Implications for Teacher Training and Support for Inclusive Education in Cambodia: An Empirical Case Study in a Developing Country

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Abstract
Research in developed countries has consistently demonstrated that training and experience are factors that strongly influence teacher attitudes toward inclusive education. Given the implications of this research for teacher-related policies on inclusive education in other countries, the present study seeks to empirically determine and verify the impact of training and experience in the developing country context. Surveys were conducted across Cambodia in February 2015 involving 448 teachers of children with and without disabilities, to find out how their training and experience influences their perspectives on how children with disabilities should be educated. Twenty-four were then selected for focus group interviews. A Pearson chi-square test was used to determine the statistical significance of (i) training on teaching children with disabilities, and (ii) experience in teaching children with disabilities, in teacher perceptions of inclusive education. Their perceptions were also analyzed by disability categories. Statistical analysis revealed that neither training nor experience in teaching children with disabilities significantly influences teacher perceptions of inclusive education in Cambodia. Qualitative responses pointed out that not only is the current cascade teacher training system ineffective in reaching out to all teachers, the message of inclusive education—its purpose and methods—is also not effectively transmitted to all teachers. The responses show that the lack of quality training and on-site support negatively affected their experience of teaching and meeting the educational needs of children with disabilities. The results also showed that the inclusion of severe sensory impaired children in such programs is perceived much more negatively in Cambodia as compared to developed countries. The findings of this study thus have implications for teacher training programs, their resources, and the support for teachers that is required to facilitate the inclusion of disabled students in the context of developing countries, particularly for those students with severe sensory impairment.

Keywords: Inclusive Education, disabilities, teacher attitudes, training and experience, developing countries

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This study is a part of the Disability and Education research project funded and organized by the Japan International Cooperation Agency Research Institute (JICA-RI), which seeks to examine education for children with disabilities in developing countries. In view of the agency’s future projects, and taking into consideration the various expertise and fields of the researchers involved, this project includes a study of the situation in Cambodia, Mongolia and Nepal. The findings of this research have been disseminated at various academic conferences internationally and in Japan since March 2015, including a policy seminar with policy-makers from MoEYS and other local actors in Cambodia.
1. Background

A recent World Health Survey of 51 countries revealed that people with disabilities have significantly lower rates of primary school completion and fewer years of education compared to people without disabilities (WHO 2011). Compared to their counterparts without disabilities, primary school completion rates for males with disabilities were lower by 17.5%, while completion rates for females with disabilities were lower by 21%.

A critical task of the Post-2015 development agenda is to achieve universal education for all through ensuring that all children facing difficulties—including those with disabilities—have access to education. However, ensuring their access to education refers not only to simply placing them in a classroom with other children without disabilities; it requires systematic reforms to accommodate their inclusion and participation in schools and classrooms. In other words, inclusive quality education. To provide this, there is a need for governments, local and international educational actors to be aware what is required of the education system through substantive field investigation at the micro-level in schools. Further, while evidence shows that children with disabilities are less likely overall to be in school than their peers without disabilities (Filmer 2008), this pattern is more pronounced in developing countries (UNESCO 2009). It is in this light that this research is timely and of far-reaching significance.

International trends on education provision for children with disabilities have shifted drastically; first, from special education to integrated education, then from integrated education to the current call for inclusive education. Special education refers to the provision of education to children with disabilities that separates them from children without disabilities, along with the provision of special resources and materials, as well as teachers specially trained to teach children with disabilities. Special education usually takes the form of educating children by their types of disabilities—as in special schools or special classes in mainstream schools. From the 1970-80s, education for children with disabilities began to take on a human rights perspective
and gradually evolved into integrated education, where the core theme is that children with special educational needs should adapt themselves to learning alongside their peers without disabilities in the same classroom.

Following the Salamanca World Conference on Special Needs Education in 1994, the concepts of special and integrated education gave way to inclusive education. In contrast to integrated education, inclusive education seeks to embrace all children and to teach them based on their unique needs together in a classroom. It does not seek to make children with disabilities adapt to regular classes, but instead calls for schools and teachers to adapt systems, curricula and resources to the individual and unique needs of all children (Armstrong 2010).

In 2006, the UN Convention on the Rights of Persons with Disabilities called for all the State Parties to ensure an inclusive education system at all levels. Today, the shift towards inclusive education is continuing as more governments ratify the convention. Furthermore, the Salamanca Statement (1994) states that inclusive education itself implies the provision of quality education to all children in a cost-effective manner. However, this has given rise to a new problem in developing countries. In many cases both children with and without disabilities are merely placed together in the same classrooms without efforts being made to ensure their learning, all in the name of inclusive education (Apple 2011; Forlin 2012). Taking into consideration the instances where children with disabilities are bullied, and arising from the need to protect these children, some experts assert that special education is more effective, and is able to strengthen individual children’s identities within the various disability types. Confusion over these various perspectives on the provision of education to children with disabilities thus hinders the implementation of educational policies, and this results in inadequate accommodation and retaining for children with disabilities in the public education system.

To provide direction for the way forward in correcting this situation, the international community came together in September 2015 to adopt a set of seventeen goals as part of the new sustainable development agenda. The international community’s commitment towards
education is specifically enshrined in the Sustainable Development Goal (SDG) 4, which seeks to “ensure inclusive and equitable quality education and promote life-long learning opportunities for all” (UN General Assembly Resolution 70/1). Acknowledging that each country faces unique challenges in its pursuit of sustainable development, the SDGs and their respective targets will serve to guide the international community over the next 15 years. This includes the commitment, “(b)y 2030, eliminate gender disparities in education and ensure equal access to all levels of education and vocational training for the vulnerable, including persons with disabilities, indigenous peoples and children in vulnerable situations,” and specifically mentions "persons with disabilities" as prioritized social group, thus highlighting the need for the present study in relation to providing evidence on how the actions by the international community in this area should be guided.

2. Literature Review

Empirical studies on inclusive education programs in both developed and developing countries that are peer-reviewed and written in English were chosen for review through search engines like Scopus, JSTOR and ERIC (Educational Resources Information Center). In the field of disability and education, there are many studies based on empirical data from developed countries, but very few from developing countries. This situation results from limited resources, the difficulty of collecting data in developing countries, and uncoordinated data collection by both local and international organizations. Without properly constructed empirical studies based on representative sampling that prove educational phenomena, research in developing countries is mostly unable to drive or influence policy making at the governmental level.

Teacher attitudes towards inclusion have a strong impact on inclusionary practices in the classroom (the implementation of inclusive education at the classroom level). In turn, their perspectives on inclusion are strongly influenced by teacher-related factors, such as training and
experience (Avramidis and Norwich 2002). To put this in context this section of the paper presents a review of empirical studies on: (i) the impact of training for teaching children with disabilities, and (ii) the impact of teacher experience in teaching children with disabilities.

The impact of teacher training for children with disabilities

Studies have highlighted how training affects teachers’ attitudes toward children with disabilities. Specifically, some studies have demonstrated that teachers who have knowledge of disabilities tend to be more receptive towards children with disabilities and their inclusion in classrooms. The study by Ghanizadeh, Bahredar, and Moeini (2006) in Iran found a significant correlation between teacher knowledge and attitudes toward Attention Deficit Hyperactivity Disorder (ADHD) and their acceptance of children with ADHD (r = 0.23, p<0.01). Similarly, Batsiou et al. (2008) also demonstrated that teacher attitudes towards children with disabilities are influenced by their knowledge of disabilities (r = 0.26, p < 0.001), as well as the information they have about the inclusion of pupils with special needs in regular classrooms (r = 0.36, p < 0.001). Campbell, Gilmore and Cuskelly (2003) show that teachers who have acquired greater knowledge about a specific condition or disability go on to develop a positive attitude, not only towards children of the type of disabilities that they gained knowledge about, but also broadened to develop positive attitudes towards children of other types of disabilities.

Teacher acquisition of knowledge on disabilities through pre- or in-service training was also found to be an important factor in improving their attitudes towards the implementation of inclusive education. Teachers in Turkey who attended an in-service teacher training program on disabilities were observed to post significantly higher scores than those who did not receive similar training (t =15.6, p=0.0001), indicating that an increase in knowledge of deaf children led to positive attitudinal changes towards their inclusion in regular classrooms, in terms of both knowledge about educating deaf students in inclusive settings, and classroom management (Sari
Teachers in other systems were also found to demonstrate more favorable attitudes towards inclusion after in-service training, with teachers of inclusive classrooms showing the strongest positive attitude change (Dickens-Smith 1995; Avramidis and Norwich 2002; Lifshitz, Glaubman, and Issawi 2004).

Similar studies in Australia, the USA and the UK have also reinforced the notion that special education qualifications acquired from pre-service or in-service courses are associated with less resistance to inclusion (Buell et al. 1999; Van-Reusen, Sho ho, and Barker 2000; Center and Ward 1987; Avramidis et al. 2000a). The positive impact of training on teacher perspective was also observed in other studies in UK, where college teachers who had been trained to teach students with learning difficulties expressed more favorable attitudes and emotional reactions towards students with special educational needs and their integration, as compared to those who had no such training (Beh-Pajooh 1992; Shimman 1990).

However, a study by Wilkins and Nietfield (2004) on a US school-wide inclusion training program, argued that a lack of clear goals or their inadequate conveyance to teachers, infrequent training, and/or a lack of exchange and collaboration between teachers, leads to ineffective training that does not effectively inculcate positive teacher attitudes towards inclusion; with untrained teachers reporting significantly more positive attitudes. Without attention to these factors, training is unable to affect core attitudinal changes within teachers themselves. Consistent and ongoing training and development that increases both knowledge and efficacy through providing classroom teachers with support, and opportunities for common planning with resource teachers (and/or special education teachers), is central to enabling greater teacher knowledge and classroom confidence (Dickens-Smith 1995; Wilkins and Nietfield 2004).

Wilkins and Nietfield’s (2004) evidence that ineffective training does not necessarily inculcate positive teacher attitudes is supported by studies in other developed countries that have also demonstrated why the systemic development of long-term training in inclusive education
should be a priority in the formation of positive teacher attitudes and countering concerns about the inclusion of children with disabilities (Batsiou et al. 2008; Avramidis and Kalyva 2007). Their data showed how teachers who were trained were significantly more positive towards statements about the general philosophy of inclusion, compared with those who had no training at all ($F\{2, 152\} = 4.85, p < 0.01$).

Studies in developed countries have thus not only argued that gaining knowledge about the special educational needs of children with disabilities is crucial in improving teacher attitudes towards their inclusion in regular classrooms, but that it is also necessary to develop a system of long-term teacher training, development, and support, to support the development of positive attitudes towards including children with disabilities in regular classrooms (Dickens-Smith 1995; Avramidis and Norwich 2002; Avramidis and Kalyva 2007; Batsiou et al. 2008).

**The impact of experience in teaching children with disabilities**

Multiple studies in the context of developed countries have also shown how experience in teaching children with disabilities is a decisive factor in having a similar positive impact on teacher attitudes (Yuker 1988; Janney et al. 1995; Jobe et al. 1996; Avramidis et al. 2000a; Avramidis and Norwich 2002). These studies mainly demonstrate how teachers who have direct contact with such students, and experience in implementing inclusive education at the classroom level, begin developing positive attitudes towards the inclusion of students with disabilities, and significantly so compared to teachers without such experience ($F\{1, 153\} = 12.33, p < 0.001$) (Avramidis and Kalyva 2007). The study by Janney et al. (1995) went as far as describing how, despite being “wary” and “overloaded with work,” teachers could “re-evaluate the balance between the cost of their time and energy as compared to the benefit for students” throughout the
course of implementing inclusive education, and eventually come to terms with such efforts as “successful.”

A comparative study of six countries, including the two developing countries of Ghana and the Philippines (Leyser et al. 1994), found that, overall, teachers with much experience of disabled persons held significantly more favorable attitudes towards integration than those with little or no experience. The findings of several other studies conducted in the USA (Leyser and Lessen 1985; Stainback, Stainback, and Dedrick 1984), Australia (Harvey 1985; McDonald, Birnbrauer, and Swerissen 1987), and the UK (Shimman 1990) have also stressed the importance of increased experience and social contact with children with disabilities, in conjunction with the attainment of knowledge and specific skills in instructional and class management, in the formation of favorable attitudes towards integration.

Teachers in Australia, Canada, Hong Kong and Singapore who have systematically met people with disabilities have been found to be more aware of the disabling conditions, policies and legislation regarding their inclusion or lack of it (Sharma, Forlin, and Loreman 2008). Studies suggest that contact with students with significant disabilities, if carefully planned (and supported), result in positive changes in the attitudes of educators. These studies, coupled with the more recent ones on teacher attitudes towards inclusion presented earlier, indicate that as the contact experience of mainstream teachers with children with disabilities increases, their attitudes change in a positive direction (LeRoy and Simpson 1996; Sharma, Forlin, and Loreman 2008).

Teachers in Serbia with experience in teaching pupils with special educational needs were also significantly more positive about including students with disabilities in regular classrooms, compared to those without experience (Everington, Steven, and Winters 1999; Kalyva, Gojkovic, and Tsakiris 2007). Batsiou et al. (2008) found a significant positive correlation between experience and teacher attitudes ($r = 0.88, p < 0.001$) in Cyprus as well, indicating that a positive attitude is influenced “by their greater and more positive experience in
the teaching of” students with disabilities. Studies have also shown that even teachers who had experience in teaching children with disabilities in special classrooms (29%) were more positive towards their inclusion in regular classrooms than teachers without experience (9%) (Opdal, Wormæs, and Habayeb 2001).

While the above studies have provided positive empirical proof of the importance of teacher contact and experience with students with disabilities in the creation of positive attitudes towards inclusion, there are also some studies that have reported no such positive correlation. For example, Stephens and Braun (1980) found no significant correlation between reported contact with students with severe disabilities, and teacher attitudes towards integrating these students into regular classrooms; while Center and Ward (1987) argued that contact experience of students with disabilities does not necessarily result in the formation of more positive attitudes, as their teacher-respondents were found to be more tolerant of integration if no special class or unit was attached to their school.

Center and Ward’s (1987) study further pointed out that there appears to be an inverse relationship between teaching experience and teacher attitudes towards inclusion. Their study showed that those with the least teaching experience (0-2 years) were consistently more tolerant of the inclusion of individual disabled children than their more experienced colleagues (p < 0.01). Thus, teachers with more experience expressed their lack of expertise and confidence in teaching children with disabilities due to inadequate support services. Similarly, teachers in New South Wales, Australia, with active experience in teaching disabled students more often reported that dealing with children with disabilities was stressful than those without such experience. This was because of the stress they experienced in their efforts to include all children with disabilities in their classroom/school environment (Forlin 1995). These studies attributed this inverse relationship to the stress that teachers experience and their perceived lack of control over decisions regarding the implementation of inclusive education. Specifically, the teachers
contacted in Forlin’s study revealed that they experienced stress in seeking to include all children with disabilities; from their experience inclusion is simply not suitable for all children.

Empirical studies have pointed to a positive causative relationship between the experience of teaching students with disabilities and teachers’ perceptions towards their inclusion in classrooms, with the exception of two studies carried out in the 1980s. In the first, a positive causative relationship was not found in the case of students with severe disabilities, and in the second, the inverse relationship found was attributed to inadequate support services and lack of teacher decision-making. These studies suggest that while experience of teaching students with disabilities generally leads to more positive attitudes towards their inclusion, factors such as classroom support and the type or severity of disability (and how to accommodate or meet their needs) also influence teacher experience in classrooms.

**Teachers’ receptiveness to inclusion by types of disability**

The educational needs of children with disabilities vary across the types of impairment (Clough and Lindsay 1991, cited in Avramidis and Norwich 2002), and teacher attitudes towards the inclusion of children with disabilities are also influenced by their notions of the various types of disabilities involved. Some studies in developed countries have demonstrated that teachers are more receptive towards the integration of students with physical impairment (Avramidis and Norwich 2002), specific learning impairment, and visual impairment (Clough and Lindsay 1991; Glaubman and Lifshitz 2001; Avramidis and Norwich 2002; Alghazo and Gaad 2004), as well as students with hearing impairment, into regular classes (Clough and Lindsay 1991; Glaubman and Lifshitz 2001; Avramidis and Norwich 2002; Lifshitz, Glaubman, and Issawi 2004). On the other hand, teachers tend to be more negative or demonstrate less willingness to include students with learning and emotional-behavioral difficulties (Clough and Lindsay 1991; Glaubman and Lifshitz 2001; Alghazo and Gaad 2004; Advramidis and Norwich 2010).
Studies have also shown that teachers more frequently accept children with “easy-to-notice disabilities” (including sensory impairment in hearing and vision) for inclusion in regular classrooms, as compared to those with less easily noticeable impairments, such as children with specific learning or behavioral disorders ($\chi^2(1, n = 63) = 3.00$, $p < 0.05$) (Cook 2001), or those with learning and emotional-behavioral difficulties (Glaubman and Lifshitz 2001).

However, when our review expanded to incorporate those studies reporting on developing countries, we found that the tendency for teachers to disfavor the inclusion of students with sensory impairment increased. Bowman’s 1986 study of fourteen countries (of which half were developing countries) showed that, compared to the 63% of teachers who favored the inclusion of children with physical impairment in regular classes, only 23.5% of teachers felt the same way for those with visual impairment, and only 22.5% for those with hearing impairment. Lifshitz, Glaubman, and Issawi’s study of Israeli and Palestinian teachers (2004, $n = 66$ for Israel, $n = 192$ for Palestine) argues that the type and severity of disability, and corresponding educational needs, affect teachers’ attitudes towards inclusion between a high income and developed country\(^1\) and one that is not.

These studies provide evidence for a case to be made that there are differentials in teacher attitudes towards inclusion. Teachers in developed countries are less apprehensive towards including students with sensory impairment in regular classes. Specifically, teachers in developed countries are less apprehensive about including students with severe sensory impairments, such as blindness. The evidence on teacher receptiveness to inclusion thus points out that the type of disability a student has influences a teacher’s receptiveness to that student being included in a regular classroom. However, there is an observed difference between teacher receptiveness in developed and developing countries: while sensory impairment is viewed as ‘easy to notice’ or a visible disability in developed countries, and more frequently accepted for

\(^1\) Based on the World Bank 2016 classification, Israel is categorized as a high income country.
inclusion, it is not favored in developing countries, with teachers being less willing or unwilling to include children with sensory impairment in regular classrooms.

3. The Cambodian Context

Inclusive education in Cambodia is still in its preliminary phase, with relevant policies and programs only being drafted within the last decade or so. Articles 65 and 66 of Cambodia’s Constitution declare the state’s role in protecting and promoting quality education at all levels to all citizens to ensure that all citizens have an equal opportunity to earn their own living. However, up until 2009 education for children with disabilities was limited to its inclusion in the constitution; educational arrangements for children with disabilities remained largely outside state policies, and non-governmental organizations (NGOs) carried most of the responsibility in providing education to children with disabilities. In 2009, the National Policy on Education for Children with Disabilities was drafted; the first state policy to set out concrete steps for the implementation of ensuring education for children with disabilities. In another demonstration of Cambodia’s recent progression toward inclusive education, the country ratified the Convention on the Rights of Persons with Disabilities on December 20, 2012.

The estimated disability prevalence rate in Cambodia is about 4 percent (CSES 2014), and the government is officially using these data to formulate policies concerning people with disabilities. At the central level of government, policies for people with disabilities are divided between the Ministry of Social Affairs, Veterans and Youth Rehabilitation (MoSVY) and the Ministry of Health. On top of focusing on general policies assisting people with disabilities, MoSVY also works with the NGOs running educational programs for children with disabilities. In terms of education policies, the Ministry of Education, Youth and Sports (MoEYS) administers all state education policies and programmes. In line with the Education Strategic Plan (ESP) and Education Sector Support Program (ESSP), a Special Education Office was
established within the Primary Education Department of MoEYS in 2000, charged with overseeing the educational development of disadvantaged children (including children with disabilities), to ensure that all Cambodian children would receive a nine-year basic education by 2015.

Cambodia has issues with both access and quality of education. Based on 2008 data from Cambodia MoEYS, 2.6% of boys and 2.9% of girls aged 5-17 have some form of disability (Table 1), and 68% of these children are not enrolled in primary and secondary education (UNESCO-IBE 2010). While the literacy levels of persons with sight, movement, and other disabilities were higher than the national average of 58.03% for the total disabled population in 2013, the literacy rate of disabled in hearing was 28 percentage points less than the national average, and the literacy rates of those disabled in speech (46.86%), mentally disabled (48.07%), and of multiply-disabled persons (44.70%) were much below the national average (Table 1). The literacy rate of those with intellectual disabilities (26.08) is currently the lowest among the different types of disabilities, and is much less than the national average (CIPS 2014).

In terms of specific training for teaching children with disabilities, there is an inclusive education component that is part of a general two-year training course at Provincial Teacher Training Centers² (PTTCs); but special and inclusive education training courses are currently only being provided by two PTTCs in Takeo and Battambang provinces. Moreover, management of teacher training at PTTCs faces two problems: firstly, there is a limitation to the coverage of inclusive education components due to financial constraints (UNESCO 2011); secondly, there is a lack of official data to monitor teachers’ qualifications and the number of teachers who have received training.

In the context of this lack of official data, two studies funded by international organizations have attempted to provide a brief glimpse of the teacher training situation in

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² PTTCs are higher education institutions funded and operated by the Cambodian government, to provide education for future teachers and school administrators across the country.
Cambodia. A situation analysis on inclusive education training courses in Cambodia by Caritas Czech and Catholic Relief Services revealed that of all the respondents (N = 25), 16 teachers reported receiving some training in inclusive education and claimed to have a qualification in inclusive education (Pather and Šiška 2013). Another pilot study on teachers’ access to inclusive education training revealed that the limited development of training for teaching children with disabilities is partly due to the short length of training (courses are 4-5 days long), to the limited knowledge of teacher trainers themselves, and to ineffective facilitation of the training courses (Šiška and Suchánek 2015).

After the end of the humanitarian crisis in Cambodia—including the mass genocide of Cambodians and educated elites, as well as the displacement of a massive population during the guerilla war with Vietnam—international donors rushed in to provide humanitarian aid in the early 1990s. Cambodia was in profound humanitarian crisis and so heavily battered that it required external help to get back on its feet. This marked the beginning of a reliance on international donors. Today, many international and local organizations continue to provide monetary, management and program support in various development sectors, including education.
In the face of the public sector’s inadequacies in addressing the issue of providing quality education for children with disabilities in Cambodia, NGOs have stepped in to fill the gap in education provision. Data on children with disabilities is generally inconsistent however, and in rural and/or remote areas, data is incomplete or missing. Addressing the fundamental issues of identifying children with disabilities to provide accurate data for informed policy making, a 2007 joint initiative between the World Bank and the Organization for Economic Co-operation and Development (OECD) was formed to establish a baseline screening survey to identify children with disabilities in Cambodia. The initiative sought to raise community awareness and detailed data collection, leading to better policy formulation and implementation.
awareness about early identification of disabilities, and the benefits of inclusive education, through the development of appropriate materials that would enable policymakers to have access to accurate data that are crucial for establishing informed policies.

Among the multitude of international programs, a few stand out for their work in Cambodia. Krousar Thmey (funded by Christian Blind Mission Australia) is one of the most representative local NGOs in the field of education for children with disabilities, and has sought to promote a localized strategy for the inclusion of children with disabilities at schools through collaboration and community involvement, and to ensure program sustainability through empowerment of the locals to take up top management roles. Krousar Thmey established the first school for blind children in 1994, and the first school for deaf children three years later in 1997. These schools provided education for children with visual and hearing impairments in Phnom Penh at the pre-primary and primary level. Today, Krousar Thmey stands out for its unique approach in supporting the implementation of inclusive education by providing an avenue for teaching Braille and sign language to both students and teachers. This facilitates the participation of children with mild to severe visual and hearing impairment in regular classrooms at Krousar Thmey’s affiliated schools, and develops the capacity of teachers at both Krousar Thmey and affiliated schools to better communicate with their disabled students.

Originally founded as an international organization, Krousar Thmey has evolved to ensure local ownership, by ensuring that top management roles are also taken on by Cambodians. Its active push for localized strategies and local ownership has contributed to the government’s acknowledgement and recognition of its work. In 2010, the then Prime Minister declared that Krousar Thmey’s teachers would also be considered public school teachers, allowing them to move with ease between teaching and training within the public education system and Krousar Thmey’s private education system.

Other approaches taken by NGOs include the Rabbit School’s implementation of individual education plans (IEP) for children and youth with intellectual disabilities. Others,
such as the Capacity Building for Disability Cooperation (CABDICO) and the World Bank, focus on conducting teacher training for inclusive education, to ensure that affiliated schools are well-adapted to the needs of children with disabilities. CABDICO does so in line with MoEYS’ training programs, and has worked with 84 schools covering 543 children with disabilities since 2009; successfully putting 257 (47%) of these children into regular schools.

Other local NGOs, such as the Cambodian Development Mission for Disability (CDMD), work with international organizations such as the Catholic Relief Service (CRS) to implement projects on a larger scale to capitalize on the familiarity of local organizations with communities as well as the larger resources of international organizations. Together, they have sought to increase the enrollment and attendance of children with disabilities in inclusive classes, implementing a Social Care and Inclusive Education Project from 2013-2015 across 18 primary schools in Takeo Province.

On the other hand, international NGOs such as the Light for the World, have actively reached out for the engagement and involvement of MoEYS and local government, by establishing a Multi-Stakeholder Inclusive Education Pilot Program that seeks to ensure future sustainability through outcome monitoring, joint learning and reflection. NGOs contribute actively and significantly in Cambodia, but a lot of work stops at the end of pilot programs despite these successes, and there is thus a lack of coordination and cumulative impact.

4. Research Methodology

In view of the lack of sufficient empirical studies reflecting the current impact of training and experience on teacher perspectives towards inclusive education in developing countries, the purpose of this study was to empirically determine the impact of (i) training on teaching children with disabilities, and (ii) actual experience in teaching children with disabilities, on teacher attitudes towards inclusive education in Cambodia, as well as (iii) how the type of disability
affects attitudes towards the possibility of inclusion of children with disabilities. In achieving the above aims, this study seeks to arrive at implications for teacher training programs, resources and support for teachers to facilitate the inclusion of students.

To answer the above research questions, this study took used the approach of asking teachers to report on the training they had received, the experience they have had, as well as on their perceptions of the value of inclusion. This approach was taken in part because of the lack of official data on teachers and teacher training, but also to analyze the impact of training and experience on their attitudes, as perceived by them. The survey questions are outlined in the section on empirical strategies and variables.

Research design and data collection in Cambodia

As the study in Cambodia involved exploring both demand-side and supply-side perspectives, surveys and interviews were conducted with parents/guardians (demand-side perspective), as well as school directors and teachers (supply-side perspective), from January to February 2015. Schools were sampled across regions (by provinces) and location (by rural or urban), and we sought the help of school principals and teachers of the sampled schools in identifying those students with disabilities (including those who had dropped out). Village chiefs were also able to point out out-of-school children with disabilities within the community they headed.

Table 2 shows the schools included in our sample, organized by provinces and classified as urban or rural. Taking into consideration geographical diversity to reach an appropriate representation of both urban and rural areas across the provinces of Cambodia, we decided upon Battambang, Kampot, Kandal, Phnom Penh, and Ratanakiri local government areas after discussion with MoEYS, to include significant sub-groups of Cambodia’s population (e.g. high ethnic minority population, high migrant worker population, as well as a representation of various local development levels). The findings from these areas will enable policymakers from
the various provinces in Cambodia to come up with strategies localized to each region’s population. This approach also helped us to cover the asymmetrical development between urban and rural areas, and the significant geographical gap in learning outcomes between urban and rural schools in Cambodia that increases at higher grades (Ogisu and Williams 2016).

Battambang is in west Cambodia, on the border with Thailand, and is the second most economically developed province in the country after the capital, Phnom Penh. Kampot is the southern-most province of Cambodia, and faces the Gulf of Thailand. Kandal province surrounds the country’s capital and is therefore the nearest province to Phnom Penh within the provinces selected. The provincial capital is a one-hour drive south of Phnom Penh and the province is also the second most densely populated one after Phnom Penh. Both Kandal and Kampot are also near the border with Vietnam. Phnom Penh serves as the country’s capital, slightly south of the center of Cambodia. Access to other provinces is mostly by road, and almost all national highways run to and through Phnom Penh. Finally, Ratanakiri is in northeast Cambodia, and is a mountainous region with many ethnic minorities. It is bordered by Laos to the north and Vietnam to the east.

Table 2: Number of schools sampled, by urban/rural and area.

<table>
<thead>
<tr>
<th>Location</th>
<th>Urban</th>
<th>Rural</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Battambang</td>
<td>5</td>
<td>19</td>
<td>24</td>
</tr>
<tr>
<td>Kampot</td>
<td>3</td>
<td>12</td>
<td>15</td>
</tr>
<tr>
<td>Kandal</td>
<td>6</td>
<td>23</td>
<td>29</td>
</tr>
<tr>
<td>Phnom Penh</td>
<td>29</td>
<td>-</td>
<td>29</td>
</tr>
<tr>
<td>Ratanakiri</td>
<td>3</td>
<td>12</td>
<td>15</td>
</tr>
<tr>
<td>TOTAL</td>
<td>46</td>
<td>66</td>
<td>112</td>
</tr>
</tbody>
</table>

*Source: Authors.*

The selected primary schools (Table 2) cover both urban and rural areas. The criterion for school selection was based on a minimum of four children with disabilities per school, and
schools with high numbers of children with disabilities were prioritized. After identifying the primary schools, we contacted them for an appointment, and on the day of our meetings we could list out all children with disabilities in each school with the help of the school directors and teachers, and in some instances village heads were also of tremendous help.

By virtue of the nature of the research subject, unit sampling could not be random but could be achieved by non-proportional quota sampling. As mentioned earlier, children with disabilities (units of analysis) were identified through school directors, teachers, or village heads. After identifying the children, we conducted surveys with their corresponding school directors, teachers and parents, but not directly with the children. This was done in view of the ethical requirement to ensure the physical, emotional and psychological safety of children throughout the course of our study, and because parents/guardians are the ones making decisions for children with disabilities and can thus be thought to be capable of responses that also reflect their children’s perceptions.

The surveys were drafted in English and translated into the Khmer language by a local research consulting firm. The actual surveys were conducted through the help of enumerators who spoke to respondents in Khmer. In cases where surveys were conducted within ethnic minorities who do not speak Khmer, we enlisted the help of an additional translator to translate the ethnic minority language to Khmer. Table 3 gives the total sample size for our data collection. Quantitative analysis in this study involved the teachers of students with and without disabilities (N=448); some respondents were selected from this number for further individual interviews and/or focus group interviews. Results from all the surveys form the backbone of our findings.
Table 3: Breakdown of sample population, by respondents, by areas.

<table>
<thead>
<tr>
<th>Location</th>
<th>SDs&lt;sup&gt;a&lt;/sup&gt;</th>
<th>Teachers</th>
<th>Parents of CwDs&lt;sup&gt;b&lt;/sup&gt;</th>
<th>Parents of non-CwDs</th>
<th>Parents of OFS&lt;sup&gt;c&lt;/sup&gt; CwDs</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ratanakiri</td>
<td>15</td>
<td>60</td>
<td>60</td>
<td>60</td>
<td>15</td>
<td>210</td>
</tr>
<tr>
<td>Phnom Penh</td>
<td>29</td>
<td>116</td>
<td>116</td>
<td>116</td>
<td>29</td>
<td>406</td>
</tr>
<tr>
<td>Battambang</td>
<td>24</td>
<td>96</td>
<td>96</td>
<td>96</td>
<td>24</td>
<td>336</td>
</tr>
<tr>
<td>Kandal</td>
<td>29</td>
<td>116</td>
<td>116</td>
<td>116</td>
<td>29</td>
<td>406</td>
</tr>
<tr>
<td>Kampot</td>
<td>15</td>
<td>60</td>
<td>60</td>
<td>60</td>
<td>15</td>
<td>210</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>112</strong></td>
<td><strong>448</strong></td>
<td><strong>448</strong></td>
<td><strong>448</strong></td>
<td><strong>112</strong></td>
<td><strong>1568</strong></td>
</tr>
</tbody>
</table>

*Source:* Authors.

*Note:* <sup>a</sup> School Director; <sup>b</sup> Children with a disability; <sup>c</sup> Out-of-school.

In addition to the surveys we conducted a set of interviews with school directors, teachers, and parents of children with disabilities, to provide some qualitative insight into the patterns reflected in the quantitative data results. Interviews were conducted with eight school directors, twenty-one parents of children with disabilities, and three parents of children without disabilities; and focus group interviews were carried out with twenty-four teachers over a period of two weeks (coinciding with the main survey period). As far as possible, the interviews with parents were conducted at their homes for them to feel more comfortable, and so that the interviews did not interrupt their daily life or work or cause them to incur any additional costs. Of these additional interviews, only the relevant data from focus groups with teachers were analyzed in the present study.

The focus group interviews with teachers were carried out in schools, mostly in between their classes, or on some occasions during their Thursday meeting days (no classes), for approximately 60 minutes. After they had completed the questionnaire surveys with the
assistance of our enumerators, teachers from randomly selected schools were asked to participate in these focus group interviews, and asked to elaborate on their background in training and experience, as well as their attitudes towards the inclusion of children with disabilities in regular classrooms.

Interviews were conducted using the critical communicative methodology (Gomez et al. 2006; Gomez et al. 2011; Puigvert et al. 2012), which invites research subjects to reflect on and interpret their experiences, and comment on the social realities of inequality that need to be transformed. It focuses on dialogue with the respondents, to extract information on exclusionary dimensions (barriers to education), and elicit their comments on transformative dimensions (realistically possible solutions). The focus group interviews thus provided an opportunity for teachers and colleagues to take the time and sit down to discuss their experiences and perspectives on including children with disabilities.

In most cases, these responses were a further elaboration of the questions answered in the survey. In a few rare cases, the focus group interviews were an opportunity to observe how teachers’ perspectives evolved as they gave greater thought to issues of including children with disabilities in the course of discussing this problem, and/or as they share their views and exchange their experiences with fellow teachers.

**Empirical strategy**

The purpose of this study is to verify the effect of: (1) teacher training on teaching students with disabilities; (2) experience in teaching students with disabilities on teachers’ attitudes to education for students with disabilities in Cambodia; as well as (3) how the type of disability affects perceptions of the possibility of inclusion of children with disabilities. For (1) and (2), training and experience are the two independent variables, and we used Pearson’s Chi-square
test for independence to see how they affect teacher attitudes to how children with disabilities should be educated (the independent variable).

**Variables**

We provided the respondents with six possible answers to the question of “How should children with disabilities be educated?” These were: (1) ‘In regular classes only’ meant that all children with disabilities should be educated together with children without disabilities; (2) ‘In regular classes with exceptions’ meant that most children with disabilities should be educated in regular classes, but children with severe/particular disabilities should be educated in special classes/schools; (3) ‘In special classes with exceptions’ meant that most children with disabilities should be educated in special classes, but children with mild/particular disabilities should be educated with children without disabilities in regular classes; (4) ‘In special classes only’ meant that all children with disabilities should be educated separately from children without disabilities;

(5) ‘children with disabilities should have the right to choose’ between special and regular classes was included to provide the demand-side (respondents) with the option to make their own education choice; and (6) was ‘Do not know’. For our analysis, options (1) and (2) were grouped as ‘Inclusive education setting’, while (3), (4) and (5) were grouped as ‘Others’. Variables relating to other teachers’ perceptions on inclusive and special education could have four possible responses (1= Strongly agree, 2=Agree, 3=Disagree and 4=Strongly disagree). Table 4 gives a summary list of the variables used in this paper.
Table 4: Summary List of Variables.

<table>
<thead>
<tr>
<th>Variables</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Training</td>
<td>Yes = 1, No = 2</td>
</tr>
<tr>
<td>Experience in teaching CWDs</td>
<td>Yes = 1, No = 2</td>
</tr>
<tr>
<td>Teachers’ perceptions on how CWDs should be educated</td>
<td>In regular classes with some exceptions, In regular classes only, In special classes with some exceptions, In special classes only, Right to choose, Don’t know</td>
</tr>
<tr>
<td>CWDs have the right to be educated in regular classrooms</td>
<td>Strongly agree = 1, Agree = 2, Disagree = 3, Strongly disagree = 4</td>
</tr>
<tr>
<td>Types of Disabilities</td>
<td>Hard of hearing, Deaf, Oral and speech, Low vision, Blind, Physical (mobility), Intellectual, Learning disability &amp; slow learner, Severe &amp; Multiple</td>
</tr>
</tbody>
</table>

*Source:* Authors.
Disabilities were categorized into eight types in this study. In looking at sensory impairment, our study sought to differentiate between severe sensory impairment (‘Deaf’ and ‘Blind’), and mild sensory impairment (‘Hard of hearing’ and ‘Low vision’). ‘Deaf’ refers to situations where the child is completely unable to hear sounds; ‘hard of hearing’ refers to all other situations where the child can hear something with assistance or without it (ranging from hearing a little to most). ‘Blind’ refers to situations where the child is completely unable to see; ‘low vision’ refers to all other situations where the child can see something with assistance or without it (ranging from seeing a little to most).

‘Oral and speech disabilities’ include cases of slurred speech to a (complete) inability to talk, where such impairments affect their learning. ‘Physical disability’ refers to situations where the child’s mobility in daily living and education is hindered by a physical impairment, including disability/difficulty in walking or picking up a pen. ‘Intellectual disabilities’ refer to situations of intellectual impairment where a child faces significant limitations in their intellectual function (including reasoning and problem solving) and adaptive behavior in daily life (including the conceptual and practical skills of daily activities).

‘Learning disabilities and slow to learn’ refer to situations where the child has a cognitive impairment, and their learning is affected by their difficulty in reading, writing and/or math. ‘Severe disabilities’ refer to situations where a child’s physical or mental impairment significantly limits their functional capacity, and they require extensive support to function in their daily activities that other children of the same age are able to engage in independently. Lastly, ‘multiple disabilities’ refer to situations where a child has more than one of the above types of disabilities.
5. Results and Findings

Descriptive statistics

Table 5 outlines the summary statistics of the whole sample of teachers who teach students with and without disabilities. In addition to the two variables (Training to teach CwDs, and Experience in teaching CwDs) that are used for statistical analysis in this study, this table gives the number of observations, mean and standard deviation of other variables to provide a better picture of the context of the responses.

Among the 448 teacher-respondents, 66.6% were females and 44.4% were males, and they had an average age of 40.9 years. More than half of all the teachers had upper secondary educational qualifications (57.6%), about one-fifth of them had up to lower secondary qualifications (20.3%), and 3.4% of them had primary school educational qualifications. Only 17.9% of the teachers had a university degree or postgraduate qualifications.
Table 5: Summary Statistics.

<table>
<thead>
<tr>
<th>Teachers (N=448)</th>
<th>Obs (%)</th>
<th>Mean (SD)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Gender</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>199 (44.4)</td>
<td>-</td>
</tr>
<tr>
<td>Female</td>
<td>249 (55.6)</td>
<td>-</td>
</tr>
<tr>
<td><strong>Age</strong></td>
<td></td>
<td>40.9 (10.1)</td>
</tr>
<tr>
<td><strong>Education level</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Primary</td>
<td>16 (3.4)</td>
<td>-</td>
</tr>
<tr>
<td>Lower secondary</td>
<td>91 (20.3)</td>
<td>-</td>
</tr>
<tr>
<td>Upper secondary</td>
<td>258 (57.6)</td>
<td>-</td>
</tr>
<tr>
<td>Vocational</td>
<td>3 (0.7)</td>
<td>-</td>
</tr>
<tr>
<td>University</td>
<td>73 (16.3)</td>
<td>-</td>
</tr>
<tr>
<td>Postgraduate</td>
<td>7 (1.6)</td>
<td>-</td>
</tr>
<tr>
<td><strong>Years of teaching</strong></td>
<td></td>
<td>18.9(9.3)</td>
</tr>
<tr>
<td><strong>Class size</strong></td>
<td></td>
<td>33.5(31.3)</td>
</tr>
<tr>
<td><strong>Pre-service Training</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>437 (97.5)</td>
<td>-</td>
</tr>
<tr>
<td>No</td>
<td>11 (2.5)</td>
<td>-</td>
</tr>
<tr>
<td><strong>In-service Training</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>361 (80.6)</td>
<td>-</td>
</tr>
<tr>
<td>No</td>
<td>76 (17.0)</td>
<td>-</td>
</tr>
<tr>
<td><strong>Training to teach CwDs</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>92 (20.5)</td>
<td>-</td>
</tr>
<tr>
<td>No</td>
<td>356 (79.5)</td>
<td>-</td>
</tr>
<tr>
<td><strong>Most recent training</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Less than 2 years ago</td>
<td>65 (70.65)</td>
<td>-</td>
</tr>
<tr>
<td>2-5 years ago</td>
<td>19 (30.65)</td>
<td>-</td>
</tr>
<tr>
<td>5-10 years ago</td>
<td>6 (6.52)</td>
<td>-</td>
</tr>
<tr>
<td>More than 10 years ago</td>
<td>2 (2.17)</td>
<td>-</td>
</tr>
<tr>
<td><strong>Duration of most recent training</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1-6 days</td>
<td>81 (88.04)</td>
<td>-</td>
</tr>
<tr>
<td>7-14 days</td>
<td>5 (5.43)</td>
<td>-</td>
</tr>
<tr>
<td>15-30 days</td>
<td>1 (1.09)</td>
<td>-</td>
</tr>
<tr>
<td>31 days or more</td>
<td>5 (5.43)</td>
<td>-</td>
</tr>
<tr>
<td><strong>Experience in teaching CwDs</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>348 (77.68)</td>
<td>-</td>
</tr>
<tr>
<td>No</td>
<td>100 (22.32)</td>
<td>-</td>
</tr>
</tbody>
</table>

Source: Authors.
Among the teachers, the average length of teaching experience is 18.9 years, and up to 77.7% of all respondents reported that they had experience in teaching at least one child with disability in their classroom. 97.5% of the teacher respondents indicated that they had received general teacher training prior to teaching in classrooms, but the percentage falls to 80.6% for those who continue to receive training while in service. However, only 20.5% of all teachers reported ever receiving training specifically related to teaching children with disabilities. Within this group, approximately 70.7% had received their training on teaching children with disabilities within the last two years, and 88.0% reported that this training had lasted between 1 to 6 days.

Figure 1 gives teacher responses to the question “How should children with disabilities be educated?”

Figure 1: The proportion of preferred types of education for children with disabilities.

Source: Authors.
Of the 448 teacher respondents, 47.5% felt that children with disabilities should be educated in regular classes only or with some exceptions (a preference for the inclusive education setting), while 37.9% felt that children with disabilities should instead be educated in special classes only or with some exceptions (a preference for the special education setting), and 14.1% felt that children with disabilities (or their parents) have the right to choose between either special or regular classes. Therefore, we found that the teachers’ perspectives on inclusive and special education are quite diversified, and that no consensus has been reached in this country.

The Impact of training to teach children with disabilities

Figure 2 gives the teachers’ responses to “How should children with disabilities be educated”, with responses categorized by whether teachers have ever received specific training on teaching children with disabilities. As mentioned in Table 5, only 20.5% of all teacher-respondents reported that they had previously received specific training on teaching children with disabilities.

![Figure 2: The proportion of teachers’ preferred type of education for CwDs, by training.](source: Authors.)
From Figure 2, we can see that 47.7% of the respondent teachers were without relevant training in teaching children with disabilities, and that a similar percentage of 46.8% of all teachers who had received relevant training in teaching children with disabilities indicated a preference for inclusive education settings. Of the teachers without relevant training in teaching children with disabilities 39.6% indicated a preference for special education settings, compared to a slightly lower 31.5% of those with relevant training in teaching children with disabilities. When we include the group that responded that children with disabilities (and/or their parents) have the right to choose between special and regular classes, we find that in both cases, less than half of all respondents indicated a preference for children with disabilities to be educated in special education settings.

The chi-square test results show that we cannot reject the null hypothesis that there is no relationship between training for teaching children with disabilities and the type of education preferred (Table ). Thus, we observe that results are not strong enough to conclude that there is a statistically significant relationship between the training received for students with disabilities and teacher perspectives on how children with disabilities should be educated.
Table 6: Results of chi-square test, x= type of education preferred by teachers, y= training.

<table>
<thead>
<tr>
<th>Type of Education Preferred</th>
<th>%, with training n=92</th>
<th>%, without training n=356</th>
<th>r-value</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inclusive education setting In regular classes only</td>
<td>0.467 (n=43)</td>
<td>0.478 (n=170)</td>
<td>0.03</td>
<td>0.862</td>
</tr>
<tr>
<td>with some exceptions</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Others In special classes with some exceptions</td>
<td>0.533 (n=49)</td>
<td>0.522 (n=186)</td>
<td>0.03</td>
<td>0.862</td>
</tr>
<tr>
<td>In special classes only</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CWD's right to choose</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Authors.

Firstly, with only 20.5% of all teachers admitting to ever having received training, our data show that there is a demonstrated lack of teacher training for children with disabilities, including knowledge of disabilities, their respective needs, and how to address such needs at the classroom level. In interviews, the teachers expressed their awareness of a “lack [of their] technical skills”\(^3\) to teach students with disabilities. They wanted to learn about “proper teaching methodologies,”\(^4\) or specific things they could do in classrooms, to help students with different types of disabilities learn better. Fundamentally, they “don’t know how to help”\(^5\) as well, partly because they have difficulty in or cannot communicate with students who are severely sensory.

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3 Focus group interview with teachers from schools in urban Ratanakiri, on 10 February 2015 from 0945-1100 hours.
4 Focus group interview with teachers from schools in rural Kampot on 12 February 2015 from 1030-1130 hours.
5 Focus group interview with teachers from schools in rural Battambang, on 16 February 2015 from 0945-1020 hours.
impaired (blind or deaf). Many teachers had not heard about Cambodian Braille and/or the Cambodian sign language, and when told about it, many expressed that they would want to learn so that they can communicate with their students and “become able to teach those students”.

Teacher training in Cambodia is currently carried out by a cascade system, where a few teachers from different schools are selected to attend a regional or country level training, and in turn, they return to their schools and train or share this knowledge with colleagues. However, respondents shared anecdotes that reveal how teacher training content acquired by the few teachers have not been shared sufficiently. A school director at a primary school in Ratanakiri said that he had previously been one of the school directors selected to attend district-level training on the identification of children with low vision, and had “learnt teaching methodology from experts.” The participants were then to return to their schools and were “expected to share with others” what they had learnt. However, interviews with the teachers of that school showed that while they knew the school director had previously gone on a training course, they reported that they did not know exactly what the training was about. Thus, the discrepancy in responses from the school director and teachers in this school confirm the existence of disruptions in the implementation of the cascade training system in Cambodia.

This was also the case in other schools, where some respondents reported being aware that some of their colleagues had gone for such seminars, but were unaware of what they learnt, while others were entirely unaware that their colleagues had been given such training. This demonstrates how information and knowledge is not properly disseminated, and only trickles down the cascade training system in Cambodia.

Secondly, although no correlation between training and teachers’ perceptions was observed as discussed from the analysis depicted in Figure 7, the responses from the qualitative interviews reveal that schools receiving systematic training and support are generally more

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6 Comparative accounts from (i) interview with the school director and (ii) focus group interview with teachers, from school in urban Ratanakiri on 10 February 2015.
positive in their attitudes towards inclusive education, and more confident in how to teach students with disabilities.

Some of the 20.5% of teachers who have received training on educating children with special needs are currently teaching at the Cambodia-Japan Friendship School in Kampot. In our interviews, the director shared how the school has an inclusive education project plan cycle, which is supported by the NGO Krousar Thmey (specializing in visual and hearing impairments) and MoEYS. The nearest Krousar Thmey School to the Cambodia-Japan Friendship School is a short walking distance away. Krousar Thmey provides the regular school with information on various NGO support programmes available to people with specific types of disabilities and conducts teacher training for students with visual impairment.

Two of the teachers in this school went for a 5-day course run by Krousar Thmey in Kampot, and a one-month training at Krousar Thmey’s main school in Phnom Penh. The director and some of the teachers were also sent by MoEYS and Krousar Thmey for a study visit to inclusive classrooms in Vietnam. With such training and exposure (especially in visual impairment), the school directors and teachers demonstrated a sincere concern for, and a strong commitment to keeping track of the results of students with visual impairment in the school, to improve the overall learning experiences and outcomes for children with disabilities. The top performing student in this school is also a student with low visual ability.

The school has also demonstrated that it is accommodating of students with other disabilities. One of their students is a boy with severe physical impairment (unable to move from waist down) on a wheelchair, who has been rejected by other schools, but the director of this school replied without hesitation: “We see students as sons and daughters and don’t have the heart to turn them away. If we don’t accept them, who else will?” Teachers of this school also responded that it is “better to have inclusive classrooms because children with impairments can

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7 Fieldwork conducted in urban Kampot on 13 February 2015. Interview conducted with school director from 0850-0930 hours; focus group interview conducted with teachers from 0930-1050 hours.
be helped by regular students”. Qualitative interviews have thus demonstrated that there is a tendency for teachers who have received training to have more positive attitudes towards inclusive education.

Nevertheless, our quantitative analysis showed no such correlation between training and positive attitudes, suggesting that while training has the potential to positively influence teachers’ attitudes towards inclusive education, its effects cannot yet be consistently observed throughout the system. The lack of consistency can be attributed in part to our first finding, whereby only 20.5% of all teacher respondents reported ever having received training on teaching children with disabilities. The breakdown of the cascade training system whereby selected teachers from selected schools who attend training fail to transfer that knowledge implies that the message of inclusive education, as well as its purposes and methods, is not being (effectively) transmitted to other teachers. These two reasons suggest that there is a need to address the lack of quality teacher training and on-site support.

As demonstrated by the Cambodia-Japan Friendship School in Kampot, the actual implementation of programs based on training by Krousar Thmey helped in the transfer of knowledge. One way to ensure that the knowledge and skills gained through training are transferred and actualized would be to provide schools with a post-training budget, and require them to implement what they have learnt. This would serve a two-fold purpose by ensuring that new knowledge gained is immediately actualized into action, and that a concrete avenue for teachers who did not attend the training to learn from their colleagues is constructed.

The impact of experience teaching children with disabilities

Next, we look at how experience in teaching students with disabilities influences the perceptions of teachers in Cambodia with regard to education for students with disabilities. Figure 3 gives their responses to “How should children with disabilities be educated”, with the responses
categorized by whether teachers have experience in teaching children with disabilities. Approximately 77.7% of all teacher-respondents have had some experience in teaching children with disabilities in their regular classrooms (see Table 5).

Figure 3: Proportion of teachers’ preferred type of education for CwDs, by experience.

Source: Authors.

From Figure 3, we can see that 43% of the teachers without experience in teaching children with disabilities, and 48.8% of all the teachers with experience in teaching children with disabilities indicated a preference for inclusive education settings. 42.0% of teachers without experience in teaching children with disabilities indicated a preference for special education settings, compared to a slightly lower 36.7% of those who did have experience in teaching children with disabilities.

A chi-square test of these results shows that we cannot reject the null hypothesis that there is no relationship between experience and type of education preferred (Table ). Therefore, from this sample, we observe that the results are not strong enough to conclude that there is
a statistically significant relationship between experience in teaching students with disabilities and teacher perspectives on how children with disabilities should be educated.

Table 7: Results of chi-square test, \( x = \) type of education preferred by teachers, \( y = \) experience.

<table>
<thead>
<tr>
<th>Type of Education Preferred</th>
<th>% with experience</th>
<th>% without experience</th>
<th>r-value</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>( n=348 )</td>
<td>( n=100 )</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Inclusive education setting</td>
<td>In regular classes only</td>
<td>0.489 (n=170)</td>
<td>0.430 (n=43)</td>
<td>1.07</td>
</tr>
<tr>
<td></td>
<td>In regular classes with some exceptions</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Others</td>
<td>In special classes with some exceptions</td>
<td>0.511 (n=178)</td>
<td>0.570 (n=57)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>In special classes only</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>CWD's right to choose</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Authors.

Nevertheless, interviews with teachers revealed that those with experience in teaching students commonly discussed the limits to implementing inclusive education in the current situation and the difficulties in teaching children with disabilities in regular classrooms alongside other children without disabilities, despite recognizing the rights of children with disabilities to education and saying “as a teacher it’s our duty to educate them.”

Circumstances in Cambodia leave teachers with little time and energy to accommodate or pay attention to the educational needs of children with disabilities. Teacher salaries in Cambodia are very low and many teachers take on other day jobs for their family’s survival and quality of life. During participatory observations at schools, some teachers, particularly those in rural areas, were observed to be selling food and drinks within the school compounds in the short
breaks between classes to supplement their income. Additionally, most people in Cambodia also return home for lunch, so teachers with children (particularly women) leave work after the morning session to fetch their children before heading home to prepare lunch for the family, leaving them with barely enough time to get back before classes start for the afternoon session.

The general lack of resources available (e.g., Braille printers and/or textbooks) as well as the lack of systematic support and planning between teachers and at the school level also make it almost impossible for teachers to pay attention to the educational needs of children with disabilities. Teachers shared how they devise their own ways of teaching students with disabilities. For those with low vision, a teacher explains how she invites the child to “sit in front” and “spends more time” with the child; for children with “slightly low cognitive levels,” the teacher remarked that she “adjust[s] her speaking pace” for the child.

Another school director at Kandal with twenty years of experience with teaching children with disabilities described how other teachers “don’t have ability or qualifications, so [they] just use gestures” to communicate with a student whom the teacher identified as one who “can’t speak but can hear and has lower understanding”. The director appeared to welcome the idea of educating children with disabilities at his school, but he felt that “students with severe disabilities should go to special schools,” and that he “hope[s] for some organizations to help them,” because the school lacks resources. For the student identified by the school as one who “can’t speak but can hear and has lower understanding,” the director accepted his enrolment only because one of the teachers had already directly accepted the child’s enrolment. The director appeared resigned to it and said that “if they [CwDs] come [I’ll] accept, but let them know in future [if] there is anything lacking in teaching, please understand” (sic). The director had also previously attended study seminars and heard that there would be support coming in for students

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8 From interviews with teachers and observations made in schools and classrooms.
9 Focus group interview with teachers from school in urban Ratanakiri, on 10 February 2015 from 0945-1100 hours.
with disabilities. However, he went on to share his disappointment on how the promised support was still not delivered after more than a year.

The teachers’ lack of knowledge in interacting with and teaching students with disabilities (as a result of lack of training) also further leads to a lack of confidence, which results in a negative, or at best neutral, experience in teaching them. They feel they are unable to cope with such situations and eventually draw away from or reject involvement such situations. A teacher with 20 years of teaching experience but who had “only just recently faced these kinds of students” stated that it is “difficult to teach students with disabilities (in her regular classes)” because she has “difficulty explaining to them.”

In summary, the quantitative data from this study demonstrate that experience in teaching children with disabilities is not significantly correlated with whether teachers perceive inclusive education as the preferred form of education for children with disabilities. On the other hand, the interviews conducted with some of these teachers as shown above revealed that teachers lack the awareness, knowledge and confidence to include children with disabilities in regular classrooms that is typically gained through effective training, feedback and support. This (perceived) inability to effectively deal with students with disabilities in their classrooms leads to frustration and negative teaching experiences, which in turn, leads them to develop negative attitudes towards the implementation of inclusive education. This was the case even for teachers who fundamentally believe in education for children with disabilities and are open to the idea of including them in regular schools.

Contrary to previous studies in developed countries, the results from this study show that experience in teaching children with disabilities does not necessarily positively influence teacher perspectives on inclusive education. This finding serves to further demonstrate the importance of training, with consequences extending beyond its direct impact on teaching.

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10 Focus group interview with teachers from school in Phnom Penh on 27 July 2015, from 0954-1043 hours.
outcomes, to its influence on teacher experiences. The result of training, or the lack of it, determines how adept teachers are in dealing with, and adapting themselves and their methods to children with disabilities in the classroom. The discernment that they are unable to effectively teach and support children with disabilities in their classes results in lower teacher confidence and motivation, which negatively influences their holistic experience and attitudes towards the implementation of inclusive education.

Types of disabilities

Figure 4 shows teachers’ perceptions towards the possibility of including children with disabilities, based on the types of disabilities they have. Consistent with earlier studies, teacher perceptions towards the possibility of inclusion are influenced by types of disability. This analysis by type of disability is included to demonstrate the extent of the applicability of empirical findings from developed countries to developing countries.

In Figure 4, we can see that more than half of the teachers surveyed had a positive attitude towards the inclusion of four disability types in regular classrooms. For children with low vision, 60.5% of all teachers felt positive about their inclusion in regular classrooms (very possible = 9.8%, possible = 50.7%). For children with physical disabilities, 52.9% of all teachers felt positive about their inclusion in regular classrooms (very possible = 7.4%, possible = 45.5%). For children who are hard of hearing, 52.3% of all teachers felt positive about their inclusion in regular classrooms (very possible = 9.2%, possible = 43.1%). And for children who have learning disabilities and/or are slow learners, 50.4% of all teachers felt positive about their inclusion in regular classrooms (very possible = 8.0%, possible = 42.4%).
We can also observe that more than half of the teachers surveyed reported negative attitudes towards the inclusion of five disability types in regular classrooms. For children who have oral and speech disabilities, up to 54.7% of all teachers felt negative about their inclusion in regular classrooms (not very possible = 39.5%, not possible at all= 15.2%). For children who have intellectual disabilities, as many as 80.6% of all teachers felt negative about their inclusion in regular classrooms (not very possible = 55.8%, not possible at all= 24.8%). For children who are deaf, up to 89.8% of all teachers felt strongly negative about their inclusion in regular classrooms (not very possible =23.2%, not possible at all= 68.3%). For children who have severe and multiple disabilities, a staggering 91.5% of all teachers felt strongly negative about their inclusion in regular classrooms (not very possible =23.2%, not possible at all= 68.3%). And for children who are blind, a high of 94.4% of all teachers felt negative about their inclusion in regular classrooms (not very possible = 20.3%, not possible at all= 74.1%).

Figure 4: Proportion of teachers’ perceptions on the possibility of inclusion, by types of disabilities.

*Source:* Authors.
This was also consistently reflected in the interviews, with teacher respondents saying that they “cannot accept the blind and deaf because [they] don’t have the teachers and resources to teach them,” or that “students who are slow or with severe disabilities should go to special schools.” A teacher with 27 years of teaching experience with children with disabilities who views that “as a teacher it’s their duty [to educate them]” shares how her experience has told her that “blind students cannot be mixed up with arm or leg disability”.

The results thus demonstrate that teachers in Cambodia perceive children with severe sensory impairment, children with severe and multiple disabilities, and children with intellectual disabilities, to be difficult to teach and include in regular classrooms. Particularly, despite expressing that students with a severe sensory impairment should be educated, these teachers reported their frustrations in being unable to communicate with and ‘help’ them.

6. Discussion and Conclusion

While previous studies conducted in developed countries demonstrate that training and previous experience in teaching children with disabilities have a strong and positive influence on teacher perceptions of inclusive education, our study reveals that this is not the case in Cambodia. Contrary to studies conducted in the context of developed countries, this study reveals that there is only a weak relationship between teacher training and experience and teacher attitudes toward inclusive education.

Firstly, despite the quantitative analysis that showed no correlation between training and positive attitudes in Cambodia, the qualitative interviews demonstrated that teachers who have received well-managed training hold more positive attitudes towards inclusive education. This may be attributed to the fact that only a minority of the teacher respondents had received relevant training, and to the breakdown of the cascade training system for the transfer of knowledge. Our findings thus suggest that not only is the current cascade teacher training system ineffective in
reaching out to all teachers, the message of inclusive education—its purpose and method—is not effectively transmitted to all teachers by their current training. There is thus a need for policies to address the lack of quality teacher training and on-site support, to improve teacher experience with teaching and meeting the educational needs of children with disabilities.

Secondly, while experience in teaching children with disabilities is not significantly correlated with teacher perception of inclusive education in Cambodia, the qualitative data indicates that many of the negative experiences of teaching children with disabilities are related to the lack of teacher training and support. This reinforces the need for practical solutions to the problem of ensuring the effective implementation of inclusive education, as well as the need for comprehensive support at the classroom level, as necessary steps that require greater attention in developing countries.

Thirdly, teachers perceived that blind and deaf children, children with severe and multiple disabilities, and those with intellectual disabilities are difficult to educate in regular classrooms. Particularly, the teacher perceptions on the education of blind and deaf students in inclusive education settings revealed in this study are significantly different from the earlier empirical findings in developed countries. While sensory impaired students appear to be relatively more easily included in regular classrooms in developed countries given the use of Braille or sign language, the collaboration between special and inclusive classrooms, and the presence of assistant teachers, this outcome is not yet easily established at the classroom or school level in developing countries like Cambodia. Using Braille requires both teachers and students learning how to read or use this medium, and the purchase of expensive printers to print Braille textbooks and/or worksheets. Using sign language similarly requires both teachers and students to learn how to communicate in this way. Following its introduction in 1997, documentation of a system for Cambodian Sign Language is still an ongoing project between the Deaf Development Programme and Krousar Thmey, and disseminating or increasing its usage in inclusive education classrooms will take some time to implement.
As the international community steps up to the challenge of the sustainable development agenda and tries to ensure inclusive and equitable quality education for all children, it is crucial that we bear in mind that we cannot simply assume outcomes in developing countries based on our experience in developed countries. When introducing inclusive education in developing countries, we should strive to ensure that programs are localized and established upon local data and conditions, and do not merely attempt to apply established practices from developed countries.
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要約

インクルーシブ教育に対する教師の積極的な態度の形成に、教員研修と教師の経験が大きく影響するという実証研究は、先進国においては数多く存在する。本研究は、途上国におけるインクルーシブ教育の実施に対して政策的示唆を得るため、そのような傾向が途上国でも確認できるのかを実証しようとしたものである。本研究では、カンボジアを途上国の事例とし、2015年2月に448名の教師に対して質問紙調査を行い、また24名の教師に対して、面談聞き取り調査を行った。その結果、質問紙調査の統計分析からは、教師の障害児教育に関する研修経験や障害児を実際に教えた経験が、カンボジアでは、障害児をどのような状況で教育することが良いのかに関する教師の考え方や態度にほとんど影響を与えていないことが示された。聞き取り調査からは、教員研修の質の低さや、学校現場で障害児を教える教師への支援の不足が、教員研修や教員の経験の有無がインクルーシブ教育に対する教師の考え方や態度に影響を与えない原因になっていることが示唆された。また、カンボジアでは、盲聾の児童を通常学級で教育することに対して、先進国での実証研究に比しても、教師が否定的であることが示された。このように、本研究からは、発展途上国においてインクルーシブ教育を推進するためには、単に教員研修を拡大し、通常学級に障害児を受け入れるだけではなく、教員研修の質を高め、現場の教師への支援体制を拡充することが必要となることが示唆された。
Working Papers from the same research project

“Disability and Education”

JICA-RI Working Paper No. 103

The Effect of Disability and Gender on Returns to the Investment in Education: A Case from Metro Manilla of the Philippines

Kamal Lamichhane and Takayuki Watanabe