40.0$; $SD= 9.0$; Age range= 22 to 55
Tenure years	$M= 17.7$; $SD= 9.8$; Year range= 1 to 35
Years of working with children with ASD	$M= 2.76$; $SD= 2.8$; Year range= 0 to 19
Parents	Statistics
Total	114
Caregiver’s gender	71.7% mothers; 28.3% fathers
Caregiver’s age	$M= 39.3$; $SD= 9.3$; Age range= 25 to 69
Ethnicity	69.6% Kinh; 30.4% other ethnicities
Living locations	45.6% rural; 53.4 urban
Child’s gender	78.1% boys; 21.9% girls
Child’s age	$M= 7.9$; $SD= 1.7$; Age range= 6 to 11
Professionals	Statistics
	10 professionals including:
	4 school principals and vice principals
	2 commune chairmen
	4 professionals in psychology, education, healthcare

Measurement

In this study, a mixed-methods approach was used, which involved both questionnaires and in-depth interviews for data collection. Questionnaires included multiple-choice questions on a broad range of IE practices for teachers, parents, and school principals and vice principals. In-depth interviews were conducted with school managers and experts in special education fields. The interview questionnaire included five items on the presence of children with ASD in schools and community, supporting services for families and children affected by ASD, individual education programs for children with disabilities in general and with ASD specifically, the inclusion of children with disabilities in general and ASD specifically, and the reality of IE of children with ASD in their schools and community. Researchers contacted assigned teachers, parents, or school principals/vice principals by phone or email; set up a meeting during which participants signed consent forms and gave permission for audio recording; and conducted the interviews using semistructured interview techniques. Each participant was given a small compensation (around \$5.00) for their participation.

Self-report questionnaires for teachers and parents were developed by researchers based on the review of literature. The purpose of the questionnaire was to determine teachers' and parents' knowledge and skills regarding the implementation of IE for children with ASD in elementary schools. Questionnaires for teachers included 53 items divided into three main parts. The first part contained general information about the teachers (name, age, background, training, number of years working with children with ASD, number of trainings in ASD received, and knowledge about policies for children with ASD). The second part consisted of questions related to the status of implementing IE at elementary schools for children with ASD. The third part included their recommendations for improving the quality of education for students with ASD.

The questionnaire for parents requested information on demographics and characteristics of the responder and their child with ASD; items about the status of IE services and school activities; perceived barriers to and difficulties of IE (e.g., facilities, training, knowledge, skills, or policy); and their recommendations for assuring access, success, and participation for their children in IE systems (e.g., better payment for teachers, better facilities and equipment, separate intervention services for their children with ASD in the school contexts).

Data Processing and Analyses

Interviews were recorded and transcribed for the researchers. Transcriptions of interviews were manually analyzed by the researchers who read and selected the most important, prominent, and repeated ideas to include in the analysis section. For the self-report questionnaire, the research team used the Statistical Package for Social Sciences Version 20 (SPSS 20) to input and analyze the data through four steps: (a) after collecting questionnaires, all papers were checked to verify completion; (b) the data entry process was implemented by trained research assistants; (c) there was a double check of all questionnaires and data entry to ensure there was no missing information; and (d) the data were analyzed by the research team. For the current study, descriptive analyses including calculating means, standard deviations, and ranges.

Results

After careful data analysis, the research team found important information about IE for children with ASD in Vietnam. They included the accessibility and challenges for children with ASD in IE settings and recommended solutions from teachers, parents, administrators, and community administrators for improving the quality of IE for ASD children.

Evaluation of the Access Status of Children With Autism Spectrum Disorder in Inclusive Educational Settings

An analysis of questionnaire and interview responses from professionals, teachers, and community leaders revealed that, although most children with ASD were attending regular schools, there were still some children with severe ASD who were not going to school. Some were attending special centers or schools. As a commune vice chairman in Ha Giang, said:

In terms of children with disabilities, nearly all children go to school, but some families with children with severe disabilities send their children to special schools. Especially, some children with disabilities do not go to school or went to school but dropped out; some children attend schools 1-2 years later than the standard age.

Another community leader, a comune welfare staff member in Ha Giang, added, "According to our exact data, two children have not gone to school yet because they cannot walk, and two children left school because the school said they could not study and hit friends."

According to data collected from parents who have children with ASD, 23 children with ASD (15.6%) were learning in specialized educational settings, and 17 children (11.6%) were learning in integrated educational settings. Most children with ASD were learning in IE settings (107 children or 72.8%; see Figure 1 for a graphic representation of these data comparing rural an urban settings).

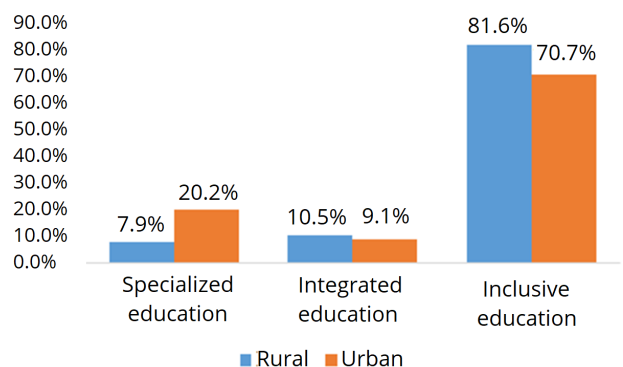


Figure 1. Prevalence of children with ASD learning in different educational settings according to parents.

Although most children with ASD ($n= 101$ or 74.8%) had an individualized education plan (IEP), there were 34 children (25.2%) who did not have an IEP. Interestingly, the percentage of children with ASD in integrated and inclusive educational settings in rural areas was higher than in the urban area. In contrast, the percentage of children with ASD in specialized educational settings in rural areas was lower than in urban areas. In this study, we also found the percentage of children with an IEP in rural areas (64.9%) was lower than those with an IEP in urban areas (80.9%).

Teachers' Ability to Support Inclusive Education for Children With Autism Spectrum Disorder

Research results indicated three main subjective factors prevented teachers from providing high-quality teaching for children with ASD in general education classrooms: (a) educational curriculum, (b) teaching methodology, and (c) lack of supporting facilities. The primary barrier identified by teachers was lack of access to curriculum and strategies to teach students with ASD. There was not an efficient and suitable curriculum for teachers at inclusive schools serving students with ASD. Most teachers were not trained in developing or using specific curricula during their teacher preparation. Research results showed 45% of teachers used self-developed curricula, and 55% did not use any curricula or used programs devel-

oped in other countries. These included such initiatives as the Early Start Denver Model (Dawson et al., 2010), Hanen (Sussman & Lewis, 1999), Small Steps (Pieterse, Treolar, Cairns, Uther, & Brar, 1985), and TEACCH (Schopler et al., 1984)). These curricula have been translated but not adapted to the Vietnamese context. Nineteen of 76 teachers reported they had no chance to use the methods and curricula for teaching children with ASD due to a lack of training.

Teachers responding to the questionnaire indicated they focused primarily on teaching cognitive skills to students with ASD over motor and sensory skills. Specifically, 70% taught math and Vietnamese to children with ASD, 58.8% taught social language to children with ASD, and 15% focused on gross motor skills and sensory processing.

Teachers indicated they did not possess instructional skills that match the strengths and characteristics of each child with ASD in their classes. The survey listed popular teaching methods for children with ASD including ABA, language therapy, music therapy, modeling, structure activities, and relationship development intervention (Gutstein & Gutstein, 2009). More than half of teachers (52.5%) indicated they only used the same general methods and strategies with children with ASD that they use with other students.

The reported lack of educational curriculum and teaching methodology is a result of inadequate teacher preparation, as 43.7% of teachers ($n=115$) indicated they had not participated in any training in special education in general and ASD in particular. The content of the training they received was focused on general information on disability, and the professional development trainers were educators or doctors from the provincial levels. The study revealed there is a significant lack of training in teaching methodology, adjusting curriculum, and behavior management.

The reason many teachers do not have the opportunity to learn about policy documents was lack of training. The delivery of policy documents to teachers, including IE, is relatively limited. Of 263 teachers, only 26 reported having read documents or books related to special education. Two teachers indicated they had not had access to useful reading materials, and 180 teachers did not answer the question.

Sharing their teaching experience with each other is one way to improve teaching quality. Forty-nine surveyed teachers indicated they often shared their knowledge and skills with other teachers. Some teachers ($n=24$) reported learning from parents via conversations or official meetings. An elementary teacher explained:

There are no regular trained teachers. Some teachers received short-term training on IEP, but the training contents were general information, so it is very difficult for them to teach children with disabilities in general and children with ASD in particular. The results of commune leaders and social workers also show the same fact that teachers of the school are not trained in the education of children with disabilities.

Lastly, inadequate facility and teaching aids prevent teachers from providing quality IE. About half of the teachers (50.6%) asserted they do not have enough time for children with ASD. The same percentage reported a lack of efficient facilities and teaching aids. Significantly, 69.6% of teachers thought they lacked teaching experience for supporting these children in inclusive classrooms. As one elementary school principal explained, "Facilities and teaching equipment for students with disabilities are not available." An elementary teacher said, "Besides those main subjective factors, there is no funding to invite experts or organize training for teachers; and allowances and policies for IE teachers are not implemented."

Other participants spoke about the role of families. As an elementary teacher explained, "Besides, school-family connection is poor because of low parents' awareness and economic condition. In specific, a small number of parents do not want their children to learn with students with disabilities." Another elementary teacher added, "Many families of children with ASD do not recognize their children as being ASD and do not cooperate in educating children at home." A commune leader/social worker in the community observed, "Moreover, most families of people with disabilities are in difficult economic conditions, so medical examination and treatment and rehabilitation are still limited."

Several participants spoke of the role of community. According to one elementary teacher, "Lastly, community supporting IE but only a formality, no specific activities." One commune leader/social worker added, "The locality has no separate budget to support people with disabilities." Another commune leader/social worker said, "The school does not yet meet the requirements of infrastructure and teaching equipment for students with disabilities."

Parents' Ability to Support Inclusive Education for Children With Autism Spectrum Disorder

The parent survey had several items on the detection and diagnosis of their child's challenges. Nearly half (48.2%) of parents reported having diagnosed their child's ASD before the age of 3. The percentage of parents participating in training was much higher than the percentage of teachers. Of the 114 parents participating in the research study, only 27.1% reported having received no training on special education, while 72.8% indicated they had participated in training on topics such as special education, language therapy, or developing IEPs.

Parents reported they had experienced many challenges and difficulties in securing IE for their children. Only 31.6% of parents reported having a basic understanding of ASD. Almost two thirds of parents (65.8%) reported getting to inclusive schools was challenging for their child. Moreover, more than half of parents (55.7%) did not have any chance to be trained in specific content and techniques for teaching their child at home. More than half of parents (51.9%) expressed they had not received any support from the government for their children at inclusive schools.

Difficulties of Children With Autism Spectrum Disorder in Inclusive Educational Settings and Teachers' Solutions

Participating and working well in inclusive settings seems to be a challenge for children with ASD. Based on research results, typical barriers making the inclusion process difficult for the students with ASD include classroom rules, curriculum, and assessment.

Difficulties in Following Classroom Rules

In Vietnam, students are expected to follow classroom rules, including sitting quietly, keeping silent during instruction, raising hands before talking, and obeying teacher directions. The rules are strictly applied to keep classrooms of up to 55 to 60 students orderly. Following these classroom rules is difficult for children with ASD, according to the results of our study. Of the 263 teachers in the study, nearly 92% reported their students with ASD faced difficulties in understanding and following rules, which led to atypical classroom behaviors like talking freely, making noise, getting out of their seat, or disobeying teachers' directions and requirements for learning activities.

Some factors have been revealed from the direct interviews as subjective reasons contributing to these factors. Teachers tended to use oral instruction rather than providing

visual cues or prompts when introducing or asking students to follow the rules. Modeling how to follow rules for individual children was rarely done. As a consequence of the first factor, visual behavioral management boards/cards or visual classroom rule boards/cards were not used in regular settings (only one surveyed teacher said "yes," accounting for only 0.4% of the teachers). There were incompatibilities between teachers' guidance of classroom rules and children with ASD's challenges in language and social-communicative skills.

Difficulties in Following Their Learning Curriculum

Study results indicate the inability of teachers to modify and adjust curriculum is one of the main reasons many children with ASD were unable to achieve in their classes. Specifically, 96.1% of teachers reported their children with ASD had very low grades on final exams. Most student grades on final exams were below 4 out of a potential of 10. This was especially true for students in Grades 3, 4, and 5.

According to survey results, 46% of teachers shared they had reduced the number of learning subjects for their children with ASD. They perceived students with ASD do not possess the knowledge and skills to study as many subjects as their peers without disabilities. However, 53% of teachers did not reduce the number of subjects for their students with ASD. The students in these classes were expected to take all classes and participated in the same learning activities as their non-disabled peers, including more challenging subjects.

Among the teachers, 43.9% reportedly made no adjustment in allotted time, content, and task difficulty for their students with ASD, whereas 56.1% of teachers reported they had been trying to provide the children with more time and make the learning tasks easier. Nevertheless, interviews revealed these teachers implement modifications without basing modifications on any criteria, which leads to inconsistency in how they adjust learning activities. Although nearly half of participating teachers agreed their children with ASD faced difficulty in accessing and mastering the general education curriculum, only 24 teachers reported developing or using specific programs to provide more suitable learning opportunities for their students.

Difficulty With an Evaluation of Students With Autism Spectrum Disorder's Academic Performance

An additional reason making the process of participating and studying in general education classrooms for children with ASD difficult is the assessment methods used in those settings. According to survey respondents, 75% of the teachers developed an IEP for students with ASD. That result is consistent

with the response on the survey item analyzing teachers' evaluation methods for children with ASD: 74% of teachers used IEP-based assessment, 21.2% used curriculum-based assessment, and 4.8% used other assessment types.

Recommendations From Teachers, Parents, and Stakeholders to Improve the Effectiveness of IE for Children With Autism Spectrum Disorder

To improve the quality of IE for children with ASD, teachers recommended awareness and skill-level training, enhanced communication and collaboration, improved identification and assessment procedures, adherence to legislative requirements, and improved facilities. More than half (60.1%) of teachers felt it was essential to increase awareness of community members (i.e., parents, teachers, and typical students) about ASD. An even greater number (71.9%) indicated there should be training provided to teachers on how to include students with ASD. A similar proportion (69.2%) thought there should be a tight connection between teachers, parents, and stakeholders to improve the situation. About half (49.4%) suggested individuals with special education expertise in special education participate in the educational process. As one elementary teacher explained:

The question of how to have qualified teachers to teach children with disabilities and children with ASD is most urgent. Therefore, the first thing is to provide knowledge, methods, and skills for teachers teaching students with different types of disabilities.

Commune leader and social worker interviews also revealed a need for training. One commune social worker said, "The schools must let teachers be trained on IE for children with disabilities," said a community social worker." Additional recommendations from participants are presented in Table 2.

Discussion

Teachers working directly with children with ASD in schools are critical to the success of IE. This study indicates barriers still exist that make IE less than successful for many students with ASD in Vietnam. Teachers lacked the skills to successfully facilitate access and success for students with ASD. Curriculum modification, appropriate teaching methodology, behavior management, and supporting facilities were often found lacking in classrooms where children with ASD were placed. To educate children with ASD, teachers need to have knowledge of the cognitive, social, and behavioral characteristics of this population, individual students' strengths and needs, and how to support these students (Loiacono & Valenti, 2010).

Furthermore, a lack of knowledge is a problem not only for teachers. In Vietnam, the percentage of people in communi-

Table 2. *Additional Participant Recommendations*

An elementary teacher	"Ensuring communication and connection between stakeholders. The schools cooperate closely with local health and welfare staff to mobilize children to go to school."
An elementary teacher	"Strengthening communication to have closer coordination and increase the participation of communities and families of children with disabilities in IE."
A commune leader/social worker	"Mobilizing community forces, and especially families and schools, to educate children with disabilities"
An elementary teacher	"The identification and assessment of children with ASD should be more efficient; in the case of being suspected of having a disability, it is required to assess to have an appropriate educational model."
An elementary teacher	"Regarding legislation implementation, policies for teachers teaching students with disabilities should be in practice."
A commune leader/social worker	"Many policies for people with disabilities and education for people with disabilities have been issued for many years but they have not been implemented, so how should policies be put into practice? Such as policies for IE teachers."
An elementary teacher	"About the facility, teaching aid, and school accommodation, strengthening facilities and teaching equipment for students with disabilities."
A commune leader/social worker	"Ensuring facilities for educating children with disabilities."

ties who have sufficient knowledge of ASD is relatively low (Nguyen & Nguyen, 2016). Parents also experience many challenges and difficulties with respect to quality IE for their children. More than half of parents did not have any chance to be trained on specific content and techniques for teaching their child at home. The provision of regular ongoing training (e.g., courses, seminars, or workshops) could help many teachers at both the preservice and inservice level gain appropriate knowledge and skills to teach children with ASD in general education classrooms (Edward, 2015). Training would also benefit parents and address many of the concerns they identified.

The existence of these barriers to inclusion is not unique to Vietnam. A lack of knowledge and skills to teach children with ASD in inclusive educational settings is a common problem in many countries around the world. A similar difficulty has been recognized in Tanzania, the United States, Saudi Arabia, China, Canada, and other countries (Alharbi et al., 2019; Busby, Ingram, Bowron, Oliver, & Lyons, 2012; Edward, 2015; Lindsay et al., 2013; Liu et al., 2016). Previous studies have shown teachers have little knowledge of children with ASD and how to work with them in general education classrooms. A lack of inservice training and seminars has been identified as a huge barrier to successfully educating children with ASD in general education classrooms (Alharbi et al., 2019; Busby et al., 2012; Edward, 2015; Lindsay et al., 2013; Liu et al., 2016).

The IEP provides an educational map for children with disabilities (Ruble, McGrew, Dalrymple, & Jung, 2010). This study revealed about a quarter of children with ASD did not have an IEP, which is a serious problem resulting in a lack of coordination between parents and educators to identify strengths, goals, and supports needed to educate children with ASD. In the study, parents also reported there is a significant number of children with ASD who do not have their own IEP (25%). Therefore, policymakers and other stakeholders need to focus on the schools located in rural areas to provide training on how to develop IEPs for children with ASD and monitor schools to ensure they are developed.

Conclusion

The results of this study indicate IE for students with ASD still faces several challenges that must be overcome before IE is a reality. The research showed a number of children with ASD were not even attending elementary school. Where IE was implemented for children with ASD, teachers and families often did not receive adequate training and support, which served to discourage their efforts. Study participants expressed a desire for more clearly articulated IE policies and practices, training for teachers and families, and cross-disciplinary collaboration.

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