The perceptions of Thai preschool teachers about inclusive education for young children with disabilities

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The perceptions of Thai preschool teachers about inclusive education for young children with disabilities

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This thesis is submitted in fulfilment of the requirements for the award of the degree of

Doctor of Philosophy (Education)

Faculty of Education and Arts
The University of Newcastle, Australia
February, 2013
Declaration

This thesis contains no material which has been accepted for the award of any other degree or diploma in any university or other tertiary institution and, to the best of my knowledge and belief, contains no material previously published or written by another person, except where due reference has been made in the text. I give consent to the final version of my thesis being made available worldwide when deposited in the University’s Digital Repository, subject to the provisions of the Copyright Act 1968.

Signed:  ..................................................
Acknowledgements

The completion of this thesis was made possible by many individuals to whom I am greatly indebted.

Without the financial support of the Thai Government who provided me with a Strategic Scholarship for Frontier Research Network –Thailand’s Commission on Higher Education, I would not have been able to survive in my research journey.

I am very grateful to the Chiangmai Rajabhat University staff members for their willing assistance throughout my study program. Thank you Assist. Prof. Yeamluck Udakorn, Assist. Prof. Thammakit Thammo, Assist. Prof. Suchanart Sitanurak, Asso.Prof. Surin Yodkampong, Assist. Prof. Somkate Uttayotha, Assoc. Prof. Dr. Katemanee Markmee, Assist. Prof. Santanee Kunachayangkul, and Aj. Prisin Pintana, Thank you to all staff at the Faculty of Education and the Special Education Centre, especially K.Thitinun Keawnil who was always gracious when I asked for support.

Deep gratitude is given to both of my supervisors, Associate Professor Michael Arthur-Kelly and Associate Professor Ian Dempsey. Their guidance, valuable comments and encouragement made this thesis possible. I would like to thank Professor Allyson Holbrook and Professor Max Smith for their guidance to my research practice.

This study was granted from the School of Education, University of Newcastle. I have been able to conduct six months of research field trips in Thailand. Thanks are given to Dr. Thomas Griffiths who was the head of the research support team at the School of Education. To Dr. Zsuzsanna Millei who widened my world in the area of early childhood study. Thank you very much.

I very much appreciated the assistance of the Thai educational expert- Aj. Suleekran Thijae, and preschool teachers. Thank you for participating in this study. They so willingly gave up their time to participate in this study and transferred their
experiences regarding inclusive educational practices. Their responses were meaningful and worthwhile.

Great thanks for all kinds of support to my friends. Suwadee Mongkol, Monthiwa Chaikew, Palanuch Kongka, Buntarika Jaikrajang, Chanick Wangpanich, Puritad Inya, Rungnapa Lerntcharapong, Thitaporn Thoopputra, Nongnuch Petchboonwat, Vipada Petchot, Dr. Chamimone Sirsurak. Special Thanks for Watinee Opartkiattikul who devoted her times to share, laugh and tears with me. Your friendship, encouragement, and support allowed me to complete this study.

I wholly appreciate remarkable encouragement and support from my Australian family, Julie and Robert Norris. Thank you for your unconditional support. I am proud to be your daughter. My thanks to my family members in Thailand, father, Sanan, sister Sasiwimon, brother, Thanathep. Special thanks to my mother Supanij Songat, who prays for our Lord Buddha every day to bless me with success in my study. I also do acknowledge my mother in law Payom Sukbunpant who has taken care of my son during my study.

Finally, thank you very much to my beloved husband, Sutthisak and lovely son, Om, for their patience and spritely support through my long research journey.
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<table>
<thead>
<tr>
<th>Acronym</th>
<th>Description</th>
</tr>
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<tbody>
<tr>
<td>IEP</td>
<td>Individualised Educational Plan</td>
</tr>
<tr>
<td>IFSP</td>
<td>Individual Family Service Plan</td>
</tr>
<tr>
<td>LRE</td>
<td>Least Restrictive Environment</td>
</tr>
<tr>
<td>VI</td>
<td>Children with Visual impairment</td>
</tr>
<tr>
<td>HI</td>
<td>Children with Hearing Impairment</td>
</tr>
<tr>
<td>ID</td>
<td>Children with Intellectual Disabilities</td>
</tr>
<tr>
<td>PHY/HI</td>
<td>Children with Physical disabilities/Health impairment</td>
</tr>
<tr>
<td>LD</td>
<td>Children with Learning Disabilities</td>
</tr>
<tr>
<td>SLD</td>
<td>Children with Speech and Language Disorder</td>
</tr>
<tr>
<td>BED</td>
<td>Children with Behavioural Emotional and Social disorder</td>
</tr>
<tr>
<td>AUS</td>
<td>Children with Autism</td>
</tr>
<tr>
<td>MD</td>
<td>Children with Multiple Disabilities</td>
</tr>
<tr>
<td>ADHD</td>
<td>Attention Deficit Hyperactive Disorder</td>
</tr>
<tr>
<td>LPA</td>
<td>A teacher who had the Least Positive Attitude toward inclusion</td>
</tr>
<tr>
<td>MPA</td>
<td>A teacher who had the Most Positive Attitude to inclusion</td>
</tr>
<tr>
<td>PCA</td>
<td>Principle Components Analysis</td>
</tr>
<tr>
<td>ANOVA</td>
<td>Analysis of Variance</td>
</tr>
<tr>
<td>( n )</td>
<td>Number of sub-sample</td>
</tr>
<tr>
<td>( N )</td>
<td>Total number of cases</td>
</tr>
<tr>
<td>( \chi^2 )</td>
<td>Chi-square test</td>
</tr>
<tr>
<td>( df )</td>
<td>Degrees of freedom</td>
</tr>
<tr>
<td>( p )</td>
<td>The Probability of obtaining a test statistic</td>
</tr>
<tr>
<td>( r )</td>
<td>Pearson’s correlation coefficient</td>
</tr>
<tr>
<td>( r_s )</td>
<td>Spearman’s correlation coefficient</td>
</tr>
</tbody>
</table>
\begin{itemize}
  \item \textbf{ES} \quad \text{Effect Size}
  \item \textbf{M} \quad \text{Mean}
  \item \textbf{SD} \quad \text{Standard Deviation}
  \item \textbf{SS} \quad \text{Sum of Square}
  \item \textbf{MS} \quad \text{Mean squares}
  \item \textbf{F} \quad \text{A value resulting from a standard statistical test used in ANOVA}
  \item \textbf{Sig.} \quad \text{Significance level}
  \item \textbf{B} \quad \text{Unstandardised regression coefficient}
  \item \textbf{Beta} \quad \text{Standardised regression coefficient}
  \item \textbf{R} \quad \text{Correlation Coefficient}
  \item \textbf{R}^2 \quad \text{Coefficient of determination}
\end{itemize}
Abstract

The present study aims to (a) examine the needs of Thai preschool teachers in relation to the inclusion of young children with a disability (b) investigate whether there are relationships between teachers’ demographic characteristics and their attitudes and their needs, and (c) identify the predictors of Thai preschool teachers’ attitude regarding inclusive education for young children with a disability.

This study was conducted in the upper north educational region in Thailand which consists of four provinces; Chiangmai, Chiangrai, Lampang and Lamphun. The population of the current study was 1,638 public primary schools which have preschool classes and there were 350 schools in the sample. Quantitative and qualitative research methods were employed in this study. All 589 of the preschool teachers in the sample school were purposively selected to complete the questionnaire: *The Thai Preschool Teachers’ Perceptions on Inclusive Education Rating Scale*. In this study, 535 from a total of 589 preschool teachers returned the questionnaire. The response rate was 90.83%. There were 528 completed questionnaires for further analysis. In the second phase of this study, 20 preschool teachers who had the top 10 and bottom 10 scores from section B of the questionnaire ranked in order from the high score to low score were selected and invited to be interviewed to get a deeper understanding of teachers’ perceptions.

A four-point Likert scale of items in the questionnaire indicated Thai preschool teachers’ attitudes toward inclusion for young children with disabilities were slightly positive. The interview results indicated the Thai preschool teachers have shown their preference for a child with mild disability rather than a child with severe disability disabilities. This study has underlined the role of cultural and religious factors along with teachers’ explanations about the cause of disability and the reason for working
with children with disabilities. Thai preschool teachers expressed their need for training regarding teaching children with disabilities in inclusive classrooms. This study also found that there were some significant positive and negative relationships between the teacher’s needs, teachers’ attitude and their personal characteristics. The finding of this study indicate that educational preparation, collaboration and teaching experience with children with disabilities are the predictors of Thai preschool teachers’ attitude toward inclusive education for young children with disabilities.

Recommendations are made for changes in practice and for future research. Inclusive education policy should be promoted at preschool level. Effective follow up strategies from the government agency are necessary to ensure successful implementation of this inclusive education policy. Providing quality in-service training for teachers should be based on teachers’ suggestions. It is hoped that the present study can contribute to a systematic plan in implementing inclusion in the Thai educational system and thus improve the teaching and training for Thai preschool teachers as well as positive educational outcomes for young Thai children with disabilities.
Publication from this research

Referred Publication:


Conference/seminar Presentations:


CHAPTER 1
INTRODUCTION

This chapter introduces readers to this thesis entitled “The perceptions of Thai preschool teachers about inclusive education for young children with disabilities”. The first three sections of this chapter contain the rationale behind this study. The fourth section discusses the purpose of the research and section five embodies the focus of the study. Definitions of terms used in this study are presented in the sixth section followed by an exploration of the importance of the study. The final section describes the organisation of the thesis.

1.1 Background

In March 1990 at Jomtein, Pattaya, Thailand, 155 countries and representatives of 160 government and non-governmental agencies participated in a world conference and accepted the notion of Education for All. This conference led to an action plan to identify strategies for providing education for all on a human rights basis (Peters, 2007). Additionally, the Salamanca Statement at the 1994 World Conference on Special Needs Education, reflecting the commitment of 92 governments and 25 international organisations, supported the Education for All notion for children with disabilities. A proposed scheme of inclusive education was expressed as follows:

Regular schools with this inclusive orientation are the most effective means of combating discriminatory attitudes, creating welcoming communities, building an inclusive society and achieving education for all; moreover, they provide an effective education to the majority of children and improve the efficiency and ultimately the cost-effectiveness of the entire education system.

(United Nations Educational Scientific and Cultural Organisaion [UNESCO], 1994, p. ix)
This statement indicates that regular schools have a responsibility to provide education to all children with diverse needs. Teachers also have to be adequately prepared to meet the educational needs of all students in their classes in order to have equality in education. This fosters equal opportunity and develops students’ potential, while respecting their human dignity (Bevan-Brown, Heung, Jelas, & Phongaksorn, 2012; Peters, 2007). Children with disabilities should be given the right to be educated at a similar level of learning to children without disabilities, and there must be constant support from teachers to promote inclusive education. Likewise, teachers should not look at the disability of the child as the focus of education, but should consider the child as a person and how he or she can achieve academically (Inclusion International, 1998).

Considering, inclusion in an international context, the differences in economic, political and social circumstances must be taken into consideration. These conditions impact on the interpretation and understanding of these concepts (Lloyd, 2013).

The European Agency for Development in Special Needs Education [EADSNE] (2011) provided the definitions of inclusive education being a concept that allows students with diverse needs to be placed in and to receive instruction in regular schools and classrooms. Those concepts refer to the access to education and school attendance, the learning experience, and learning processes and outcomes across the curriculum. Inclusive education is a shared responsibility. Teachers, parents and society share responsibilities in inclusive education to assist the children with disabilities to become productive and efficient members of society (Deku & Ackah, 2012).

Odom, Buysse, and Soukakou (2011) argued that inclusion should mean more than the physical placement of children with disabilities in regular classroom settings. It should also encourage children with disabilities to become an active member of society.
The definitions of preschool inclusion may vary in each country. Hu, Roberts, Wang, and Zhao (2011, p. 112) argued that the definition of Chinese preschool inclusion differs from the Western view of inclusion as it (1) emphasises remediation based on skill deficits rather than teaching from strengths or preferences; (2) does not require an individualised educational plan for each child with an identified disability; and (3) constitutes an educational opportunity rather than educational right.

Even though, several research findings on inclusive education provided diverse meanings of inclusion, Klibthong (2012) argued the objectives of inclusive education for young children mainly focused on social integrity and equity in school. In some countries like Armenia, inclusion of preschool children aimed to promote inclusion for children with special needs from birth through six years and provide alternative services to facilitate the enrolment and integration from early childhood (Lata & Stepanyan, 2013). In addition, Lata and Stepanyan (2013) argued that successful inclusion depended on receiving early diagnosis and support for young children and their families well before the child reaches the age of five.

Nutbrown and Clough (2004) supported the value of inclusion as it promotes individual children’s needs, the development of appropriate practice and parent participation. An additional benefit of inclusive education for young children with disabilities is that it reduces the possibility of bias and negative attitudes toward people with a disability (Pivs, McCormas, & LaFlamme, 2002).

An inclusive setting allows children to learn to help each other within the context of a supportive and pleasurable social environment. Professionals such as teachers have an important role in inclusive settings as children learn about helping by imitating the adult’s behaviour (Diamond & Carpenter, 2000). Children with disabilities have the right to an inclusive education from the early childhood level through to the last
year of school, and it is the responsibility of regular schools and teachers to provide this education. Thus, inclusion is a complex and challenging mission which teachers are expected to accomplish in their daily instruction with all children in their classes.

1.2 The importance of teachers’ perceptions

The implementation of inclusive education has created important challenges for teachers. There is a high expectation that the teachers will educate and manage children with disabilities to meet the children’s needs in a way which suits their abilities (Chang, Early, & Winton, 2005; Foreman, 2011). Examples of the challenges that teachers face include developing teaching and support strategies for both children and their parents. In addition, the shift to inclusive education for children with disabilities requires preschool teachers to develop their professional career to provide the appropriate support for these children with a disability.

Several researchers have studied teacher attitudes and needs that have influenced the success of inclusion in classrooms (Avramindis & Norwich, 2002; Bennett, Deluca, & Bruns, 1997; Ocloo & Subbey, 2008; Singal, 2008). Rose (2001) claimed that because teachers have an important role in the dynamic system of the inclusive classroom, studying their attitudes can provide valuable insights into their practice.

Recently, early childhood teachers’ attitudes towards inclusion in many countries such as the USA (Hsieh & Hsieh, 2011; Leatherman & Niemeyer, 2005), Australia (Mohay & Reid, 2006), Hong Kong (Zhang, 2011), China (Hu, 2010) and Sweden (Sandberg & Ottosson, 2010) have been reported. One example is a study from Turkey in which Batu (2010) reviewed the literature about early childhood inclusion. The results revealed that preschool teachers had positive attitudes to inclusion but children with severe disabilities were viewed with a less positive attitude.
The need for adequate teacher training both before and during service was reported by teachers in several studies (Campbell, Milbourne, Silverman, & Feller, 2005; Singal, 2008; Smith & Smith, 2000). Teacher training can assist in dealing with many of the issues that teachers face when including students with disabilities in their classrooms (Dart, 2006). Dart’s research indicated that individuals who participate in training specifically related to serving children with disabilities, are more comfortable with and willing to serve these children. Early childhood educators must have the knowledge and skills to meet the challenges of children with various ability levels within the inclusive classroom (Mitchell & Hegde, 2007).

The level of perceived teacher readiness and preparation is another concern for teachers in working with children with disabilities. To improve their professional competence, teachers must have skills such as knowledge of disability and child development, teaching methods including assessment and behaviour strategies, and an understanding of social skills development (Forlin, 2012a). Furthermore, preschool teachers have expressed concern about their lack of knowledge of children with disabilities (Odom, 2000). Killoran, Tymon, and Frempong (2007) suggested more preparation programs for early childhood student teachers, course materials and practicum experiences in inclusive settings are necessary. Educational support should be provided for teachers in inclusive settings as well.

Teacher collaboration with parents and other staff has been found to create some barriers to inclusion. One of the barriers to effective collaboration is limited opportunities for involvement in planning by family members (Buysse, Wesley, & Keyes, 1998). Regular classroom teachers would also like to have special education staff in their classroom to carry out specialised instruction on specific goals for each child so they can plan a program together (McDonnell, Brownell, & Wolery, 2001).
Preschool teachers have indicated that collaboration between staff and parents is especially important for children in need of support. Supervision and continuous in-service education are also important in order to secure quality levels in preschool settings (Sandberg, Norling, & Lillvist, 2009). Teachers need more reliable support both in class and at the administrative level (Smith & Smith, 2000).

Numerous studies of teachers’ perceptions have yielded valuable information concerning teachers’ attitudes about inclusion and their need for training. Educational preparation was perceived by the teachers in these studies as important in preparing them for teaching young children with disabilities. Further, working collaboratively with the stakeholders was considered as an essential practice when working in inclusive settings.

1.3 The inclusive education movement in Thailand

Thailand is located in Southeast Asia. Administratively, it comprises 76 provinces in five groups: central, east, north, northeast, and south. Thailand’s national religion, Buddhism, is central to Thai identity and belief (Vorapanya & Dunlap, 2012).

The history of Thai special education is similar to other Buddhist countries. People with a disability are seen as family who might have committed some sin in the past (Driedger, 1989). With this perception, Thai children with disabilities were usually kept at home with no education. Even the compulsory educational act of 1935 allowed a child with a disability to stay at home because of their condition (Chonlatanon, 1995).

Special education officially developed in 1939 with the establishment of the first school for Thai children with visual impairment (Thirajit, 2000). Since then, special education in Thailand has developed gradually. In 1962, children with visual impairment studied in regular schools for the first time; it was not until 1984 that children with hearing impairment were included in this manner. From that time, special
education policy encouraged schools to allow these children to study with children without disabilities in regular schools. In 1995, at least one public school in every province had a mainstream class for these children (Chonlatanon, 1995).

The Thailand Ministry of Education launched the educational year for inclusion of children with disabilities in 1999 (Ministry of Education, 2002). Since that year, the number of children with disabilities who study in schools has been increasing. In 1987, 807 students with disabilities were included in 16 schools. By 2002, there were 139,692 students with a disability who were included in 32,899 regular schools (Office of Basic Education Commission [Thailand], 2005). In 2009, the Thai Ministry of Education planned to increase the number of inclusive schools by more than 5,000 with the aim of providing educational services for children with disabilities starting from the early childhood level (Office of Basic Education Commission [Thailand], 2009). This plan would widen the opportunities for young children with disabilities to study in the regular educational system. Also, preschool teachers would increase their special duties simultaneously in teaching and managing children with disabilities in regular classroom settings.

Preschool inclusion is challenging for Thai preschool teachers because of the need to work with children with disabilities who have a wide and complex range of needs, their families and other professionals. Several studies have found that Thai teachers in inclusive classes lack knowledge in special education, have insufficient training for teaching children with disabilities, and have insufficient skills to manage children with disabilities (Meechalard, 2003; Pisarnsombat, 2000; Rattanosot, 2003; Sorathaworn, 2003; Sukkoon, 2003).

Despite the growing trend towards inclusion for young children with disabilities in Thailand, little is known about Thai preschool teachers’ perceptions on the inclusion
of young children with disabilities. It is important to identify teachers’ attitudes, their educational and experiential preparation, and their collaboration with parents and staff to improve the process of inclusion.

1.4 Purpose of the study

The present study aims to

(a) examine the needs of Thai preschool teachers in relation to the inclusion of young children with a disability.

(b) investigate whether there are relationships between teachers’ demographic characteristics and their attitudes and their needs.

(c) identify the predictors of Thai preschool teachers’ attitudes regarding inclusive education for young children with a disability.

1.5 Focus of the study

This study was conducted in the upper north educational region in Thailand which consists of four provinces; Chiangmai, Chiangrai, Lampang and Lamphun. The population of the current study was 1,638 public primary schools which have preschool classes and there were 350 schools in the sample. All of the preschool teachers in the sample schools were purposively selected to complete the questionnaire: The Thai Preschool Teachers’ Perceptions on Inclusive Education Rating Scale. Later, 20 preschool teachers were invited to be interviewed.

1.6 Definition of terms in this study

Children with disabilities in this study refers to children who have either been diagnosed by a medical doctor as having a disability or were identified using the criteria of the Sub-committee for Selecting and Classifying the type of disability for Education [Thailand] (2002), and also have an Individualised Educational Plan (IEP). There are nine types of children with disabilities in the Thai
Educational system: children with visual impairments, hearing impairments, intellectual disability, physical disabilities/health impairments, learning disabilities, speech and language disorder, behavioural emotional and social disorder, autism, and multiple disabilities.

Preschool inclusion in this study refers to children (with disabilities) who are enrolled in early childhood education or early childhood special education classes operating through the public school (Odom, 2002). In addition, this study will include children with disabilities who are enrolled in preschool classes in public school. All these children are aged from 3 to 6 years old.

Preschool teachers in this study teach young children from age 3 to 6 years in regular classes in government schools. Two groups of preschool teachers participated; teachers who had a child with a disability in their class, and teachers without a child with a disability in their class.

Teachers’ perceptions in this study refer to teachers’ opinions in three areas (a) personal attitudes and training about inclusion (b) educational preparation, and (c) the process of collaboration.

Educational preparation in this study relates to teachers’ perceptions of their readiness for working with young children with disabilities, their knowledge of disability and child development, and their teaching methods including assessment, behaviour strategies and social skills development.

Process of collaboration refers to teachers’ skills in collaborating with parents and other professionals to meet the needs of children with disabilities.

1.7 The place of the researcher

The researcher started her career as a preschool teacher in 1993. At that time, there was no policy about inclusive education. However, there were some children with
a disability, such as children with Attention Deficit Hyperactive Disorder (ADHD), in the regular preschool classroom. There was a lack of assistance and support provided to preschool teachers and children with disabilities.

Later the researcher became a lecturer in special education. Since the implementation of an inclusive education policy throughout Thailand in 2004, the researcher had several opportunities to visit and observe inclusive classrooms in many primary regular schools. Those regular teachers argued that they had insufficient training and knowledge in special education to teach these children with disabilities. This situation challenged the implementation of the Thai inclusive education policy.

The researcher’s background and experiences motivated her to know how preschool teachers perceive inclusion of young children with disabilities. However, the researcher was aware that this background experience could cause a potential bias in her conduct of the research and analysis of study outcomes. To avoid those issues, results were analysed entirely based on the participants’ responses, and with due recognition of the possibility of researcher bias. The reviews of Thai and international literature bases and the combination of both qualitative and quantitative research elements were employed to guide the researcher to produce an independent interpretation of data collected for this study.

It is hoped that the disclosure of the researcher’ role and the awareness of potential bias would allow the reader to situate the researcher in this study.

1.8 The importance of this study

This research will be useful in three domains, both in Thailand and internationally; to gain deeper knowledge to inform teacher preparation and development, to strengthen education policy, and to improve practitioners’ skills and attitudes.
It is believed that this study is the first to focus on preschool teachers’ perceptions on inclusive education in the upper north region of Thailand. Furthermore, this study also contributes a survey instrument in the Thai context which may be applied to other Thai studies. The results of this study could expand our current understanding of inclusion for Thai preschool children with disabilities. In addition, the study results may also provide new information that could be used to examine notions of the movement of inclusion in the Thai educational context and other jurisdictions, from the perspectives and experiences of those who are involved.

Regarding planning for inclusive education for young children with disabilities, evidence from the practitioners’ perception about inclusion is crucial to adequately assist any local decision-making in planning successful inclusion. In addition, this study could serve as a basis for future efforts aimed at planning and improving the quality of teacher training and educational preparation of inclusive education for preschool children with disabilities. Data from this study may assist 46 teacher training colleges or Rajabhat Universities in Thailand to plan appropriate curriculum and sufficient training for both early childhood and special education teacher students to prepare them to work in inclusive settings. Furthermore, one of the important missions of the Rajabhat University is to provide quality in-service training for inclusive education teachers. Therefore, having direct information about what teachers might propose is essential to serve that mission.

Finally, the results of this study will assist in improving service provision and appropriate support for preschool teachers. Moreover, this would deepen understanding of the support needs of teachers and the services required.
1.9 Organisation of the thesis

This thesis contains six chapters. In Chapter One, the background, purpose and definition of terms used in this study have been briefly described. The importance of preschool teachers’ perceptions about inclusive education for young children with disabilities is also discussed.

Chapter Two reviews the literature related to teachers and inclusion, and to attitudes, educational preparation and the process of collaboration. It also includes the theoretical concepts that inform this study. In addition, the research questions for this study are introduced.

Chapter Three provides an overview of the research methodology employed in this study. Details of the population and sample are presented. The data collection process, including ethical clearance, is presented, and details of data analysis, including data preparation, are also provided.

Chapter Four presents the first part of the research results and analysis of data collected from the questionnaire. General information regarding the characteristics of the participating teachers and the young children with a disability in the sample classrooms is also presented.

Chapter Five provides research results in the second phase of the study derived from interviewing a subset of participants. Demographic data for the interview participants is described. Also, five themes that emerged from the analysis of preschool teacher perceptions about inclusive education are presented.

Chapter Six is the last chapter and presents a discussion of the results. The implications for the implementation of inclusive education for young Thai children with disabilities are explored. In addition, limitations and recommendations for classroom and school practices, and suggestions for future research are provided.
CHAPTER 2

LITERATURE REVIEW

This study focuses on inclusive education for young children with disabilities in Thailand. This chapter is divided into five major sections. Literature about inclusion is reviewed in the first section and includes definitions and issues related to the significance of inclusion. The second section reviews relevant literature on teachers and inclusion with an emphasis on teachers’ attitudes, educational preparation, and the process of collaboration. The third section reviews the Thai education system. This section provides literature and research findings with regard to inclusion for young children with disabilities in Thailand. The fourth section reviews the theoretical concepts in relation to Thai preschool teachers and this educational system. Lastly, in the fifth section a summary of the chapter is provided.

2.1 Inclusion

This section aims to investigate the rationale for the inclusion of young children with disabilities in educational settings. The main focus will be on preschool teacher perceptions including personal attitudes, educational preparation, and the process of collaboration.

2.1.1 Definition of Inclusion

For the purpose of this research, inclusion refers to the full participation by children with disabilities in education programs and activities for typically developing children (Bailey, Mcwilliam, Buysse, & Wesley, 1998; Odom & Diamond, 1998).

The term *inclusion* has been used in a wide variety of ways including education programs, education settings or education situations (Odom, 2000). The development of the terminology of inclusion has changed since the notions of integration and
mainstreaming that existed in the 1970s. Integration was the first program that positioned young children with and without disabilities in preschool settings, while mainstreaming was applied in the public school setting that provided for older-school age children (Guralnick, 1976). The term *inclusion* has more recently been applied in early childhood programs (Odom & Diamond, 1998). The change in terminology was based on the fundamental premise that inclusion would mean more than the physical placement of children with disabilities in the same classroom as other children, and conveyed the notion that children with disabilities would become a part of larger societal systems (Odom et al., 2011).

In the context of young children, inclusion may include private and community-based child care programs (e.g., Head Start programs), and pre-kindergarten programs in public schools (Odom & Diamond, 1998). Guralnick (2001) identified four levels of inclusive programs for early childhood settings; full inclusion, the cluster model, reverse inclusion and social inclusion. Klibthong (2012) further explained the meaning of four main models of early childhood inclusion:

- **Full inclusion**: children with and without disabilities participate fully in a program or service provided for all children in order to increase the acceptance of and development of all children.

- **The cluster model**: A group of children with disabilities participate together in a program that operates alongside an inclusive education program.

- **Reverse inclusion**: A few groups of children without disabilities participate in a program that provides for children with disabilities.

- **Social inclusion**: Children with disabilities participated in special settings and came together with children without disabilities focusing on social experiences.
However, the most common inclusive setting is a classroom in which the main student group are children without disabilities (Odom, 2002). Some have argued that inclusion can be defined solely by physical placement (Bailey et al., 1998; Mulvihill, Shearer, & Van Horn, 2002), whilst others believe that focusing only on the facility for inclusion as the basis of definition is insufficient. According to Allen and Cowdey (2005), placement alone does not capture the meaning of inclusion. It should also include the method of delivering developmentally appropriate practices suitable for the student’s age, their needs and their culture.

2.1.2 Rationale for inclusion

Over three decades, the provision of preschool education for young children with disabilities has transformed from segregated special school and special classes to an increasingly inclusive education system. In the past, people with disabilities were kept in institutions or special settings and had a separate education experience which may not have developed their competencies (Bailey et al., 1998; Odom & Diamond, 1998). In the USA, the first step towards inclusion for young children with disabilities was made in 1968 when federal legislation required at least 10% of children with disabilities to be enrolled in the Head Start program. In 1975, the principle of the Least Restrictive Environment (LRE) was established and was reaffirmed in 1997 with the reauthorisation of the Individuals with Disabilities Education Act (Individuals with Disabilities Education Improvement, 2004). This measure increased access by preschool children with disabilities to school settings with typical developing peers (Bailey et al., 1998; Odom & Diamond, 1998). In 1990, the Americans with Disabilities Act (ADA) enabled people with disabilities to access and participate in education programs with people without disabilities, including early childhood and child care programs (Mulvihill et al., 2002). Furthermore, in the USA, strong legal support for inclusive
education for preschool children has developed (Brown, Odom, Li, & Zercher, 1999; Odom, 2000; Odom et al., 2011; Odom et al., 2006b).

### 2.1.3 Benefits of inclusion

Several benefits of inclusion have been acknowledged. A study from Buysse, Wesley, Bryant and Gardner (1999) used the Early Childhood Environment Rating Scale (ECERS) to assess the quality of early childhood settings from 180 community based child care centres in North Carolina, USA. This study confirmed that the inclusive early childhood programs scored significantly higher on the ECERS overall than did the non-inclusive programs. In another study, Odom, Buysse, and Skinner (2006a) explored the quality of the preschool environment, developmental outcomes for children, and the costs of preschool inclusion in North Carolina and Indiana. Three types of program models were identified to guide program recruitment: community-based programs, Head Start programs, and public school programs. Children with disabilities appeared to be participating in classroom activities between 55% and 60% of the time. The findings also revealed that, as a group, children with disabilities did not appear to be socially rejected. Children with disabilities had friendships with other children in the classes, and the number of friendships appeared to be maintained or to increase slightly across the year.

Guralnick (1999) noted that inclusion may build and enhance beneficial relationships between children with and without disabilities. For young children without disabilities, there was an increased understanding of disability, more positive attitudes towards people with disability, and a greater acceptance of diversity (Diamond & Carpenter, 2000; Hestenes & Carroll, 2000).

Another benefit of inclusive education is that children with disabilities may improve their developmental and social skills through inclusion (Odom & Diamond,
Tsao et al. (2008) examined the social participation of 143 young children with disabilities in inclusive preschool programmes including community-based, Head Start, public school, and blended programmes. Children’s and adults’ social behaviour was positive across all settings, and children in blended programs engaged in significantly more positive social behaviour with adults. Michailakis and Reich (2009) pointed out that inclusive education is the most effective approach against discriminatory attitudes and may widen opportunities for children with disabilities in the education system.

2.2 Teachers and inclusion

When inclusive education is implemented, teachers are expected to support children with a wide range of abilities and needs (Chang et al., 2005). Smith and Smith (2000) pointed out that this expectation extends to early childhood teachers. Teachers in inclusive settings need to work cooperatively with parents and other staff to achieve successful outcomes, and teachers may respond to these challenges in different ways.

2.2.1 Personal attitudes to inclusion

Researchers worldwide have expressed interest in exploring teachers’ attitudes and beliefs about inclusive education. There is little doubt that teacher beliefs, attitudes and needs are important to the success of inclusion. Many studies have reported the importance of teachers’ attitudes toward inclusion (Avramindis & Norwich, 2002; Bennett et al., 1997; Bruns & Mogharreban, 2007; Ocloo & Subbey, 2008; Singal, 2008). These findings suggest that teachers have a range of negative and positive attitudes towards inclusion and children with disabilities.

An American study by Vaughn, Schumm, Jallad, Slusher, and Samuel (1996) identified negative attitudes towards inclusion. A focus group of 25 regular and 25 specialised teachers were interviewed regarding their perception about inclusion. Interview results revealed that the majority had strong, negative feelings and felt that
decision-makers were unaware of classroom realities. Class size, inadequate resources, the extent of benefit to all students, and the lack of adequate teacher preparation were factors that affected the success of inclusion.

The findings by Vaughn et al. (1996) were similar to another study by Rakap and Kaczmarek (2010). They surveyed 194 Turkish general education teachers working in public elementary schools in 7 cities regarding the inclusion of students with disabilities and their willingness to include students with more severe learning disabilities. The results revealed that the teachers had slightly negative attitudes towards the inclusion of students with disabilities. The teachers were asked about their willingness to include students with three types of severe disability: physical disabilities, cognitive disabilities and behavioural problems. Perhaps surprisingly, students with severe behavioural disabilities were regarded as the least demanding of the three groups. The teachers with in-service training and special education certificates and those who received special education courses during college had relatively more positive attitudes towards inclusion.

These results emphasised the importance of training in special education and its association with attitudes towards inclusion. In addition, the study by Rakap and Kaczmarek (2010) reported that teachers who had experienced inclusive practices, and who have had students with disabilities in their classrooms, are more likely to hold a more positive attitude toward inclusion than teachers who have not had any students with disabilities in their classrooms. The results further suggested that when teachers had a small number of students with disabilities in their classroom, they usually demonstrated more positive attitudes toward inclusion. Two limitation of this study were the limited participant recruitment region and the fact that data was collected from self-reported survey responses only.
de Boer, Pijl, and Minnaert (2011) reviewed 26 studies regarding teachers’ attitudes towards inclusive education, variables relating to their attitude, and the influence of teachers’ attitudes on the social participation of children with disabilities in regular classrooms. This review showed that the teachers had a negative attitude towards inclusive education and were not confident in teaching children with disabilities. Teachers with fewer years of teaching experience held more positive attitudes towards inclusion than teachers who had many years of teaching experience. De Boer and colleagues explained that teachers with many years of teaching experience may experience fatigue in their careers. Long-term training in special needs education was related to a more positive attitude by the teachers towards inclusive education when compared with teachers who did not receive training. In relation to the children’s type of disability, the results of this study indicated that teachers were most negative about the inclusion of children with learning disabilities such as Attention Deficit Hyperactive Disorder (ADHD) and other behaviour problems. However, the study was limited as attitude was not defined by the authors of the research papers reviewed. In addition, the selected studies for review employed self-reported questionnaires. Therefore, further investigation of teachers’ attitudes to actual behaviour should be considered.

A survey conducted by Zoniou-Sideri and Valachou (2006) found Greek teachers held restrictive and conflicting beliefs about inclusive education. Teachers expressed the view that inclusion was not practical for all children. Even though teachers believed that inclusive education was necessary to reduce marginalisation and stigmatisation, they felt that segregated special education was important as a means of providing a secure place for children with disabilities. In addition, the vast majority of teachers believed that socialisation was the major benefit of inclusion, while cognitive development was not considered.
Hastings and Oakford (2003) found that student teachers had a negative attitude towards inclusion and children with disabilities. They revealed that 93 of the UK student teachers who completed a scale to measure attitudes towards inclusion were more negative about the impact of children with emotional and behavioural problems on other children, teachers, and the school environment than they were about children with intellectual disability. However, there was no relationship found between training backgrounds and previous experience with special needs children on student teachers’ attitudes.

Hemmings and Woodcock (2011) conducted a survey with 138 Australian pre-service teachers enrolled in the third year of a four year primary teacher education course from a large regional Australian university, to explore their views about inclusion and their readiness to teach in inclusive classrooms. Responses to a survey were obtained from 97 students in the first phase of the study. The survey was re-administered to the same cohort four and a half months later. Useable responses from 101 students were gained during this second (and follow-up) round of data collection. Content analysis revealed that pre-service teachers felt poorly prepared to teach students with diverse needs. It was found that a substantial number of the pre-service teachers expressed concern about how they would cope if physical and human resources were not accessible. Support, cooperation and acceptance from others, including colleagues and parents, were the most important factors expressed for successful inclusion.

In a Greek study of the knowledge and attitudes of 140 pre-service physical education student teachers towards children with disabilities, Mousouli, Kokaridas, Angelopoulou-Sakadami, and Aristotelous (2009) reported a limited understanding of disability and special education in the samples. Most students were familiar with children with intellectual disability as the main category of special needs. The partial
awareness about children with disabilities was related to the moderate willingness by the physical education student teachers to work with children with disabilities in their classroom. The student teachers were unfamiliar with the idea of inclusion. The findings of this study suggested that, even though the university represented the main source of knowledge about special education for the student teachers, the information provided about children with disabilities was not effective. Mousouli et al. (2009) argued that the limited awareness by student teachers about schools, special education and inclusion cannot only be dealt with at university level. Systematic information and interaction is needed in order to improve knowledge and attitudes towards children with disabilities.

In contrast, other research has found positive teacher attitudes to inclusion. Teachers have more positive attitudes about including children with milder disabilities than children with severe emotional and behavioural disabilities (Avramidis, Bayliss, & Burden, 2000; Dupoux, Wolman, & Estrada, 2005; Engelbrecht, Oswald, Swart, & Eloff, 2003).

One example of teachers’ positive attitudes was found in the study by Westwood and Graham (2003) comparing the views of primary teachers from South Australia and New South Wales on inclusive education. Their questionnaire was sent to a representative sample of schools listed in the Disadvantaged Schools and Country Areas Programs in both states. Seventy-seven responses were analysed and the overall pattern of responses from teachers in NSW and South Australia were similar. Approximately one third of all the teachers reported benefits associated with having students with disabilities enrolled in their classrooms. Teachers in both states identified students with emotional and behavioural difficulties as the most challenging students they had to cope with in the inclusive classroom. Students with autism, and some with intellectual disability, also presented teachers with difficult challenges, as did those with speech and
language problems and learning difficulties. However, teachers in both states also reported that the major difficulties they encountered were lack of time combined with difficulty in balancing the demands of all students. Large class sizes, lack of appropriate teaching resources, children’s behaviour problems, and lack of appropriate professional training in inclusive methods were confirmed as the specific obstacles to implementing inclusive practice. The findings also had clear implications for teacher education programmes, both pre-service and in-service. There appeared to be a need to provide classroom teachers with the additional knowledge and skills necessary for supporting students with special needs in mixed-ability classes.

Another study by Scruggs and Mastropieri (1996) found that teachers of higher grades were more resistant to inclusion, while early childhood educators were found to be more accepting of inclusion (Goodstadt-Killoran, 2000). These early childhood teachers believed that all young children can learn, and that children with and without disabilities should have learning experiences together (Bruns & Mogharreban, 2007). This study suggested that positive beliefs about inclusion may be related to the willingness of early childhood staff to support both children with and without disabilities.

Marshall, Ralph, and Palmer (2002) investigated the perspectives of 268 Post Graduate Certificate in Education students in the Department of Education at the University of Manchester, UK, towards children with speech and language difficulties. Most of the university students were positive about their expectations of such children. However, 61% did not feel adequately prepared to teach children with a speech and language disability. The three main obstacles to the inclusion of children with speech and language difficulties appeared to be lack of time, resources and training.

Avranindis and Norwich (2002) argued that teachers’ attitudes can be changed as a result of successful involvement in an inclusion program. Teachers’ positive attitudes
become more ingrained as they develop the necessary proficiency to successfully implement inclusion and experience the positive outcome of their efforts. In Avranindis and Norwich’s study, the authors neglected to define successful inclusion. Therefore, each teacher in the study may have perceived success differently and this may have impacted on their attitudes. Hence, there is a need for future research to understand more about this aspect of teachers’ perceptions.

Starczewska, Hodkinson, and Adams (2012) interviewed 10 Polish teachers employed in a mainstream school and a special school. The majority of the teachers defined inclusion as including children with disabilities into mainstream schools. The teachers were unclear about the meaning of inclusion both at the theoretic and practical level. The study suggested that children with mild and moderate intellectual disabilities had the best opportunity to be included in regular Polish schools while, those with severe intellectual and physical disabilities were still commonly excluded. Teachers believed this educational ideal worked well during the early years of education.

In a recent study regular education teachers’ perceptions of inclusion in Spanish elementary and secondary schools was examined by Chiner and Cardona (2013). In addition, a study of the variables such as teaching experience, skills, and the availability of resources and supports were investigated on the teachers’ perceptions. 336 general education teachers (68 kindergarten, 133 elementary, and 135 secondary teachers) from the province of Alicante, Spain were a sample selected by the stratified random sampling procedure. The results indicated that the teachers accepted the principles of inclusion, but their skills, time, material resources, and personal support for inclusion were reported as insufficient. This sample group viewed the advantages of including children with disabilities in regular classes in terms of practicing favors, the development of tolerance and respect among students. In contrast, the teachers showed
their reluctance to include students with moderate and severe disabilities in regular classrooms. Working with other professionals (e.g. special education teachers and school psychologists) was mentioned as an important part of the regular teachers work.

2.2.1.1 Teacher training and teacher attitude to inclusion

A lack of specific training for teachers who work in inclusive settings has been found in several studies (Campbell et al., 2005; Singal, 2008; Smith & Smith, 2000). Regular teachers need to know how to take care of children with disabilities in the classroom as inclusion becomes more common (Ocloo & Subbey, 2008). A study by Frankel (2004) revealed that the main difficulties regarding training for early childhood teachers were lack of training in special needs, inconsistency in training curriculum and lack of practical experience in linking the theory and practice of inclusion, and lack of consistent training for resource teachers and itinerants.

While early childhood teachers were generally positive about including children with disabilities in their classrooms, Odom (2000) found preschool teachers were concerned about their lack of knowledge of children with disabilities. Similarly, Zhang (2011) found that preschool teachers reported a lack of training and felt inadequately prepared in terms of special education skills and knowledge of teaching children with disabilities. Bruns and Mogharreban (2007) reported the need for training for early childhood practitioners to improve specialised strategies including implementing IEPs, the use of communication supports and special knowledge, and the positioning of children with motor impairment in the classroom. In addition, research has also indicated key components including hands-on training workshops, programmed visitations and additional special education coursework as essential for the improvement of early childhood personnel preparing for inclusive classrooms (Burke & Sutherland, 2004).
Wang (2008) reported that specific training programmes could improve the early childhood teachers’ willingness to work with children with disabilities in inclusive settings. However, the participants (n = 82) in his study still reflected the need for increased training in teaching methods, a greater knowledge of environmental adaptation, the use of assistive technology, special equipment for young children with disabilities, and behaviour management skills.

Training can enrich teachers’ knowledge about how to handle children with disabilities such as managing the student’s behaviour, programme modification, assessing academic progress, and adapting curriculum and assistive technology (Buell, Hallam, McCormick, & Scheer, 1999). Another benefit of training is related to the teachers’ acceptance of inclusion. Knochea, Peterson, Edwards, and Jeon (2006) reported that teachers who had training relating to child development were more likely to be working in inclusive settings than in non-inclusive settings. Additionally, teachers in inclusive settings had a more professional orientation toward their work and were more likely to see their work as a personal career than did teachers in non-inclusive settings (Knochea et al., 2006). Teachers with a bachelor’s degree were more aware of the importance of inclusion and actively sought to enroll children with disabilities (Clawson & Luze, 2008).

Some research has indicated a relationship between specialised training, teachers’ positive attitude, and their ability to accept children with disabilities in inclusive settings. Ross-Hill (2009) explored the differences in attitude towards special education and inclusion between elementary regular education and secondary regular education teachers. The participants of this study included 100 teachers from three public elementary and secondary schools in rural, south-eastern USA who completed the Scale of Teachers’ Attitudes Towards Inclusive Classrooms (STATIC). The analysis
also indicated marginal statistical significance between the cohorts of preschool regular education teachers and secondary seventh and eighth-grade regular education teachers, while all other teaching groups were not statistically significant with regard to differences in average attitude. The results indicated that academic training and years of teaching experience of the participants did not relate to their attitude toward inclusion for students with disabilities. The teachers also stated that they tended to agree that they were confident about teaching students with special needs because they had adequate training to meet these needs. These teachers participated in one or more years of in-service training given by the school district. The findings indicated a relationship between specialised training and a teacher’s positive attitude, and their ability to accept children with disabilities in inclusive settings.

Baker-Ericzén, Mueggenborg, and Shea (2009) reported the results from their study on a training program provided to 1,298 diverse early childcare providers. All of the child care providers who participated in the training significantly improved their attitudes and perceived competence towards inclusion. It was found that the more training a provider received, the larger the gains. Compared to other providers, providers who attended three or more of the topic-specific training sessions showed the most positive attitudes towards inclusion and demonstrated the greatest perceived competence regarding how to include a child with disability into their program.

Forlin, Loreman, Sharma, and Earle (2009) investigated the impact of training for pre service teachers towards the inclusion of students with disabilities. Participants included 603 pre-service teachers enrolled in a teacher preparation program at a training institution in one of four countries: Australia (n = 270), Canada (n = 58), Hong Kong (n = 182) and Singapore (n = 93). All pre-service teachers were preparing to teach in regular classrooms at preschool, primary or secondary level. The results from this study
confirmed that previous university training was positively associated with pre-service teachers’ attitudes towards inclusion, their sentiments towards people with disabilities, and in decreasing their concerns of working with children with disabilities. The more preschool teachers were satisfied with their training and education, the more positive their attitudes were towards inclusion (Gemmell–Crosby & Hanzlik, 1994). In addition, disability-specific training and current experience working with children with disabilities are associated with positive attitude of inclusion. The attendance at disability-specific training may be related to more positive teacher’s attitudes towards inclusion. These more positive attitudes, in turn, relate to increased comfort levels and confidence of teachers to include children with disabilities (Mulvihill et al., 2002).

Symeonidou and Phtiaka (2009) argued for the development of in-service teacher training courses which should be academically robust and professionally useful. Teacher training institutions should ensure their programs prepare teachers effectively by providing practical experience with inclusive education in positive and supportive environments, opportunities for students to reflect on successful experiences, and academic content regarding knowledge of policy and laws relating to inclusion (Loreman, Forlin, & Sharma, 2007).

Sandberg, Anstett, and Wahlgren (2007) argued the importance of in-service education for the preschool teachers. In their research, after the participants studied for three semesters at a university in Sweden, they received a certificate qualifying them to work as pre-school teachers. Interviews were conducted at the end of the in-service education period, and later after spending a year in pre-school. The results revealed that the participants had become more aware of the children’s learning process and their own attitudes to the children, and also had increased their own capability and self-confidence.
The emotional needs of teachers are also important when it comes to a positive attitude to inclusion. Some preschool teachers in inclusive classes have indicated that they are anxious and lack confidence to teach young children with disabilities (Miller & Losardo, 2002). Forlin (1998) came to similar conclusions, showing that teachers in her study perceived that they lacked the basic skills to provide for children with a range of disabilities. The most stressful issue for regular teachers was their perceived personal competence. Their concern was that, while the teachers were focusing on the child with the disability and on the need to provide an appropriate educational programme for the child, they were not able to teach other children in the class (Forlin, 2001). The teachers in this study were teaching children with moderate or severe intellectual disabilities only.

A later study by Forlin and Chambers (2011) found that pre-service teachers were confident about teaching children with disabilities but did not like the pressure they were under to be inclusive. Sixty-seven (31 early childhood, 36 primary pre-service teachers) who were in their first three years of a four-year undergraduate degree in education in a university in Western Australia responded to the Sentiments, Attitudes and Concerns about Inclusive Education Scale. It was found that their previous training, level of experience in educating students with disabilities, or the achievement of higher qualifications, made no difference to their overall attitudes or concerns about inclusion. These pre-service teachers showed that their level of confidence in teaching and their knowledge about legislation were significantly and positively related to attitudes towards including students with disabilities. However, they had negative attitudes toward inclusive education. A further finding was their anticipated increase in stress levels if they were to have students with disabilities in their classes. The findings indicated the need to provide the skills and strategies to facilitate pre-service teachers to
teach children with disabilities in an inclusive class without increasing their stress levels. Therefore, providing continual, appropriate professional and long-term learning support is required for both experienced teachers and new teachers alike.

2.2.1.2 Teacher characteristics and inclusion

Attempts to research the relationship between teacher characteristics and attitudes towards inclusion have been reported in several papers. Recently, Alquraini’s study (2012) revealed that male and female general and special education teachers in public elementary schools that taught in a special education program in the capital city of Riyadh in Saudi Arabia, had slightly negative perspectives regarding inclusive education for students with severe intellectual disabilities. The findings also indicated a positive relationship between teachers’ perspectives regarding the inclusive education of these students and their current teaching position, class size, previous teaching experience with any kind of disabilities in inclusive settings, gender, and having a family member with a disability. However, this study did not find a relationship between training in inclusive education, years of teaching experience, level of grade taught, teachers’ level of education and their perspectives regarding inclusive education for students with severe intellectual disabilities.

Another study of Deku and Ackah (2012) investigated teachers’ conceptual knowledge of inclusive education in the Cape Coast Metropolis, Ghana. 132 teachers were selected from purposive and simple random sampling to participate in the study. Results indicated that the majority of teachers have a conceptual knowledge of inclusive education. Teacher’s gender, teaching experience and professional qualifications were found to have no significance regarding teacher knowledge about inclusive education.

In this study, the curriculum in inclusive education in the pre-service teacher institutions
was recommended as a necessary course. In-service training must be prepared for teachers as well as service providers.

It can be said that teachers play a decisive role in making inclusive education a reality. Jerlinder, Danermark, and Gilla (2010) argued that the way in which physical education teachers view inclusion may provide special insights into teachers’ general attitudes towards inclusion and inclusive practices in the general school curriculum. Jerlinder et al. (2010) investigated Swedish physical education (PE) teachers’ \( n = 221 \) attitudes to inclusion of children with physical disabilities in mainstream PE classes at primary school. Generally, the Swedish PE teachers were very positive about the inclusion of children with physical disabilities. Gender, age, years of service and work satisfaction had no impact on attitude towards inclusion. Physical education teachers with previous experience in teaching children with physical disabilities were slightly more positive towards inclusion.

The nature of the relationship between teachers’ characteristics and early childhood inclusion was explored in Hu’s (2010) study. There were 276 Chinese early childhood teachers that responded to the survey. There were no differences in the teachers’ level of education, class size, or years of teaching experience in terms of the need for professional training in early childhood inclusion. The area of training most needed by the teachers was behaviour management, the IEP process, inclusion strategies, and communicating with parents and families.

Mohay and Reid (2006) investigated the inclusion of children with disability in Australian childcare. Using a survey sent to 77 directors of childcare centres and 77 childcare staff, the results found that support was generally provided to children with a disability. However, the respondents preferred to provide support children with a mild disability. There was a positive relationship between training for working with children
with disabilities and positive attitudes towards people with a disability. In addition, the amount of experience working with children with a disability was also associated with attitudes to disability.

Dinnebeil, William, Christine, and Juchartz-Pendry (1998) examined the attitudes of early childhood personnel in north-western Ohio, USA towards the inclusion of young children with special needs in community-based programs. More than one half of respondents reported experience in caring for such children and most were confident about their ability to care for children with disabilities. No demographic characteristics (e.g., location of care, educational level, age of children cared for, or type of educational training) were significant predictors of interest or confidence in caring for young children with disabilities. However, type of provider (centre-based) and the age of the children were significant predictors of confidence in caring for young children with disabilities.

Another study of the characteristics of Australian teachers of young children with special needs who participated in a longitudinal study of Australian children was reported by Dempsey (2009) using a survey of teachers in inclusive and segregated settings. Across the inclusive and segregated settings of 650 teachers, there were significant differences in the teachers’ demographic and relationships with students with special needs in their classes. The teachers in this study who worked in inclusive settings lacked a special education qualification but demonstrated consistent professionalism in their relationship with children and in their belief about their ability to produce positive student outcomes. One of the limitations of this study was that by using a single self-report questionnaire, the survey does not allow comparisons to be made between teacher and parent perceptions of variables such as child development and child behaviour problems.
Huang and Diamond (2009) investigated early childhood teachers’ ideas about including children with disabilities in regular classes in two Midwest states in the USA. A total of 155 teachers responded differently to various types of disability. Teachers responded more positively to children with mild disabilities (e.g., Down Syndrome) and to those with physical disabilities (e.g., Cerebral Palsy). In addition, teachers responded positively to those students with no diagnostic labels. Some personal characteristics were associated with the teachers’ responses. For example, teachers’ education and experience working with children with disabilities positively correlated with their comfort level in working with children with disabilities. In addition, the higher the teacher’s education level, the more comfort and confidence they had in including children with disabilities in their classrooms. However, an important limitation is that only one-third of questionnaires were returned. These teachers were in the Midwestern USA, and are not representative of the population of early childhood teachers in the USA.

Teacher self–efficacy can vary in association with workplace demands, previous experience and personal characteristics (McCormick, Ayres, & Beechey, 2006). For example, the attitudes of teachers with bachelor degrees or lower educational levels can improve significantly when they are trained to make adaptations to the regular curriculum (Leyser & Tappendorf, 2001).

A comparison of early childhood teachers’ attitudes towards inclusive education in different countries was made by Hamaidi, Homidi and Reyes (2012). They described early childhood educators' perceptions of academic aspects, social and emotional aspects of inclusion practices. Three hundred questionnaires were sent to early childhood educators in kindergartens and primary public schools in Jordan, United Arab Emirates, and southwestern United States of America (USA). The results indicated that
Emirate and southwestern USA teachers had more positive attitudes towards academic aspects of inclusion practices than the Jordanian teachers. There was a statistically significant relationship between teachers' negative attitudes towards academic aspects of inclusion, grade level teaching, previous inclusive teaching experience, and the number of college courses taken on inclusion. In contrast, there was no statistically significant association between teachers' negative attitude towards academic aspects of inclusion with teachers' gender, age, educational level, general teaching experience, and the level of education they taught in.

Teachers’ experiences in teaching children with autism and their attitudes towards children with autism were surveyed by Park and Chitiyo (2011). Over one hundred and twenty regular teachers from five elementary schools, one middle school and one high school in the Midwest, USA participated. The findings revealed that teachers’ attitudes were associated with gender, age, school grade level being taught and workshop experience. Female teachers had the most positive attitudes towards children with autism. ANOVA indicated that teachers’ attitudes differed significantly across the four age groups (20-35, 36-46, 47-55, and 56 years and older). Tukey post hoc comparisons of the four groups indicated that teachers above 55 years of age had significantly lower attitude scores than the 20–35 years age group and the 46–55 years age group. The results also demonstrated that elementary school teachers had more positive attitudes than middle school teachers, and teachers who attended multiple autism workshops had significantly higher attitude scores than teachers who had never attended workshops or those who had attended only one workshop. This study indicated the need to promote professional development activities for school teachers and other professionals who work with children with autism in order to enhance their attitudes towards the children.
Another study of teachers’ experiences in teaching children with disabilities was conducted by Kalyva, Gojkovic and Taskiris (2007). Serbian teachers with experience in teaching children with disabilities had more positive attitudes towards inclusion in comparison to teachers without such experience. No differences were observed in teachers’ attitudes towards inclusion according to their years of teaching experience. The teachers expressed the most general negative attitude towards inclusive classroom practices, which could be explained by the fact that they lacked support and resources at both the classroom and school levels. However, there were several limitations to this study. The sample of 72 teachers was not representative and the teachers were not asked to comment on different types of disability.

Leatherman and Niemeyer (2005) utilised open-ended initial interviews, observations with follow-up interviews, and observations to examine pre-service and in-service early childhood teachers’ attitudes toward inclusive practices as reflected in the teachers’ behaviours. The results suggested that their previous experiences of being involved in implementing programs for those with disabilities in inclusive classroom activities was positively related to their attitudes toward inclusion. The teachers suggested that support from administrators and support from resource personnel were important in providing a successful inclusive environment.

Most of the studies (Kalyva et al., 2007; Leatherman & Niemeyer, 2005; Park & Chitiyo, 2011; Wishart, 2001) in the previous section supported the relationship between teachers’ attitude to inclusion and their teaching experiences. However, Raffery and Griffin (2005) found in a suburban area of a north eastern state of the USA, that there was no significant relationship between attitudes towards inclusion and years of experience of assistant teachers, teachers and related service providers who worked in private, community-based reverse inclusion preschool programmes. The preschool
teachers and other providers strongly agreed that inclusion was beneficial for preschoolers with and without disabilities. The results of this study also indicated early childhood providers were concerned about issues related to staff training and adequacy of resources.

Hsieh and Hsieh (2011) investigated the relationship between 130 urban early childhood teachers’ attitudes towards inclusive education, and personal characteristics and professional background. The results showed the teachers had a moderately positive attitude towards inclusive education. Individuals with a professional background, having had a positive past experience with children with disabilities and a role as a lead teacher within the programme, were predictors of the teachers’ attitudes. None of the variables related to personal demographics (race and educational level) and professional background (years of teaching experience, previous in service training related to children with disabilities, and experience with disabilities) significantly predicted overall attitudes about inclusion.

Dupoux, Wolman, and Estrada (2005) found that teachers in Haiti and the USA have similar attitudes, towards the integration of students with disabilities. Moreover, the multiple regression analysis found that country of origin was not an influential variable associated with teachers’ attitudes. The results of this study indicated that three variables predicted attitudes towards integration of students with disabilities. First, “other teachers’ attitudes” explained the largest variance in teachers’ attitudes. Teachers who perceived other teachers’ attitudes as favourable had a more positive attitude themselves. Second, teachers with an advanced degree showed more positive attitudes. Finally, the teachers’ range of effective accommodation of different categories of disabilities was the third significant variable in the regression model. Teachers’ attitudes varied with the type and level of the students’ disability. Teaching experience was not a
significant predictor of teachers’ attitudes. The findings in this study indicated that for successful inclusion, the more pedagogical knowledge and skills teachers had, the more likely they were to have positive attitudes toward inclusion and children with disabilities.

Chhabra, Srivastava and Srivastava (2010) reported that teachers in Botswanan schools had negative attitudes toward inclusion because they believed that it could lead to lower academic standards. They were also more reluctant to include students who needed individualised educational programs, as well as students with behavioural problems. One reason was their limited teacher training in educating children with disabilities. Teachers were concerned that the needs of students with severe disabilities could be met in these settings. In addition, the teachers showed concern about inadequate resources, funding and equipment, and the requirement for paraprofessionals in the classroom. No relationship was found between Botswanan teachers’ attitudes and their demographic variables (i.e., age, gender, training, and previous teaching experience with persons with disabilities).

Recently, Ahmmed, Sharma and Deppeler (2012) conducted a survey study in Bangladesh to examine variables influencing 738 primary teachers’ attitudes towards inclusion of students with disabilities. The results indicated that the teachers’ gender, highest educational qualification, past contact with a student with a disability in the classroom, past success in teaching a student with a disability and perceived school support for inclusive teaching practices, were significant predictors of teachers’ attitudes. Male teachers’ attitudes towards inclusion of children with disabilities were found to be slightly higher than their female colleagues. In this study teachers’ higher level of educational qualifications were found to negatively influence their attitudes towards the inclusion of children with disabilities.
In brief, previous studies have indicated that regular teachers working in inclusive settings have different attitudes towards inclusion. Some researchers reported a positive attitude while uncertain and negative attitudes towards inclusion were found in many other studies. Several studies have shown that preschool teachers need more training and emotional support from other staff to feel more confident in their own abilities to work with young children with disabilities. In addition, teachers’ stress resulting from supporting children with a disability was another issue that affected teacher perceptions of inclusion.

2.2.2 Educational preparation

Preschool teachers have to develop their professional skills in order to provide an appropriate education to young children with a disability in an inclusive classroom. Those skills such as knowledge of disability and child development, teaching methods including assessment and behaviour strategies, and social skills development, are fundamental elements of the teacher’s efficacy (Buysse, Weslery, Bryant & Gradner, 1999).

Essa et al. (2008) found that having a disability specific course work in their training was the strongest reason for teachers being willing to have children with a disability in their classrooms. Their findings revealed a positive relationship between the increasing number of child care programs for inclusion and the level of early childhood special education for caregivers. Those who had taken classes in early childhood special education were more likely to be involved in inclusive programs. Using appropriate teaching pedagogy is another aspect of teachers’ educational preparation. Many studies have reported the importance of using several teaching approaches in the inclusive setting (McDonnell et al., 2001; Singal, 2008; Wolpert, 2001). For example, Chandler, Lubeck, and Fowler (1992) highlighted in one study that prompting, positive reinforcement and direct instruction were the most commonly used
strategies reported by preschool teachers to facilitate social skills generalisation and maintenance in children with disabilities. Intervention strategies consisting of approval, disapproval, verbal prompting and verbal instruction were used to promote children’s social competence in inclusive early childhood classrooms (Sontag, 1997).

Recently, Odom (2011) flagged the importance of Response To Intervention (RTI) for the inclusion of young children with disabilities in order to support social-emotional development and academic learning. RTI is a method of providing additional instructional and behavioural supports to children who are having difficulty learning. He suggested several models of RTI for use in an early childhood setting such as the Teaching Pyramid, Recognition & Response, and Building Blocks. For example, preschool teachers can use the Building Blocks model to match an individual child's goals and objectives with appropriate teaching methods and materials, decide what amount of help or assistance is needed by the child, provide this assistance, and determine whether the assistance was helpful.

In addition, some teachers in inclusive settings ensure that children with disabilities are seated in the front of the class close to the teacher and they also use peer tutoring (Singal, 2008; Terpstra & Tamura, 2008). Wolpert (2001) surveyed 189 American teachers teaching kindergarten through twelfth grade who were identified by parents as successfully including children with Down Syndrome in their classes. The teachers reported that one-on-one in small group instruction, computer assisted instructions, and praise and small rewards worked much better with children with Down Syndrome in inclusive classrooms, when compared with other methods. To enhance inclusion, early childhood educators must also recognise the importance of addressing the child’s whole development, particularly social skills (Katz & Galbraith, 2006). Lane, Stanton-Chapman, Jamison, and Phillips (2007) examined teachers’ and parents’
expectations of preschoolers’ behaviour. Their research indicated there were three specific social skills that were valued as most important by parents \( (n = 124) \) and preschool teachers \( (n = 35) \); (a) follow adult direction; (b) control temper in conflict situations with adults; and (c) control temper in conflict situations with peers. However, the results of Lane and others (2007) are derived from questionnaires. There is a need for more observational data in order to use this result with confidence. Teaching of these social skills expectations and articulating desired behaviour at the beginning of the class can be beneficial for the teacher to manage the classroom. It also decreases the risk of interaction problems and assists the children with disabilities to improve their appropriate behaviour.

Another study of early childhood teachers promoting friendships between children with and without disabilities in inclusive classrooms was reported by Buysse and Hollingsworth (2009). Twenty-five general early childhood teachers and 20 early childhood special education teachers reported providing sufficient free choice time, allowing children to form their own friendships, and commenting on the play between friends as the most frequently used strategies, regardless of the number of the children with disabilities. Teachers employed more active strategies to promote friendships. This finding suggests that early childhood teachers were able to accommodate the friendship characteristics of individuals with disabilities.

Class size and teacher-child ratio are concerns among regular preschool teachers. In a study by Smith and Smith (2000), smaller class sizes were significantly associated with teachers’ expectation of their success in inclusion. Essa et al. (2008), by contrast, found that a larger classroom was more likely to contain a child with a disability because the larger classroom had more than one teacher. Therefore, teachers had sufficient time to support the child with disability.
To sum up, teachers’ professional efficacy, knowledge of disability, teaching strategies in inclusive classes, child social skills development, and appropriate class size and child-ratio, appear to be associated with the successful implementation of inclusion.

2.2.3 Process of collaboration

Working with children with disabilities is not restricted to working only with the children. Teachers also need to work in collaboration with parents and other professionals to meet the children’s needs.

Malinen and Savolainen (2012) investigated whether teachers’ self-efficacy for inclusive practices correlated with attitudes toward inclusive education and which type of self-efficacy for inclusive practice would be the best predictor of attitudes. The data was collected by a questionnaire completed by over 800 Finnish teachers from schools run by large, middle-sized and small municipalities. The analyses revealed that there was indeed a positive relationship between teachers’ self-efficacy and their attitude towards inclusive education. This indicated that teachers with a stronger sense of self-efficacy appeared to hold more positive attitudes towards inclusion. In further analysis it was found that self-efficacy, in collaboration with colleagues, parents and other professionals had the strongest positive relationship with teacher attitude towards inclusion. This finding demonstrated that inclusive education cannot be run by the teacher only. Those who see themselves as capable of cooperating with parents, colleagues and other professionals appear to hold more positive perceptions about inclusion. This research result suggested developing collaboration skills should be considered as an important issue for prospective teacher training for inclusive schools in Finland. Malinen and Savolainen (2012) argued that in inclusive settings, teacher ability to cooperate with parents, colleagues and other professionals may be even more crucial.
than other core competencies such as instructional skills, effective classroom management and subject knowledge. They concluded that the curriculum in Finnish teacher education institutions should provide courses on learning the values of successful cooperation.

Parents of young children with disabilities are important partners because children’s families and homes are the primary nurturing environments for infants and young children with disabilities (Odom & Wolery, 2003). However, Buysse, Wesley and Keys (1998) reported some family barriers to the provision of services to young children with disabilities. These barriers include limited involvement of family members in planning the service, and lack of communication with families of children with disabilities. Dunst, Hamby, Trivette, Raab, and Bruder (2000) proposed a conceptual model for the professional’s role that involved working closely with families to strengthen them and help them to secure needed support and resources. This model needs to take into account family structures, parents’ socio-economic background and their place of residence, all of which can affect opportunities to support children’s learning.

Information from parents to guide staff members in determining the routines and activities for their children with disabilities is an important factor in the parent and provider relationship. Medical and health histories usually come from parents who are the most immediate sources of such information, and this information is useful for planning and implementing each child’s individualised plan (Cross, Traub, Hutter-Pishgahi, & Sheltion, 2004). By communicating and working collaboratively, parents, staff and specialists can promote and implement socialisation and guided behaviour more effectively.

It can be said that parents and professionals sharing knowledge should not be neglected. Partnerships which include parents can be seen as a transformative
opportunity at the core of the policy of inclusion. O’Connor (2008) argued that parents perceived a lack of partnership with professionals but wished to be partners in the decision-making process for their child’s education, not just the passive recipients.

Working with special educators is also important for preschool teachers. McDonnell et al. (2001) found that preschool teachers liked it most when they saw the early childhood special education teacher working as a co teacher, with similar responsibilities but with different expertise. Preschool teachers most strongly agreed that a special educator could assist by suggesting a suitable intervention technique that the preschool teachers could apply to children with disabilities in several settings such as in natural play, caregiving and classroom activities. They would like to have special education teachers in their classrooms to carry out specialised instruction on specific child goals that they have selected and planned together. However, the results had some limitations given that 75% of participating teachers in the study had not worked with a special educator. They may not have had experience with many of the strategies or options of working with special educators.

Sandberg and Ottosson (2010) interviewed Swedish stakeholders regarding preschool children with disabilities. The participants consisted of parents ($n = 8$), pre-school teachers ($n = 7$), and other professionals ($n = 5$). It appeared that all three participant groups considered knowledge to be important, but pre-school teachers and other professionals considered the exchange of knowledge was an important part of cooperation. Parents pointed to a specific need for support such as special aids to be provided by both pre-school staff and other professionals. A lack of time was viewed as a frequent problem by all groups of participants. The shortage of staff and large child groups were found as problems. Pre-school teachers stated that in their training, they
had very little education regarding cooperation. Conversation techniques, attitudes and crisis management were other training topics needed.

Kilgallon and Maloney (2003) compared their questionnaire results \((n = 22)\) and follow up face to face interviews \((n = 5)\) about early childhood teachers’ knowledge of teaching children with disabilities. Early childhood teachers in their study stated the importance of adequate support as one of the factors of success in inclusion. The early childhood teachers found the process of inclusion required them to collaborate with others, to share information and to develop a team approach. Participants reported a general lack of support from the school administration. They highlighted the need for teacher assistants to provide one-on-one support.

Smith and Smith (2000) highlighted the importance of general support from administrators. Also, the principals’ willingness to support early childhood teachers in inclusive programs impacted on the achievement of enhanced learning outcomes for students. Brotherson, Sheriff, Milburn, and Schertz (2001) reported that most of the principals in their study supported inclusive education for young children with disabilities. However, many principals felt they did not have time and were unsure of how to find or train qualified teachers to teach these children.

Zhang (2011) employed a qualitative design to examine the characteristics of early childhood educational settings and education services available for supporting preschool children with disabilities in Hong Kong. The findings revealed that many inclusive preschools in Hong Kong were not receiving funding or professional support from the government. In the three settings studied, a lack of resources and training in special education skills and a lack of knowledge to support children with disabilities were reported. The three participating schools considered that effective inclusive education for young children with disabilities should include: (1) collegial support; (2)
nutrition and health considerations; (3) environment management; (4) curriculum adaptations; (5) setting up of inclusive classes; (6) team teaching; (7) IEP/IFSP; (8) transition preparations; (9) professional development; and (10) family involvement. The major limitation to this research study was that there were only three schools involved in the research.

Vakil, Welton, O'Connor and Kline (2009) noted that best practice for early childhood teachers was working with other professionals as a team to ensure careful data collection. Specific recommendations included:

- Focusing on family needs and collaboration between team members as a consistent procedure.
- Scheduled times should be set for the team to meet and discuss the children and to share the IEP’s lesson plans.
- The team should plan effective strategies that will suit each child.

This study highlighted that teachers should work as a team rather than relying on their own judgment to create well developed plans for children with disabilities.

Singal (2008) noted that teachers did not discuss the child’s needs with other professionals because of their workload and lack of time. This leads to fewer opportunities for both teachers and professionals to develop new skills and share ideas and strategies to improve services. Bose and Hinojosa (2008) described the perspectives of school-based occupational therapists working in inclusive early childhood classrooms emphasising interactions with teaching staff. The results of the study indicated that although the participants expressed appreciation for collaboration, their daily interactions with teachers were interrupted by difficulties such as lack of time, and they were rarely seen as collaborative. The participants in the study stated that their
respective schools could perform better in the area of collaboration by scheduling regular meetings with individual teachers and with the entire team.

Lieber et al. (2002) argued that teamwork was essential when children with disabilities were included in preschool settings. They suggested seven factors of effective collaboration for successful inclusion; joint participation in programme development, shared philosophy and instructional approaches, shared ownership of responsibility for the children, communication, changing professional roles, stability in relationships, and administrative support.

Forlin (2012b) stressed that an inclusive education system cannot work in isolation and a public and community awareness program is also important and should be developed alongside teacher training. Suitable training or education is required at all levels, from teacher educators to school principals, teachers, paraprofessionals as well as other stakeholders including parents and interested members of the community. Khochen and Radford (2012) came to a similar conclusion, noting that the movement towards inclusion practice is a continuous process and requires efforts on the part of the various groups involved. Armstrong, Armstrong, and Spandagou (2011) argued that the roles and responsibilities of governments to improve their education systems are a high priority and should be achieved by implementing laws and policies to support the principles of inclusion. Basic infrastructure and appropriate numbers of teachers and other resources are also required. For sustainable development of inclusive education, action plans need to be part of a national plan (Armstrong, Armstrong, & Spandagou, 2010). The support of government also strongly influences the direction of inclusive education policy (Armstrong et al., 2011).

In summary, collaboration between teachers and family is a significant issue for preschool teachers in understanding and preparing themselves to work with parents and
other staff in inclusive settings. Many studies of collaboration are described in the literature. Few studies, however, have examined collaboration from the preschool teacher’s perspective.

2.2.4 Gap in the literature

There are some limitations in the reviewed studies. First, many reviewed studies had limited samples making it difficult to generalise the results (Brotherson et al., 2001; Bruns & Mogharreban, 2007; Cross et al., 2004; Essa et al., 2008; Ocloo & Subbey, 2008). Second, most studies draw on a single methodology (i.e., questionnaires) that may be insufficient to explain in detail the teachers’ perceptions towards inclusion (Chang et al., 2005; Essa et al., 2008; Lane et al., 2007; Wolpert, 2001). Third, several studies have investigated specific issues of teachers’ perspectives on inclusion and have lacked a broader picture. Finally, most research has come from developed countries and some of those results may not be applicable to the Thai context. Thus, it is important to identify and address teachers’ perceptions on inclusive education for young children with disabilities in Thailand to increase the knowledge of and improve the provision of this service.

2.3 Education in Thailand

2.3.1 Thai educational system

In the past, Thai education primarily revolved around two institutions, religious and royal education. Education was taught by Buddhist monks to boys only; therefore they had to study in temples and learned both academic and religious subjects simultaneously. The other type of education was for children of the royal household and for families of the upper class who were educated in order to serve in the court and govern in the provinces. Later, the Thai education system was developed, and currently
the Ministry of Education has the responsibility for providing public education for Thai children (Sunsite Thailand, 2010).

In the present education system, education can be provided by educational institutions as well as learning centres organised by individuals, families, communities, private groups, local administration organisations, professional bodies, religious institutions, welfare institutes, and other social institutions (Office of the Permanent Secretary for Education [Thailand], 2010). The Thai education system consists of 12 years of free basic education: 6 years of primary education and 6 years of secondary education. Enrolment in the basic education system begins at the age of 6. However, all preschool children will be provided with a minimum of a one year school readiness program. Over 74% of children aged 3 to 5 receive early childhood education. The majority of Early Year Education is provided by government primary schools and by local government which takes a more significant role at this level (Office of the Education Council [Thailand], 2008a). Most young children of this age attend a preschool class attached to primary schools.

2.3.2 The Thai education system for children with disabilities

The Bureau of Special Education Administration, Office of Basic Education Commission is the main agency responsible for the provision of education for children with disabilities. All eligible school aged children with disabilities can be provided with related services such as hearing aids, wheelchairs and communicative electronic devices. Nine different types of disability have been recognised as follows: (1) children with visual impairment; (2) children with hearing impairment; (3) children with intellectual disabilities; (4) children with physical disabilities and health impairment; (5) children with learning disabilities; (6) children with language and communication disorders; (7) children with behaviour disorders; (8) children on the autism spectrum;
and (9) children with multiple disabilities (Office of the Permanent Secretary for Education [Thailand], 2008). All these children are able to study across the Thai educational system.

Figure 2.1. Education placement options for Thai children with disabilities

Figure 2.1 shows seven types of educational placement options for Thai children with a disability (Sub-committee for Selecting and Classifying the type of disability for Education [Thailand], 2002). These options are:

1. Inclusive education in the regular school. Children with disabilities attend the school with their normal peers with support from a special education teacher and regular teacher. There are currently 18,618 inclusive schools, assisted by special schools and centres in terms of teacher training, teaching materials and management systems. When regular teachers have accumulated their 200 hours training with the special education centre and passed the examination, the teachers who have the certificate of special education gain a benefit from extra income (around 100 AUD$/month) when teaching children with disabilities in the classroom. In addition, education coupons (to a minimum of approximately AUD$70 per year) are provided by the Ministry of Education to assist towards the technology and special services needed by each student with a disability (Office of the Permanent Secretary for Education [Thailand], 2008).
2. Special school for specific disability. These schools operate from kindergarten to high school. There are currently 43 special schools which are classified into four types of student disabilities as follows: (1) Special Schools for those with intellectual disabilities; (2) Special Schools for those with hearing impairments; (3) Special Schools for those with visual impairments; and (4) Special Schools for those with physical impairments (Office of the Permanent Secretary for Education [Thailand], 2008). In practice, however, children with all types of disabilities will be accepted in these schools.

3. Home school. Parents can teach their children by registering with the school network or provincial special education centre in order to receive aid and advice.

4. Community or private organisation. If groups or individuals in the community have the capability of providing education for children with a disability, they may set up their own special education unit (e.g., an early intervention class) by collaborating with a special education centre.

5. Hospital. Hospitals concentrate on supporting a group of children with intellectual disability, autism and psychiatric problems, who have moderate and severe disabilities. Due to their associated disability conditions, these children are able to study in a hospital with a special education teacher who comes to teach them and connect with the former school of these children.

6. Special education centre. These centres, overseen by the Ministry of Education, provide an early intervention service for young children with disabilities and their parents. All Thai provinces have special education centres which provide an early intervention service, which includes promoting the child’s development, a referral system to a regular school, and parent training.
7. Informal educational centres and sheltered workshops. With this option, children and their parents have the right to choose any system that suits them. This provides lifelong learning opportunities for them, for example they can study in distance-universities or train in short courses. The sheltered workshops are provided for both school students and students who have left school.

Thai children with disabilities have the chance to join the educational system, in its various forms, from kindergarten to university level. The next section describes inclusive education in Thailand.

2.3.3 Thai inclusive education

The primary influence on Thai inclusive education policy has been driven by a commitment to the international community. The main goal of the 1990 Jomtien World Conference on Education for All was to make primary education accessible to all children and to reduce illiteracy before the end of the 1990-2000 decade. In addition, the Salamanca Statement and Framework for Action on Special Needs Education came out of the World Conference on Special Needs Education in 1994 (Peters, 2007). The proclamation stated the rights of every child including those with disabilities to receive basic education based on their needs.

Both the Jomtien World Conference and the Salamanca Statement have been influential in developing Thai inclusive education policy. The Thai Government proclaimed the year 1999 as the Year of Education for Children with Disabilities. The government mandated a movement towards inclusion of students with disabilities in regular education programs (Carter, 2006). According to government policy, there was to be a sign stating “Any person with disabilities, who wishes to go to school, can do so” posted in front of every school to guarantee the right to education for Thai children with disabilities.
At the beginning of 2008, Thailand passed the first Education for Disabilities Act B.E. 2551. This national law addresses the need for education from birth or when a child is first diagnosed with a disability. In this act, IEP was mentioned for the first time in Thailand as linked to inclusive education by law. Educational organisations now had a responsibility to provide and update the IEP at least once a year according to criteria determined by the Thai Ministry of Education (Rajkijjanubaksa, 2008). This Act aimed to support the rights, services and other resources of persons with disabilities to inclusive education in line with the 1999 National Education Act (Ministry of Education, 2008a).

In order to implement the policy, a project of model schools for inclusion was started by The Ministry of Education in 2004, with 390 model inclusive schools around the country. The number of model inclusive schools increased to 2,000 the following year (Office of Basic Education Commission [Thailand], 2005). The expectation was to increase the number of model schools to 5,000 in 2009-2010, in order to serve over 33,000 children with all categories of disabilities (Ministry of Education, 2008b).

The Thai Ministry of Education (2004) provided six types of inclusive classrooms in regular schools, which allowed flexibility and suitability for all children with disabilities. Inclusive classrooms lie on a continuum from (1) full-time inclusive classrooms or full-inclusion, to (2) inclusive classroom with consultant services, to (3) inclusive classroom with the teacher outside school services, to (4) inclusive classroom with tutor teacher service, to (5) full-time special classroom where students with disabilities attend the classroom for the entire school day, and (6) part-time special classroom.

In summary, the development of the National Educational Act 1999 and The Ministry of Education designation of 1999 as the Year of education for Person with
Disabilities, which developed from a rise in global awareness about children with disabilities, was designed to influence the implementation of Thai inclusive education.

### 2.3.4 Education for Thai children aged 3-5 years

Normally, Thai childcare and development services for 3-5 year old children are classified in three categories: (1) kindergarten; (2) preschool classes (in normal primary schools, at least one year prior to Grade 1); and (3) child development centres (receiving children aged 2-5 years). The kindergarten and preschool classes are mostly organised by the Ministry of Education, as well as some other public and private sectors (UNESCO, 2007).

The importance of providing education for the development of young Thai children has been widely recognised. For example, the 2006-2015 Plan and Policy for Early Childhood Development, a first time framework for action on early childhood development in Thailand, aims to prepare a strategy to support early childhood development of children in the 0-5 age group as well as parents and other stakeholders. It also aims to promote an environment that facilitates early childhood development to prepare young children for primary education (Office of the Education Council [Thailand], 2008b).

According to the Office of the Education Council (Thailand) (2008b), the 2006-2015 Plan and Policy for Early Childhood Development has set the requirement to provide developmental and educational services to meet the needs of all children, particularly children with disabilities. Another example of recent policy is that personnel in early childhood education institutions are required to increase their specialised knowledge and skills to work with children with behaviour, intellectual and learning problems (Office of the Education Council [Thailand], 2008b). This requirement aims to assist educators and preschool teachers to work with children with
disabilities when they are included in regular classrooms with their peers without a disability.

2.3.5 Inclusive education for young Thai children with disabilities

In 2006, 0.67% of students in formal pre-primary inclusive schools were children with a disability (Office of the Education Council [Thailand], 2008a). After a decade of implementing inclusive education in Thailand, several studies have found that preschool inclusion for young children with disabilities has encountered impediments in some areas.

For example, a study by Wongsirikul (2007) investigated Thai teacher qualifications in inclusive schools. Most of the teachers in the sample groups of inclusive schools in Chiangrai province agreed that experts in special education should be invited for training, while a budget should facilitate appropriate material for inclusive schools. Also, the government’s support should prepare teachers with an understanding of inclusive schools by providing workshops and/or training. This would increase their teaching skills and techniques that could be applied in inclusive settings. In addition, Visanthamakorn (2007) recommended from her study that preschool teachers should be encouraged to improve their assessment skills and knowledge of young children with disabilities in inclusive classrooms in order to improve service to the children with disabilities, especially children with autism.

Onbun-uea and Morrison (2008) reported a study of young Thai children with autism in an inclusive classroom. They found that a lack of special education teachers, training for teachers, a good plan and curriculum, supportive services or effective collaboration, budgets, and essential information and materials were problems in teaching students with autism in inclusive classrooms in Thailand.
The quality of school management is an important issue, and acceptance by school principals is essential for successful inclusion (Vorapanya, 2008). In Thailand, it is the school principal’s decision to accept children with disabilities to be included in the school. Due to the strong network of special schools, principals sometimes resist inclusion and refer children to these special schools (United Nations Children's Fund [UNICEF], 2003). Chrontawonpanit (2002) conducted a survey to study the administration of inclusion for children with autism in regular schools in Bangkok Metropolis. Responses to a survey were obtained from 222 respondents (the principal, early childhood teachers and primary teachers). The results of this study revealed that unclear school objectives and goals in inclusive education, lack of cooperation from the staff, and a shortage of special education experts, were difficulties in assisting children with autism. In a study by Kutalad (2002), three Thai principals and 18 teachers in three different types of schools in Bangkok province were interviewed to determine their concerns and the knowledge and skills they needed to implement inclusive education. The findings suggested that principals and teachers needed to understand that the strategies they learnt were for all students who struggle, not just students with disability labels. Furthermore, preparation programs could be significantly strengthened by educating administrators in differentiated curriculum and teaching that can meet the needs of all students.

Some Thai researchers have emphasised that teacher training is crucial to the success of inclusive education. In the study by Jareonrit (2003), teachers in inclusive schools asked for training to enrich their knowledge in writing an Individual Education Plan (IEP) and in teaching methods in special education. Additionally, materials and educational media needed to be provided. However, training only for in-service teachers may not be sufficient. Student teachers should be prepared by providing a course
covering the psychological aspects for children with disabilities so that these student teachers would be ready to work with children with disabilities when they become teachers in inclusive schools (Noksakul, 2002). In a similar vein, Indusuta (2003) found that preschool teachers in inclusive schools who have prior training or experience with children with autism have insufficient understanding to create assessment and evaluation instruments. The training provided to them was not practical enough to develop their understanding towards children with autism. It was found that teachers lacked knowledge, abilities and skills in teaching children with special needs and in developing IEPs.

Fulk, Swedlik, and Kosuwan (2002) stated in their collaborative paper that, even though Thai children with mild to moderate disabilities gained access to study in some inclusive classrooms according to the Educational Policy (1999), misunderstanding of the characteristics of children with disabilities still remained. The authors reported that most children with mild disabilities attend general education classes and were viewed negatively as indolent and ill-disciplined and this may be due to the lack of teaching discipline in some families. These children were more likely to be included in the classroom with inappropriate support (Fulk et al., 2002). Some children were transferred to special classrooms for children with intellectual disabilities. In addition, the identification of children with learning disabilities and ADHD was a relatively new practice in Thailand at this time.

Preschool teachers’ attitudes and needs were highlighted in recent research about inclusion. Visarathanonth (2009) compared the attitudes and needs of 100 school preschool teachers in Bangkok towards young children with autism by examining the teachers’ demographics including their teaching experiences, training experiences, and education background. The results from the questionnaires revealed that these preschool
teachers had a positive attitude towards young autistic children but their attitudes were not significantly different when analysed in relation to their teaching experience. The preschool teachers’ needs for government sector assistance were at the highest level. Preschool teachers therefore demonstrated a need for sufficient training in working with young children with autism. These findings showed that positive attitudes alone towards young children with disabilities may not be adequate in implementing inclusion in school settings. Therefore, training for these preschool teachers should be the concern of administrators in order to enhance inclusion at the preschool level.

Kantavong (2012) highlighted the important role of the public and educators in inclusive education, and that this should be addressed at the policy level. A strong policy from the Ministry of Education is one factor contributing to the movement towards inclusive education in Thailand because Thai schools usually follow the policy of the Ministry. When inclusive education was perceived as a major scheme to develop, school principals found it necessary to comply and to support teachers in creating inclusive classrooms.

It should be noted that preschool teachers in inclusive education for young Thai children with disabilities have to confront obstacles such as school management and insufficient training. In addition, there is a need for preschool teachers to maintain a positive attitude and for the educational system to provide these teachers with materials to encourage them to be enthusiastic about teaching children with disabilities in inclusive classes.

2.3.6 Culture and Thai teachers’ perceptions

When considering inclusive environments for children with disabilities, the influence of culture is also likely to create complications and difficulties in understanding. Ramsey (1998) pointed out the complexity of trying to understand the
concept of culture because culture itself is invisible. In addition, culture is a broad concept and includes forms of knowledge, belief systems, languages, religion, and values of a society (Kisanji, 1995). Hofstede (1991) argued that culture is learned, and the core of culture is formed by values, remains unconscious and cannot be observed. Culture can only be inferred from the way people act under various circumstances.

A lack of understanding of the nature of disability, as well as different cultural beliefs about child development and disability, may impact people’s perceptions. There are cultural views that may negatively affect the perception of individuals with disabilities (Shin, Nhan, Crittenden, Valenti, & Dieu Hong, 2008). For example, some cultures might view disability as a punishment for sins in a previous life of the person with the disability or of the person’s parents (Kim-Rupnow, 2005).

Similarly, the perception of disability in Thailand may be viewed through cultural perspectives, particularly in terms of religion and family structures. Currently more than two thirds of Thai people practice the religion of Buddhism. Buddhism believes that, if one lives a life of doing good, positive things will happen to them in the next life. Conversely, it is believed that a punishment is caused by doing something wrong. This traditionally promotes a belief that knowledge is associated with age, position and current status which is bestowed on a person because of their actions in a previous life (Carter, 2006). Negative attitudes such as these toward disability could slow down the opportunity of a person with disability in society. Buddhism teaches its followers to have mercy on the poor or people with disabilities. Thai people prefer to give money to people with disabilities or to make donations to charities, and see this as a way of promoting support for people with disabilities. However, this may function to prevent people with disabilities from joining society with equal status (Japan International Cooperation Agency [JICA], 2002). Furthermore, low expectation and
misunderstanding about disability may cause a secondary disabling condition which further limits the ability of individuals to benefit from educational opportunities.

Currently, schools are comprised of children with and without disabilities, integrated into classrooms and, therefore, it is important to understand these differences in relation to attitudes of the past. Often culture and beliefs can be transferred from teachers’ perceptions to children through classroom activity. For instance, in dealing with children with physical impairment, the group work approach can become an effective way to solve the physical issues. In contrast, teachers who have traditional religious beliefs about disability as punishment may provide no activities for these children in their classrooms. It can be said that teachers bring their cultural perspectives, values, hopes and dreams to the classroom along with their prejudices, stereotypes and misconceptions. In addition, teachers’ values and perspectives intervene and interact with what they teach and have an influence on their students’ learning (Banks & Lynch, 1986).

In summary, the perception of disability in Thailand may be viewed through cultural perspectives, particularly in terms of religion and family structures. A study of Thai preschool teachers’ perceptions towards inclusion is necessary to understand this culture of inclusive practices in a Thai context. The next section describes the theoretical framework of this current study.

2.4. Theoretical framework

This study will employ the ecological systems theoretical framework formulated by Bronfenbrenner (1979). This theory was defined as “the scientific study of the progressive, mutual accommodation between an active, growing human being and the changing properties of the immediate settings in which the developing person lives, as this process is affected by relations between these settings, and by the larger context in
which the settings are embedded.” (Bronfenbrenner, 1979, p. 21). It can be noted that his concept of the environment and the nature of the interrelationships hypothesised to occur among the structures composing that environment and the developing individuals guide the present investigation as shown in Figure 2.2.

![Figure 2.2 The ecological systems theoretical framework](image)

In the area of special education, Bronfenbrenner’s framework can be utilised to clarify a number of contextual issues surrounding inclusion, and it also suggests some approaches to solve the dilemma of implementation. One explanation is that this ecological systems theory provides a rich and comprehensive framework for considering ecological factors that affect human development (Peck, 1993). In addition, Guralnick (1982) employed this framework theory through each ecological level to analyse the feasibility and efficacy of early childhood inclusive programs.

Bronfenbrenner (1979) has proposed that there are four interacting levels of this system which also relate to human development. This system is comprised of the micro, meso, exo and macro elements.
The first level, the *microsystem*, comprises the events that occur within specific settings or contexts in which the child participates. A microsystem is a pattern of activities, roles and interpersonal relations experienced by the developing person in a given setting with particular physical and material characteristics (Bronfenbrenner, 1979, p.22). Three typical settings for the microsystem are school, home, and peer group locations. Research on inclusive early childhood programs has predominantly been focused on this level (Odom et al., 2004; Peck, 1993).

An example of a setting could be an inclusive preschool classroom. In this current study, a microsystem will focus on the inclusive classroom that will influence the child’s behaviour and development. It can be said that preschool teachers are an important variable in the inclusive classroom when it comes to arranging the classroom environment, using teaching pedagogy and planning for activities. The way in which preschool teachers interact with children with disabilities can influence children’s experiences in inclusive classrooms.

The second level of the ecological system, a *mesosystem* comprises the interrelations amongst two or more settings in which the developing person actively participates such as, for a child, the relations between home, school and their neighbourhood peer group. For an adult the interrelations between family, work and their social life would make up their mesosystem (Bronfenbrenner, 1979, p. 25). This level consists of factors occurring in other settings in which the child or other key participants in the microsystem might participate. A mesosystem is thus a system of microsystems. It is formed or extended whenever the developing person moves into a new setting. It also includes events occurring in the home or family, including the interactions among professionals outside the classroom setting, that impact on the children’s development.
Odom et al. (2004) gave an example of the influence of a mesosystem on children’s development when the parents participate in the family microsystem, but their interactions with the teachers may influence elements of the inclusive program microsystem. Swick and Williams (2006) argued that when early childhood educators educate parents about what their children experience in the early childhood program, it would increase the parents’ comfort level with the child’s daily activities in the classrooms. Therefore, in this level, it can be implied that preschool teachers are recognised as the key persons who interact and who work co-operatively with families and other professionals in order to improve the child’s development.

The exosystem, the third ecological system level, refers to one or more settings that do not involve the developing person as an active participant, but in which events occur that affect, or are affected by, what happens in the setting containing the developing person (Bronfenbrenner, 1979, p.25). This level involves the social setting in which an individual does not actively participate, however the social settings still affect the person, events and actions in the microsystem.

For example, some researchers have illustrated the relationship between inclusive education and this third level. School board decisions that affect the child are part of the exosystem. If the child has mild intellectual disability and the school board decides to include this child into regular classes rather than providing only special instruction, the child’s progress in school can be positively affected (Thomas, 2005). For example, a child with a mild intellectual disability can imitate their peers’ learning and adapt it in to his/her own schema.

Furthermore, other examples affecting inclusion include legislative settings, school board meetings, and individualised education program/individualised family service plans (IEP/IFSP). Traditional beliefs and values concerning differences among
children are reflected in the creation of a separate structure for serving children with and without disabilities.

Odom (2002) gives an example of how exosystems impact on social policies and the way that the preschool classrooms operate at the local, state and national level. For instance, preschool teachers from various agencies such as local administrative organisations may be required to implement the philosophy of inclusion in the classroom.

The last level is the macrosystem which refers to consistencies in the form and content of lower-order systems (micro-, meso-, and exo-) that exist, or could exist, at the level of the subculture or the culture as a whole, along with belief systems or ideology underlying such consistencies (Bronfenbrenner, 1979, p. 26). It can be implied that the ecological system is about cultures, social values and beliefs that affect participants or events in the microsystem.

The macrosystem perspective suggests that cultural values and ideology shape human relationships at every level of the social institution from school environments to social exchanges taking place between children and teachers. This level of analysis is useful in identifying some of the cultural beliefs and values that underlie organisational structures, professional practices and daily interactions that affect the lives of children with disabilities (Peck, 1993). Talbott, Fleming, Karabatsos, and Dobria (2011) applied Bronfenbrenner’s model to study the identification of students with special needs and the influence of schools that students attend. At the macrosystem level, Talbott et al. found significant positive associations between small districts and the probability of students being classified with learning disabilities (LD) in the schools. They argued that principals and teachers in smaller districts may have the resources and support to be more innovative and flexible in serving children with LD. These principals and teachers
may have fewer administrative layers simply allowing them to know their students better. The findings by Talbott et al. (2011) provide an example of utilising Bronfenbrenner’s theory to understand the complex influences in ecological systems and their importance for human development. This provides an ideal framework for understanding the successful development of children in multiple social contexts.

Even though there are four levels of the ecological system theory, Bronfenbrenner did mention that the influence is not always from the top down (from exosystem or macrosystem, to the mesosystem or microsystem). For example, social policy factors could affect the curriculum in the classroom setting, but teachers’ experiences in using a curriculum in the classroom could provide feedback that might affect social policies (Odom, 2002). It can be said that the unique characteristics and dynamics of this theory could expand the researcher’s understanding and contribute to their knowledge about the application of this education approach.

Additionally, Peck (1993) illustrates three advantages of applying the ecological theory in clarifying issues surrounding the implementation of inclusive programs for children with disabilities. Firstly, Bronfenbrenner’s model suggests that educators should be aware of both the effects of the inclusion environment on the child, and how the inclusion impacts the environment itself, including possible changes in instructional practices, teacher behaviour, social relationships among children, and the possibility of negative impacts. For example, teachers may neglect children without disabilities when inclusive education is implemented. Secondly, Bronfenbrenner views the environment as it is experienced by the individual affected by development or the lack of it. This emphasis underlines the importance of understanding how individuals interpret situations, events and relationships in the inclusive setting. Finally, a range of unique ecological variables can be identified, from those directly affecting the individual in
daily interactions to those that operate more indirectly through the functions of social institutions, cultural values and beliefs. This framework is practical in identifying sources of environmental influence on development, and in understanding relationships between influences that operate at various levels.

It should be noted that studies that describe the experiences of persons involved in inclusive education such as professionals, administrators, and teachers will be of great value in clarifying the challenges these individuals face in implementing inclusion. Studies that utilise the theoretical framework would assist researchers to analyse and interpret their findings with insights into the complexity of interactions amongst variables.

In the present study, Brenfrenbenner’s theory will be employed to clarify the preschool teachers’ position which places them in the small unit or microsystem in the ecological systems theory. That is, teachers are typically the significant person in the inclusive classroom and take a vital role in developing programs for children with disabilities. Furthermore, this study aims to explain the perceptions of preschool teachers that might be derived from numerous variables that contribute to their views. For example, in this research field the macrosystem level includes cultural and religious beliefs. In a Buddhist country like Thailand, the Buddhist belief is that a person with disabilities is viewed as one who has received punishment because of their previous life. Therefore, some people may believe that it is not necessary to assist people with a disability. Nonetheless, the influence of inclusive education policy from the exosystem compels teachers to accept children with disabilities to participate in the regular class. If Thai teachers believe in this notion of Buddhism, their perceptions and the way in which they treat preschool children with disabilities can be described as being a cultural variable in the macrosystem level, and educational policy sits in the exosystem level.
However, this study does not intend to explore the variable of teachers’ perceptions in every level of the ecological system. Participant research that describes inclusion as experienced by the individuals involved would contribute to our understanding of the problems of implementation. In this study, however, the aim is to reveal the relationship between the complexity of the systems and the perceptions of preschool teachers as a key variable within this theory.

The review of the related literature suggests the need to investigate in greater depth the way in which Thai preschool teachers respond to inclusive education. In order to undertake this investigation, the current study attempts to pinpoint, from the perspective of preschool teachers, how the implementation of inclusive education policies affect their attitude, educational preparation and the process of collaboration required to work with children with a disability in their classroom setting. These research questions are presented in the next section.

2.5 Research questions

In this study, there are three main research questions derived from the related literature review as follows:

1. What do Thai preschool teachers report about their needs regarding the inclusion of young children with a disability?

2. Is there a significant relationship between teachers’ needs, teachers’ attitudes, and their personal characteristics?

3. What factors predict Thai preschool teachers’ attitudes towards inclusive education for young children with a disability?

2.6 Summary of the chapter

This chapter presented a critique of the related literature about preschool teachers and inclusive education for young children with disabilities, focusing on the
teachers’ attitudes, their educational preparation and the process of collaboration. Several studies have shown that preschool teachers need more training and emotional support from other staff to feel more confident in their own abilities to work with young children with disabilities. Teachers’ educational preparation such as professional efficacy, knowledge of disability, and teaching strategies in inclusive classes, appear to be associated with the successful implementation of inclusion. Collaboration between teachers and families is an important issue for preschool teachers in understanding and preparing themselves to work with parents and other staff in inclusive settings.

In addition, the background and situation of Thai special education revealed the attempt by the government to plan and develop assistance for young Thai children with disabilities. The rights and opportunities of young children with disabilities in the Thai inclusion education context have gradually progressed. However, there is a lack of empirical studies with Thai preschool teachers that reports their perceptions and attitudes towards inclusive education, their educational preparation and the process of collaboration. Therefore, this investigation will be conducted to fill the gap in the literature reviewed. The goal of this research is to provide a broad picture, within the Thai context, of various aspects of preschool environments that contribute to inclusive education practices. The next chapter provides the design and methodology for this research.
CHAPTER 3

METHODOLOGY

The methodology used in the current study is described in this chapter. The sequence of presentation is as follows. Firstly, the overall research design is presented. Details of the population and sample are shown in the second section. After that, the instruments used in this study are described. The data collection process, including ethical clearance is presented in the fourth section. Details of data analysis, including data preparation, are provided in the fifth section followed by the chapter’s conclusion.

3.1 Research design

Quantitative and qualitative research methods were employed in this study. The rationale for using each approach and the important attributes of each research method are explained in the following section.

Quantitative research is a type of educational research in which the researcher decides what to study, asks specific questions, collects numeric (numbered) data from participants, analyses these data using statistics, and conducts the inquiry in an unbiased and objective manner (Creswell, 2005, p.39). Quantitative research has specific aims for developing knowledge utilising strategies of inquiry such as experiment and surveys, and collects data using determined instruments that yield statistical data (Creswell, 2003). This approach also focuses on the testing and confirming of a researcher’s hypothesis (Johnson & Christensen, 2000). Typically, the outcomes of quantitative research are presented in numerical reports (Wiersma & Jurs, 2009).

Qualitative research, on the other hand, is a type of research in which the researcher relies on the views of participants, asks broad questions, collects data consisting largely of words (or text) from participants, describes and analyses these
words for themes, and conducts the inquiry in a subjective manner (Creswell, 2005, p. 39). Findings are always based on human experiences and stories that cannot be measured, counted or controlled (Cohen, Manion, & Morrison, 2000). In other words, data collected through the qualitative process are often rich in description that cannot be easily examined by statistical analysis (Bogdan & Biklen, 1992). Furthermore, Best & Kahn (1989) emphasised that qualitative data is useful because participants can freely express their thoughts, perceptions and experiences in more detail in relation to the research topic.

The distinction between the two research approaches is that quantitative research relies heavily on statistical results while qualitative research relies on narrative description (Wiersma & Jurs, 2009). Recognising that all research methods have limitations, researchers believe that biases inherent in any single method can be diminished in mixed methods studies. As a result, the practice of triangulation from various data sources aiming to seek convergence across qualitative and quantitative method was born (Jick, 1979). The combination of both forms of data provides a better understanding of a research problem than one type of data alone (Creswell, 2005). The explanation is that the strengths and weaknesses of each method may be balanced out and a more complete understanding of the phenomena in question may result.

A mixed method design is useful to capture the best of both quantitative and qualitative approaches. For example, researchers may first survey a large number of individuals and then interview a few of them to obtain a richer view about the topic. In this situation, the advantages of collecting both closed-ended quantitative data and open-ended qualitative data prove advantageous to best understand and address a research problem (Creswell, 2003). Interestingly, as Li, Marquart and Zercher (2000)
point out, mixed method designs have been increasingly utilised in investigations in the area of preschool inclusion.

There are four major types of mixed method designs: Triangulation, Embedded, Explanatory and Exploratory Designs (Creswell & Plano Clark, 2007). The Explanatory or sequential explanatory approach is the most popular form of mixed methods design in educational research (Creswell, 2005). This design consists of two phases, first collecting quantitative data and then collecting qualitative data to help explain or elaborate on the quantitative results. The rationale for this approach is that the quantitative data and results provide a general picture of the research problem; more analysis, specifically through qualitative data collection, is needed to refine, extend, or explain the general picture. Because this design begins quantitatively, investigators typically place greater emphasis on the quantitative methods than qualitative methods (Creswell & Plano Clark, 2007).

A follow-up explanation model was chosen for this study (see Figure 3.1) because this design allows scope for consensus through verification across phases of the study. This model is used when a researcher needs qualitative data to explain or expand on qualitative results (Creswell, Plano Clark, et al., 2003). Further, due to the exploratory nature of the questions, using both quantitative and qualitative approaches was most appropriate. In this model, the researcher identifies specific quantitative findings that need additional explanation. The researcher then collects qualitative data from participants who can best help explain these findings. Nevertheless, the primary emphasis is usually on the quantitative aspects.
A sequential explanatory mixed methods design was used to investigate the factors that predict Thai preschool teachers’ perception of inclusion, including teachers’ needs and the relationship between teachers’ needs, teachers’ attitudes and their personal characteristics. As mentioned earlier, this study consists of two phases starting...
with a quantitative phase follows by a qualitative phase. The details of each phase are described in the next section.

3.1.1 The first phase: Quantitative research

This phase took the form of survey research that yielded descriptive information about teachers’ needs regarding the implementation of inclusion. The relationships between teachers’ needs, teachers’ attitudes and their personal characteristics were examined. Also, factors that predict Thai preschool teachers’ attitude toward inclusive education were investigated.

The survey research methodology was a questionnaire forwarded to preschool teachers. This method was used because it is an effective means to gather a moderate amount of information from a large number of participants. Further, it offers potential to permit some generalisation of the results.

3.1.2 The second phase: Qualitative Research

Interviews were employed at the second phase. As Cohen, Manion, and Morrison (2000) point out, the aim of interviews is to solicit descriptive and in-depth data from participants in their own words and to respond to questions from the interviewer. Qualitative interviewing starts with the assumption that the perspective of others is meaningful, knowledgeable and able to be made explicit (Patton, 2002). The current study used semi-structured interviews which involves having a series of general questions but allows the researcher and the participants to obtain additional information (Gall, Walter, & Gall, 1996). Merriam (1998) stated that the benefit of using the interview is that the interviewer can investigate deeper reasons for unexpected or unusual answers which can be different from those obtained using other methods, such as the questionnaire.
3.2 Population and samples

Patton (1990) highlights the importance of selecting the population and sample in a purposeful way to ensure that data collected is relevant and will answer the key questions of the study. One strategy for selecting a sample is that of probability sampling. This uses a sample from a finite population to draw inferences about the entire population (Chromy, 2006). The next topic provides details on how the researcher obtained and selected the population and the sample in this study.

3.2.1 The first phase: Quantitative research questionnaire

Thai preschool teachers at government schools in either kindergarten or in preschool classes one year prior to Grade 1 in normal primary schools were the population for this study. Most public preschool classes are located in Thai primary schools. Some primary schools which have preschool classes also accept young children with disabilities to be included with children without disabilities, due to the governments’ inclusive policy.

This study was conducted in the upper north educational region in Thailand which consists of four provinces; Chiangmai, Chiangrai, Lampang and Lamphun. The reason for selection of those provinces was because government schools located in that area had already implemented the inclusive education policy. Therefore, these schools may be representative of the situation of inclusion in Thailand. The population was 1,638 public primary schools which have preschool classes. Taro Yamane’s model (Yamane, 1973) was employed which provided a simple formula to calculate sample sizes. \( n = \frac{N}{1+Ne^2} \). When \( n \) = Sample size, \( N \) = Population size, and \( e \) = The error of sampling on 0.05. There were 350 schools in the sample (Appendix A).

The 350 schools in the study were selected by multistage random sampling. This approach can reduce costs for coordinated surveys when the first stage sampling units
are used in conjunction with different study populations (Chromy, 2006). The 350 schools were divided between the 4 provinces. Then, each province was divided again by the number of sub education areas. Every preschool teacher in those 350 schools was purposively invited to join in this study in order to avoid potential bias in responses. Finally, 589 preschool teachers were invited to participate in the survey.

3.2.2 The second phase: Qualitative research interview

In the interview study, preschool teachers were purposively selected to complete an in depth interview. Purposive sampling refers to deliberate selection of individuals for participation in a study (Silverman, 2001).

After conducting the survey, the returned questionnaires were analysed. The scores of preschool teachers’ attitudes from section B of the questionnaire were ranked in order from the highest score to the lowest score. Then, teachers with the top 10 and bottom 10 of the attitude scores about inclusive education were purposively selected. Thus, there were 20 preschool teachers invited to take part in an interview to get a deeper understanding of teachers’ perceptions.

3.3 Instruments

3.3.1 Instrument for the first phase: Questionnaires

The *Thai Preschool Teachers’ Perceptions on Inclusive Education Rating Scale* was developed in the following manner. First, the literature reviewed earlier in this study was used to develop questionnaire items that addressed teachers’ attitudes to inclusion, their inclusion needs and the extent of collaboration they used in inclusion of young children with a disability. In addition, questionnaires used in previous related studies were also checked (Bruns & Mogharreban, 2007; Hsien, Brown, & Bortoli, 2009). Second, a draft form of the survey was considered by four experts. After developing the English interview protocol, the researcher checked the content and the
translation into Thai with four selected experts. Two of the experts were Thai lecturers in the Special Education program at Rajabhat Chiangmai University while one expert was Thai director of the Language Centre at Rajabhat Chiangmai University. The last expert was a senior Thai special education teacher who had experience teaching preschool children. After scrutiny by the experts, statements which were ambiguous were modified.

The questionnaire consisted of six sections (see Appendix D). The first section (A) addressed the demographic characteristics of the teachers and the children with a disability (i.e., teacher’s gender, age, and education level, years of teaching experience, the province where they teach, and the total hours of training in special education, experience with children with disabilities, and types of disability of children in the classroom).

In the second section of the questionnaire (B), participants responded to each of 16 items concerning their attitudes to and training in the implementation of inclusive education. The respondents rated each item on a 4 point Likert-type scale according to their perception on inclusion when it was implemented in their classrooms. Anchor points for the Likert scale were 1 = strongly disagree; 2 = disagree; 3 = agree; 4 = strongly agree.

The third section (C) consisted of 15 items allied to educational and experiential preparation of preschool teachers. Respondents were asked how they perceived themselves on their education and their experience working with children with disabilities using the same Likert scale as used in section 2. Section D contained 15 items related to collaboration with other staff and parents. Respondents reported the extent to which they agreed or disagreed with each item concerning collaboration with staff and parents using the same Likert scale as earlier sections.
The fifth section (E), provided eight types of teacher training needs and asked respondents to identify their top three needs from the following: child assessment, developing IEPs, behaviour management, learning adaptation, partnerships with families and professionals, adaptation materials, introduction to special education and children with disabilities, and environmental considerations. A four point Likert scale (1 = no training need; 2 = little training need; 3 = moderate training need; 4 = critical training need) was used. Also, the other category allowed respondents to specify additional training needs.

Section F, the last section, asked teachers to identify training options from the following: on-site workshop or in-service, off-site workshop or in-service, individual consultation/technical assistance, training with a small group, review resources (e.g., videos, websites, articles), and College/University courses. A four point Likert scale (1 = no training need; 2 = little training need; 3 = moderate training need; 4 = critical training need) was used. The other category was provided to allow respondents to specify additional personal training options.

3.3.2 Instrument for the second phase: Interview questions

The initial interview questions were based on information from the literature review that outlined teacher perspectives on inclusion. Patton (2002) suggested that interviews begin with descriptive questions that are close to the informant’s current experience and expertise. Once a clear description is obtained, often with the help of interview probes and prompts, opinions and interpretations can be solicited based on the mutually understood content that has been discussed. A semi structured protocol has the advantage of asking all informants the same core questions with the freedom to ask follow up questions that build on the responses received (Brenner, 2006).
Thus, an individual semi-structured interview was conducted with 20 preschool teachers. The aim of this method was to explore teachers’ perspectives about the implementation of inclusion in the classroom. Questions also probed teachers’ preparation for inclusive teaching and their experience in teaching young children in the inclusive class in Thailand, including how they perceived the support from school staff and parents (see Appendix F). The core questions for interviewing preschool teachers were as follows:

i) In your opinion, how would you explain the meaning of inclusive education?

ii) What knowledge and skills in special education in teaching these children do teachers require in the inclusive class?

3.4 Reliability and validity

3.4.1 Questionnaires

3.4.1.1 Reliability

Reliability refers to the extent to which individual scores from an instrument are stable on repeated administrations of the instrument, and the extent to which the instrument is free from sources of measurement error (Creswell 2005, p. 597).

To determine the reliability of an instrument, researchers can employ several approaches. Repeated measures (e.g., test-retest and parallel forms) and internal consistency (Kuder-Richardson formulas or coefficient alpha) are two of the most commonly used estimates of reliability (Mertens, 2010).

In general, reliability is calculated using a statistic that compares performances by the same individuals at different times (e.g., test-retest or on different parts of the instrument). When the instrument contains a range of possible answers for each item (e.g., such as agree-disagree) the coefficient alpha method is typically calculated as a measure of internal reliability (McMillan, 2008).
The reliability coefficient can range from -1 to +1, with 1 indicating perfect reliability. Most reliability coefficients range from .75 to .95 (Mertens, 2010). However, researchers have suggested a value of .70 as an acceptable lower boundary for alpha (de Vaus, 2002). For the purpose of this study, the coefficient alpha (Cronbach’s alpha) was utilised (Berends, 2006). For instruments in which there are subscales, a separate measure of internal consistency should be reported for each subscale.

For the questionnaires used in this study, the internal consistency coefficient (Cronbach’s alpha) for each section of the instrument were; Section B Teachers’ Attitude = 0.79; Section B Training = 0.73; Section C Educational Preparation = 0.85 and Section D Process of Collaboration = 0.81. The reliability of each of the components of the questionnaires of this study was therefore acceptable when compared against accepted benchmarks in the literature.

3.4.1.2 Validity

Content validity is often established using content experts to make judgements following a process based on alignment methodology (Webb, Alt, Ely, Cormier, & Vesperman, 2005). It is helpful to have the survey instrument reviewed by experts who have expertise and experience in both developing and analysing survey data. Thus, getting their input on survey instruments in terms of the specific question wording, response formats, and general layout and ordering of questions is useful in making revisions (Berends, 2006).

For the purpose of this study, to address content validity, the questionnaire was checked by four Thai experts. The questionnaire was developed in English and later translated into Thai. After getting feedback from the experts, minor revisions were integrated into the final form of the questionnaire.
3.4.2 Interviews

To ensure the reliability and validity of this study, several strategies were employed for appropriateness, meaningfulness, and usefulness of the themes. Triangulation is one of several methods that are often used to improve the validity of research findings. Triangulation refers to the collection of information from a diverse range of individuals and settings using a variety of methods in order to reduce the risk of systematic biases. Triangulation is typically a strategy for improving the validity and reliability of research or evaluation of findings (Maxwell, 1996, p.93). In establishing validity, researchers generally use all or a combination of the following types of triangulation: Data triangulation, Investigator triangulation, Theory triangulation, Methodological triangulation. Triangulation allowed the researcher to validate the quality of data analysis by checking the consistency of the data content, meaning structures, and the findings of the study using different methods of data collection (Cohen et al., 2000). This study employed data triangulation. Data was collected using a combination of questionnaires and interviews in order to gather the clearest possible picture of preschool teachers’ perceptions.

In a further effort to strengthen the design of the current study, member checks were introduced. A member check involves the researcher soliciting participants’ views on the credibility of findings and interpretations (Maxwell, 1996, p.91). The member check in the present study involved providing copies of the interview transcript to all participants. Brenner (2006) suggests that at the simplest level, researchers can share transcripts with informants to see if the interview itself is accurately portrayed. This can provide a researcher with corrections to the transcript or even further elaborations as an informant reflects on what the researcher asked the interviewees. Reviewing the transcripts provided them with an opportunity to make any corrections that they wished.
before analysis of the data actually began. To determine the accuracy of that transcript, the summary of data transcript was provided to each interviewee by mailing a hard copy direct to their schools in order to check and correct points that were missed from the transcriptions and clarify opinions. This process allowed participants to ensure that the interview data reviewed was what they wished to express.

Peer review was also used to improve the rigour of the study. The insight of another perspective is used in identifying themes across collected data forms. Freeman, de Marrais, Preissle, Roulston, and St Pierre (2007, p. 28) suggested that peer review during the research process can enhance validity as well. In the present study this approach helped to ensure that themes generated were validated by the views of at least two persons and avoided the personal bias of the main researcher. The researcher invited two Thai experts to participate, one an Associate Professor and the other a lecturer with a PhD who was experienced in special education and research. The researcher randomly selected 5 interview files (from the total of 20) and sent these to the two experts to be individually transcribed and sent the transcript back to the researcher. Later, the files from the experts and the researcher were compared by using a word document program. The total words of the three files were 21,538 words, 164 words were mismatched, so the accurately matched words were 21,343. Therefore, there was 99.23% transcription accuracy over 5 random files between the researcher and the experts.

Field notes were also used by the researcher. The immediate post interview review is a time to record detail about the setting and the observations regarding the interview. This period after an interview is a critical time of reflection and elaboration. It is a time of quality control to guarantee that the data obtained will be useful, reliable and authentic. Kvale and Brinkman (2009) point out that the benefit of writing field notes is that it might be worthwhile for the interviewer to set aside 10 minutes or more
of quiet time after each interview to reflect on what has emerged from the particular interview because it is useful for the later analysis of transcripts. To take advantage of this technique, the researcher wrote field notes immediately after each interview and kept them in her research journal.

Electronic data collection modes, such as tape recorders and videotape equipment do have certain advantages that handwritten notes do not. For example, interviews and observations recorded electronically can be reviewed multiple times, helping to ensure that a complete understanding has been reached (Merriam, 1998). Besides, Maxwell (1996) highlights that using an instrument such as a recording device for the interviews and transcriptions can be another significant technique to validate the research quality. In this study, the electronic voice recording device recorded the interview and it was later transcribed.

In all research involving humans, protection of the people involved in an interview study is a paramount responsibility of the researcher (Brenner, 2006). Weiss (1994) stated that one requirement of interviews is that the interviewer will ensure, both during the interview and afterward, that the respondent will not be harmed or disadvantaged because of the respondent’s participation and communications remain confidential information. In this study, the researcher affirmed that data would be reported in a researcher’s thesis as a PhD degree in the School of Education at the University of Newcastle. Any interview data from participants was de-identified and any use of this data in publications was done in such a way that the identity of participants and schools could not be inferred. Participants were able to review the recording and transcripts to edit or erase their contribution.

Cho and Trent (2006, p. 335) argued that some concepts such as member checking are necessary but not sufficient, so there must be a purposeful approach by the
researcher reflecting on other problems. Thick description, personal essays, and praxis/social change should be combined in the researcher's work in order to strengthen the validity of the research. Therefore, the researcher provided the details of interviewing, transcripts and reflections in the research journals.

The research design also accounted for bias. Creswell (2005) highlighted that “… reflexivity means that the researchers reflect on their own biases, values, and assumptions and actively write them into their research” (p. 50). As a Thai lecturer in a special education program, the researcher was very conscious, particularly from the position as an educator within the field of inclusive education, of the dangers of bias that the researcher may bring to the study. Such problems included possibly providing leading instructions or answers from the researchers’ own knowledge base. For example, at the beginning of one interview session, the preschool teacher asked whether the researcher wanted to hear only positive views because she was concerned that her answers would cause damage to the results. The researcher gently refused that offer and replied to the preschool teacher that the researcher preferred the teacher’s real views.

Another strategy to strengthen the validity of this qualitative study was the use of an ongoing researcher journal. By keeping a journal that reflected personal reactions to interviews, the researcher was able to examine personal reactions to data collection experiences (Wolcott, 1990). The researcher started writing a research journal from the beginning of data collection and attempted to reflect their own awareness after conducting the interviews. This strategy further enabled the researcher to present findings that were meaningful, accurate and valuable.

3.5 Data collection

Data collection in this study was conducted by the researcher. After approval from the University of Newcastle Human Research Ethics Committee, the researcher
contacted the Faculty of Education, Rajabhat Chiangmai University asking for a formal letter to present to the schools for their co-operation to conduct the study. This letter contained the statement of introduction of the research project and requests for agreement to participate. The researcher’s explanatory letter was attached to the letter from the Rajabhat Chiangmai University office and sent to the randomly selected schools.

Merten (2010) points out that good timing is very important, especially with populations that arrange their time around a school calendar. Merten (2010) further recommends avoiding sending questionnaires at the very beginning or ending of a school year or around holiday periods. Data collection, therefore, started during the middle of the first semester of the school year (from July-November, 2010) so that the participants had begun their work and had sufficient information and understanding about the study.

Data collection took approximately 6 months (one semester) to ensure that data reached saturation. When the researcher conducted the interviews, pseudonyms were used throughout this study in order to protect the confidentiality of all participants.

3.5.1 Ethics clearance and translation of study documents

As a requirement of the Ethics Committee of the University of Newcastle, all instruments were submitted for Ethics approval. Information statements about this research project and consent forms for preschool teachers were also approved. The information statements contained a general description of the project, proposed teachers involvement, feedback on the project, and information about privacy and confidentiality issues. Because the study was conducted in Thailand, all the materials and documents were developed in both English and Thai. Both versions were given to a colleague PhD student who is fluent in both languages. This student also had strong background
knowledge of the Thai educational system. The colleague student agreed that the
documents were accurately translated. A statement from the colleague student to the
Human Ethic Committee is attached in Appendix H.

Following responses by the researcher to the committee, ethics approval was
granted by the University of Newcastle Human Research Committee with approval
number H-2010-1017. The approval letter is shown in Appendix I.

When the Human Research Ethics Committee approved this study, the
researcher contacted the Rajabhat Chiangmai University to ask for a formal letter that
introduced the research project to school principals and asked for their cooperation to
distribute a questionnaire.

3.5.2 Consultation Phase

Because the researcher conducted the study in Thailand, the instruments needed
to be clear and suited to the Thai language. Before commencing data collection, the
researcher consulted with Thai experts to provide advice on the questionnaire: *Thai
Preschool Teachers’ Perceptions on Inclusive Education Rating Scale*. The experts
were purposively selected and none were involved in the sample of teachers and
schools.

Four experts were recruited in this study. Two of the experts are Thai lecturers
in the Special Education program at Rajabhat Chiangmai University with experience
covering the content and academic terms of inclusive education, while one expert was
the Thai director of the Language Centre at Rajabhat Chiangmai University. The last
expert was a senior Thai special education teacher experienced in teaching preschool
children. Questionnaire content was checked for grammar and understanding.

The aim of this consultation was to ask for comments from Thai experts on the
content validity and reliability of the questionnaire by completing the scales and
identifying questions that they found confusing on their first reading. Further, the experts were asked to write their suggestions for modifying those items to make those items clearer. After scrutiny by the experts, statements in the questionnaire which were ambiguous were modified before conducting the survey study. In addition, the style and form of the questionnaire was adjusted before sending to the participants.

3.5.3 Data collection in the Survey Phase

In the main quantitative study, survey data were collected from 350 schools and 589 preschool teachers to investigate their perceptions about the inclusion of young children with disabilities in their classrooms. One of the distinguishing characteristics of surveys is the method of collection, and the mailed questionnaire is often used for data collection (Wiersma & Jurs, 2009). Creswell (2005) clarifies that a mailed questionnaire is a form of data collection in survey research in which the investigator mails a questionnaire to members of the sample. The biggest advantage of mail surveys is that they are relatively inexpensive compared with researcher's travelling costs and using telephone interviews. Mailing surveys to the study participants may be a feasible option within the budget constraints (Berends, 2006). Another advantage is the mail facilitates quick data collection, often in as little as 6 weeks from the first mailing to the conclusion of data collection (Creswell, 2005).

For those reasons, the researcher decided to use a mail survey. Thus, the survey questionnaires were mailed to the schools in the sample group. Schools were asked to distribute the survey packets through a letter to the Principal. Each package contained the explanatory letters about the research aims, right to maintain privacy, confidentiality, and questionnaires attached with a consent form for the next interview phase. The respondents replied to the questionnaires by mailing the prepaid envelope
back to the Faculty of Education, Rajabhat Chiangmai University which is the work place of the researcher.

One constraint of mailed questionnaires is that individuals may lack any personal interest in the study and decide not to return the instrument. Creswell (2005) recommends several strategies to encourage high return rates such as follow up procedure by using postcard reminders. Follow-ups are a must for almost all questionnaire surveys, and the follow up mailing should be timed to arrive at the respondents’ addresses a few days after the deadline for return as specified in the cover letter (Wiersma & Jurs, 2009).

In this study, a maximum of four weeks was allowed for the respondents to respond to the questionnaires. After two weeks, a postcard was sent as a reminder to enhance the response rate. The greater the response rate, the more accurate the results and confidence in generalising the results to the population (Cresswell, 2005). The researcher sent the reminder postcard to the principals of those schools for distribution to the teachers.

Generally, when surveying a professional population, 70% is considered a minimum acceptable response rate (Wiersma & Jurs, 2009) However, Porter and Whitcomb (2003) argue using survey data from a response rate of less than 50% is now common in educational research. The researcher attempted to enhance participation by using the invitation letter, a reminder postcard, and a prepaid envelope. In this study, 535 from a total of 589 preschool teachers returned the questionnaire. The response rate was 90.83%. The researcher checked the questionnaires and removed 7 incomplete questionnaires. There were 528 completed questionnaires available for further analysis.
3.5.4 Data collection in Interview Phase

In the qualitative study, semi-structured interviews were used to collect data because this process enables the researcher to gain insights into others’ perspectives. It is particularly useful for discovering respondents’ thoughts, perceptions, and feelings (Goodwin & Goodwin, 1996). It can be said that it is a suitable data collection tool for understanding teachers’ perceptions.

The interview was conducted with 20 preschool teachers who indicated in their questionnaire that they were willing to take part. According to the Human Research Ethics Committee’s advice about the confidentiality of the respondents, the researcher separated the questionnaire from the Consent form once the identification of interviewees for the qualitative study had taken place.

According to the analysed data from the questionnaires, 226 preschool teachers gave consent to be interviewed in the second phase. In order to select 20, the mean scores of each teacher’s attitudes from part B of the questionnaires were calculated and then ranked in order from highest to lowest (score range from 35-10). The researcher then selected from the pool of teachers who had agreed to participate in the second phase, those individuals with the top 10 and bottom 10 scores.

Of these 20 preschool teachers, 9 were from Chiangmai province, 7 from Chiangrai, and 4 from Lampang. According to Wiersma and Jurs (2009) a mutually convenient time for the potential respondent and the interviewer was an important research strategy. Therefore, the researcher contacted those 20 teachers and inquired about a convenient time and place for conducting the individual interviews. Rossman and Rallis (2003) affirm that it is ideal to conduct interviews in the language which is considered most comfortable for both parties, and so the interviews were conducted in Thai.
Because the interview is a social encounter, it is important that the interviewer establish a good rapport with the respondent (Rossman & Rallis, 2003). Hence, at the beginning of the interview, the researcher informed those preschool teachers about the research aims, rights to maintain privacy, anonymity, and confidentiality. The interview session was conducted for approximately one hour at a convenient time and place in order to allow participants to express their feelings and opinions freely. According to Stake (1995, p. 63) it is important to note that the interviewee “had unique experiences, special stories to tell”, therefore, interview sessions remained flexible and questions emerged during the interview questions and further probing. Thus, the length of time of interviews was flexible and appropriate to each situation.

Seale (2002) clarifies the efficacy of using an audio recording device for interviewing. An audiotape recording is such that it allows an interviewer to focus on the conversation with an informant and carries a more complete record of the informant’s actual words. The data recording procedures used in the interview should be efficiently structured so that they do not interfere with the process of conducting the interview.

In this study, therefore, a digital voice recorder was used to record interviews to ensure that the entire information was captured and to reduce the distractions of note-taking during the interviews. Electronic, de-identified audio files were stored first on the laptop computer of the researcher in the field, and later transferred to the researcher’s desktop computer at the University of Newcastle, Australia. Recording and transcriptions allow other researchers to see how a researcher distils ideas from the primary data and to judge whether the patterns detected are visible to people less connected to the original data collection (Brenner, 2006). Interviews were later transcribed. The researcher listened and transcribed word by word. The entire transcript
was typed into Microsoft Word® and saved as an individual file for each participating teacher. The researcher used a number code for each participant and the teacher’s name and identifying information was stored in a separate secure location.

3.6 Data analysis

3.6.1 Quantitative data

Data screening before data analysis is essential for the researcher to identify errors and outliers (Pallant, 2011). An outlier is a case with such an extreme value on one variable (a univariate outlier) or such a combination of scores on two or more variables (multivariate outlier) that it distorts the data distribution (Tabachnick & Fidell, 2007). To identify univariate outliers, all 528 cases were inspected before running factor analyses. Boxplots of both dependent and independent variables were visually inspected. Twenty outliers extended more than 1.5 box-lengths and seven outliers extended more than three box-lengths from the edge of the box. In addition, standardised scores were calculated for each of 528 cases and displayed standard deviation scores with an absolute value in excess of 3.29 ($ p < .001$) (Manning & Munro, 2007; Pallant, 2011).

A test for multivariate outliers was then conducted using the techniques described by Tabachnick and Fidell (2007). The Mahalanobis distance, which can be interpreted as the $ \chi^2 $ statistic, was calculated for each case. The Mahalanobis distance score for each subject is considered an outlier if it exceeds a “critical value”. Several authors (Manning & Munro, 2007; Pallant, 2011; Tabachnick & Fidell, 2007) recommended that a criterion of $ p < .001 $, $ df = 4 $ be used to evaluate whether a case is judged to be a multivariate outlier and therefore in this study a critical value of 18.47 was used. Seven cases exceeded that value and were therefore detected as multivariate outliers using this procedure. Six cases of these multivariate outliers were also detected.
as univariate outliers. Therefore, the total number of outliers (both univariate and multivariate) was 28.

Pallant (2011) recommended several methods for dealing with outliers such as changing the outlier to a less extreme value or removing all outliers from the data files. Tabachnick and Fidell (2007) argued transformation or score alternation may not be successful because the problem for multivariate outliers is with the combination of scores on two or more variables. Given this recommendation and given the relatively large sample size, all 28 outliers were eliminated from the data set.

After outlier removal, all 500 cases were checked for skewness and kurtosis across each of the study measures. The Attitude, Training, Educational preparation, and Collaboration measures had skewness values of -.267, -.286, -.194, and -.254, respectively, with a standard error of .109. Their respective kurtosis values were -.278, -.497, -.221, and .270 with a standard error of .218. To decide whether the distribution substantially varied from normality, Manning and Munro (2007) suggested dividing the skewness value by the standard error of the skewness. Using the criteria presented by Tabachnick and Fidell (2007), for a sample greater than 300, if the calculated value exceeds an absolute value of 3.29, then there is a problem with normality. In this current study, the researcher calculated each measure’s skewness divided by the standard error of skewness and all calculated values did not exceed an absolute value of 3.29. Histograms and Q-Q plots of each measure were inspected and the outputs also presented as a normal distribution.

The data gathered from questionnaires was analysed by means of the following statistical methods. Firstly, the Statistical Package for Social Science (SPSS) for Windows was employed to analyse descriptive statistics. A Chi square test was employed to check for significant differences between teacher demographic
characteristics. In addition, the mean and standard deviation was calculated in order to answer the first research question about the teachers’ need for training. Cronbach-alpha for reliability and factor analysis of the questionnaire instruments was also examined (SPSS Inc, 2006).

Next, for the second research question, Pearson Product moment, Spearman Rho, and F tests (one way ANOVA) were performed in analysing the relationship between the teachers’ need, teachers’ attitudes and their personal characteristics.

In order to answer the last research question, multiple regression was employed. There are three main types of multiple regression; standard, hierarchical and a variant called stepwise which has unique tailoring features. The standard multiple regression allows all of the predictor or independent variables to be entered together. The analysis produces a single prediction equation for the hierarchical regression, with the independent variables entered in an order specified by the researcher (Manning & Munro, 2007). In stepwise regression, the researcher provides a list of independent variables and then allows the program to select which variables it will enter and in which order they go into the equation based on a set of statistical criteria (Pallant, 2011).

In this study, standard regression was utilized for several reasons. First, the researcher aimed to investigate each independent variable in terms of its predictive power, over and above the other independent variables. This approach would also tell the researcher how much unique variance was explained by each independent variable. With those objectives, the standard regression is the most commonly used multiple regression analysis technique (Pallant, 2011). Second, this study did not aim to test any explicit hypothesis. The justification for selecting delineated variables was not based on any specific theory as assumed in hierarchical regression. The present study aimed to
answer the basic questions of multiple correlation, therefore the proper choice was standard multiple regression (Tabachnick & Fidell, 2007). Finally, stepwise regression models derived by computers often take advantage of random sampling variation. This can lead to biases in parameters, potential over-fitting of data (Tabachnick & Fidell, 2007), under-fitting (Field, 2009) and incorrect significance tests. Several authors (Allen & Bennett, 2010; Field, 2009; Manning & Munro, 2007; Pallant, 2011) have argued against the use of the stepwise method because of a number of problems with these approaches and some controversy in the literature concerning the abuse of this method. For example, Whittingham, Stephens, Bradbury, and Freckleton (2006) outlined the three main weaknesses of this technique, namely, bias in parameter estimation, inconsistencies among model selection algorithms, and an inappropriate focus or reliance on a single best model. For these reasons, standard multiple regression was selected for the present study. The findings from analyses of the quantitative data are presented in the next chapter.

3.6.2 Qualitative data

Several researchers have identified strategies and processes in analysing qualitative data. For example, Miles and Huberman (1984) described the way analysis occurs during data collection, interpretation and report writing. In addition, Marshall and Rossman (1989) and Tesch (1990) explained that qualitative data analysis involves data reduction and interpretation or decontextualisation and recontextualisation. It can be said that qualitative analysis requires attentiveness to data in order to reveal results by undertaking a systematic process. Therefore, Creswell (2009) urges researchers to consider qualitative data analysis as a series of steps from the specific to the general, involving multiple levels of analysis.
He proposed a hierarchy of six steps of data analysis. Creswell (2009, p.185-190) noted that the various stages are interrelated and not always visited in the order presented. The first and the second step can be called a preliminary exploratory analysis (Creswell, 2002). That is, after arranging the data and transferring it into text, the researcher explores the data by reading through the information to obtain and reflect a general sense of the information. Then, the coding process is undertaken. It is a process to make sense of the data, dividing and labelling the data segments, checking for the overlap codes and collapsing these codes into themes. Creswell (2012) further proposed a visual model for the coding process in qualitative research (Figure 3.2)

**Figure 3.2. Coding process in qualitative research** (Creswell, 2012, p.244)

Finally, the researcher interprets and judges the meaning of the data in relation to the identified research questions, which brings meaning to the study. Creswell’s scaffolding of data analysis is widely used and mentioned in several studies (Alwan,
In this study, the details of the researcher’s data analysis can be followed on the basis of Creswell’s hierarchy of six steps of data analysis as follows. The first step of data analysis took place after voice-recordings from twenty teachers were collected, and transcribed by the researcher. The researcher corrected some missing and misspelled words. Then, five from twenty recordings (25%) were randomly selected and sent to two Thai experts both with relevant PhD qualifications, with a request that they independently transcribe. Later, the experts sent back those transcriptions to the researcher for the purpose of comparing the content accuracy. The experts’ and the researcher’s transcripts were compared for mismatched words by using the Microsoft Word® file comparison program. The result of expert and researcher overall content accuracy was 99.23% calculated by using the formula Matched words/ Matched + Mismatched words × 100. After that, the researcher read and reread those transcriptions. Notes which emerged from the data were written in the transcriptions.

According to the coding process, transcribed data was read closely and then divided into meaningful analytical units (segmenting the data) by the researcher. When a meaningful segment of text in a transcript was found, coding of those segments was commenced and this produced 44 code segments. To reduce this large number of codes, the researcher clustered similar topics into 18 categories, and the researcher used a diagram (see Figure 3. 3) to represent a relationship of those categories, thereby collapsing those 18 categories into five themes.
Figure 3.3 Developed Themes
As noted by Creswell (2009), a cross-checking or inter-coder agreement check is an important strategy to demonstrate the reliability of researcher coding. The agreement coefficient is usually based on the extent to which two or more coders agree on codes used for the same passages in the text. In the current study, the researcher randomly selected five interview transcriptions and sent them to one of the experts involved in cross checking the interview transcriptions. The Thai expert independently coded those transcriptions using the same process followed by the researcher. In this study, inter-coder reliability for coding of content themes was calculated using the formula Agreements/Agreements + Disagreements ×100 (Miles & Huberman, 1994). The reliability for coding segments was 82.97 %, for coding categories 83.33 %, and for coding themes was 100 %. The overall reliability score across all sections was 86.15%.

For the final step in the interpretation of the themes, the researcher went back through the research questions and reviewed the relevant literature. In addition, Thai culture, the social situation in Thailand and personal experiences were considered to inform the appropriate explanation and the understanding this brings to the study. The findings of this study are presented in the qualitative data analysis result chapter.

3.7 Summary of the chapter

The research methodology is outlined in this chapter. Quantitative and qualitative approaches were employed to investigate Thai preschool teachers’ perceptions. The quantitative approach involved the use of questionnaires as a means of data collection while the qualitative approach involved the use of semi-structured interviews to gain deeper information from a subset of the research participants. The teachers in the study were from government schools in four provinces in the northern part of Thailand. The selections of survey research participants used a multistage random sampling technique while the interview participants were selectively and
purposefully selected. Finally, the means of data analysis (both quantitative and qualitative) were identified.

The next chapter presents the results of data analysis of the first phase of the current study. The survey phase aimed to investigate teachers’ perceptions about inclusive education for young children with disabilities.
CHAPTER 4

RESULTS: QUESTIONNAIRE

4.1 Chapter Overview

In this chapter, the results of the questionnaire survey conducted in the first phase of this study are presented and analysed. General information regarding the characteristics of the participating teachers and the young children with a disability in those teachers’ classrooms is presented. Then, analyses of the relationships between the sample groups are presented. Next, results related to the research questions are displayed in the following sequence:

1. What do Thai preschool teachers report about their needs regarding the inclusion of young children with a disability?
2. Is there any significant relationship between teachers’ needs, teachers’ attitudes, and their personal characteristics?
3. What factors predict Thai preschool teachers’ perceptions of inclusive education for young children with a disability?

Finally, a chapter summary is presented with a bridge to the following chapter.

4.2 Demographic Data for Participants

Five hundred and twenty-eight preschool teachers responded to the questionnaire “Thai Preschool Teachers’ Perceptions on Inclusive Education Rating Scale”. The teachers’ characteristics are presented in Table 4.1.
Table 4.1 Demographic characteristics of the respondents ($N = 528$)

<table>
<thead>
<tr>
<th></th>
<th>$n$</th>
<th>%</th>
<th>$\chi^2$</th>
<th>df</th>
<th>$p$</th>
<th>ES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>35</td>
<td>6.6</td>
<td></td>
<td>1</td>
<td>&lt;.001</td>
<td>0.87</td>
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<tr>
<td>Female</td>
<td>493</td>
<td>93.4</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Age</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>20-30 years</td>
<td>86</td>
<td>16.3</td>
<td></td>
<td>3</td>
<td>&lt;.001</td>
<td>0.47</td>
</tr>
<tr>
<td>31-40 years</td>
<td>92</td>
<td>17.4</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>41-50 years</td>
<td>110</td>
<td>20.8</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>51-60 years</td>
<td>240</td>
<td>45.5</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Province</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chiangmai</td>
<td>156</td>
<td>29.5</td>
<td></td>
<td>3</td>
<td>&lt;.001</td>
<td>0.37</td>
</tr>
<tr>
<td>Chiangrai</td>
<td>173</td>
<td>32.8</td>
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<td></td>
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<tr>
<td>Lampang</td>
<td>151</td>
<td>28.6</td>
<td></td>
<td></td>
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<td></td>
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<tr>
<td>Lamphun</td>
<td>48</td>
<td>9.1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Educational Level</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Diploma or equivalent</td>
<td>18</td>
<td>3.4</td>
<td></td>
<td>2</td>
<td>&lt;.001</td>
<td>1.20</td>
</tr>
<tr>
<td>Bachelor</td>
<td>477</td>
<td>90.3</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Master or higher</td>
<td>33</td>
<td>6.2</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Numbers of classrooms in school</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 classroom</td>
<td>132</td>
<td>25.0</td>
<td></td>
<td>2</td>
<td>&lt;.001</td>
<td>0.33</td>
</tr>
<tr>
<td>2-3 classrooms</td>
<td>259</td>
<td>49.1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4 classrooms or more</td>
<td>137</td>
<td>25.9</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Level of classroom</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pre-kindergarten (3 years old)</td>
<td>21</td>
<td>4.0</td>
<td></td>
<td>2</td>
<td>&lt;.001</td>
<td>0.69</td>
</tr>
<tr>
<td>Kindergarten I (4 years old)</td>
<td>190</td>
<td>36.0</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Kindergarten II (5 years old)</td>
<td>317</td>
<td>60.0</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

$ES =$ Effect size

Chi-square tests indicated there were highly significant differences in the proportion of the respondents in each demographic category. As an index of effect size (Cohen, 1988), age, province, and number of classroom in schools were considered medium whereas the effect size for gender, educational level and level of classroom was large.

The majority of the respondents to this survey were female teachers (93.4%). Ages ranged from 20 to over 50 years old, with a higher proportion of older teachers (66.3 % over 40 years of age). The proportion of teachers’ teaching location among three provinces (Chiangrai, Chiangmai and Lampang) was similar, whereas there were a
small proportion of teachers from Lamphun province. The majority of teachers held a Bachelor degree (90.3%). The remainder held either a Masters or Diploma or equivalent. Most preschool teachers were employed in schools that had 2-3 preschool classrooms (49.1%). Many respondents (60%) were currently teaching at Kindergarten II or child from age 5, while 40% of the respondents reported teaching a child aged between 3-4 years.

The following table presents the participants’ teaching and training experience.

Table 4.2 Preschool teachers’ teaching experience and special education training

|(N = 528) |
|---|---|---|---|---|---|
| | $n$ | % | $\chi^2$ | df | p |
| **General teaching experience** | | | | | |
| Less than 2 years | 51 | 9.7 | 215.48 | 5 | <.001 |
| 2-5 years | 72 | 13.6 |
| 6-10 years | 57 | 10.8 |
| 11-15 years | 58 | 11.0 |
| 16-20 years | 78 | 14.8 |
| More than 20 years | 212 | 40.2 |
| **Teaching experience with children with disabilities** | | | | | |
| None | 354 | 67.0 | 507.33 | 3 | <.001 |
| Less than 2 years | 82 | 15.5 |
| 2-5 years | 60 | 11.4 |
| More than 5 years | 32 | 6.1 |
| **Hours of training in special education** | | | | | |
| None | 303 | 57.4 | 474.12 | 4 | <.001 |
| Less than 10 hours | 59 | 11.2 |
| 10-15 hours | 78 | 14.8 |
| 16-20 hours | 27 | 5.1 |
| More than 20 hours | 61 | 11.6 |
| **Certificate of special education training** | | | | | |
| No | 369 | 69.9 | 83.52 | 1 | <.001 |
| Yes | 159 | 30.1 |

¹ in service training within 2 years provided by sectors of Ministry of Education, such as Special Education Centre, office of regional educational area, or university workshop.

² the certificate issued by the Ministry of Education
Chi-square tests indicated there were highly significant differences in the proportion of respondents in relation to teaching experience and their special education training. As an index of effect size (Cohen, 1988), general teaching experience, teaching experience with children with disabilities, and hours of training in special education showed large effect sizes, whereas a medium size effect was found for a certificate of special education training.

Teaching experience ranged from less than two years to more than 20 years, with the largest group of participants reporting general teaching experience in excess of 20 years. Many participating teachers (67%) reported their inexperience in teaching children with disabilities. Only a small number (6.1%) had been teaching those children for more than 5 years. More than half of the preschool teachers in this study identified themselves as untrained in special education (57.4%). The proportion of teachers having a certificate in special education training was considerably lower than those with no certificate (30.1% vs. 69.9%).

Data from the questionnaires further reported on the children with disabilities included in the regular classroom. Table 4.3 presents the number of these children reported by the preschool teachers.

| Table 4.3  Frequency and grouping of children with identified disabilities per classroom (N = 528) |
|-------------------|----------|------|
|                   |  n        |  %   |
| None              |    367    | 69.5 |
| 1 – 3 children    |     130   | 24.6 |
| 4 – 6 children    |      21   |  4.0 |
| More than 6 children |     10   |  1.9 |
A large proportion of participating preschool teachers reported that they did not have any children with identified disabilities in their classrooms (69.5%). The majority of preschool teachers having children with identified disabilities in their room reported that they included between one and three children per class (24.6%).

Next, Figure 4.1 shows the proportion of types of disability among included children with disability and the number of children with each type of disability.

![Figure 4.1 Proportion of types of disability by number of children with a disability in the class (N = 391)](image)

VI   Children with Visual impairment  \((n = 9)\)
HI   Children with Hearing Impairment \((n = 22)\)
ID   Children with Intellectual Disabilities \((n = 82)\)
PHY/HI Children with Physical disabilities/Health impairment \((n = 47)\)
LD   Children with Learning Disabilities \((n = 53)\)
SLD  Children with Speech and Language Disorder \((n = 58)\)
BED  Children with Behavioural Emotional and Social disorder \((n = 46)\)
AUS  Children with Autism \((n = 59)\)
MD   Children with Multiple Disabilities \((n = 15)\)
The total number of children with identified disabilities in regular classrooms taught by participants was 391, with nine types of disabilities represented. Overall, the most common disability was intellectual \((n = 82)\), and the least common was visual \((n = 9)\). Similar patterns emerged in the number of children with a disability included in classes across types of disability. The following section provides the results of data analyses related to the research questions.

### 4.3 Data Analyses

#### 4.3.1 What do Thai preschool teachers report about their needs regarding the inclusion of young children with a disability?

In order to answer the first research question, the 528 respondents were asked to rate their needs in relation to training about inclusive education by using a Likert Scale where 1 = no training need, 2 = little training need, 3 = moderate training need, and 4 = critical training need. To do this, eight potential training topics were listed. An open-ended item was also provided to allow the participating teachers to add their suggestions. Means and standard deviations for the teachers’ training needs are presented in Table 4.4.

Teachers’ mean scores for training needs ranged from 2.94-3.15, which demonstrated a small range across topics. Most of the training topics were reported to be a critical need. The two highest rated training topics were environmental consideration and adaptation of teaching material. The two least reported training needs were developing an IEP and child assessment. The other training needs suggested by the teachers \((n = 8)\) were parent involvement, computer use for young children with disabilities, teaching techniques, teachers’ role in inclusive class, and sign language. Details of the teachers’ training needs are presented on the next page.
Table 4.4 Preschool teachers’ training needs related to working with young children with disabilities ($N = 528$)

<table>
<thead>
<tr>
<th>Training topic</th>
<th>$M$</th>
<th>$SD$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Environmental considerations</td>
<td>3.15</td>
<td>0.82</td>
</tr>
<tr>
<td>Adaptation of teaching materials</td>
<td>3.13</td>
<td>0.83</td>
</tr>
<tr>
<td>Introduction to special education and children with disabilities</td>
<td>3.13</td>
<td>0.80</td>
</tr>
<tr>
<td>Behaviour management</td>
<td>3.10</td>
<td>0.80</td>
</tr>
<tr>
<td>Learning Adaptation</td>
<td>3.06</td>
<td>0.80</td>
</tr>
<tr>
<td>Partnerships with families and professionals</td>
<td>3.05</td>
<td>0.85</td>
</tr>
<tr>
<td>Child assessment</td>
<td>2.99</td>
<td>0.84</td>
</tr>
<tr>
<td>Developing an IEP</td>
<td>2.94</td>
<td>0.87</td>
</tr>
</tbody>
</table>

$1 = \text{no training need, } 2 = \text{little training need, } 3 = \text{moderate training need, and } 4 = \text{critical training need.}$

Next, Table 4.5 presents the teacher’s preferences for training delivery. Teachers rated how important six training delivery choices were to them. An open-ended item also allowed the participating teachers to add their suggestions.

Table 4.5 Preschool teachers’ training options ($N = 528$)

<table>
<thead>
<tr>
<th>Training options</th>
<th>$M$</th>
<th>$SD$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Review resources (e.g., videos, websites, articles)</td>
<td>3.06</td>
<td>0.80</td>
</tr>
<tr>
<td>Individual consultation/technical assistance with disabilities</td>
<td>2.96</td>
<td>0.79</td>
</tr>
<tr>
<td>On-site workshop or in-service</td>
<td>2.82</td>
<td>0.90</td>
</tr>
<tr>
<td>Training with a small group</td>
<td>2.76</td>
<td>0.82</td>
</tr>
<tr>
<td>College/University courses</td>
<td>2.72</td>
<td>0.95</td>
</tr>
<tr>
<td>Off-site workshop or in-service</td>
<td>2.43</td>
<td>0.95</td>
</tr>
</tbody>
</table>

$1 = \text{no training need, } 2 = \text{little training need, } 3 = \text{moderate training need, and } 4 = \text{critical training need.}$
Reviewing resources and individual consultation/ technical assistance were the two most preferred training options. In contrast, off-site workshop and college/university courses were the two least preferred training options reported. In the open-ended section, three teachers suggested training should be provided during school holidays, educational visits, and training with other professionals.

In summary, the first question investigated preschool teachers’ needs regarding the inclusion of young children with disabilities. Reviewing resources and individual consultation/ technical assistance were the two most preferred training options. The results revealed that Thai preschool teachers have interests in training in many topics regarding their work with children with disabilities in the inclusive classroom.

4.3.2 Is there any significant relationship between teachers’ needs, teachers’ attitudes, and their personal characteristics?

To answer the second research question, several steps were required. First, descriptive statistics on the teachers’ attitudes and training needs from section B, educational preparation from section C, and process of collaboration from section D of the questionnaire in the current study are presented. Second, in order to test whether groups of items in the questionnaire constituted robust measurement scales, exploratory factor analysis of the items in relevant sections of the questionnaire was conducted. Finally, the related variables derived from factor analysis were employed to answer the second research question.

4.3.2.1 Descriptive statistics of teachers’ attitude and training

The respondents were asked to report their attitude to including young children with a disability (items1-10 and item 16), and their attitude to training (items 11-15), in section B of the questionnaire. The mean and standard deviation of the 16 items are presented in Table 4.6.
Table 4.6 Mean and standard deviation of teachers’ attitude to training and inclusive education for young children with disabilities

<table>
<thead>
<tr>
<th>Item</th>
<th>n</th>
<th>M</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Inclusion represents a positive change in the education system</td>
<td>527</td>
<td>2.88</td>
<td>0.81</td>
</tr>
<tr>
<td>2. Children with disabilities should receive services in early childhood settings alongside their same- age peers</td>
<td>528</td>
<td>2.88</td>
<td>0.89</td>
</tr>
<tr>
<td>3. I can manage my class easier when children have mild disabilities than when children have severe disabilities</td>
<td>528</td>
<td>3.24</td>
<td>0.73</td>
</tr>
<tr>
<td>4. Children with severe disabilities should be included in the regular classroom</td>
<td>528</td>
<td>1.72</td>
<td>0.77</td>
</tr>
<tr>
<td>5. I prefer a special school to an inclusive class because children with a disability are more likely to improve their academic skills there*</td>
<td>528</td>
<td>1.90</td>
<td>0.87</td>
</tr>
<tr>
<td>6. Children with disabilities are likely to exhibit more challenging behaviours than their normal peers in an inclusive classroom setting</td>
<td>528</td>
<td>2.78</td>
<td>0.82</td>
</tr>
<tr>
<td>7. It is difficult to manage a classroom that contains both children with disabilities and children without disabilities*</td>
<td>528</td>
<td>2.08</td>
<td>0.78</td>
</tr>
<tr>
<td>8. Inclusion causes children with disabilities to disrupt other children’s learning*</td>
<td>528</td>
<td>2.25</td>
<td>0.79</td>
</tr>
<tr>
<td>9. It is easier for me to teach in a small inclusive class</td>
<td>528</td>
<td>3.04</td>
<td>0.69</td>
</tr>
<tr>
<td>10. Teachers need to give most of their attention to children with disabilities if these children are included in the regular class*</td>
<td>528</td>
<td>1.78</td>
<td>0.69</td>
</tr>
<tr>
<td>11. Training about inclusion is important for preschool teachers to teach young children with a disability</td>
<td>528</td>
<td>3.47</td>
<td>0.64</td>
</tr>
<tr>
<td>12. Preschool teachers should receive in service training before working with children with a disability in the regular classroom.</td>
<td>528</td>
<td>3.56</td>
<td>0.61</td>
</tr>
<tr>
<td>13. I have enough training about teaching children with disabilities</td>
<td>526</td>
<td>2.12</td>
<td>0.92</td>
</tr>
<tr>
<td>14. I need specific rather than general training on inclusion</td>
<td>527</td>
<td>2.90</td>
<td>0.80</td>
</tr>
<tr>
<td>15. Training can enrich my knowledge to manage the inclusive classroom</td>
<td>528</td>
<td>3.38</td>
<td>0.61</td>
</tr>
<tr>
<td>16. I am concerned about my workload because of the implementation of inclusion*</td>
<td>528</td>
<td>2.68</td>
<td>0.90</td>
</tr>
</tbody>
</table>

1=strongly disagree, 2= disagree, 3= agree, and 4=; strongly agree

* Coding reversed
Preschool teachers rated their attitude toward training and toward inclusive education for young children with disabilities with a range of mean values between 1.72 and 3.56. Among the 16 questions, ‘Preschool teachers should receive in service training before working with children with a disability in the regular classroom’ was rated highest ($M = 3.56; SD = 0.61$), followed by ‘Training about inclusion is important for preschool teachers to teach young children with a disability’ ($M = 3.47; SD = 0.64$). In contrast, the item reported lowest by the respondents was ‘Children with severe disabilities should be included in the regular classroom’ ($M = 1.72; SD = 0.77$).

4.3.2.2. Descriptive statistics of educational preparation

The respondents were asked to rate their perceptions about their educational preparation regarding inclusive education for young children with disabilities in section C of the questionnaire.

There were three items with means over 3. The item ‘It is important to be able to identify a child with disability as soon as possible’ was rated highest ($M = 3.36; SD = 0.65$), followed by ’I am aware of ways to effectively assess the skills of children with disabilities (e.g., complete data sheets, prepare progress reports highlighting strengths and needs)’, ($M = 3.04, SD = 0.64$) and ‘I can effectively observe children to learn about their developmental skills and needs (e.g., observe at various times and during different activities, be objective and specific)’ ($M = 3.04, SD = 0.64$).

The lowest mean was for the item ‘I am familiar with alternative forms of communication and their use (e.g., sign language, picture system, assistive technology)’ ($M = 2.19; SD = 0.87$).

Means and standard deviations for the 15 questions are presented in Table 4.7.
Table 4.7 Mean and standard deviations for teachers’ perceptions about their educational preparation regarding inclusive education for young children with disabilities

<table>
<thead>
<tr>
<th>Item</th>
<th>n</th>
<th>M</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. I know how and where to seek information about including children with disabilities in the classroom</td>
<td>526</td>
<td>2.49</td>
<td>0.75</td>
</tr>
<tr>
<td>2. It is important to be able to identify a child with disability as soon as possible</td>
<td>528</td>
<td>3.36</td>
<td>0.65</td>
</tr>
<tr>
<td>3. The strategies and adaptations necessary to assist children with a disability are easy to prepare and implement</td>
<td>528</td>
<td>2.63</td>
<td>0.79</td>
</tr>
<tr>
<td>4. I am aware of ways to effectively assess the skills of children with disabilities (e.g., complete data sheets, prepare progress reports highlighting strengths and needs)</td>
<td>528</td>
<td>3.08</td>
<td>0.69</td>
</tr>
<tr>
<td>5. I can effectively observe children to learn about their developmental skills and needs (e.g., observe at various times and during different activities, be objective and specific)</td>
<td>528</td>
<td>3.04</td>
<td>0.64</td>
</tr>
<tr>
<td>6. I know how to develop an Individualized Education Plan (IEP)</td>
<td>528</td>
<td>2.51</td>
<td>0.84</td>
</tr>
<tr>
<td>7. I understand how to implement IEP goals and objectives into an existing curriculum</td>
<td>527</td>
<td>2.46</td>
<td>0.85</td>
</tr>
<tr>
<td>8. I am able to implement positive guidance approaches to encourage appropriate behaviour with all children, including children with disabilities</td>
<td>528</td>
<td>2.86</td>
<td>0.71</td>
</tr>
<tr>
<td>9. I can use strategies to encourage communication skills with children with disabilities</td>
<td>528</td>
<td>2.65</td>
<td>0.73</td>
</tr>
<tr>
<td>10. I am familiar with alternative forms of communication and their use (e.g., sign language, picture system, assistive technology)</td>
<td>527</td>
<td>2.19</td>
<td>0.87</td>
</tr>
<tr>
<td>11. I prefer using my usual teaching methods and style when children with disabilities are in my classroom</td>
<td>528</td>
<td>2.41</td>
<td>0.81</td>
</tr>
<tr>
<td>12. I am able to adapt learning activities for children with disabilities</td>
<td>528</td>
<td>2.63</td>
<td>0.73</td>
</tr>
<tr>
<td>13. I need continuous in-service professional development to meet the needs of children with disabilities</td>
<td>527</td>
<td>2.91</td>
<td>0.74</td>
</tr>
<tr>
<td>14. I apply my knowledge on special needs when teaching children with disabilities</td>
<td>528</td>
<td>2.86</td>
<td>0.66</td>
</tr>
<tr>
<td>15. I am able to put what I learnt about inclusion into practice</td>
<td>528</td>
<td>2.86</td>
<td>0.63</td>
</tr>
</tbody>
</table>

1=strongly disagree, 2= disagree, 3= agree, and 4= strongly agree
4.3.2.3. *Descriptive statistics for the process of collaboration*

The preschool teachers were asked to rate their perceptions about the process of collaboration regarding inclusive education for young children with disabilities in section D of the questionnaire. Mean and standard deviation for the 15 items are presented in Table 4.8.

**Table 4.8 Mean and standard deviations for teachers’ perceptions of the process of collaboration regarding inclusive education for young children with disabilities**

<table>
<thead>
<tr>
<th>Item</th>
<th>n</th>
<th>M</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. My personal philosophy and goals are in agreement with those of the school</td>
<td>528</td>
<td>3.17</td>
<td>0.52</td>
</tr>
<tr>
<td>2. I know how to engage in collaboration and problem solving with parents and carers</td>
<td>528</td>
<td>3.05</td>
<td>0.52</td>
</tr>
<tr>
<td>3. The school environment provides a positive working environment for staff</td>
<td>528</td>
<td>3.08</td>
<td>0.59</td>
</tr>
<tr>
<td>4. I am aware of the service provided by related professionals (e.g., speech therapist, physiotherapist and child psychologist)</td>
<td>528</td>
<td>2.99</td>
<td>0.69</td>
</tr>
<tr>
<td>5. I am able to work effectively with professionals from other disciplines (e.g., speech therapist, physiotherapist and child psychologist)</td>
<td>528</td>
<td>2.79</td>
<td>0.67</td>
</tr>
<tr>
<td>6. I have an opportunity to consult and report about young children with disabilities with my school principal or supervisor</td>
<td>528</td>
<td>2.84</td>
<td>0.70</td>
</tr>
<tr>
<td>7. The school staff has a clear understanding of their roles and responsibilities about the inclusion</td>
<td>528</td>
<td>2.76</td>
<td>0.68</td>
</tr>
<tr>
<td>8. I can rely on colleagues for support and assistance about inclusion when needed</td>
<td>528</td>
<td>2.80</td>
<td>0.69</td>
</tr>
<tr>
<td>9. I make time to meet and discuss with my colleagues and other staff about the progress of young children with disabilities</td>
<td>528</td>
<td>2.75</td>
<td>0.65</td>
</tr>
<tr>
<td>10. Parents of children with disabilities should be involved in their children’s development</td>
<td>528</td>
<td>3.31</td>
<td>0.72</td>
</tr>
<tr>
<td>11. I can communicate with parents of young children with disabilities to discuss their child at any time</td>
<td>528</td>
<td>3.00</td>
<td>0.71</td>
</tr>
<tr>
<td>12. Collaborative working is significant for inclusion</td>
<td>528</td>
<td>3.44</td>
<td>0.58</td>
</tr>
<tr>
<td>13. Collaborative working takes time and makes my work complicated*</td>
<td>528</td>
<td>2.69</td>
<td>0.82</td>
</tr>
<tr>
<td>14. It is not necessary for parents of children without disabilities to be involved in inclusion*</td>
<td>528</td>
<td>3.14</td>
<td>0.72</td>
</tr>
<tr>
<td>15. I can ask for other support about the inclusion from my local community</td>
<td>527</td>
<td>2.71</td>
<td>0.70</td>
</tr>
</tbody>
</table>

1=strongly disagree, 2= disagree, 3= agree, and 4= strongly agree

*Coding reversed
As seen in Table 4.8, the item ‘Collaborative working is significant for inclusion’ \( (M = 3.44; SD = 0.58) \) had the highest mean score. In contrast, the item ‘Collaborative working takes time and makes my work complicated ’ \( (M = 2.69; SD = 0.82) \) had the lowest mean score.

The second step in analysis was to use factor analysis to separately examine the properties of the items just reported in Tables 4.6, 4.7 and 4.8. Factor analysis is a data reduction technique whereby a large number of variables are summarised into a meaningful and smaller set of factors (Allen & Bennett, 2010). Field (2009) suggested the first thing to do when conducting factor analysis is computing inter-item correlation to check for two potential problems: correlations that are very low (not related to any variables), and correlations that are too high (extreme multicollinearity and singularity). Items with correlations below .3 or over .8 should be considered for removal from the factor analysis. Then, the sample size should be taken into consideration because it is associated with the reliability of the factor analysis. Comrey and Lee (1992) described samples of 50 to be very poor, 100 to be poor, 200 to be fair, 300 to be good, 500 to be very good and 1,000 to be excellent.

The next step is to identify the factors by using various methods (de Vaus, 2002). The most common method used is a principal component analysis (PCA) followed by VARIMAX rotation (Manning & Munro, 2007).

After factor extraction, the researcher must decide how many factors to retain for rotation. If item factor loading is difficult to interpret, dropping problematic items (e.g., low-loading, cross loading or freestanding items) and rerunning the analysis can solve the problem (Costello & Osborne, 2005).

Not all factors may be retained in an analysis and there is argument about the criterion used to decide whether a factor is statistically important. Field (2009) argued
for the use of several techniques to determine the number of factors, such as Kaiser’s method which recommends retaining all factors with eigenvalues greater than 1. Because this technique can over-estimate the number of factors to retain, it should be used in combination with other methods. Another criterion is that a factor with five or more strongly loading items is desirable and indicates a solid factor (Costello & Osborne, 2005).

The scree plot is another tool to use to decide how many factors should be retained (Cattell, 1966). With a sample of more than 200 participants, the scree plot can provide a fairly reliable criterion for factor selection (Stevens, 1992). Costello and Osborne (2005) argued that the best choice for researchers conducting exploratory factor analysis is the scree test. Nevertheless, factor analysis does not always produce clean and interpretable results and so researchers are justified in using some discretion in interpreting factors to suit the objectives of their study (Allen & Bennett, 2010; Tabachnick & Fidell, 2007).

In this study, the researcher conducted factor analysis with the aim of data reduction of the questionnaire items to produce robust factors. The items from section B of the questionnaire about teachers’ attitude, section B about training, section C about educational preparation and section D about the process of collaboration were analysed separately. The correlation matrix was investigated in each section. The sample size of the current study was about 500, which is very good according to Comrey and Lee (1992). The researcher employed the principal components analysis (PCA) method and VARIMAX rotation. Kaiser’s method, a scree test and practical criteria were also used to decide the number of the factors to be retained.
Following is a description of the factor analysis conducted for each potential scale (i.e., teachers’ attitude, training, educational preparation and collaboration).

**Table 4.9 Factor analysis of section B (attitude)**

<table>
<thead>
<tr>
<th>Item</th>
<th>Reason for removing the item</th>
<th>Factor loading</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Inclusion represents a positive change in the education system</td>
<td></td>
<td>.70</td>
</tr>
<tr>
<td>2. Children with disabilities should receive services in early childhood settings alongside their same-age peers</td>
<td></td>
<td>.75</td>
</tr>
<tr>
<td>3. I can manage my class easier when children have mild disabilities than the children with severe disabilities</td>
<td>Correlation between items was less than .30</td>
<td></td>
</tr>
<tr>
<td>4. Children with severe disabilities should be included in the regular classroom</td>
<td>Correlation between items was less than .30</td>
<td></td>
</tr>
<tr>
<td>5. I prefer special school to inclusive class because children with a disability are more likely to improve their academic skills</td>
<td></td>
<td>.69</td>
</tr>
<tr>
<td>6. Children with disabilities are likely to exhibit more challenging behaviours than their normal peers in an inclusive classroom setting</td>
<td>Improving reliability over .70</td>
<td></td>
</tr>
<tr>
<td>7. It is difficult to manage a classroom that contains both children with disabilities and children without disabilities</td>
<td></td>
<td>.78</td>
</tr>
<tr>
<td>8. Inclusion causes children with disabilities to disrupt other children’s learning</td>
<td></td>
<td>.76</td>
</tr>
<tr>
<td>9. It is easier for me to teach in a small inclusive class</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10. Teachers need to spend most of their attention to children with disabilities if these children are included in the regular class</td>
<td>Correlations between items was less than .30</td>
<td></td>
</tr>
<tr>
<td>16. I have concerns about my workload because of the implementation of inclusion</td>
<td>Improving reliability over .70</td>
<td></td>
</tr>
</tbody>
</table>

The attitude component of Section B of the questionnaire comprised 11 items. Four of 11 items were discarded because the bivariate correlations between items were less than .30 and another two items were discarded because they had low inter-item reliability. A Principal Components Analysis (PCA) followed by a Varimax rotation was conducted on the remaining five items and produced one factor that accounted for 54.07% of total variance. The scree test criterion also indicated a one factor model as
the best solution. The factor loading scores ranged from .7 to .76. The mean score of the total attitude factor was 2.41 with a standard deviation of 0.58. Next, Table 4.10 reports the factor analysis process for the training item in section B of the questionnaire.

### Table 4.10 Factor analysis of section B (training)

<table>
<thead>
<tr>
<th>Item</th>
<th>Reason for removing the item</th>
<th>Factor Loading</th>
</tr>
</thead>
<tbody>
<tr>
<td>11. Training about inclusion is important for preschool teacher to teach young children with a disability</td>
<td></td>
<td>.82</td>
</tr>
<tr>
<td>12. Preschool teachers should receive in service training before working with children with a disability in the regular classroom.</td>
<td></td>
<td>.82</td>
</tr>
<tr>
<td>13. I have enough training about teaching children with disabilities</td>
<td>Correlation between items was less than .30</td>
<td></td>
</tr>
<tr>
<td>14. I need specific, rather than general training on inclusion</td>
<td></td>
<td>.59</td>
</tr>
<tr>
<td>15. Training can enrich my knowledge to manage the inclusive Classrooms</td>
<td></td>
<td>.79</td>
</tr>
</tbody>
</table>

There were five training-related items in section B of the questionnaire. After checking the correlation matrix, it was found that item 13 had bivariate correlations between items less than .30. Therefore this item was eliminated from further analysis. One factor was extracted from the remaining four items explaining 57.91% of the total variance. The final factor solution for training contained four items with factor loadings from .59 to .82. The mean of the total training factor was 3.34 and the standard deviation was 0.45.
The factor analysis for section C (educational preparation) is presented in Table 4.11

Table 4.11 Factor analysis of section C (educational preparation)

| Item                                                                 | Reason for removing the item                                      | Factor Loading  
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1. I know how and where to seek information about including children with disabilities in the classroom</td>
<td>Correlation between items was less than .30</td>
<td>.64</td>
</tr>
<tr>
<td>2. It is important to be able to identify a child with disability as soon as possible</td>
<td>Correlation between items was less than .30</td>
<td>.50</td>
</tr>
<tr>
<td>3. The strategies and adaptations necessary to assist children with a disability are easy to prepare and implement</td>
<td>Cross loading 2 factors, .41 and .41</td>
<td></td>
</tr>
<tr>
<td>4. I am aware of ways to effectively assess the skills of children with disabilities (e.g., complete data sheets, prepare progress reports highlighting strength and needs)</td>
<td>Cross loading 2 factors, .50 and .50</td>
<td></td>
</tr>
<tr>
<td>5. I can effectively observe children to learn about their developmental skills and needs (e.g., observe at various times and during different activities, be objective and specific)</td>
<td>Cross loading 2 factors, .41 and .41</td>
<td></td>
</tr>
<tr>
<td>6. I know how to develop an Individualized Education Plan (IEP)</td>
<td>Cross loading 2 factors, .50 and .50</td>
<td>.85</td>
</tr>
<tr>
<td>7. I understand how to implement IEP goals and objectives into an existing curriculum</td>
<td>Cross loading 2 factors, .50 and .50</td>
<td>.85</td>
</tr>
<tr>
<td>8. I am able to implement positive guidance approaches to encourage appropriate behaviour with all children, including children with disabilities</td>
<td>Cross loading 2 factors, .50 and .50</td>
<td></td>
</tr>
<tr>
<td>9. I can use strategies to encourage communication skills with children with disabilities</td>
<td>Cross loading 2 factors, .50 and .50</td>
<td>.77</td>
</tr>
<tr>
<td>10. I am familiar with alternative forms of communication and their use (e.g., sign language, picture system, assistive technology)</td>
<td>Cross loading 2 factors, .50 and .50</td>
<td>.77</td>
</tr>
<tr>
<td>11. I prefer using my usual teaching methods and style when children with disabilities are in my classroom</td>
<td>Cross loading 2 factors, .50 and .50</td>
<td></td>
</tr>
<tr>
<td>12. I am able to adapt learning activities for children with disabilities</td>
<td>Cross loading 2 factors, .50 and .50</td>
<td>.71</td>
</tr>
<tr>
<td>13. I need continuous in-service professional development to meet the needs of children with disabilities</td>
<td>Less than five items loading onto the same component</td>
<td></td>
</tr>
<tr>
<td>14. I apply my knowledge on special needs when teaching children with disabilities</td>
<td>Less than five items loading onto the same component</td>
<td></td>
</tr>
<tr>
<td>15. I am able to put what I learnt about inclusion into practice</td>
<td>Cross loading 2 factors, .35 and .76 and few items for the factor</td>
<td></td>
</tr>
</tbody>
</table>

There were 15 items in section C of the questionnaire that related to educational preparation. After checking the correlation matrix, it was found that item 2 and item 4
It is important to be able to identify a child with disability as soon as possible’ and ‘I am aware of ways to effectively assess the skills of children with disabilities’) had low correlations (< .30) and were removed from further analysis. A PCA followed by a Varimax rotation was conducted on the remaining 13 items. Item 5, 8, and 11 (‘I can effectively observe children to learn about their developmental skills and needs (e.g., observe at various times and during different activities, be objective and specific)’, ‘I am able to implement positive guidance approaches to encourage appropriate behaviour with all children, including children with disabilities’, and ‘I prefer using my usual teaching methods and style when children with disabilities are in my classroom’) cross loaded onto two factors and were discarded from the analysis because of the difficulty of interpretation. Then, the researcher repeated the factor analysis for the remaining 10 items.

Kaiser’s method with eigenvalues greater than 1 produced two factors comprising six and four items, respectively. Two of the items from the second factor did not clearly load on either factor. A factor with five or more strongly loading items is desirable and indicates a solid factor (Costello & Osborne, 2005), and so a justification for the second factor was not clear at this time.

Allen and Bennett (2010) argued the researcher should use a sensible reason when making a decision about the number of factors. The researcher then included items 1, 3, 6, 7, 9, and 10 (which clearly loaded on the first factor), and included item 12 which loaded on both factors with a similar variance from the previous factor analysis. After running factor analysis again with seven items, the scree test indicated a one factor model as the best solution. This analysis accounted for 54.15% of total variance with item loading scores ranging from .50 to .85. The overall mean score of the educational preparation factor was 2.51 with a standard deviation of 0.56.
Next, the results of the factor analysis from section D (process of collaboration) are presented in Table 4.12.

### Table 4.12 Factor analysis of section D (process of collaboration)

<table>
<thead>
<tr>
<th>Item</th>
<th>Reason for removing the item</th>
<th>Factor loading</th>
<th>α = .81</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. My personal philosophy and goals are in agreement those of the school</td>
<td>Less than five items loading onto the same component</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. I know how to engage in collaboration and problem solving with parents and carers</td>
<td>Less than five items loading onto the same component</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. The school environment provides a positive working environment for staff</td>
<td>Cross loading 2 factors .33 and .33</td>
<td>.53</td>
<td></td>
</tr>
<tr>
<td>4. I am aware of the service provided by related professionals (e.g., speech therapist, physiotherapist and child psychologist)</td>
<td>Cross Loading 3 factors, .54, .36 and .31</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. I am able to work effectively with professionals from other disciplines (e.g., speech therapist, physiotherapist and child psychologist)</td>
<td>Cross Loading 2 factors .66 and .37</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. I have an opportunity to consult and report about young children with disabilities to my school principal or supervisor</td>
<td>Cross Loading 2 factors .66 and .37</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. The school staffs have a clear understanding of their roles and responsibilities about the inclusion</td>
<td>Cross Loading 2 factors .55 and .55</td>
<td>.83</td>
<td></td>
</tr>
<tr>
<td>8. I can rely on colleagues for support and assistance about inclusion when needed</td>
<td>Cross Loading 2 factors .55 and .55</td>
<td>.87</td>
<td></td>
</tr>
<tr>
<td>9. I make time to meet and discuss with my colleagues and other staff about the progress of young children with disabilities</td>
<td>Cross Loading 2 factors .55 and .55</td>
<td>.82</td>
<td></td>
</tr>
<tr>
<td>10. Parents of children with disabilities should involve in their children development</td>
<td>Less than five items loading onto the same component</td>
<td></td>
<td></td>
</tr>
<tr>
<td>11. I can communicate with parents of young children with disabilities to discuss about their child at any time</td>
<td>Cross Loading 2 factors, .55 and .55</td>
<td></td>
<td></td>
</tr>
<tr>
<td>12. Collaborative working is significant for inclusion</td>
<td>Less than five items loading onto the same component</td>
<td></td>
<td></td>
</tr>
<tr>
<td>13. Collaborative working takes time and make my work to be complicated</td>
<td>Less than five items loading onto the same component</td>
<td></td>
<td></td>
</tr>
<tr>
<td>14. It is not necessary for parents of children without disabilities to be involved in inclusion</td>
<td>Correlation between items was less than .30</td>
<td></td>
<td></td>
</tr>
<tr>
<td>15. I can ask for other support about the inclusion from my local community</td>
<td>Correlation between items was less than .30</td>
<td></td>
<td>.67</td>
</tr>
</tbody>
</table>
There were 15 items in Section D of the questionnaire assessing the process of collaboration. After running the correlation matrix, item 13 and item 14 (‘Collaborative working takes time and make my work to be complicated’, and ‘It is not necessary for parents of children without disabilities to be involved in inclusion’) had bivariate correlations below .30 and were removed from further analysis. A PCA followed by a Varimax rotation was conducted on this reduced set of 15 items.

The results indicated four items that did not clearly load on a single factor (items 4, 5, 6, and 11 (‘I am aware of the service provided by related professionals’, ‘I am able to work effectively with professionals from other disciplines’, ‘I have an opportunity to consult and report about young children with disabilities to my school principal or supervisor’, and ‘I can communicate with parents of young children with disabilities to discuss about their child at any time’), and these items were dropped.

Although a factor analysis of the remaining nine items showed two factors with eigenvalues greater than 1, the scree plot indicated one factor was the best solution (Costello & Osborne, 2005; Stevens, 1992). The researcher decided to select a group consisting of 5 items (item 7, 8, 9, 15, 3) which indicated a solid factor (Costello & Osborne, 2005). The one factor for the process of collaboration had a reliability score =.81. and total variance of 57 %. There were five items retained in this factor loading with mean scores ranging across 0.53-0.87. The overall mean score for the collaboration factor was 2.83 with a standard deviation of 0.43.

In summary, the final factor analyses with 21 items from the initial 46 items of the study questionnaire comprised four robust factors (Attitude, Training, Educational Preparation, and Collaboration). Details of item loadings for all factors after removing obsolete items are presented in Appendix J.
Even though four factors were derived from the factor analysis process, only the attitude variable was employed to answer the second research question. Several studies have suggested that attitudes towards inclusion were related to the professional background of the respondents. In this study, the attitude variable was used to investigate the relationship between teacher characteristics and teacher needs. The other three factors (training, educational preparation, and process of collaboration) were utilized as the potential independent variables in the regression model. The attitude variable was treated as a dependent variable in answering the final research question.

In order to fully address the second research question, Pearson product moment and Spearmen Rho tests were selected to examine the relationships amongst variables. The rationale for using the different statistical tests was related to the type of data collected for each item. Pearson product moment was used when the data were measured on an interval scale as a dichotomous variable. When one or both or the variables were on ordinal scales, Spearman rho was employed to examine the correlation (Pallant, 2011).

The investigation of the relationship between teachers’ needs, teachers’ attitudes, and their personal characteristics was analysed as follows: 1. The relationship between teachers’ needs and attitudes, 2. The relationship between teachers’ needs and teacher personal characteristics, and 3. The relationship between teacher personal characteristics and attitude. The results of each sub question are presented in Tables 4.13-Table 4.22.
Table 4.13 Correlations between teachers’ training needs and teachers’ attitude

<table>
<thead>
<tr>
<th>Teachers’ needs</th>
<th>Attitude</th>
</tr>
</thead>
<tbody>
<tr>
<td>Child assessment</td>
<td>.13</td>
</tr>
<tr>
<td>Developing an IEP</td>
<td>.14</td>
</tr>
<tr>
<td>Behaviour management</td>
<td>.19</td>
</tr>
<tr>
<td>Learning adaptation</td>
<td>.17</td>
</tr>
<tr>
<td>Partnerships with families and professionals</td>
<td>.18</td>
</tr>
<tr>
<td>Adaptation of materials</td>
<td>.23</td>
</tr>
<tr>
<td>Introduction to special education and children with disabilities</td>
<td>.14</td>
</tr>
<tr>
<td>Environmental consideration</td>
<td>.13</td>
</tr>
</tbody>
</table>

All correlations were significant at the .01 level. Pearson’s correlations were conducted on all variables.

Table 4.13 shows the relationship between teachers’ training needs and teacher attitude. There were highly significant differences in a positive direction with the correlation between the adaptation of materials and teachers’ attitude being the highest. The research further investigated the effect size because it is an index used to measure the degree of practical significance of the study results. Because the magnitude of the correlation coefficient is itself an effect size estimate, the effect size of these relationships was small (Hojat & Xu, 2004). The correlation between teachers’ training needs and their personal characteristics is presented in Table 4.14.
Table 4.14 Correlation between teachers’ training needs and their personal characteristics

<table>
<thead>
<tr>
<th>Teachers’ needs</th>
<th>Gender(_{(a)})</th>
<th>Age(_{(b)})</th>
<th>Educational Level(_{(b)})</th>
<th>Year of General Teaching experience(_{(b)})</th>
<th>Year of Teaching experience with children with disabilities(_{(b)})</th>
<th>Total hours of training in special education(_{(b)})</th>
<th>Whether having Certificate of special education training(_{(a)})</th>
</tr>
</thead>
<tbody>
<tr>
<td>Child assessment</td>
<td>-.05</td>
<td>-.03</td>
<td>.09*</td>
<td>-.03</td>
<td>.02</td>
<td>-.05</td>
<td>.00</td>
</tr>
<tr>
<td>Developing an IEP</td>
<td>-.08</td>
<td>-.09</td>
<td>.09*</td>
<td>-.09</td>
<td>.02</td>
<td>.02</td>
<td>.03</td>
</tr>
<tr>
<td>Behaviour management</td>
<td>-.04</td>
<td>-.11*</td>
<td>.09*</td>
<td>-.09*</td>
<td>.09*</td>
<td>.08</td>
<td>.13**</td>
</tr>
<tr>
<td>Learning adaptation</td>
<td>-.05</td>
<td>-.08</td>
<td>.05</td>
<td>-.08</td>
<td>.04</td>
<td>.01</td>
<td>.04</td>
</tr>
<tr>
<td>Partnerships with families and professionals</td>
<td>-.04</td>
<td>-.02</td>
<td>.04</td>
<td>-.03</td>
<td>.04</td>
<td>.06</td>
<td>.04</td>
</tr>
<tr>
<td>Adaptation of materials</td>
<td>-.06</td>
<td>-.07</td>
<td>.03</td>
<td>-.07</td>
<td>.08</td>
<td>.09*</td>
<td>.11*</td>
</tr>
<tr>
<td>Introduction to special education and children with disabilities</td>
<td>-.04</td>
<td>-.13**</td>
<td>.02</td>
<td>-.11*</td>
<td>-.02</td>
<td>-.03</td>
<td>-.01</td>
</tr>
<tr>
<td>Environmental consideration</td>
<td>.00</td>
<td>-.02</td>
<td>.03</td>
<td>-.03</td>
<td>.00</td>
<td>-.02</td>
<td>.01</td>
</tr>
</tbody>
</table>

\(*=p<.05, **=p<.01\), \((a)=\) Pearson’s correlation , \((b)=\) Spearman rho’s correlation,
Small but significant relationships were identified between teachers’ training needs and their characteristics. A small negative significant relationship was found amongst the topic related to behaviour management and teacher’s age and their general teaching experiences. Whereas, teachers educational level, the level of classroom, teaching experience with children with disabilities, and having the certificate of special education were all positively correlated with the training needs topic of behaviour management. All of them had a small effect size (Table 4.14) (Hojat & Xu, 2004).

The following table presents the correlations between teachers’ training needs and their schools and classroom characteristics.

Table 4.15 Correlation between teachers’ training needs and their schools and classroom characteristics

<table>
<thead>
<tr>
<th>Teachers’ needs</th>
<th>Total No. of preschool classrooms in school (b)</th>
<th>Whether having children with disability in regular classroom (a)</th>
<th>Total No. of children with identified disability in classroom (a)</th>
<th>Current Classroom teaching level (b)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Child assessment</td>
<td>-.03</td>
<td>.11*</td>
<td>.12*</td>
<td>.09*</td>
</tr>
<tr>
<td>Developing an IEP</td>
<td>-.10*</td>
<td>.07</td>
<td>.07</td>
<td>.08</td>
</tr>
<tr>
<td>Behaviour management</td>
<td>-.05</td>
<td>.10*</td>
<td>.10*</td>
<td>.11*</td>
</tr>
<tr>
<td>Learning Adaptation</td>
<td>.04</td>
<td>.10*</td>
<td>.10*</td>
<td>.05</td>
</tr>
<tr>
<td>Partnerships with families and professionals</td>
<td>-.00</td>
<td>.09*</td>
<td>.10*</td>
<td>.06</td>
</tr>
<tr>
<td>Adaptation of materials</td>
<td>-.06</td>
<td>.14*</td>
<td>.15*</td>
<td>.11*</td>
</tr>
<tr>
<td>Introduction to special education and children with disabilities</td>
<td>-.12*</td>
<td>.10*</td>
<td>.10*</td>
<td>.09*</td>
</tr>
<tr>
<td>Environmental consideration</td>
<td>-.06</td>
<td>.10*</td>
<td>.11*</td>
<td>.10*</td>
</tr>
</tbody>
</table>

\* = \(p < .05\), \*\* = \(p < .01\), \(a\) = Pearson’s correlation, \(b\) = Spearman rho’s correlation.

Table 4.15 indicates a small but significant relationship between teachers’ training needs and their schools and classroom characteristics. The topic about
introduction to special education and children with disabilities was found as having a significant relationship to their school and classroom characteristics. That topic was found to have a negative but significant relationship to total numbers of preschool classrooms in the schools. There was a positive and significant relationship between training needs and having children with disabilities in the classroom, total number of children with an identified disability in the classroom, and current teaching level. All relationships had a small effect size (Table 4.15) (Hojat & Xu, 2004).

Then, the relationship between teachers’ training needs and children with each type of disability was investigated. The presence in classrooms of children with autism was found to have a moderately positive and significant relationship to teacher training topic needs about introduction to special education and children with disabilities, followed by a small but positive significant relationship to the topic of environment consideration and learning adaptation. The effect size of the first relationship was moderate while the second and the last were small (Table 4.16) (Hojat & Xu, 2004).

The training topic about partnerships with families and professionals was found to be positively and significantly related to the presence of children with visual impairment and children with speech and language disorder. The effect size was small (Table 4.16) (Hojat & Xu, 2004). The presence of children with other types of disability was found to not have any significant relationship to the training topic needs.

Table 4.16 on the next page presents findings on the relationship between teachers’ training needs and children with each type of disability.
### Table 4.16 Correlations between teachers’ training needs and type of children with a disability

<table>
<thead>
<tr>
<th>Teachers’ needs</th>
<th>VI</th>
<th>HI</th>
<th>ID</th>
<th>PHY/HI</th>
<th>LD</th>
<th>SLD</th>
<th>BED</th>
<th>AUS</th>
<th>MD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Child assessment</td>
<td>.08</td>
<td>.03</td>
<td>.05</td>
<td>-.02</td>
<td>-.02</td>
<td>.08</td>
<td>-.02</td>
<td>.07</td>
<td>.04</td>
</tr>
<tr>
<td>Developing an IEP</td>
<td>.04</td>
<td>.02</td>
<td>.03</td>
<td>.04</td>
<td>.06</td>
<td>.07</td>
<td>.00</td>
<td>.05</td>
<td>-.01</td>
</tr>
<tr>
<td>Behaviour management</td>
<td>.07</td>
<td>.06</td>
<td>.05</td>
<td>.08</td>
<td>.01</td>
<td>.05</td>
<td>-.01</td>
<td>.07</td>
<td>.06</td>
</tr>
<tr>
<td>Learning adaptation</td>
<td>.05</td>
<td>.01</td>
<td>.06</td>
<td>-.05</td>
<td>.04</td>
<td>.05</td>
<td>-.00</td>
<td>.09*</td>
<td>.01</td>
</tr>
<tr>
<td>Partnerships with families and professionals</td>
<td>.13**</td>
<td>.01</td>
<td>.03</td>
<td>-.04</td>
<td>.05</td>
<td>.11*</td>
<td>.04</td>
<td>.06</td>
<td>.01</td>
</tr>
<tr>
<td>Adaptation of materials</td>
<td>.07</td>
<td>-.00</td>
<td>.05</td>
<td>.05</td>
<td>.03</td>
<td>.08</td>
<td>.01</td>
<td>.77</td>
<td>.01</td>
</tr>
<tr>
<td>Introduction to special education and children with disabilities</td>
<td>.06</td>
<td>.04</td>
<td>.00</td>
<td>.03</td>
<td>.08</td>
<td>.05</td>
<td>-.04</td>
<td>.32**</td>
<td>.01</td>
</tr>
<tr>
<td>Environmental consideration</td>
<td>.05</td>
<td>-.01</td>
<td>.05</td>
<td>-.03</td>
<td>.06</td>
<td>.06</td>
<td>.02</td>
<td>.24**</td>
<td>.07</td>
</tr>
</tbody>
</table>

* = $p < .05$, ** = $p < .01$, Pearson correlation was conducted to all variables.

- VI: Children with Visual impairment
- HI: Children with Hearing Impairment
- ID: Children with Intellectual Disabilities
- PHY/HI: Children with Physical disabilities/Health impairment
- LD: Children with Learning Disabilities
- SLD: Children with Speech and Language Disorder
- BED: Children with Behavioural Emotional and Social disorder
- AUS: Children with Autism
- MD: Children with Multiple Disabilities
To investigate differences amongst teachers’ training topic needs and their provinces (Chiangmai, Chiangrai, Lampang, and Lamphun), a one way analysis of variance between groups, or ANOVA was employed. This test can be used in cases where there are more than two groups (Manning & Munro, 2007). The purpose of one-way ANOVA is to establish whether data from several groups displays identifiable differences (Field, 2009).

Post hoc tests were then applied to determine the pattern of differences amongst the group. When testing for Post hoc comparisons, the Scheffe method is the most flexible of the popular methods (Tabachnick & Fidell, 2007). This method compares all scores pairwise between the means and is a very robust procedure to address potential violations of the assumptions associated with ANOVA (Armstrong & Hilton, 2004; Weerahandi, 1995).

In this current study, prior to conducting ANOVA, the means and standard deviations for each of the preschool teachers working in four provinces were compared. It was found that preschool teachers in Chiangrai province reported the lowest level of training needs in the topic about developing IEPs ($M = 2.83$, $SD = 0.87$) than teachers in the other provinces. The preschool teachers working in Chiangmai provinces reported the highest scores on the training topic of environmental consideration ($M = 3.29$, $SD = 0.73$).

The result of the means and standard deviations for each of the preschool teachers working in four provinces (Chiangmai, Chiangrai, Lampang, and Lamphun) are presented in Table 4.17 on the following page.
Table 4.17 Means and Standard Deviations for the training topic needs for 
teachers in four Thai provinces

<table>
<thead>
<tr>
<th></th>
<th>Chiangmai</th>
<th>Chiangrai</th>
<th>Lampang</th>
<th>Lamphun</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(n = 147)</td>
<td>(n = 164)</td>
<td>(n = 144)</td>
<td>(n = 45)</td>
</tr>
<tr>
<td>Child assessment</td>
<td>3.16</td>
<td>2.85</td>
<td>3.00</td>
<td>3.09</td>
</tr>
<tr>
<td></td>
<td>0.74</td>
<td>0.92</td>
<td>0.74</td>
<td>0.76</td>
</tr>
<tr>
<td>Developing IEP</td>
<td>3.10</td>
<td>2.83</td>
<td>2.96</td>
<td>3.07</td>
</tr>
<tr>
<td></td>
<td>0.81</td>
<td>0.87</td>
<td>0.88</td>
<td>0.72</td>
</tr>
<tr>
<td>Behaviour management</td>
<td>3.21</td>
<td>3.05</td>
<td>3.06</td>
<td>3.16</td>
</tr>
<tr>
<td></td>
<td>0.72</td>
<td>0.81</td>
<td>0.77</td>
<td>0.63</td>
</tr>
<tr>
<td>Learning adaptation</td>
<td>3.19</td>
<td>2.95</td>
<td>3.10</td>
<td>3.08</td>
</tr>
<tr>
<td></td>
<td>0.73</td>
<td>0.83</td>
<td>0.77</td>
<td>0.60</td>
</tr>
<tr>
<td>Partnerships with families and</td>
<td>3.20</td>
<td>2.93</td>
<td>3.10</td>
<td>2.96</td>
</tr>
<tr>
<td>professionals</td>
<td>0.81</td>
<td>0.85</td>
<td>0.81</td>
<td>0.77</td>
</tr>
<tr>
<td>Adaptation materials</td>
<td>3.25</td>
<td>3.07</td>
<td>3.16</td>
<td>3.09</td>
</tr>
<tr>
<td></td>
<td>0.73</td>
<td>0.86</td>
<td>0.81</td>
<td>0.73</td>
</tr>
<tr>
<td>Introduction to special</td>
<td>3.24</td>
<td>3.05</td>
<td>3.13</td>
<td>3.24</td>
</tr>
<tr>
<td>education and children</td>
<td>0.75</td>
<td>0.85</td>
<td>0.75</td>
<td>0.68</td>
</tr>
<tr>
<td>with disabilities</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Environmental consideration</td>
<td>3.29</td>
<td>3.01</td>
<td>3.24</td>
<td>3.11</td>
</tr>
<tr>
<td></td>
<td>0.73</td>
<td>0.91</td>
<td>0.74</td>
<td>0.65</td>
</tr>
</tbody>
</table>

Note. Training need scale; 1 = no training need, 2 = little training need, 3 = moderate training need, and 4 = critical training need.

To investigate for statistically significant difference between teachers training topic needs means and their provinces (Chiangmai, Chiangrai, Lampang, and Lamphun), a one way analysis of variance between groups, or ANOVA was used. The result of the ANOVA is presented in Table 4.18.
## Table 4.18 Differences amongst teachers’ training needs across four provinces

<table>
<thead>
<tr>
<th></th>
<th>SS</th>
<th>df</th>
<th>MS</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Child assessment</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Between Groups</td>
<td>8.07</td>
<td>3</td>
<td>2.69</td>
<td>4.13</td>
<td>.007**</td>
</tr>
<tr>
<td>Within Groups</td>
<td>322.92</td>
<td>496</td>
<td>0.65</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>330.99</td>
<td>499</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Developing IEP</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Between Groups</td>
<td>6.25</td>
<td>3</td>
<td>2.08</td>
<td>2.94</td>
<td>.033*</td>
</tr>
<tr>
<td>Within Groups</td>
<td>351.24</td>
<td>496</td>
<td>0.71</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>357.49</td>
<td>499</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Behaviour Management</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Between Groups</td>
<td>2.41</td>
<td>3</td>
<td>0.80</td>
<td>1.40</td>
<td>.243</td>
</tr>
<tr>
<td>Within Groups</td>
<td>285.31</td>
<td>496</td>
<td>0.58</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>287.72</td>
<td>499</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Learning Adaptation</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Between Groups</td>
<td>4.55</td>
<td>3</td>
<td>1.52</td>
<td>2.59</td>
<td>.052</td>
</tr>
<tr>
<td>Within Groups</td>
<td>290.56</td>
<td>496</td>
<td>0.59</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>295.11</td>
<td>499</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Partnerships with Families and Professional</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Between Groups</td>
<td>6.73</td>
<td>3</td>
<td>2.24</td>
<td>3.33</td>
<td>.019*</td>
</tr>
<tr>
<td>Within Groups</td>
<td>334.35</td>
<td>496</td>
<td>0.67</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>341.08</td>
<td>499</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Adaptation Materials</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Between Groups</td>
<td>2.83</td>
<td>3</td>
<td>0.94</td>
<td>1.49</td>
<td>.218</td>
</tr>
<tr>
<td>Within Groups</td>
<td>314.92</td>
<td>496</td>
<td>0.64</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>317.75</td>
<td>499</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Introduction to Special education and children with disabilities</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Between Groups</td>
<td>3.26</td>
<td>3</td>
<td>1.09</td>
<td>1.79</td>
<td>.148</td>
</tr>
<tr>
<td>Within Groups</td>
<td>300.49</td>
<td>496</td>
<td>0.61</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>303.75</td>
<td>499</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Environmental Consideration</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Between Groups</td>
<td>7.07</td>
<td>3</td>
<td>2.36</td>
<td>3.79</td>
<td>.010**</td>
</tr>
<tr>
<td>Within Groups</td>
<td>308.81</td>
<td>496</td>
<td>0.62</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>315.88</td>
<td>499</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*= p < .05, **= p < .01.

A one-way ANOVA was conducted to compare the effect of teachers’ location (Chiangmai, Chiangrai, Lampang, and Lamphun) on training topic needs. What follows is an explanation of the differences between the four provinces for teachers’ training needs topics.
There was a significant but small effect size for the training topic of child assessment at the \( p < .01 \) level among the four provinces \( (F(3, 496) = 4.14, p = .007) \). The Effect size, \( f = 0.16 \) using the Cohen (1988) convention, is considered small. Post hoc comparisons using the Scheffe test indicated a significant difference in the mean level (Mean difference = 0.31, Std.Error = 0.09) between teachers in Chiangmai \( (M = 3.16, SD = 0.74) \) and Chiangrai \( (M = 2.85, SD = 0.92) \). The effect size was \( d = 0.31 \) which is a small effect (Table 4.18) (Cohen, 1988). It can be implied that the teachers working in Chiangmai province viewed this topic as more critical a need than teachers in Chiangrai province.

There was a significant but small effect size for the training topic about developing IEPs at the \( p < .05 \) level among the four provinces \( (F(3, 496) = 2.94, p = .033) \). The Effect size was 0.13. Using the Cohen (1988) convention, this is a small effect. Post hoc comparisons using the Scheffe test indicated a significant difference in the mean level (Mean difference = 0.27, Std.Error = 0.09) between teachers in Chiangmai \( (M = 3.10, SD = 0.81) \) and Chiangrai \( (M = 2.83, SD = 0.87) \). The effect size was \( d = 0.26 \) which is small (Table 4.18) (Cohen, 1988). These data suggest that the teachers working in Chiangmai province viewed this topic as more critical than teachers in Chiangrai province.

There was no significant difference among preschool teachers within four provinces in relation to topic about behaviour management at the \( p < .05 \) level \( (F(3, 496) = 1.40, p = .243) \). The effect size, \( f = 0.09 \) using the Cohen (1988) convention, is considered as small (Table 4.18). In other words, there was no differential view of the preschool teachers in four provinces toward training topic needs about behaviour management.
Learning adaptation. The differences amongst preschool teachers in four provinces in relation to topic about learning adaptation were just outside traditional significance levels ($F (3, 496) = 2.59, p = .052$). The effect size, $f = 0.12$ using the Cohen (1988) convention, is considered as small (Table 4.18). It can be said that preschool teachers in the four provinces have similar reported needs about training in this topic.

There was a significant difference for the training topic about partnerships with families and professionals among the four provinces ($F (3, 496) = 3.33, p = .019$). The effect size was 0.14; using the Cohen (1988) convention this is a small effect (Table 4.18). Post hoc comparisons using the Scheffe test indicated a significant difference in the mean level (Mean difference = 0.27, Std.Error = 0.09) between teachers in Chiangmai ($M = 3.20, SD = 0.81$) and Chiangrai ($M = 2.93, SD = 0.85$). The effect size was $d = 0.27$ is small (Table 4.18) (Cohen, 1988). This indicates that the teachers working in Chiangmai province viewed this topic as more critical than teachers in Chiangrai province.

There was no significant difference among preschool teachers in four provinces in relation to the training topic about adaptation materials ($F (3, 496) = 1.49, p = .218$). The effect size, $f = 0.09$ using the Cohen (1988) convention, is considered as small (Table 4.18). It can be said that there is no differentiated view of the preschool teachers in four provinces toward their training needs about this topic.

There was no significant difference across teachers working in four provinces in the training topic about introduction to special education and children with disabilities ($F (3, 495) = 1.79, p = .148$). The effect size, $f = 0.10$ using the Cohen (1988) convention, is considered as small (Table 4.18). It can be noted that this topic was viewed as a similar need among preschool teachers in four provinces.
There was a significant effect of training topic about environmental consideration at the $p<.01$ level among the four provinces ($F(3, 496) = 3.79$, $p = .01$). The effect size was $f = 0.15$. Using the Cohen (1988) convention, this is a small effect (Table 4.18). Post hoc comparisons using the Scheffe test indicated a significant difference in the mean level ($\text{Mean difference} = 0.28$, $\text{Std.Error} = 0.09$) between teachers in Chiangmai ($M = 3.29$, $SD = 0.73$) and Chiangrai ($M = 3.01$, $SD = 0.91$). The effect size was $d = 0.28$ which is a small effect (Table 4.18) (Cohen, 1988). This implies that the teachers working in Chiangmai province viewed this topic as more critical a need than teachers in Chiangrai province.

In order to answer the sub question of investigating relationships between teacher personal characteristics and attitude, Pearson product moment and Spearman correlation analyses were employed. The result of the investigation is presented in the following table (4.19).

**Table 4.19 Correlations between teachers’ characteristics and their attitude**

<table>
<thead>
<tr>
<th>Teacher characteristics</th>
<th>Attitude</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender $^{(a)}$</td>
<td>-.07</td>
</tr>
<tr>
<td>Age $^{(b)}$</td>
<td>-.21**</td>
</tr>
<tr>
<td>Educational Level $^{(b)}$</td>
<td>.04</td>
</tr>
<tr>
<td>General teaching experience $^{(b)}$</td>
<td>-.21**</td>
</tr>
<tr>
<td>Teaching experience with children with disabilities $^{(b)}$</td>
<td>.29**</td>
</tr>
<tr>
<td>Total hours of training in special education $^{(b)}$</td>
<td>.25**</td>
</tr>
<tr>
<td>Whether having certificate of special education training $^{(a)}$</td>
<td>.20**</td>
</tr>
</tbody>
</table>

$^{*} = p< .05$, $^{**} = p< .01$, $^{(a)}$= Pearson’s correlation , $^{(b)}$= Spearman rho’s correlation

A small negative but significant relationship was identified between teacher’s attitude and their age, and general teaching experience. On the other hand, a small
positive relationship was noted between teachers’ attitude and their teaching experience with children with disabilities, the total hours of training in special education and whether they had a certificate of special education training. There was no significant relationship between gender, educational level, and teacher attitude. All correlation results in this section had a small effect size (Table 4.19) (Hojat & Xu, 2004). Next, the relationship between teachers’ attitude and their school and classroom characteristics is presented in the following table.

**Table 4.20 Correlations between teacher attitude and their school and classroom characteristics**

<table>
<thead>
<tr>
<th>Teacher school and classroom characteristics</th>
<th>Attitude</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total number of preschool classroom in the school(^{(b)})</td>
<td>-.07</td>
</tr>
<tr>
<td>Whether having children with disability in regular classroom(^{(a)})</td>
<td>.05</td>
</tr>
<tr>
<td>Total number of children with identified disabilities in the classroom(^{(a)})</td>
<td>.04</td>
</tr>
<tr>
<td>Current classroom teaching level(^{(b)})</td>
<td>-.01</td>
</tr>
</tbody>
</table>

\(^{(a)}\)= Pearson’s correlation, \(^{(b)}\)= Spearman rho’s correlation

Table 4.20 indicates no significant relationship between teacher’s school and classroom characteristics and their attitude. It can be said that the characteristics of the teachers’ school and their classroom were not associated with Thai preschool teachers’ attitude in this current study.

The teachers’ attitude was further examined to investigate potential relationships with students’ type of disability using Pearson correlation tests (Table 4.21).
Table 4.21 indicates that there was no significant relationship between preschool teachers’ attitude and many types of student disability. In contrast, children with physical disabilities/health impairment were shown to have a small positive and significant relationship with teachers’ attitude. It was a small effect size (Table 4.21) (Hojat & Xu, 2004).

**Table 4.21 Correlations between teachers’ attitude and type of disability**

<table>
<thead>
<tr>
<th>Type of disability</th>
<th>Attitude</th>
</tr>
</thead>
<tbody>
<tr>
<td>Children with Visual Impairment</td>
<td>.02</td>
</tr>
<tr>
<td>Children with Hearing Impairment</td>
<td>.02</td>
</tr>
<tr>
<td>Children with Intellectual Disabilities</td>
<td>.04</td>
</tr>
<tr>
<td>Children with Physical Disabilities/Health Impairment</td>
<td>.12*</td>
</tr>
<tr>
<td>Children with Learning Disabilities</td>
<td>-.01</td>
</tr>
<tr>
<td>Children with Speech and Language Disorder</td>
<td>-.05</td>
</tr>
<tr>
<td>Children with Behavioural Emotional and Social disorder</td>
<td>-.03</td>
</tr>
<tr>
<td>Children with Autism</td>
<td>.06</td>
</tr>
<tr>
<td>Children with Multiple Disabilities</td>
<td>-.02</td>
</tr>
</tbody>
</table>

* = p < .05, ** = p < .01. Pearson correlation was conducted to all variables.

Next, potential differences amongst participants in relation to their attitudes and provinces were investigated (Table 4.22).

To evaluate the teachers’ attitudes in four provinces (Chiangmai, Chiangrai, Lampang, and Lamphun), a one-way ANOVA was conducted. No significant differences were evident amongst the teachers’ attitudes across four provinces (F (3, 495) = 1.10, p = .351). These results suggest that the teachers’ attitudes are not related to their working location. In other words, the preschools teachers within four provinces
in this study had similar attitudes about inclusive education for young children with disabilities

Table 4.22 Report of differences in teachers’ attitudes across the provinces

<table>
<thead>
<tr>
<th>Source of Variation</th>
<th>SS</th>
<th>df</th>
<th>MS</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>1.120</td>
<td>3</td>
<td>0.37</td>
<td>1.10</td>
<td>.351</td>
</tr>
<tr>
<td>Within Groups</td>
<td>168.776</td>
<td>495</td>
<td>0.34</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>169.896</td>
<td>498</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The next section presents the results that address the last research question.

4.3.3 What factors predict Thai preschool teachers’ attitudes of inclusive education for young children with a disability?

In the multiple regression model employed for this study, the dependent variable was the teachers’ attitude score. The researcher was interested to investigate predictors such as training, educational preparation, and collaboration variables that derived from the factor analysis process presented earlier in Tables 4.9-4.12.

However, as indicated in Table 4.19, some teachers’ demographic and characteristic variables demonstrate significant relationships to the teachers’ attitude. Those teachers’ demographic and characteristic variables were teachers’ age, their general teaching experience, teaching experience with children with disabilities, the training hours in special education, and having a certificate in teaching students with disabilities. These variables, all of which have the \( r \geq .20 \) should be included in the regression model along with four other variables derived from the factor analysis to examine as the predictors of the teachers’ attitude.
Those variables of teacher characteristics were scored as an ordinal scale. However, the assumption of regression is that the variables need to be interval scales or categorical with only two categories or a dummy variable (Field, 2009; Tabachnick & Fidell, 2007). A regression model using a dummy variable could not be interpreted directly from the model’s result because it must refer to a reference category (Allen & Bennett, 2010; Field, 2009). It should always be used deliberately and in an informed manner.

Given the major objective of investigating the factors predicting Thai preschool teachers perceptions, the researcher decided to collapse categories of each target variable (having an ordinal scale) together to form two categories in the regression model. The justification for collapsing categories is provided in the relevant literature (Dupoux et al., 2005), and the proportion of each new category is suitable to further analysis. de Vaus (2002) argued that collapsing categories would lose too much information. In contrast, the collapsed categories in this current study could represent more practical variables which clearly provide an interpretation framework.

Tabachnick and Fidell (2007) have suggested that if there is less than 10% of the sample in one of two categories, this variable should be removed from analysis because such lop-sided variables produce misleading results. When the researcher checked for this by examining the frequencies of each of two categories, there was no data that violated any assumption of the regression analysis. Therefore, using two categories for non- interval variables in this study would be acceptable.

To use a categorical variable in a regression analysis, the researcher needed to collapse the non-interval variables. The details are presented in Table 4.23.
### Table 4.23 The ordinal scale variable before and after collapsing into two categories

<table>
<thead>
<tr>
<th>Before</th>
<th>After</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Age</strong></td>
<td><strong>Age</strong></td>
</tr>
<tr>
<td>1. 20-30 years</td>
<td>1. Less than or equal to 40 years</td>
</tr>
<tr>
<td>2. 31-40 years</td>
<td>2. More than 40 years</td>
</tr>
<tr>
<td>3. 41-50 years</td>
<td></td>
</tr>
<tr>
<td>4. 51-60 years</td>
<td></td>
</tr>
<tr>
<td><strong>General Teaching experience</strong></td>
<td><strong>General Teaching experience</strong></td>
</tr>
<tr>
<td>1. Less than 2 years</td>
<td>1. Less than or equal to 10 years</td>
</tr>
<tr>
<td>2. 2 to 5 years</td>
<td>2. More than 10 years</td>
</tr>
<tr>
<td>3. 6 to 10 years</td>
<td></td>
</tr>
<tr>
<td>4. 11 to 15 years</td>
<td></td>
</tr>
<tr>
<td>5. 16 -20 years</td>
<td></td>
</tr>
<tr>
<td>6. More than 20 years</td>
<td></td>
</tr>
<tr>
<td><strong>Teaching experience with children with disabilities</strong></td>
<td><strong>Teaching experience with children with disabilities</strong></td>
</tr>
<tr>
<td>1. never</td>
<td>1. Having teaching experience with children with disabilities</td>
</tr>
<tr>
<td>2. 2 to 5 years</td>
<td>2. Never have teaching children with disabilities</td>
</tr>
<tr>
<td>3. 2 to 5 years</td>
<td></td>
</tr>
<tr>
<td>4. more than 6 years</td>
<td></td>
</tr>
<tr>
<td><strong>Total hours of training in special education</strong></td>
<td><strong>Total hours of training in special education</strong></td>
</tr>
<tr>
<td>1 none</td>
<td>1 having training in special education</td>
</tr>
<tr>
<td>2. Less than 10 hours</td>
<td>2 none of training hours in special education</td>
</tr>
<tr>
<td>3.10 to 15 hours</td>
<td></td>
</tr>
<tr>
<td>4. 16 to 20 hours</td>
<td></td>
</tr>
<tr>
<td>5. more than 20 hours</td>
<td></td>
</tr>
<tr>
<td><strong>Having certificate if special education training</strong></td>
<td><strong>Having certificate if special education training</strong></td>
</tr>
<tr>
<td>1. yes</td>
<td>1. yes</td>
</tr>
<tr>
<td>2. no</td>
<td>2. no</td>
</tr>
</tbody>
</table>

The first step in analysis of this data was to explore the potential relationships amongst all of the variables. The relationships will be the bivariate correlations of all possible predictor variables with the dependent measure, attitude. Table 4.24 describes the correlation coefficients between all variables.
Table 4.24 Relationship between each variable and teachers’ attitude

<table>
<thead>
<tr>
<th></th>
<th>TRAINING</th>
<th>PREPARATION</th>
<th>COLLABORATION</th>
<th>AGE</th>
<th>GENERAL TEACHING EXPERIENCE</th>
<th>TEACHING EXPERIENCE WITH DISABILITIES</th>
<th>TRAINING HOURS IN SPECIAL EDUCATION</th>
<th>THE CERTIFICATE</th>
</tr>
</thead>
<tbody>
<tr>
<td>ATTITUDE</td>
<td>.07</td>
<td>.35**</td>
<td>.35**</td>
<td>.20**</td>
<td>.19**</td>
<td>.26**</td>
<td>.23**</td>
<td>.20**</td>
</tr>
<tr>
<td>TRAINING</td>
<td>.15**</td>
<td>.22**</td>
<td>.03</td>
<td>-.04</td>
<td>.14**</td>
<td>.07</td>
<td>.12**</td>
<td></td>
</tr>
<tr>
<td>PREPARATION</td>
<td>.49**</td>
<td>.14**</td>
<td>.16**</td>
<td>.28**</td>
<td>.29**</td>
<td>.27**</td>
<td></td>
<td></td>
</tr>
<tr>
<td>COLLABORATION</td>
<td>.10+</td>
<td>.10*</td>
<td>.16**</td>
<td>.11+</td>
<td>.09*</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>AGE</td>
<td>.53**</td>
<td>.16**</td>
<td>.11+</td>
<td>.07</td>
<td></td>
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<td>GENERAL TEACHING EXPERIENCE</td>
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<td></td>
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<td>.06</td>
<td></td>
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<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td>.44**</td>
<td>.46**</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TRAINING HOURS IN SPECIAL EDUCATION</td>
<td></td>
<td></td>
<td></td>
<td>.55**</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*=p<.01, **=p<.05

AGE coding (1= Teacher has their age from 40 years and below, 0= teachers who have more than 41 years of age),
GENERAL TEACHING EXPERIENCE coding (1= general teaching experience 10 years and below, 0= general teaching experience more than 10 years),
TEACHING EXPERIENCE WITH DISABILITIES coding (1= having teaching experience with children with disabilities, 0= never have teaching children with disabilities),
TRAINING HOURS IN SPECIAL EDUCATION coding (1= having training hours in special education, 0= none of training hours in special education),
THE CERTIFICATE coding (1= Have, 0= Have not)
This research used the Pearson correlation analysis for two purposes: to explore the relationships between variables and to check the presence of any potential multicollinearity.

The correlations presented in Table 4.24 are less than .90 as recommended by Manning and Munro (2007) and do not therefore represent a problem. However, the researcher was aware that problems could occur when there were some moderate and large relationships between each variable such as the relationship between the educational preparation variable and the collaboration variable \( r = .49 \), and between training hours in special education and having the certificate \( r = .55 \). The researcher inspected different combinations of the independent variables to check for the existence of multicollinearity using the principle of bouncing beta (Bourke, 1984; Kiers & Smilde, 2007). The results of this analysis confirmed that there were no concerns about multicollinearity.

There was a large relationship \( r \geq .50 \) between teacher age and their teaching experience which means, not surprisingly, that a teacher in an older age bracket has more teaching experience. The other was the relationship between their training hours in special education and having a relevant certificate. The results of these two relationships were supported by a large effect size (Table 4.24) (Hojat & Xu, 2004).

The correlation matrix from Table 4.24 presents the relationships between teacher attitudes and the possible predictor variables (training, educational preparation, collaboration, age, general teaching experience, teaching experience with disabilities, training hours in special education, and whether participants held the certificate in special education). It was found that teachers’ attitudes were significantly correlated to all variables except the training variable. Regarding correlations between each variable and teachers’ attitude, they were correlated with each other to varying degrees (small to
medium, \( r \) ranged from .07 to .35). The magnitude of the coefficients themselves can serve as indicators of the small to medium effect size (Table 4.24) (Hojat & Xu, 2004).

As recommended by Manning and Munro (2007), if there is little or no correlation between the independent variables and the dependent variables, it is not worth doing the regression analysis. In the current study, because the relationship between training and attitude was very small (\( r = .07 \)) and not significant, the researcher decided to exclude this variable from the regression model. In contrast, the other possible predictor variables were significantly associated with the teachers’ attitude, thus it is sensible to run the multiple regression on this basis.

Briefly, in this multiple regression model, participant attitude was treated as a dependent variable and there were seven independent variables: educational preparation, collaboration, age, general teaching experience, teaching experience with disabilities, training hours in special education, and having the certificate in special education. A standard multiple regression approach was employed. Because of missing values on some variables, the regression analysis was conducted on the subjects with complete data (\( n = 496 \)).

Prior to interpreting the results of the multiple regression analysis, several assumptions were evaluated. First, boxplots indicated that each variable in the regression was normally distributed, and free from univariate outliers. Second, inspection of the normal probability plot of standardised residuals as well as the scatterplot of standardized residuals against predicted values indicated that the assumptions of normality, linearity and homoscedasticity of residuals were met. Third, the Mahalanobis distance did not exceed the critical \( x^2 \) for \( df = 7 \) (at \( \alpha = .001 \)) of 24.32 for any case in the data set, indicating that multivariate outliers were not a concern. Fourth, relatively high tolerances for all predictors in the regression model indicated
that multicollinearity would not interfere with an interpretation of the outcome from multiple regression analysis. Details of those values are presented in Appendix K.

A linear regression model with all possible predictor variables in the regression model is now presented in Table 4.25.

Table 4.25 Results of standard multiple regression analysis for factors predicting teachers’ attitudes to inclusive education for young children with disabilities

\((N = 496)\)

<table>
<thead>
<tr>
<th>Dependent Variable</th>
<th>Predictor Variable</th>
<th>B</th>
<th>Beta</th>
<th>(p)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attitude</td>
<td>Educational Preparation</td>
<td>.15</td>
<td>.14</td>
<td>.003</td>
</tr>
<tr>
<td></td>
<td>Collaboration</td>
<td>.33</td>
<td>.24</td>
<td>&lt;.001</td>
</tr>
<tr>
<td></td>
<td>Age</td>
<td>.10</td>
<td>.08</td>
<td>.080</td>
</tr>
<tr>
<td></td>
<td>General teaching experience</td>
<td>.11</td>
<td>.09</td>
<td>.068</td>
</tr>
<tr>
<td></td>
<td>Teaching experience with children with disabilities</td>
<td>.14</td>
<td>.11</td>
<td>.017</td>
</tr>
<tr>
<td></td>
<td>Training hours in special education</td>
<td>.11</td>
<td>.09</td>
<td>.070</td>
</tr>
<tr>
<td></td>
<td>Having the certificate in special education</td>
<td>.04</td>
<td>.03</td>
<td>.533</td>
</tr>
</tbody>
</table>

\(R = 0.48, R^2 = 0.23, \text{ adjusted } R^2 = 0.22, p < .001\)

The multiple correlation coefficient (\(R = 0.48\)) was significantly different from zero, \(F(7, 488) = 20.47, p < .001\), and 23 % of variation in the dependent variable was explained by the set of independent variables (\(R^2 = 0.23, \text{ adjusted } R^2 = 0.22\)). Three variables (educational preparation, collaboration and teaching experience with children with disabilities) were found to significantly and uniquely contribute to the prediction of teachers’ attitude. The other variables: age, general teaching experience, training hours in special education, and having a certificate in special education were found not to
provide any significant or unique contribution to prediction. In the current study, the calculated effect size was 0.29. As recommended by Cohen (1988), this value was considered a medium effect size (Table 4.25).

4.4 Summary of the chapter

This chapter has provided data to address three research questions as outlined in Chapter Two, based on the quantitative analysis of questionnaire responses from 528 preschool teachers working in four provinces in the northern part of Thailand. The first question was to investigate preschool teachers’ needs regarding the inclusion of young children with disabilities. The results revealed that Thai preschool teachers have interests in training in many topics regarding their work with children with disabilities in the inclusive classroom and other related topics that support their abilities to work inclusively.

The next objective was to examine the nature of the relationship between teachers’ needs, attitude and their personal characteristics. The study found some meaningful relationships between teachers’ needs, attitudes, and their personal characteristics. Teachers’ training needs about behaviour problems had a small significant relationship with many categories of teacher’s characteristics. There was a small negative significant relationship between the topic of behaviour management and teacher’s age and their general teaching experience. The teachers working in Chiangmai province viewed the topics of child assessment, developing IEPs, and partnerships with families and professionals, and environmental consideration as more critical than teachers in Chiangrai province. In terms of teachers’ attitude, there was a small negative and significant relationship between teacher’s attitude and their age, and general teaching experience. On the other hand, a small positive and significant relationship was found between teachers’ attitude and their teaching experience with children with
disabilities, the total hours of training in special education and whether they had a certificate of special education training. The presence of children with physical disabilities/health impairment in classrooms had a small positive and modestly significant relationship to teachers’ attitude.

This study also investigated factors that predicted the Thai preschool teachers’ attitude to inclusive education for young children with disabilities. It was found that educational preparation, collaboration and teaching experience with children with disabilities were significant predictors of Thai preschool teachers’ attitudes.

The next chapter presents the results from the qualitative analysis of interviews with a sample of participating teachers.
CHAPTER 5

RESULTS: INTERVIEW

5.1 Chapter Overview

This chapter is divided into three parts. The first part describes the demographic data of the interview participants. Second, the five themes emerging from the analysis for preschool teacher perceptions about inclusive education are presented. The third section presents the summary of qualitative findings and the chapter results.

5.2 Findings

There were 20 preschool teachers participated in the interview. The researcher selected consenting teachers who had the 10 lowest scores (Least Positive Attitude - LPA group) and the 10 highest scores (Most Positive Attitude -MPA group) in terms of attitude to inclusion from Part B of the questionnaire in the first phase of this study.

All respondents were female teachers aged between 23-58 years. Seventeen teachers had a Bachelor degree, while three preschool teachers held a Masters degree. More than half of the respondents (n = 13) had general teaching experience before teaching in early childhood. Thirty years was the maximum teaching experience in early childhood and one year was the minimum early childhood teaching experience for this respondent group. In terms of teaching experience with children with disabilities, seven teachers had less than five years experience teaching children with a disability, 11 teachers had between 5 -10 years’ experience, and two teachers had more than 10 years’ experience. There were no more than three children with disabilities included in each of the teachers’ classrooms and children with a learning disability and ADHD (Attention Deficit Hyperactivity Disorder) were the most common disability groups in their classrooms.
In terms of the LPA group, their mean age was 52.2 years. Nine of them held a Bachelor degree and one had a Master degree. Their mean general teaching experience was 18.5 years, their mean years of teaching experience was 15.5 years, and the teachers’ mean teaching experience with children with disabilities was 5.8 years. Four of the teachers had two children with a disability in their classroom, three had one child with a disability, and one teacher had three children with a disability. Although two teachers did not have any children with disabilities in their classes in 2010, they were experienced with children with disabilities such as autism. Children with ADHD and a learning disability were the most common disabilities in the classrooms reported by teachers in this group.

In terms of the MPA group, their mean age was 46.8 years. Eight of these teachers held Bachelor degrees while there were two teachers who had a Masters degree. Preschool teachers in this group had a mean general teaching experience of 16.6 years, while their teaching experience mean was 11 years. Of the MPA teachers, half had one child with disability in their classroom while two teachers reported that they had two children with disabilities, one teacher reported having three children with disabilities. Although two teachers in this group did not have a child with a disability in their class, they were experienced in teaching children with ADHD and autism. The MPA group reported that the most represented group of children with a disability included in their classroom were children with ADHD and autism.

Next, Table 5.1 provides the demographic data for the twenty participants who participated in the interviews.
Table 5.1 Demographic data for the interview participants

<table>
<thead>
<tr>
<th>Interviewee</th>
<th>Interviewee 1 (LPA1)</th>
<th>Interviewee 2 (LPA2)</th>
<th>Interviewee 3 (LPA3)</th>
<th>Interviewee 4 (LPA4)</th>
<th>Interviewee 5 (LPA5)</th>
<th>Interviewee 6 (LPA6)</th>
<th>Interviewee 7 (LPA7)</th>
<th>Interviewee 8 (LPA8)</th>
<th>Interviewee 9 (LPA9)</th>
<th>Interviewee 10 (LPA10)</th>
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<td>55</td>
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<td>54</td>
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<td>53</td>
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<td>Master of Education Administration</td>
<td>Bachelor of Primary Education</td>
<td>Bachelor of Primary Education</td>
<td>Bachelor of Primary Education</td>
<td>Bachelor of Social Education</td>
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<td>Years of general teaching experience</td>
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<td>25</td>
<td>15</td>
<td>16</td>
<td>12</td>
<td>8</td>
<td>15</td>
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<td>29</td>
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<tr>
<td>Years of teaching experience in early childhood level</td>
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<td>10</td>
<td>15</td>
<td>12</td>
<td>13</td>
<td>24</td>
<td>27</td>
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<td>7</td>
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<tr>
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<td>1</td>
<td>6</td>
<td>10</td>
<td>6</td>
<td>5</td>
<td>8</td>
<td>4</td>
<td>7</td>
</tr>
<tr>
<td>No. children with disabilities in the classroom in year 2010</td>
<td>1 / Physical disabilities * 2 / Learning Disability and Down Syndrome**</td>
<td>2 / Learning Disability and Down Syndrome**</td>
<td>1 / Learning Disability **</td>
<td>None</td>
<td>2 / Down Syndrome**</td>
<td>None</td>
<td>1 / AEDD*</td>
<td>2 / AEDD and Intellectual Disability*</td>
<td>None</td>
<td>3 / 2 AEDD and intellectual disability**</td>
</tr>
</tbody>
</table>

*Children with no formal diagnostic assessment and who do not receive any services from inclusive support programs.  
**Children with a formal diagnostic assessment and receiving some services from inclusive support programs.  
***Children with both formal a diagnostic assessment and receiving some services from inclusive support programs.
Table 5.1 (Continued)

<table>
<thead>
<tr>
<th>Interviewee Gender</th>
<th>Interviewee 11 (MPA1)</th>
<th>Interviewee 12 (MPA2)</th>
<th>Interviewee 13 (MPA3)</th>
<th>Interviewee 14 (MPA4)</th>
<th>Interviewee 15 (MPA5)</th>
<th>Interviewee 16 (MPA6)</th>
<th>Interviewee 17 (MPA7)</th>
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<th>Interviewee 20 (MPA10)</th>
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<td>Female</td>
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<td>Female</td>
<td>Female</td>
<td>Female</td>
<td>Female</td>
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</tr>
<tr>
<td>Age</td>
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<td>56</td>
<td>58</td>
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<td>52</td>
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</tr>
<tr>
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<td>Bachelor of Early Childhood Education</td>
<td>Bachelor of Primary Education</td>
<td>Master of Education Administration</td>
<td>Bachelor of Health Education</td>
<td>Bachelor of Primary Education</td>
<td>Bachelor of Early Childhood Education</td>
<td>Bachelor of Special Education</td>
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</tr>
<tr>
<td>Years of general teaching experience</td>
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<td>10</td>
<td>6</td>
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<td>27</td>
<td>38</td>
<td>4</td>
<td>20</td>
<td>20</td>
</tr>
<tr>
<td>Years of teaching experience in early childhood level</td>
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<td>10</td>
<td>22</td>
<td>6</td>
<td>33</td>
<td>10</td>
<td>16</td>
<td>4</td>
<td>5</td>
<td>20</td>
</tr>
<tr>
<td>Years of teaching experience with children with disabilities</td>
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<td>4</td>
<td>6</td>
<td>3</td>
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<td>4</td>
<td>1</td>
<td>3</td>
<td>5</td>
<td>15</td>
</tr>
<tr>
<td>No. children with disabilities in the classroom in year 2010 / Type of Disability</td>
<td>1/Down syndrome***</td>
<td>1/ADHD**</td>
<td>1/ED**</td>
<td>None</td>
<td>2/ADHD and 2 Autism***</td>
<td>1/ Learning Disability ***</td>
<td>1/ Social and emotional difficulties*</td>
<td>None</td>
<td>2/Down Syndrome and Autism***</td>
<td>2/ADHD and Autism***</td>
</tr>
</tbody>
</table>

*Children with no formal diagnostic assessment and who do not receive any services from inclusive support programs
** Children with a formal diagnostic assessment but do not receive any services from inclusive support programs
*** Children with both formal diagnostic assessment and receiving some services from inclusive support programs
Five broad themes emerged from the analysis of interviews with preschool teachers. Those themes include the current situation, teacher’s knowledge and expertise, teacher attitude toward inclusion and disability, collaboration, and challenges for future inclusion.

5.2.1 Theme 1: Current situation

The preschool teachers discussed several sub-themes that were relevant to the current situation on inclusion. These were inclusion in Thai schools, children entering into inclusion, supporting processes, and Thai families of children with disabilities.

5.2.1.1 Inclusion in Thai schools. Even though there are several opportunities for a Thai child with a disability to be included in the regular school (e.g., joining their peers without a disability in some activities), the interview results showed that most children with disabilities participated in the regular class all day. Some schools \((n = 7)\) had not yet implemented an inclusion policy, while others \((n = 7)\) had just started inclusion and were not yet fully supporting children with disability. In the other schools \((n = 6)\), inclusion was fully implemented and extra support was provided, such as special education teachers and other resources. Not every Thai school involved in the study implemented inclusive education from the preschool level. Eleven teachers reported that inclusion started in their preschool, while five teachers claimed that inclusion did not begin until the start of primary classes in their schools. Four teachers reported that their schools had not yet officially implemented the inclusion policy due to a lack of preschool teachers and teacher assistants. Lacking a preschool teacher degree was also identified as an issue by one third of teachers \((n = 8)\) in this study.

“The problem is with (finding) teachers. There aren’t enough teachers to teach these children directly. It’s already difficult enough (finding teachers) for normal children, like teachers who are graduates in Early Childhood. And also,
they might have to teach disabled children (in an) inclusive class. It’s like a double strike on them.” (LPA3)

Also, the number of children without disabilities in the classroom was a cause of concern for the implementation of inclusion in their classes.

5.2.1.2 Children entering inclusion. Teachers reported that the inclusion of Thai children with disabilities is influenced by three things; parents’ decisions, teachers’ attitudes, and child’s rights. However, the majority (13 teachers) of preschool teachers indicated the children with disabilities were included in their classrooms because of the teachers’ attitude.

“I don’t think there’s any problem because I’m an early childhood teacher; I always put children at first.”(LPA1)

More than half of the participating teachers (n = 11) mentioned both the National Education Act of B.E. 2542 (1999) and the Ministry of Education policy, namely “The Educational Year 1999 for the children with disabilities policy on 16 February 1999” which established the rights of children with a disability to have an opportunity to be included in the regular school. Finally, eleven teachers reported that parents preferred their children to join the class with their peers without disability because of the chance for social skills improvement and because the parents could not financially afford their child attending a segregated setting. Parents with limited financial means cannot always meet the extra expense for their child’s education at a special school, and therefore the regular school was the appropriate choice for them.

5.2.1.3 Supporting processes for inclusion. In terms of support from the government, only one teacher reported a special budget for hiring a teacher assistant at preschool. However, eleven participating teachers reported that the majority of the government support for inclusion focussed on the primary level. When the school
implemented an inclusive policy, some units such as a Special Education Centre and the Regional Educational Office had the responsibility to supervise the teachers and schools. However, thirteen teachers mentioned that the Special Education Centre was unaware of them and provided no supervision. The only follow up process from one of the Special Education Centres was for administrative reasons.

_The organisation that looks after us, for example the Regional (Education) Office, they have given very little interest in this issue…_

_Some educational supervisors who might be responsible in this field are not specialised. But there is another organisation that directly looks after us, that is the Special Education Centre, of (name removed). But they hardly come here. Perhaps, like, once a year, they’ve come to follow up regarding the coupons. They would come to see if we actually used these coupons. Just for that. They’ve never come to discuss with us or help us with our special need children or how we have these kids developed, or something like that. No. They didn’t come for this issue.” (MPA3)_

5.2.1.4 Thai families of children with disabilities. The family members whom teachers often contacted were mothers and grandmothers. Some of the children in this study lived with their grandparent because their parents had to work in a distant area. All 20 preschool teachers perceived that Thai families of children with disabilities either accepted or denied the disability. Parents who accepted the disability of their child worked collaboratively with teachers and other professionals. For example, one teacher described that a mother sent her child with autism to study in the morning session and then took her child to see the doctor in the afternoon, as well as involving him in horse riding. Seven preschool teachers explained that parents believed that assisting their child, consistent with the principle of Thai culture, would relieve their grief at having a
child with disability. However, fourteen teachers expressed difficulty in consulting with some families on the child’s needs because those parents had trouble accepting their child’s disability without a formal diagnosis. Furthermore, several teachers ($n = 14$) indicated that some parents may decide to withdraw their child from school if there was a diagnosis because of the cultural disgrace associated with disability. In terms of parents of children without disability, five preschool teachers reported that those parents might be surprised to see a child with a disability in the regular classroom with their own child. However, so long as the teacher can manage the usual classroom activity or behaviour problems of the child with disability, then those parents did not object to inclusion.

In summary, even though there is a national inclusion policy, the implementation of the policy was not consistent. Preschool teachers had different perspectives about inclusion based on their experiences. However, most teachers believed children with a disability had a right to attend regular classes. There was very little oversight of the inclusive work of these teachers. Lastly, parents’ level of acceptance of their child with a disability had an important impact on how teachers were able to work with them.

5.2.2 Theme 2: Teacher’s knowledge and expertise

The interview data indicated that all participating teachers recognised the significance of knowledge expertise in relation to their own capabilities in dealing with children with disabilities in regular classrooms. Those aspects of expertise were teacher understanding of inclusion, teachers’ knowledge of children with disabilities, teaching implementation, and professional development for teachers.

5.2.2.1 Teacher understanding of inclusion. Most of the preschool teachers expressed their understanding of the meaning of inclusive education based on the word
‘include’. However, only four preschool teachers described the process of inclusion for a child with disability entering the school and the other services provided to the child, including the detailed process and the management procedure of children in terms for the whole system of inclusion. Several preschool teachers indicated that inclusion is a classroom that contains children with and without disabilities who study together. Most teachers noted that inclusion was required by law. One teacher also pointed out the consequence of preschool inclusion at this critical stage of child’s development. The teachers also expressed a belief that inclusion had provided the opportunity for the children with disabilities to learn and obtain advantage from being in the same classroom with their normal peers, which could improve the child’s self-esteem.

Furthermore, the teachers in this study also noted the benefit of inclusion for children without disabilities. Some participants indicated that the shared experience of learning together can develop the peers acceptance of and relationship with people with disability.

5.2.2.2 Teachers’ knowledge of children with disabilities. Most teachers in this study had no experience and lacked opportunity to become familiar with and understand the needs and the characteristics of people with disabilities. Only two teachers reported that they had experience with relatives with disabilities and could apply this knowledge. Regular preschool teachers in this study realised the importance and benefits of knowledge and skills for teaching children with disabilities in the regular class. Eighteen of the teachers had not taken special education pre service training when they studied at university and one teacher believed that her lack of training resulted in a lack of confidence in teaching children with disabilities. Even though two teachers had taken pre service training on special education, they reported that they did not appreciate the relevance of the course at the time. Seventeen teachers were unsure on how to evaluate
the needs of children with a disability. Four LPA teachers expressed difficulty in whole classroom management involving both children with and without disabilities studying together. Only one preschool teacher reported that she could apply knowledge to plan an appropriate activity and to know how to deal with a child’s behaviour. Furthermore, eight teachers believed that knowledge and skills in special education were also useful for teachers’ emotional state. One teacher expressed the feeling that emotional conflict with children could be relieved after she had adequate knowledge of special education.

5.2.2.3 Teaching implementation. From the interview data, it became apparent that different types of instructional strategies were used by the teachers during the teaching and learning process. While there were no reported differences in the way the teachers with MPA and those with LPA employed various teaching strategies, the interview results revealed that all teachers taught children with disabilities in the same class with their normal peers. Preschool teachers adapted some classroom activities to suit the children’s own abilities, such as being a teacher’s helper in the class and using materials as tools for improving motivation. The most popular teaching pedagogy found in this study was buddy or peer tutoring. One teacher also indicated the remarkable benefit of using peer groups as a learning experience for the children with disabilities to assist the other students. Many teachers reported that happiness in learning was their ultimate objective when teaching these children in inclusive settings. In terms of classroom management, all preschool teachers employed several practices to manage the children’s behaviour such as using a contract, time out and behaviour reinforcement. Several philosophical approaches were employed, including the use of “love” and “care” in building relationships between teachers and children with disabilities. Behaviour problems were found in children with all kinds of disability. In addition, all
preschool teachers reported that they had to adapt teaching techniques and various approaches to meet individual differences.

5.2.2.4 Professional development for teachers. Eight teachers had no training in how to include children with disabilities and special educational needs in their in-service training. The Special Educational Centre did not include this area in training the preschool teachers.

Once I was talking to an educational supervisor. I had a chance to work with this person. I said, “Actually, for these kids with special needs, we do have a special curriculum for them...

Curriculum 46 (the Early Childhood Education Program B.E. 2546 (2003 AD), which covers children with special needs. This will provide assistance in groups of these children.” (MPA9).

Many teachers ($n = 9$) reported that training for the teachers mainly focused on promoting development for children without disabilities. Although ten of the teachers had participated in in-service training about special education, they found that the topics were general and the content was mainly centred on theory rather than practice. The teachers in this study had difficulty when applying such knowledge into their classrooms. Furthermore, one teacher criticised her training because it removed her from the classroom, leaving the student unsupported. However, most teachers agreed that knowledge about special education is necessary. The need for training for special and inclusive education practices to be introduced in schools was identified by many teachers. Most teachers ($n = 18$) asked for further study opportunities or in-service training for teaching children in inclusive classes, and for training on the characteristics of children with disabilities. In terms of specific topics, two thirds of the teachers desired training on how to use specific teaching methods and behaviour management
and practical ways to apply that knowledge in the classrooms. Similarly, the teachers suggested that such training should avoid relying on lectures or verbal presentations, instead including techniques such as demonstration and case study. The other useful recommendation from teachers’ was that the duration and time should be appropriate for training, such as during school holidays so that it would not interrupt classroom teaching and could be reviewed regularly.

To sum up, teachers’ expertise in working with children with differing abilities was not seen as sufficient. Even though teachers understood the benefits and advantages of inclusion, they were not confident teaching these children in the classroom. Their reasons were lack of knowledge and skills in special education. Also, several teachers asked for appropriate training to improve their confidence in coping with children in classroom settings.

5.2.3 Theme 3: Teacher attitude toward inclusion and disability

Teacher attitude is one of the factors that has an influence on inclusion. The interviewed teachers identified three issues; these were teachers’ views, teachers’ resilience and the influence of Thai culture on teachers’ attitude.

5.2.3.1 Teachers’ views. While all of the teachers in this study had heard of the inclusive education policy, their individual feelings about disability and inclusion were different. Teachers whose school implemented inclusion at the preschool level demonstrated a clearer understanding about the process of inclusion than those who did not.

“The special education centre will ask us to send them an IEP. We will arrange for the IEP, with the parents/carers, and with our committee, then we will send this IEP to the Centre. They will look into it and then assign teaching medium or
equipment or anything that will help the children, according to their age group." (MPA9)

The group of MPA teachers believed that society is becoming increasingly aware of both inclusion policy and the educational opportunities of people with disabilities. In contrast, four LPA teachers expressed the complexity of additional paper work to support the policy. In terms of attitudes toward children with disability, some teachers \( (n = 3) \) described their views of a child with disability as if he/she was their son or daughter. Twelve preschool teachers revealed that they preferred children with mild disabilities to be included in the class than those with severe disability due to the potential for children with higher support needs to disturb classroom activity. However, all participating teachers clearly recognised the strengths and needs of these children. In terms of attitudes toward children with severe disability, all of the LPA teachers believed that these children should not be included in the regular classroom. Teachers were concerned that other services would be better provided to these children in special schools. Also, classroom management was one reported cause of a delayed decision to teach these children. The MPA teachers expressed a contrary opinion. Eight of them reported welcoming children with severe disabilities in the regular classroom for the purpose of social skills learning and to lessen parents’ stress.

5.2.3.2 Teachers’ resilience. Once the child with disability was integrated into the classroom, preschool teachers with either a MPA or LPA made the effort to assist the children the best they could. Even though some teachers \( (n = 12) \) had not received any support from schools, they continued to work with the child with disability. However, it was found that most of the LPA teachers had concerns about teaching these children in the classrooms. They worried that they might not develop the children with disabilities in the appropriate way. The major reason for this was insufficient knowledge
and skills in special education when compared to special education teachers. However, most of the teachers expressed their appreciation to children with disabilities’ because the students’ progress was professionally rewarding for them. Also, they expressed empathy towards the children and tried to understand the reason for their disability in a positive way.

5.2.3.3 The influence of Thai culture on teachers’ attitudes. All of the teachers applied Buddhist practice and beliefs in their explanation of disability, working aspirations, and classroom management respectively. In terms of cause of disability, one example was,

“’It’s a religious belief. For people who follow Buddhism they would say it’s Karma. Karma is what happens to you as a result of your action. Doesn’t matter if it’s in this life or in your last life, it can always catch up with you. If we can help these kids at some stage, we do. They certainly don’t want to be like this. Right? We do whatever we can to help. This is (the) Thai way.”’ (LPA4)

Another teacher explained her reason for assisting a child with disability was the belief in Buddhism. Religious belief was also employed to manage the classrooms. For example, four teachers reported that they explained the sin of bullying and the moral of assisting the child with disability to the children without disabilities in order to promote a good relationship between children with and without disability.

5.2.4 Theme 4: Collaboration

Teachers expressed their views on collaboration in line with how they perceived their role, their relationship with colleagues, parent involvement, and support from the principal.

5.2.4.1 Teacher’s role. All of the preschool teachers indicated their roles as an initial screener to all children in the classrooms. This screening aimed to identify
children in the class to see whether they required further evaluation. Most of the screening techniques reported by teachers centred on observing a child’s behaviour and their ability to complete tasks. If it was suspected that the child had a disability, the teacher would talk to the parent and suggest that the parent take the child to have a formal assessment from a doctor. Another issue was the awareness of the child’s rights. Seven teachers also noted that the suspected child could not be labelled as having a disability until an official diagnosis was made. Four teachers in this study stated the importance of obtaining a medical diagnosis of the child’s disability. The other teachers’ reason for delayed assessment was parents’ sensitivity about a diagnosis. Three teachers reported avoiding arguing with the parents on this issue unless the child exhibited very extreme behaviour. The teachers perceived another role in working collaboratively with medical professionals such as medical doctors and psychologists. The collaboration started when teachers referred the child for formal assessment, consulted on the child’s behaviour and followed the recommendations from the medical professional. However, several teachers viewed their roles as working independently from the special educational sector.

5.2.4.2 Relationships with teacher colleagues. According to the interview data, the teachers often used informal communication and consultation with their co-workers about the child with disability. For example, when they had lunch together, they exchanged ideas and experiences in order to manage the child’s behaviour. The teachers requested consistent support for inclusion from their colleagues. Therefore, teachers in this study highlighted partnership and the need to work in the same context and direction. Eight teachers discussed the importance of collaboration and acceptance of a child with disability from the primary teachers.
“With the colleague we would let them know that we have included children with special needs in class. Sometimes the primary teachers won’t understand the early childhood teachers. Some of them came here to deliver some books and they would say (they) can’t teach these kids. They can’t. They said these kids never sit still. We, who always spend time with these kids would say of course, it’s natural for kids in these age group. You tell them to sit still and listen to us for a long period of time, they aren’t going to. Most of the early childhood (teachers) would understand this issue, but the primary teachers don’t.” (LPA1)

In addition, one teacher also affirmed that the transition from preschool to primary level would succeed but it depended upon teacher enthusiasm and cooperation in each level.

5.2.4.3 Parent involvement. Teachers highlighted the benefits of involving parents in improving outcomes for their children in inclusive education. Additionally, all teachers claimed that parents should take their responsibilities for their children and follow what teachers said and suggested. One teacher avoided consultation with the parent concerning the child’s weaknesses because of the conflict she might have with the parents. Instead, she tried to point out strengths of the child’s learning. Some less educated parents were trusting and were willing to follow whatever the teacher advised. All participating teachers perceived that parents should collaborate with them in teaching children with disabilities. However, parental concerns about their preschool children with disabilities could sometimes be challenging for the teachers. Half of the teachers felt stressed from a lack of collaboration from parents, especially parents with a low socio-economic status. The teachers believed that those parents had to focus on their living expenses instead of paying attention to their child’s education.

5.2.4.4 Roles of the principal. The teachers indicated the different roles of administrators. Only three teachers from this interview indicated the full support of the
principal for inclusion. The example below showed the way in which one principal managed inclusion.

“Yes, (we) have given support. Most support... For example, when we tell him (the principal) that we’d have inclusive class for these kids. We want to screen...
We want the parents/carers to.... So we invite them (the parents/carers) in, and he (the principal) will talk to them (the parents/carers), something like that.
When these kids’ names are on the list, he (the principal) would insist to the teachers to take care of, to make sure these kids get the coupons. Teachers should make sure they’ve applied for coupons for every child (with special needs). But whether these children would be given the coupons or not, it’s another issue. Once they (the kids) have the coupons, he wants to make sure that the teachers look after this issue, and make sure it happens as they request. For example, if they request extra learning lessons (for these kids), then the lessons must happen. If (teaching/learning) materials/medium are requested, make sure they are really used. So he always ensures and follows them up....” (MPA3)

While the remainder ($n = 17$) mentioned that they received managerial and material support from the principal, it was not sufficient. Therefore, some teachers in this study problem-solved themselves. This led to their frustration when working in the school. One teacher stated that there was conflict between her and the principal about the inclusion process.

“At present the problem we have is regarding the executives of the school. These executives don’t see how important this is. They are one of those old-fashioned people, whose main focus is only for school’s buildings and structure and the overall image. They don’t look at the educational aspect for these kids, like, if
we have special need children included in our school, what we should do.”

(MPA4)

In addition, there was another reason given by the principal for refusal to enrol children with disabilities in the school, namely, the principal was afraid that the child’s progress would impact negatively on school achievement.

In conclusion, preschool teachers discussed the barriers to collaboration from parents, colleagues and the principals that impacted on the implementation of inclusion. It can be said that collaboration is one of several important factors to contribute to the success or failure of inclusive policy.

5.2.5 Theme 5: Challenges for future inclusion

Teachers’ own abilities were perceived as barriers relating to inclusion in this sample. Preschool teachers indicated their needs for adequate and consistent support to implement the inclusive education policy.

5.2.5.1 Barriers. Seventeen teachers reported a lack of confidence in teaching children with disabilities in the regular classroom. Those teachers suggested that teacher preparation was needed to provide sufficient knowledge about special education before implementing inclusion policy. In addition, most teachers (n = 14) claimed that their ability to teach these children was lower than special education teachers. While most preschool teachers mentioned their poorer abilities, one teacher pointed out that a child with special needs was included and supported from the school before special education and inclusive policy were officially implemented in school.

“Children with special needs have been around for ages. When I started working I became aware of this. These kids came to school like normal kids. Some of them have borderline characteristics of disability. It’s not quite a Down syndrome or something like that. Some are physically disabled, like visual
impairment. Some have LD (learning disability). These kids have existed for a long time. Some are intellectually disabled, some have delays in learning. These are not new. At the time teachers didn’t complain. No complaints. All they had said was that the children were dull. As a matter of fact, it has been the Ministry (of Education)’s policy to give these kids additional learning time. Like, for children who aren’t quite able to keep up with their classmates, they will be given extra learning lessons, or they may repeat in that particular year again, or in fact we use any other methods that would help these children. But now, once there is a word “special education”, teachers would simply claim that they have no knowledge about these kids.” (MPA9)

The interviewed teachers generally felt they were ill-prepared for teaching children with disabilities. Most teachers recognized the value of the incentive payment from the government provided to teachers who participated in the inclusive education program. However, one teacher declined that pay because of the stress and additional work required to report about the children with a disability.

5.2.5.2 Teacher needs. Teachers in this study revealed that they had no choice about including children with disabilities in the regular classrooms due to the National Education Act and the Ministry of Education policy namely “The Educational Year 1999 for the Children with Disabilities policy”. The teachers needed support systems to work with children who were identified with disabilities. However, some teachers ($n = 5$) failed to implement inclusive practices due to a lack of support from the principal. Even though the Ministry of Education had attempted to gather information about the number of children with disabilities for further planning, the participating teachers complained about the action from the government. Several teachers ($n = 7$) complained about a lack of action after they provided the planning data.
5.2.5.3 Readiness for implementation. According to the interview data, most teachers identified that there was a lack of consistent commitment to inclusive education across the school. As mentioned earlier, eleven schools had implemented inclusion since preschool, while for others the priority was inclusion for children at the primary level. The remaining schools had not applied any inclusive education policy and, in at least one case, this created tension for the preschool teacher.

“They realised that the children have this problem. But basically we and them have very different views. We go a different way...Teaching and learning approaches (we and them) use are quite different. And issues concerning the children receive different views. For us, we’ve tried to put the children face to face with us (meet the children’s needs). But for them, like, till these days I’ve still heard the news that when these two children move to upper class, the teachers there would invite their parents/carers in, and the children would have to go through several steps, this and that. This procedure would have much impact on the parents/carers. Anyway if the teachers understand these issues, then there won’t be any problem. So, basically they do things differently from us.

I’m not criticising them, but it is real...” (LPA2)

5.2.5.4 Teacher recommendation for improving inclusion. The teachers identified the need for teachers, principals, parents and others to work together in a systematic manner with appropriate resources and policy support. This would lead to a step by step pathway to better practice with the following recommendations. Firstly, enhancing teachers’ training was mentioned by 75% of the preschool teachers. The way in which teacher training would be useful and was employed in the classroom is that it should have practical follow up after training. Secondly, the principal’s role is also important in promoting inclusion in the school. Teachers needed the principal to take
charge of the inclusion policy, along with them. Thirdly, other personnel such as special education teachers and teacher aides were mentioned by the preschool teachers. Several teachers \((n = 11)\) mentioned their need to have teacher assistants. Seven teachers mentioned the benefit of having teacher assistants in the classroom because the helper could assist the teachers and take care of a child with a disability during a whole class activity. Furthermore, half of the preschool teachers believed that support from special education teachers is important to support children with disabilities. Seven LPA teachers preferred the special education teacher teaching the children with disabilities separately in another class. Some of this subgroup commented that the special education teachers should take their priority roles in teaching the children with disabilities. However, others in this sub group would allow these children to join their regular classroom in some activity. Fourthly, resources such as educational materials, school budgets, and teacher assistants were mentioned as another element to contribute to successful inclusion. Finally, the last suggestion from the preschool teachers was that government agencies (e.g., Special Education Centre) should promote the inclusion policy to the preschool level and use an effective follow up strategy. One teacher commented that promoting the policy into practice from preschool would reduce problems later in the school system.

In conclusion, teachers’ abilities were the major barrier reported by interview participants. Preschool teachers also needed adequate support for the implementation of inclusion. Participant recommendations for the future inclusion of young children with disabilities mainly focused on the importance of systematic support from the government agency.
5.3 Summary of Findings

Most preschool teachers interviewed in this study did have an understanding of the meaning and purpose of inclusive education. These teachers were aware of the existence of special and inclusive education policies, whether at the school level or generally, and that inclusive education recognizes that all children, regardless of their abilities, are to be educated in the regular classroom. The way in which teachers explained those meanings was derived from their teaching experiences with young children with disabilities in the classroom. However, the teachers had encountered little support from schools and a shortage of preschool teachers in many schools. Also, the variety in family experiences of having children with disabilities was viewed as the cause of different practices across schools in the inclusion of preschool children with disabilities.

Most participating preschool teachers perceived themselves as having insufficient knowledge and skills in special education. There were some university courses focusing on an introduction for teaching children with disabilities. However, teachers reported that they were not interested in this course when they were university students. In terms of in service training about special education, preschool teachers attended the training but they had difficulty applying that knowledge from in service training into their classrooms. Also, those preschool teachers found the training they received to be too theoretical instead of practical.

When preschool teachers had to teach young children with disabilities in inclusive classes, these teachers employed various kinds of teaching methods in order to suit a child’s ability. Children’s behaviour problems were of most concern to these teachers. Therefore, these teachers believed that behaviour management was the essential topic for their training.
It also was found that the understanding and application of Buddhism impacted on teachers’ perception of inclusion when explaining the cause of disabilities. Thai preschool teachers believed in the philosophy of Buddhism in terms of mercy to the poor. Most teachers did not refuse to include the children with disabilities in the classroom. However, participating teachers in the LPA group believed the readiness of material and services provided in special schools were more suitable to children with severe disabilities.

The level of principal support was perceived as one of the critical variables in relation to the efficient implementation of inclusion by these teachers. In addition, working collaboratively with colleagues and parents was required to assist the children. Preschool teachers interviewed in this study highlighted the responsibility of the Ministry of Education and the Special Education Centre in laying the groundwork for the further development of inclusive education in Thailand.

The results presented in this chapter outline interviews with 20 participating teachers who had the 10 lowest and the 10 highest attitude scores from Part B of the questionnaire in the first phase of this study. Five main themes emerged from the data analysis presented in this chapter. In the next chapter, results from both the survey and the interview studies are discussed.
CHAPTER 6

DISCUSSION

This chapter aims to review the results of the study and discuss the research findings with a focus on implications for the implementation of inclusive education for young Thai children with disabilities. Additionally, this chapter presents the limitations of this study and makes recommendations for future research and practice. The last section presents concluding remarks.

6.1 Study summary and discussion of the results

This section presents a study summary and discussion of the results. Firstly, it provides the background of respondents. Secondly, the results of the research questions are provided. The objectives of this study were to (a) examine the needs of Thai preschool teachers in relation to the inclusion of young children with a disability (b) investigate whether there are relationships between teachers’ demographic characteristics and their attitudes and their needs, and (c) identify the predictors of Thai preschool teachers’ attitudes regarding inclusive education for young children with a disability. The following sections attempt to establish how these research objectives were met, in addition to discussion of the overall importance of the results.

6.1.1 Demographics of respondents

In the first phase of the larger study, a self-reporting questionnaire in the form of the Thai Preschool Teachers’ Perceptions on Inclusive Education Rating Scale, was completed by 528 preschool teachers in the upper northern part of Thailand (Chiangmai, Chiangrai, Lampang, and Lamphun provinces). These teachers were teaching in either kindergarten or preschool classes in government primary schools.
Most of the Thai preschool teachers were female and over 40 years of age, had a bachelor level qualification, and taught in medium size schools with 2-3 classrooms. Most of the participating teachers reported not having children with identified disabilities in their classes. When children were enrolled, it was found that individuals with intellectual disability were the largest group represented, whereas children with visual impairment were found to be the smallest group represented in inclusive classrooms.

In the second phase, section B of the questionnaire included 16 items that addressed aspects of teachers’ attitudes to inclusion. Responses to this section were analysed and teachers’ attitude scores were ranked. A total of 226 preschool teachers agreed to participate in the interview phase. To facilitate a diversity of views, the researcher selected those teachers with the 10 lowest and the 10 highest scores on attitudes to inclusion and invited them to participate in the interview phase. All the invited teachers agreed to be interviewed, each having no more than three children with a disability in their classroom.

The following section presents a discussion on the first research question.

6.1.2 The needs of Thai preschool teachers regarding the inclusion of young children with a disability

The first research question dealt with the needs of the preschool teachers regarding inclusive education. Several needs are introduced and discussed in the next section.

6.1.2.1 The need for training

Both questionnaire and interview results highlighted that Thai preschool teachers expressed the need for training regarding teaching children with disabilities in inclusive classrooms. Data from the survey has shown that most of the training topics
covering teaching and working in the inclusive environment were rated as a “moderate training need”. Additionally, data from the interviews found that most of the sampled preschool teachers reported a lack of training and knowledge in special education. This finding was consistent with research in Hong Kong where Zhang (2011) found that preschool teachers reported a lack of training and felt inadequately prepared in terms of special education skills and knowledge about teaching children with disabilities. Furthermore, the findings from the interviewees also highlighted their need for training regarding the behaviour management of children, which is consistent with Hu’s research (2010). Behaviour management was the area of training most needed by Chinese kindergarten teachers in Beijing. In Thailand, not every preschool class has an assistant teacher. It is a challenging task for preschool teachers to manage the inclusive classroom particularly if class sizes continue to increase.

Most participating Thai preschool teachers commented about unmet needs in their initial training to prepare them for working with children with disabilities. They also argued for such training to be oriented in a practical way. This finding was consistent with Frankel (2004) who found that the early childhood teachers in their studies requested practical experience to create a link between the theory and the practice of inclusion.

In Thailand, preschool children have to attend the activities in the morning and have a nap in the afternoon. They have to stay in the school for up to 8 hours a day. The long working hours and heavy workload of teachers may be a reason why these teachers are less likely to prefer a training style of offsite workshops. It was not unexpected that university coursework was considered the lesser of the preferred training options because many preschool teachers may have difficulty finding time for these courses. On the other hand, self-study such as academic materials, resources and the internet was
most preferred because the Thai preschool teachers can study in their own time and maintain their classroom responsibility. The result from this study also found that teachers indicated the need for individual consultation as their second training option. The consistency of individual practical follow up after training was more likely to assist preschool teachers in gaining a deeper understanding of teaching skills for inclusive education. Supervision and continuous in-service education are important in order to secure the level of quality in preschools (Sandberg et al., 2009).

Based upon the interview data obtained in the current study, Thai university pre-service student teaching and in-service training regarding special and inclusive education was insufficient to enrich their understanding of people with disabilities. This could be one of the reasons why those teachers expressed a lack of confidence and the need for more training. Deku and Ackah (2012) argued that the curriculum in inclusive education in the pre-service teacher institutions was recommended as a necessary course. In-service training must be prepared for teachers as well as service providers.

The importance of in-service training was exemplified by Sandberg et al.’s study (2007). The authors provided a series of training sessions to preschool teachers. Later an interview was conducted with the participants. These preschool teachers indicated that they had gained strength in their professional work as a result of the training program. The theoretical bases including developmental pedagogy and a changed view of the child were reported to be crucial for the implementation process.

6.1.2.2 The need for support from school, special education teachers, and other personnel

Teachers needed a lot of support systems in place to work with children who were identified as having disabilities. Generally, teachers did not appear to feel adequately supported in their efforts to include children with disabilities. This finding
was similar to Batu’s (2010) study of Turkish early childhood teachers who lacked support services when implementing inclusion. In this current study, many Thai preschool teachers revealed their need for special education teachers and assistant teachers if they had a child with a disability in their class, which is consistent with other recent studies (McDonnell et al., 2001; Mohay & Reid, 2006). Working with other professionals (e.g. special education teachers and school psychologists) were mentioned as important parts of the regular teachers work (Chiner & Cardona, 2013). This view can be explained by the demographic profile of the respondents in this study. It indicated that most of them (67%) had no teaching experience with children with disabilities. Insufficient preparation of teachers could lead to difficulties in properly teaching children with disabilities.

To ensure acceptance of inclusion, it was found that support from Thai principals is essential (Vorapanya, 2008). Although the need for the principal’s support in successful inclusion is well demonstrated (Smith & Smith 2000), the present study found that there was insufficient support from the principal from the preschool teachers’ perspective. Successful inclusion needs the support of the principal and is essential to reduce a sense of isolation among teachers, allowing them to encourage each other and thereby increasing opportunities for collaboration.

Although parent involvement was mentioned as one aspect of the teacher’s needs, the teachers claimed that parents should follow what they suggested. Topics about sharing information and viewing parents in an equal alliance were not often mentioned by teachers, instead teachers in this study identified themselves as the parent’s leaders. One possible explanation is the Thai culture. In the past, Thai people believed that a teacher was an important person in the society who was highly respected and parents followed what the teacher said. Nowadays, that belief may have to be
changed to an equal partnership in educational planning between parents and teachers. According to O’Connor’s study (2008), parents wanted to be involved and did not want to be passive recipients in their child’s education. Therefore, it can be argued that preschool teachers should recognise the concept of parent involvement and respect the right of parents to share knowledge regarding information about their child.

### 6.1.2.3 The need for government support

The findings of the study illustrated that when children with disabilities were placed in regular classrooms, some schools and teachers did not promote inclusive practices. This situation emphasized the importance of bureaucratic authority toward implementation of the inclusive policy into school settings. The Thai preschool teachers argued that government agencies (e.g., Special Education Centre) should promote the inclusion policy to the preschool level and use an effective follow up strategy. Despite the latest release of the first Act for Education for Disabilities Act B.E. 2551 (Rajkijjanubaksa, 2008) which addresses the need of education for young children with disabilities from birth or when first diagnosed, the consistency of the policy implementation into practice is still problematic. This finding is similar to a previous Thai study by Varapanya (2008) which discovered that preschool inclusion issues such as the system of early detection and assessment were often neglected. Successful inclusion will depend on early diagnosis and support that young children and their families receive well before the child become the age of five (Lata & Stepanyan, 2013).

Data from interviews disclosed the situation of shortages of preschool teachers, additional resources and teaching materials in many schools (Sukbunpant, Arthur-Kelly, & Dempsey, 2012). These shortages contributed to schools having difficulty implementing the inclusive policy. As a result, different actions were taken because of the inclusive policy amongst the schools studied. Some schools had implemented
inclusion since the preschool level, while others started from the primary level due to the lack of a clear policy statement. The lack of financial support, personnel, training and educational resources are barriers to Thai inclusive practices. Providing inclusive teaching techniques and services for children with disabilities necessitates investing in the school and in classrooms (Khochen & Radford, 2012). Armstrong et al. (2011) argued that it is the responsibility of the government to improve their education system as a priority by implementing laws and policies to support the principles of inclusion. Thailand needs to implement full support for inclusive education, not only a basic infrastructure, but by providing the appropriate number of teachers and other resources throughout the country.

6.1.3 The relationship between teachers’ needs, teachers’ attitudes, and their personal characteristics

The second study question addressed whether the teachers’ needs or teachers’ attitudes were associated with their personal characteristics. Three sub questions were investigated and discussion of the findings is presented in each sub heading below.

6.1.3.1. The relationship between teachers’ needs and attitude

The data collected to answer this first sub question indicated that there was a modest significant relationship between training topics offered and the teachers’ attitudes. Correlations ranged from .13 (Child assessment, and Environmental consideration) to .23 (Adaptation of materials). Due to the limited literature in the area, it is difficult to directly compare this result to other published studies. In this regard, several studies (Mohay & Reid, 2006; Mulvihill et al., 2002; Rafferty & Griffin, 2009; Sanberg, 2007; Stoiber et al., 1998) have stressed the importance of training staff to adopt more positive attitudes to their work with children with disabilities. In the present study, interview results revealed that the participating teachers would feel more
confident if they had sufficient training and knowledge about children with disabilities. This result is similar to those reported by Dinnebeli et al. (1998) and Kilgallon and Maloney (2003), who suggested that when early childhood teachers acquired information about disability, they were more confident and knowledgeable in developing their teaching practices to support successful inclusion in the classroom.

6.1.3.2. The relationship between teachers’ training needs and their personal characteristics

The results generated to address this second sub question found small significant relationships between teachers’ training needs and their personal, and school characteristics (Tables 4.14- 4.15). For example, the results demonstrated that teachers’ training needs in managing behaviour problems had a modest positive significant relationship with teachers’ educational level, level of classroom teaching, teaching experiences with children with disabilities, and having a certificate of special education. Teachers who had these personal characteristics reported a need for training on child behaviour management. In contrast, this study also revealed a small negative relationship between the teacher’s age and their general teaching experiences. However, the coefficients were small. All relationships had a small effect size (Table 4.14) (Hojat & Xu, 2004) which means the results were of negligible practical importance.

An interesting finding that emerged from the study was the positive relationship between teachers who had children with autism in the classroom and their training needs topics about introduction to special education, environmental considerations and learning adaptations. This result was similar to a study reported by Wang (2008). Taiwanese early childhood teachers in his study reflected on the need for an increase in training in teaching methods, and a greater knowledge of environmental adaptation. Similarly, Onbun-uea and Morrison (2008) highlighted that Thai preschool teachers in
their study had little knowledge or no training in working with students with autism.

Several authors have noted a skeptical attitude by Thai teachers towards preparation for teaching children with autism (Indusuta, 2003; Visanthamakorn, 2007; Visarathanonth, 2009). Similarly, the interview data from the participants in this study revealed that their knowledge of teaching children with disabilities was insufficient. This appeared to lead to an interest by the regular preschool teachers currently teaching children with autism in the classroom in enriching their knowledge of such topics.

Another aspect of this finding is the differences between teachers’ training topic needs and teachers’ locations. It was found that there was a difference, according to location, in the topics of training needed by teachers in Chiangmai and Chiangrai provinces relating to child assessment (Mean difference = 0.31, Std.Error = 0.09) between teachers in Chiangmai ($M = 3.16$, $SD = 0.74$) and Chiangrai ($M = 2.85$, $SD = 0.92$), developing IEPs (Mean difference = 0.27, Std.Error = 0.09) between teachers in Chiangmai ($M = 3.10$, $SD = 0.81$) and Chiangrai ($M = 2.83$, $SD = 0.87$), building partnerships with families (Mean difference = 0.27, Std.Error = 0.09) between teachers in Chiangmai ($M = 3.20$, $SD = 0.81$) and Chiangrai ($M = 2.93$, $SD = 0.85$), and environmental considerations (Mean difference = 0.28, Std.Error = 0.09) between teachers in Chiangmai ($M = 3.29$, $SD = 0.73$) and Chiangrai ($M = 3.01$, $SD = 0.91$). It can be presumed that the teachers working in Chiangmai province viewed those topics as more critically needed than teachers in Chiangrai province. These findings may be due to the fact that Chiangmai is a hub city in the Northern region of Thailand. The special education sectors of the government such as special schools, a university providing special education training, and many inclusive schools are located in Chiangmai to support the government’s inclusive policy (Rajabhat Chiangmai Institute, 2000). This appeared to allow the Chiangmai preschool teachers more opportunity to be
familiar with the implementation of inclusion and to be aware of the importance of
specific training about working with children with disabilities. Implementing IEPs, child
assessment and collaboration were regarded as specific topics of training for early
childhood practitioners (Burke & Sutherland, 2004; Bruns & Mogharreban, 2007;
Sandberg & Ottosson, 2010). Based on the findings of this study, it may be necessary to
promote professional development activities with appropriate training topics that are
suited to the actual needs of these preschool teachers.

**6.1.3.3. The relationship between teachers’ personal characteristics and attitudes toward inclusive education for young children with disabilities**

The last subquestion aimed to investigate whether teacher attitudes towards
inclusive education for young children with disabilities were related to the individual’s
personal characteristics.

A small positive relationship was noted between teachers’ attitudes and their
teaching experience with children with disabilities, the total hours of training in special
education and whether they had a certificate of special education training. On the other
hand, a small negative but significant relationship was identified between teacher’s
attitude and their age, and general teaching experience. There was no significant
relationship between gender, educational level, and teacher attitude. All correlation
results in this section had a small effect size (Hojat & Xu, 2004) which means the
results were of negligible practical importance. In addition, there was no relationship
between teachers’ attitude and their school and classroom characteristics. It can be said
that the characteristics of the teachers’ school and their classroom were not associated
with Thai preschool teachers’ attitude in this current study.

Among all the teachers’ characteristics, teaching experience with children with
disabilities had the strongest relationship with teachers’ attitudes. The results clearly
imply that the more experience a preschool teacher had with children with disabilities, the more positive they felt about including children with disabilities in their classrooms. This finding is consistent with other previous studies (e.g., Alquraini, 2012; Kalyva et al., 2007; Mohay & Reid, 2006; Wishart, 2001). Rakap and Kaczmarek (2010) found that teachers who had experienced inclusive practices were likely to hold a more positive attitude toward inclusion. In addition, childcare providers who had previous experience working with children with disabilities felt more confident and showed their willingness in working with those children (Dinnebeil et al., 1998).

The next interesting finding of the study found that there was no significant relationship between preschool teachers’ attitudes and many types of student disability. Despite the finding that the presence of children with physical disabilities/health impairments in classrooms was shown to have a small positive and significant relationship with teachers’ attitude, the effect size was small. This is contrary to the findings of Park and Chitiyo (2011) who reported that most of the teachers in their research had positive attitudes towards children with autism. Jerlinder et al. (2010) found that Swedish PE teachers were very positive about inclusion of children with physical disabilities.

This result in the current study may be explained in three ways. First, because the growing interest in Thai inclusive education is mainly focused at primary level (Kantavong, 2012), regular preschool teachers may not receive sufficient knowledge about children with disabilities to be ready to work with these children. Therefore, they may not clearly distinguish types of disability. Second, this result may be because of the small number of teachers reported to teach children with disabilities in the classroom; the teachers may be unfamiliar with the characteristics of these children. Finally, in this current study there is a lack of information about the severity of the child’s disability. It
is unclear whether the preschool teachers revealed their attitude to those children who only had a mild disability. Thus, further investigation should be undertaken into the teachers’ attitudes towards a child with a clearly defined level of disability.

6.1.4 Factors which predict Thai preschool teachers’ attitudes towards inclusive education for young children with a disability

The last research question dealt with the factors predicting Thai preschool teachers’ attitudes toward inclusive education for young children with a disability. Multiple regression analyses showed that three variables (educational preparation, collaboration and teaching experience with children with disabilities) made a significant and unique contribution to the prediction of teachers’ attitudes. The dependent (attitude) and predictor variables are discussed in the following sections.

6.1.4.1 The dependent variable of the teachers’ attitude

A four-point Likert scale of items in the questionnaire indicated Thai preschool teachers’ attitudes towards inclusion of young children with disabilities was generally positive ($M = 2.41$ and $SD = 0.58$). This finding was consistent with that of previous studies where early childhood teachers had positive attitudes towards inclusion (e.g., Batu, 2010; Hsieh & Hsieh, 2011; Leatherman & Niemeyer, 2005; Sandberg & Ottosson, 2010).

The Thai preschool teachers in this current study showed their preference for including a child with a mild disability over a child with a severe disability. This finding was consistent with several studies (Avramidis et al., 2000; Dupoux et al., 2005; Engelbrecht et al., 2003). Starczewska et al. (2012) reported in their findings that children with mild and moderate intellectual disabilities have the best opportunity to be included regular Polish schools while, those with severe intellectual and physical disabilities are still commonly excluded. The current study also revealed a case that the
teachers in the MPA group welcomed children with severe disabilities because they believed in the benefits of social skills learning, which supports the rationale for and the benefits of inclusion (Odom et al., 2011; Odom & Diamond, 1998; Odom et al., 2006b; Tsao et al., 2008). Katz and Galbraith (2006) highlighted the importance of addressing social skills for early childhood educators to enable them to recognise and enhance the inclusion of children with disabilities. Several strategies for promoting social skills have been reported in previous studies (Buysse & Hollingsworth, 2009; Lane et al., 2007; Odom et al., 2011). However, the current study lacked evidence of the types of techniques that Thai teachers applied to promote social skills for children with disabilities in an inclusive class. Thus, there is a need for future investigation into teaching strategies to enhance social skills learning in practice.

The present study also underlined the role of cultural factors, such as Buddhism, and explored teachers’ explanations about the cause of disability and their reasons for working with children with disabilities. Buddhists believe that people should develop the present life to gain a better future life (Carter, 2006). In addition, Bronfenbrenner (1979) addressed the fact that in the macrosystem, cultures, social values and beliefs affect participants or events in the microsystem. This means that the way that people perform will be influenced by their culture. The current study findings support the ecological systems theory. Interview data revealed that preschool teachers argued that Buddhists believe that people can achieve a positive future life if they do well in the present life. Whatever they have done with children with disabilities, would impact on their lives. Thai teachers’ perceptions about Buddhism may motivate them to continue their work in supporting the inclusion of young children with disabilities in their classroom settings.
6.1.4.2 The independent variable of collaboration as a predictor of the teachers’ attitude

Amongst the variables in this study, collaboration was the strongest predictor of Thai preschool teachers’ attitudes toward inclusive education for young children with disabilities. This finding was consistent with several studies that highlighted the importance of working collaboratively in inclusive settings (Hemmings & Woodcock, 2011; Kilgallon & Maloney, 2003; Leatherman & Niemeyer, 2005; Sandberg et al., 2009; Vakil et al., 2009). The recent study by Ahmmed et al. (2012) indicated that perceived school support for inclusive teaching practices was a significant predictor of the attitude of Bangladeshi teachers towards inclusion of students with disabilities. Malinen and Savolainen (2012) found that self-efficacy in collaboration with colleagues, parents and other stakeholders, had the strongest positive relationship with teacher attitude toward inclusion. Malinen and Savolainen (2012) argued that in inclusive settings, teacher ability to cooperate with parents, colleagues and other professionals may have been more important than other competencies such as instructional skills, effective classroom management and subject knowledge. Hemmings and Woodcock (2011) claimed that support, cooperation, and acceptance from others, including colleagues and parents, were the most important factors for successful inclusion. This suggests that if the appropriate human resources and training were available, this may enhance Thai preschool teachers’ confidence about teaching in inclusive classrooms.

The current study findings demonstrated that inclusive education cannot be managed by the teacher only. Forlin (2012b) argued that the policy of inclusion cannot work in isolation. The movement towards inclusion practice is a continuous process and requires effort on the part of the various groups involved (Khochen & Radford, 2012).
There are several key drivers in this continuous improvement effort. First, it can be said that Thai preschool teachers have several potential collaborative stakeholders to work with, including other professionals, colleagues, principals and parents. One strategy for collaboration is to ensure systematic data collection on children with disabilities when a teacher is working with other professionals. This could lead to a well-developed plan for children with disabilities (Vakil et al., 2009). In addition, collegial support is one of the effective elements for inclusive education for young children with disabilities (Zhang, 2011). Support from administrators and related personnel is also important for providing a successful inclusive environment (Leatherman & Niemeyer, 2005).

A possible explanation for the strength of the collaboration variable comes from the Thai inclusive education policy that was targeted mainly at the primary level (Kantavong, 2012). An appropriate alternative approach revealed by the teachers interviewed was using shared knowledge, reviewing different viewpoints as possible solutions to problems, and receiving input from other experts about a child with a disability. Therefore, collaboratively working with other stakeholders was perceived as an important factor that may influence whether Thai preschool teachers succeed in inclusive practices.

6.1.4.3 The independent variable of educational preparation as a predictor of the teachers’ attitudes

Educational preparation in this study refers to teachers’ perceptions of their readiness for working with young children with disabilities, their knowledge of disability and child development, and their teaching methods including assessment, behaviour strategies and social skills development. Educational preparation was a highly significant predictor of attitude with the second highest Beta value. Mitchell and Hegde (2007)
noted that knowledge and professional skills were needed by early childhood educators to meet the challenges of children with various ability levels within the inclusive classroom. In the current study, interview data revealed that preschool teachers were most concerned that their own abilities were not sufficient to teach young children with disabilities in the class. Teachers’ skills such as knowledge of the disability and child development, implementing IEPs, the use of various forms of communication and specialist knowledge, teaching methods including assessment and behaviour support strategies, and an understanding of social skills development were recommended by several studies (Bruns & Mogharreban, 2007; Buysse et al., 1999; Forlin, 2012a; Killoran et al., 2007).

Several studies (Hu, 2010; Killoran et al., 2007) have suggested that more comprehensive preparation programs for early childhood student teachers are important. As noted earlier, and underlined by researchers such as Forlin et al. (2009), previous university training impacts positively on pre-service teachers’ attitudes towards inclusion. This information should be useful for the Thai tertiary educator when setting up an appropriate course. Curriculum topics that include enhancing pre-service teachers' skills to be ready for teaching in inclusive settings and exercises that assist in developing a positive attitude towards inclusion of young children with disabilities should be provided for student teachers. This will enable graduating teachers to feel well prepared and have sufficient knowledge to support their students with disabilities. In turn, this would enable teachers to feel confident in including young children with disabilities in their classrooms.
6.1.4.4 The independent variable of teaching experience with children with disabilities as a predictor of the teachers’ attitude

The other significant predictor of Thai preschool teachers’ attitude towards inclusive education was their teaching experience with children with disabilities. This study found similar results to those of Mohay and Reid (2006), in which the experience of an Australian childcare provider working with children with a disability positively influenced attitudes to disability. Leatherman and Niemeyer (2005) also discovered in a case study that the previous experiences of four early childhood teachers in implementing programs for children with disabilities in inclusive classroom activities influenced those teachers’ attitudes toward inclusion.

Interview data in the current study indicated that the majority of teachers who had engaged with young children with disabilities and implemented a disability policy expressed empathy towards these children. The interviewees stated that once a child with a disability was integrated into the classroom, preschool teachers made the effort to assist them the best they could. This indicated that preschool teachers had developed a rapport with these children in their teaching practice. They argued that the progress of these children with disabilities was a reward for their career. The experience of working with children with disabilities could therefore contribute to the confidence and willingness of early childhood educators in working with those children (Dinnebeil et al., 1998). The following section presents implications for future practice and research based on the findings of this current study.

6.2 Implications for future practice and research

6.2.1 Implications of research findings for practice in schools

There are several practical implications for schools and educational systems suggested by the results of the research reported here. First, although the policy of
inclusion has been implemented in Thai primary schools since 1999, inclusion policy and support should span across the wider education system to address the needs of younger children. The government can help to promote the idea of inclusive education by highlighting its advantages to the public. This wider policy scope should provide preschool teachers with the opportunity to consult with administrators to improve the implementation of inclusion of children with disabilities.

Second, programs preparing teachers should ensure they provide adequate special needs training and the option of a specialisation in the area of early childhood special education. Practical experience with young children with a disability is an essential part of such training. On the basis of the data from this study, training programs for in-service teachers in the northern part of Thailand should pay close attention to the preschool teachers’ characteristics and their needs. In relation to the preparation of student teachers, universities should provide an introductory course in special education to ensure graduates are prepared with confidence in their attitudes, knowledge and skills for work in inclusive settings. The continuum between content and practicum should also be considered. Student teachers should have opportunities for contact with children with disabilities by observing or participating in inclusive classrooms.

Third, a public education program is needed to assist the Thai community to reconcile traditional Buddhist beliefs about disability with beliefs that are inherent in the inclusion of children with a disability in regular classes. For example, the moral imperative of assisting the child with a disability and promoting a good relationship between children with and without disability should be stressed.

Fourth, some traditional views held by Thai teachers about the role of parents with a child with a disability need to be challenged. The successful inclusion of these
children in schools and in the wider community will be enhanced when teachers view parents as partners, and when they regard the empowerment of parents as an important outcome of inclusion. For example, schools can invite parents to join a range of school activities and training. Parents should be encouraged to be involved in planning the child’s education, to share in parent-teacher sessions, and be invited to give mutual support.

Fifth, results from the data analyses indicated a positive relationship between the preschool teachers’ attitudes and their teaching experience with children with disabilities, the number of hours they had completed in training in special education, and whether they possessed a certificate of training. In addition, the teachers in this study who had a child with a physical disability in their class also revealed a positive attitude. Thus, the preschool teachers who have these characteristics are the best candidates for implementing inclusive education at the preschool level.

Sixth, results from the regression analyses indicated three factors that predicted the Thai preschool teachers’ perceptions towards inclusive education for young children with a disability. These factors are collaboration, educational preparation, and teaching experiences with children who have disabilities. Knowledge of these factors is of benefit for policy makers, teacher educators and practitioners who assist in shaping preschool teachers’ attitudes before implementing inclusion.

Finally, implementation of the inclusive policy needs commitment and proactive leadership by the school principal. The data collected in this study suggest that the combined efforts of the school leadership, in collaboration with teachers and families, will maximise the design and delivery of inclusive learning contexts. It appears that preschool teachers who work in Thai schools where the principal pursues the
government’s policy, working collaboratively with colleagues and parents, will perceive inclusion as an important part of their routine work.

6.2.2 Implications for future research

There are five suggestions for future research to be considered. First, further research should be conducted to investigate the preschool teachers who teach in the broader geographical areas of Thailand. Data from different regions could provide more precise information and throw light on the current situation across the whole country. In addition, a comparison between preschool teachers in different sectors (private and government schools) should be conducted to compare their views of inclusive education.

Second, although this study employed mixed methods to gather data from several sources, the information was entirely based on the teachers’ self-report. In future studies, data on inclusive education in classroom practices should be collected by observations of the preschool teachers. In addition, the attitudes of principals, teachers, colleagues, parents, and other professionals towards inclusion should be investigated.

Third, the defined variables in this study were limited by the available literature reviews. Other important factors that may function as predictors of preschool teachers’ attitudes were not included. In future research, other factors should be studied to achieve a wider understanding of the issues influencing the teachers’ attitudes. These variables should include the severity and types of children’s disabilities, the teachers’ knowledge of policy and law, and whether the teachers have a family member with a disability.

Fourth, in this study, the researcher conducted factor analysis with the aim of data reduction of the questionnaire items to produce robust factors. Future research may also conduct confirmatory factor analysis for the larger group of Thai preschool teachers.
to confirm the factor structure that was extracted in the exploratory factor analysis for this current study.

Fifth, this study has shown that many teachers believe the training they attended was not informative enough to provide practical knowledge about special education and children with disabilities. Future research should be conducted to develop a training model in Thailand that not only suits the teachers’ needs but also encourages a positive attitude towards inclusive education for young children with disabilities. Finally, a survey instrument and interview questions, similar to that used in this study, could be applied in the larger Thai context to further progress an understanding of the views of educators in relation to inclusion for young children with disabilities. It may also be useful for educators to examine notions of the inclusion movement in the Thai educational context from the perspectives and experiences of those who are involved, especially families.

6.3 Limitations of the study

The participants in this study came from four Thai provinces and are not therefore representative of all Thai preschool teachers. The generalisation of findings from this study can be made only in relation to the preschool teachers in four provinces of the northern part of Thailand. The sample of selected preschools in this research was limited to those who were working in government schools. Although the survey was developed using feedback from four experts, it was not formally piloted and must be recognised as a limitation. A further limitation was the absence of the total numbers of children the interviewee’s classes for purposes of comparison. Moreover, the interpretation of the participating teachers’ attitudes was based on self-reports, both questionnaire and interviews, without direct observation of class behaviour. Some teachers may report on themselves with regard to how they think they should respond,
instead of what they actually do. Finally, because culture and practice varies across countries, the findings and conclusions reported here may only be relevant in the Thai context.

6.4 Concluding remarks

The Thai government proclaimed the year 1999 as the Year of Education for Children with Disabilities. The government mandated a movement towards inclusion of students with disabilities in regular education. Therefore, Thai preschool teachers have the responsibility of teaching all children with and without special support in the classroom. It is hoped that this study of a sample of preschool teachers’ perceptions of inclusive education for young children with disabilities will expand our current understanding of inclusion for Thai preschool children with disabilities. In addition, this study also provides new information that will be helpful in critiquing the broader movement of inclusion in the Thai educational context from the perspectives and experiences of those who were involved.

The findings of this study revealed that collaboratively working with other colleagues, special education teachers, parents, principals and other professionals was viewed as an important element for successful inclusion. In addition, the government agency known as the Special Education Centre was highlighted by the preschool teachers as needing some changes. They argued that the inclusion policy should be promoted at the preschool level and an effective follow up strategy from the government agency is necessary for successful implementation of this inclusive education policy.

Most participating Thai preschool teachers expressed the need for training regarding teaching children with disabilities in inclusive classrooms, especially the topic of behaviour management. Also, the preschool teachers argued the need for practical
training. The results of this study could form the basis for more extensive planning and improvement in the quality of in-service and pre-service teacher training and educational preparation for inclusive education for preschool children with disabilities. Data from this study may be utilised to plan an appropriate curriculum and sufficient training for both early childhood and special education student teachers to prepare to work in inclusive settings, especially for the 46 teacher training colleges or “Rajabhat Universities”.

This study also revealed that there were some significant positive and negative relationships between the teachers’ needs, the teachers’ attitudes and their personal characteristics. The findings of this study may be useful to educators and practitioners in planning, and for selecting appropriate programs or developing new training programs, for working with young children with disabilities. It is believed that providing quality in-service training for teachers should be based on direct information from teachers’ suggestions as well as the relevant best practice literature.

This study found that educational preparation, collaboration and teaching experience with children with disabilities are predictors of Thai preschool teachers’ attitudes towards inclusive education for young children with disabilities. It is hoped that this study can contribute to better planning in an attempt to progress the implementation of inclusion in the Thai educational system, and thus improve the quality of training and professional development for Thai preschool teachers, as well as positive educational outcomes for young Thai children with disabilities.
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Appendix A: Number of population and sample in this study

The formula to calculate the sample size of Yamane (1973)

His formula has been set as follows;

When \( n = \text{Sample size} \quad \text{N = Population size} \)

\[ e = \text{The error of sampling on 0.05} \quad \text{so; the sample size shows as follows;} \]

\[ n = \frac{\text{N}}{1 + \text{N}e^2} \]

\[ n = \frac{2748}{1 + 2748(0.05)} \]

\[ n = \frac{2748}{1 + 2748(0.0025)} \]

\[ n = 350 \quad \text{schools} \]

Therefore, the sample size for this study is 350 schools.

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Appendix B: English version of consultation Phase materials

Information Statement for the Research Project:
The perceptions of Thai preschool teachers about inclusive education for young children with disabilities
Document Version 1 dated 17/02/10
Consultation Phase

Dear

You are invited to participate in the research project identified above which is being conducted by Mrs Sasipin Sukbunpant, as part of her PhD program under the supervision of Associate Professors Michael Arthur-Kelly and Ian Dempsey from the Centre for Special Education and Disability Studies, School of Education, University of Newcastle, Australia.

Why is the research being done?

Despite the growing trend toward inclusion for young children with disabilities in Thailand, little is known about Thai preschool teachers’ perceptions on inclusion for young children with disabilities. It is important to identify teachers’ attitudes, their educational and experiential preparation, and their collaboration with parents and staff to improve the process of inclusion. The purpose of the research is to 1) examine the needs of Thai preschool teachers in regard to the inclusion of young children with disability, 2) investigate the relationship between teachers’ personal characteristics, attitudes and needs , and 3) identify the predictors of Thai preschool teachers’ attitude regarding inclusive education for young children with a disability. The results of this study would expand current understanding of inclusion for Thai preschool children with disabilities from the perspectives and experiences of those who are involved.

Regarding planning inclusive education for young children with disabilities, evidence from the practitioners’ perception about inclusion is crucial to adequately assist any local decision-making person or policy maker in planning a successful inclusion. In addition, this study could serve as a basis for future efforts aimed at planning and improving the quality of teacher training and educational preparation of inclusive education for preschool children with disabilities. Data from this study may assist 46 teacher training colleges or “Rajabhat Universities” to plan the appropriate curriculum and sufficient training for both early childhood and special education teacher students in order to be ready to work in inclusive settings.

Finally, the results of this study will assist in improving service and appropriate support for preschool teachers. Moreover, this would deepen understanding of the support needs
and service required. As stated, this study would make teachers aware of their important roles to assist their preschool children with disabilities to success in children educational lives.

**Who can participate in the research?**
Thai preschool teachers in the public schools from 4 provinces will be invited to participate in this research. The school’s name was selected at random from the Thai Obec data website directory, and all of the preschool teachers in those schools were asked to participate.

**What choice do you have?**
Participation in this research is entirely your choice. Only those people who give their informed consent will be included in the project. Whether or not you decide to participate, your decision will not disadvantage you.
If you do decide to participate you may withdraw from the project at any time without giving a reason.

**What would you be asked to do?**
If you agree to participate, you will be asked to provide advice on the questionnaire: Thai Preschool Teachers’ Perceptions on Inclusive Education Rating Scale. You will be asked for comments on the content validity and readability of the questionnaire. This questionnaire has been developed by the researcher for Thai preschool teachers based on a literature review.
Therefore, please complete the scales and circle the numbers in front of the questions that you found confusing on your first reading. The circles are been used as an indication that items may contain ambiguous language and may need to be revised. Further, please write your suggestions for modifying those items to make them clearer.

**How much time will it take?**
It should take about 45-60 minutes to complete a questionnaire.

**What are the risks and benefits of participating?**
There are no risks associated with your participation in this study. Your recommendations will provide rich and detailed insights into the quality of the questionnaire. Furthermore, the study will reveal common themes and issues related to teachers’ attitudes and their needs regarding the inclusion in Thailand.

**How will your privacy be protected?**
To ensure your privacy, the questionnaire is anonymous and it will not be possible to identify you from your answers. You will not be asked to record your name or family name. No teacher or any school staff will be able to access information in the questionnaires. Questionnaires will be destroyed in March 2011 after the coding and checking of data. Data will be stored in a locked room in the Centre for Special Education and Disability Studies and retained for five years in accordance with the University policy. Only the researcher and two supervisors can access the data. All information will be treated confidentially.
How will the information collected be used?
Data will be reported in a thesis to be submitted for Mrs Sasipin Sukbunpant PhD’s degree. Individual participants will not be identified in any reports arising from the project. It is expected that participants will be offered a summary of the results written in Thai and English languages.

What do you need to do to participate?
Please read this Information Statement and be sure you understand its contents before you agree to participate. If there is anything you do not understand, or you have questions, please contact the researcher.
If you would like to participate, please complete and return the attached anonymous questionnaire in the reply paid envelope provided. This will be taken as your informed consent to participate.

Further information
If you would like further information please contact Associate Professor Michael Arthur-Kelly, Faculty of Education, The University of Newcastle, University Drive Callaghan NSW 2308, Phone: (02) 4921 6284, EMAIL: Michael.Arthur-Kelly@newcastle.edu.au.

Thank you for considering this invitation.

Yours sincerely,

A/Prof Michael Arthur-Kelly                    Mrs Sasipin Sukbunpant
A/Prof Ian Dempsey                            PhD student
Supervisors

17th Feb, 2010

Complaints about this research
This project has been approved by the University’s Human Research Ethics Committee, Approval No. H-2010-1017

Should you have concerns about your rights as a participant in this research, or you have a complaint about the manner in which the research is conducted, you may contact the researcher, Mrs Sasipin Sukbunpant, Faculty of Education, Rajabhat Chiangmai University, 66+81+7162369 or Assistant Professor Yeamluk Udakarn, Dean of Faculty of Education, Rajabhat Chiangmai University, 66+53+885500, if an independent person is preferred, to the Human Research Ethics Officer, Research Office, The Chancellery, The University of Newcastle, University Drive Callaghan NSW 2308, telephone +61+249216333, email Human-Ethics@newcastle.edu.au
Appendix C: Thai version of consultation Phase materials

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เอกสารข้างต้นส่งมาสำหรับโครงการวิจัย:
การรับรู้ของครูอนุบาลไทยเกี่ยวกับการเรียนรวมสำหรับเด็กปฐมวัยที่มีความต้องการพิเศษ

เอกสาร ครั้งที่ 1 วันที่ 17/02/10
ระยะเวลาเริ่มนับถ้วนหมายถูก

เรียน

ขงเบ้งได้รับเอกสารชี้แจงข้อมูลสำหรับโครงการวิจัยภายใต้หัวข้อที่ระบุไว้ด้านบนซึ่งนั่นคือ:

วัตถุประสงค์ของการวิจัย

ในขณะที่มีความก้าวหน้าในการพัฒนาการเรียนรวมสำหรับเด็กที่มีความต้องการพิเศษในประเทศไทย
การศึกษาวิจัยและรายงานเกี่ยวกับการรับรู้ของครูอนุบาลที่มีความต้องการเรียนรวมนั้นยังมีจานวนน้อยและไม่เพียงพอ
ซึ่งทัศนคติ ความต้องการ การเตรียมการด้านความรู้และประสบการณ์ตลอดจนการทำงานร่วมกัน
ในการทำงานร่วมกับผู้ปกครองของเด็กนับเป็นสิ่งสำคัญและจำเป็นในการพัฒนาการเรียนรวมสำหรับเด็กปฐมวัยให้ประสบความสำเร็จในอนาคต

งานวิจัยนี้มีวัตถุประสงค์เพื่อ 1) เพื่อตรวจสอบความต้องการของครูอนุบาลไทยในการจัดการเรียนรวมสำหรับเด็กปฐมวัย
ที่มีความต้องการพิเศษ 2) กำหนดความเข้ารหัสระหว่างความต้องการและทักษะดีที่ควรให้กับเด็กในระดับอนุบาล
และ 3) ระบายตัวแปรที่ที่ทำให้ครูทุกคนจัดการเรียนรวมสำหรับเด็กปฐมวัยที่มีความต้องการพิเศษ
เพื่อดำเนินการศึกษาด้วยวิธีการวิเคราะห์ความเข้าใจเกี่ยวกับการจัดการศึกษาเรียนรวมที่เหมาะสม
สำหรับเด็กปฐมวัยที่มีความต้องการพิเศษจากประสบการณ์และความคิดเห็นจากครูที่สอนในระดับอนุบาล
ที่เกี่ยวข้องกับเด็กโดยตรง

พิมพ์โดย มหาวิทยาลัยนิวคาสเซิล ประเทศออสเตรเลีย
ผลของการวิจัยยังเป็นข้อมูลการจัดทำแผนงานเพื่อส่งเสริมการเรียนรวมสำหรับเด็กที่มีความต้องการพิเศษในระดับปฐมวัยสำหรับวัยรุ่นที่มีข้อมูลสำหรับวางแผนและพัฒนาคุณภาพการเรียนรู้ในเรื่องของจัดอบรมและจัดเตรียมหลักสูตรการเรียนสำหรับนักศึกษาครุศาสตร์การศึกษาพิเศษและสาขาวิชาการศึกษาพิเศษในมหาวิทยาลัยอัตราส่วนต่างๆในการได้รับความรู้และประสบการณ์เพื่อกำกับการจัดทำแผนงานเรื่องสำหรับเด็กที่มีความต้องการพิเศษ เพื่อให้มีความพร้อมอย่างเพียงพอผลการศึกษานี้อาจช่วยให้ครูอนุบาลไทยได้รับการบริการและการให้การสนับสนุนที่ตรงกับความต้องการของครูอย่างแท้จริงและยังเป็นการช่วยให้เด็กที่มีความต้องการพิเศษมีความชัวร์ในการมีส่วนพันธะรับผิดชอบที่มีความต้องการพิเศษในการให้ประสบความสำเร็จในการศึกษาตามศักยภาพของตนเองได้ดี

ผู้เข้าร่วมโครงการวิจัย
กรุณาระบุชื่อโรงเรียนที่สอนในระดับชั้นอนุบาลของท่านที่เข้าร่วมโครงการศึกษานี้ รายชื่อของโรงเรียนจากเป็นการคัดเลือกแบบสุ่มจากฐานข้อมูลออนไลน์ของสำนักงานคณะกรรมการการศึกษาขั้นพื้นฐาน

ทางเลือกของท่าน
ท่านมีสิทธิ์เลือกที่จะเข้าร่วมหรือไม่เข้าร่วมในโครงการวิจัยครั้งนี้ ไม่ว่าท่านจะตัดสินใจจะเข้าร่วมโครงการวิจัยหรือไม่การตัดสินใจจะไม่ส่งผลต่อข้อมูลที่ท่านให้ผ่านแบบสอบถาม ท่านมีสิทธิ์เลือกที่จะเข้าร่วมโครงการหรือไม่การตัดสินใจที่จะเข้าร่วมโครงการไม่ได้เกี่ยวกับการตัดสินใจของท่านเพื่อการตัดสินใจของท่านที่จะเข้าร่วมโครงการวิจัย

การมีส่วนร่วมของท่าน
เอกสารฉบับนี้ส่งไปให้ท่านเพื่อขอความร่วมมือจากท่านในการเข้าร่วมโครงการวิจัยนี้ หากท่านเห็นด้วยผู้วิจัยขอให้ท่านพิจารณาเกี่ยวกับสองคำถามในแบบสอบถาม: การเข้าร่วมโครงการวิจัยเกี่ยวกับการเรียนรู้ ซึ่งมุ่งพัฒนาโดยมีการวิจัยและจากเอกสารงานวิจัยที่มีการจัดทำ

การมีส่วนร่วมของท่าน
การมีส่วนร่วมของท่านในโครงการวิจัย

ระยะเวลาในการดำเนินการ
ท่านอาจใช้เวลาประมาณ 30 ถึง 45 นาที เพื่อพิจารณาแบบสอบถาม

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ท่านอาจใช้เวลาประมาณ 30 ถึง 45 นาที เพื่อพิจารณาแบบสอบถาม

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ความลับและความเป็นส่วนตัว
เพื่อรักษาความลับและความเป็นส่วนตัวของท่าน ชื่อหรือนามสกุลของท่านจะไม่ถูกระบุ
ผู้วิจัยไม่ยุบลักษณ์ให้บุคคลภายนอกของหน่วยงานทางข้อผูกข้อมูลในแบบสอบถาม แบบสอบถามทั้งหมด
จะถูกทำลายในเดือนมีนาคม พ.ศ.2554 หลังจากที่ผู้วิจัยได้บันทึกและตรวจสอบข้อมูลเรียบร้อยแล้ว
ข้อมูลที่มีจะถูกเก็บไว้ในห้องที่มีผู้ดูแลตลอดเวลา ในส่วนของการศึกษาพิเศษและการศึกษานิพนธ์
มหาวิทยาลัยนิวคาสเซิล ประเทศออสเตรเลีย ข้อมูลเหล่านี้จะถูกเก็บไว้เป็นเวลา 5 ปี
ซึ่งเป็นไปตามนโยบายของมหาวิทยาลัย ผู้ที่สามารถเข้าถึงข้อมูลเพียงผู้วิจัยและอาจารย์ที่ปรึกษานั้น
ข้อมูลแต่ละข้อจะถูกเก็บไว้เป็นความลับ

การเก็บรวบรวมข้อมูล
ข้อมูลที่ได้จะถูกนำไปใช้เป็นส่วนหนึ่งของวิทยานิพนธ์ในการศึกษาระดับปริญญาเอกของนางศศิพินต์ สุขบุญพันธ์
ต่อมาผู้วิจัยจะนำข้อมูลที่รวบรวมเป็นส่วนหนึ่งไปผังรายงานวิจัยสำหรับการประชุม
และการตีพิมพ์เผยแพร่รายงานจากโครงการที่ไม่ปรากฏชื่อผู้เข้าร่วมโครงการ ดังนั้น ผู้เข้าร่วมแต่ละคน
จะไม่ได้รู้ว่าใครเข้าร่วมโครงการ ที่จะนำไปผังรายงานวิจัยนี้ เมื่อเสร็จสิ้นการวิจัยผลสรุปของการวิจัยจะถูกเสนอ
แก่ผู้เข้าร่วมโครงการวิจัยทุกท่าน

ข้อมูลเพิ่มเติม
ถ้าท่านมีความประสงค์ที่จะขอทราบข้อมูลเพิ่มเติมในโครงการนี้ กรุณาติดต่อ
รองศาสตราจารย์ไมเคิล อาเธอร์เคลลี ภาควิชาครุศาสตร์ คณะศึกษาศาสตร์และศิลปะ มหาวิทยาลัยนิวคาสเซิล รัฐนิวเซาเวลส์ ประเทศออสเตรเลีย
รหัสไปรษณีย์ 2308 โทรศัพท์ +61 2 4921 6284 อีเมล Michael.Arthur-Kelly@newcastle.edu.au
ขอขอบคุณทุกท่านที่เข้าร่วมโครงการนี้
ขอแสดงความนับถือ

รองศาสตราจารย์ ไมเคิล อาเธอร์เคลลี
นางศศิพินต์ สุขบุญพันธ์

อาจารย์ที่ปรึกษา

17 กุมภาพันธ์ 2553
โครงการวิจัยได้รับการอนุมัติโดยคณะกรรมการจริยธรรมมนุษย์ของมหาวิทยาลัย หมายเลขอนุมัติ H- 2010-1017
หากท่านมีข้อสงสัยเกี่ยวกับสิทธิ์ของท่าน ท่านสามารถติดต่อที่ 053 885500 หรือ
ผู้ช่วยศาสตราจารย์เยี่ยมลักษณ์ อุดาการ คณบดี มหาวิทยาลัยราชภัฏเชียงใหม่ โทรศัพท์ 053 412328
หากท่านต้องการติดต่อสำนักงานวิจัย ท่านสามารถติดต่อนักศึกษาวิจัยจากห้องงานวิจัยที่ร้านเครื่องอุปกรณ์
มหาวิทยาลัยนิวคาสเซิล University Drive Callaghan NSW 2308 โทรศัพท์ +61 2 4921 6333 อีเมล Human-Ethics@newcastle.edu.au
Dear Preschool teacher,

You are invited to participate in the research project identified above which is being conducted by Mrs Sasipin Sukbunpant, as part of her PhD program under the supervision of Associate Professors Michael Arthur-Kelly and Ian Dempsey from the Centre for Special Education and Disability Studies, School of Education, University of Newcastle, Australia.

This research project consists of a survey and an interview phase.

**Why is the research being done?**

Despite the growing trend toward inclusion for young children with disabilities in Thailand, little is known about Thai preschool teachers’ perceptions on inclusion for young children with disabilities. It is important to identify teachers’ attitudes, their educational and experiential preparation, and their collaboration with parents and staff to improve the process of inclusion.

This study could assist in planning and improving the quality of teacher training and educational preparation of inclusive education for preschool children with disabilities. Data from this study may assist 46 teacher training colleges or “Rajabhat Universities” to plan the appropriate curriculum and sufficient training for both early childhood and special education teacher students in order to be ready to work in inclusive settings. Finally, the results of this study will assist in improving service and appropriate support for preschool teachers.

**Who can participate in the research?**

Thai preschool teachers in public schools from 4 provinces will be invited to participate in this research. The school’s name was selected at random from the Thai Obec data
website directory, and all of the preschool teachers in those schools will be asked to participate.

**What choice do you have?**
Participation in this research is entirely your choice. Only those people who give their informed consent will be included in the project. Whether or not you decide to participate, your decision will not disadvantage you. If you do decide to participate you may withdraw from the project at any time without giving a reason.

**What would you be asked to do?**

*Survey Phase*
If you agree to participate, you will be asked to complete the questionnaire: Thai Preschool Teachers’ Perceptions on Inclusive Education Rating Scale. The questionnaire requests some information about you and the children in your classroom, your attitudes to inclusive education, your interaction with other staff and parents, and your training needs. It should take about 30-45 minutes to complete the questionnaire.

*Interview Phase*
If you complete the questionnaire, it will help me if you also agree to take part in an interview and have it recorded. The interview will focus on your perceptions of inclusive education for young children with disabilities. It will take about 45 minutes to complete the interview and it can be done at a time and place that is convenient to you.

**What are the risks and benefits of participating?**
There are no risks associated with your participation in this study.

**How will your privacy be protected?**
The questionnaire can be completed and returned anonymously and only the research team will have access to the research data.

Interview data from participants will be de-identified and any use of this data in publications will be done in such a way that the identity of participants and schools cannot be inferred. Further, any information collected by the researchers which might identify you will be stored securely and only accessed by the researcher and her supervisors. You will be able to review the recording and transcripts to edit or erase your contribution.

**How will the information collected be used?**
Data will be reported in a thesis to be submitted for Mrs Sasipin Sukbunpant PhD degree in the School of Education at the University of Newcastle. Moreover, it will be incorporated into research papers for presentation at conferences and in journals.

All reports, papers and publications that arise out of the study will be based on the analysis of de-identified data, such that the reporting of results will be done in a way that maintains the anonymity of participants. Therefore, individual participants will not be identified in any reports arising from the project. Further, a summary of the results written in Thai and English language study will be offered to all participants.
What do you need to do to participate?

Please read this Information Statement and be sure you understand its contents before you agree to participate. If there is anything you do not understand, or you have questions, please contact the researcher.

If you would like to participate only in the survey phase, please complete and return the attached anonymous questionnaire in the reply paid envelope provided. This will be taken as your informed consent to participate. If you would like to participate both survey phase and interview phase, please complete the attached anonymous questionnaire and the attached Consent Form and return them in the reply paid envelope. I will then contact you by phone to arrange a time convenient to you for the interview.

Further information

If you would like further information please contact Associate Professor Michael Arthur-Kelly, Faculty of Education, The University of Newcastle, University Drive Callaghan NSW 2308, Phone: (02) 4921 6284, EMAIL: Michael.Arthur-Kelly@newcastle.edu.au.

Thank you for considering this invitation.

Yours sincerely,

A/Prof Michael Arthur-Kelly
A/Prof Ian Dempsey

Supervisors
17th Feb, 2010

Complaints about this research

This project has been approved by the University’s Human Research Ethics Committee, Approval No. H-2010-1017

Should you have concerns about your rights as a participant in this research, or you have a complaint about the manner in which the research is conducted, you may contact the researcher, Mrs Sasipin Sukbunpant, Faculty of Education, Rajabhat Chaingmai University, 66+81+7162369 or Assistant Professor Yeamluk Udakarn, Dean of Faculty of Education, Rajabhat Chaingmai University, 66+53+885500, if an independent person is preferred, to the Human Research Ethics Officer, Research Office, The Chancellery, The University of Newcastle, University Drive Callaghan NSW 2308, telephone +61+249216333, email Human-Ethics@newcastle.edu.au
Thai Preschool Teachers’ Perceptions on Inclusive Education

Survey Phase

Research Team

Mrs Sasipin Sukbunpant
Associate Professor Michael Arthur-Kelly
Associate Professor Ian Dempsey

Contact details

MRS SASIPIN SUKBUNPANT
Centre for Special Education and Disability Studies
School of Education
Faculty of Education and Arts
The University of Newcastle NSW 2308
Phone: +61 2 4921 6285
Fax: +61 2 4921 6939

Or
Faculty of Education, Rajabhat Chiangmai University
Chiangmai 53000
Phone: 053 412328

EMAIL: e9602050t@uon.edu.au
Section A: demographic information  Please tick/check the box that most apply to you

1) Your gender:  
1.1 □ Male  
1.2 □ Female

2) Your age:  
2.1 □ 20-30 years  
2.2 □ 31-40 years  
2.3 □ 41-50 years  
2.4 □ 51-60 years

3) Your school province:  
3.1 □ Chiangmai  
3.2 □ Chiangrai  
3.3 □ Lampang  
3.4 □ Lamphun

4) Total of preschool classroom in your school  
4.1 □ 1 classroom  
4.2 □ 2-3 classrooms  
4.3 □ 4 classrooms or more

5) Your highest educational level:  
5.1 □ Diploma or equivalent  
5.2 □ Bachelor  
5.3 □ Master or higher

6) Do you have a child or children with identified disabilities in my classroom?  
6.1 □ Yes  please go to question 7  
6.2 □ No  please go to question 9

7) Please specify children with disabilities in yours class and the number of children  
7.1 □ Children with Visual Impairments  ____ children  
7.2 □ Children with Hearing Impairments  ____ children  
7.3 □ Children with Intellectual Disabilities  ____ children  
7.4 □ Children with Physical Disabilities/Health Impairments  ____ children  
7.5 □ Children with Learning Disabilities  ____ children  
7.6 □ Children with Speech and Language Disorder  ____ children  
7.7 □ Children with Behavioural Emotional and Social disorder  ____ children  
7.8 □ Children with Autism  ____ children  
7.9 □ Children with Multiple Disabilities  ____ children

8) Total number of children with identified disabilities in your class  ____ children

9) Type of class that you teach:  
9.1 □ Teaching children in 3 years old class (pre-kindergarten)  
9.2 □ Teaching children in 4-5 years old class (kindergarten I)  
9.3 □ Teaching children in 5-6 years old class (kindergarten II)

10) Your general teaching experience:  
10.1 □ less than 2 years  
10.2 □ 2 to 5 years  
10.3 □ 6 to 10 years  
10.4 □ 11 to 15 years  
10.5 □ 15-20 years  
10.6 □ more than 20 years

11) Your teaching experience with children with disabilities:  
11.1 □ never  
11.2 □ less than 2 years  
11.3 □ 2 to 5 years  
11.4 □ more than 6 years

12) Your total hours of training in special education in last 2 years:  
12.1 □ none  
12.2 □ less than 10 hours  
12.3 □ 1 to 15 hours  
12.4 □ 16 to 20 hours  
12.5 □ more than 20 hours

13) Do you have a certificate of special education training?  
13.1 □ yes  
13.2 □ no
Section B: Teachers personal attitudes regarding the inclusion for preschool children with disabilities

Directions: Please answer the following items by circling the number that most closely reflects your opinion 1=strongly disagree; 2= disagree; 3= agree; 4= strongly agree.

<table>
<thead>
<tr>
<th></th>
<th>strongly disagree</th>
<th>disagree</th>
<th>agree</th>
<th>strongly agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Inclusion represents a positive change in the education system</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>2. Children with disabilities should receive services in early childhood settings alongside their same-age peers</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>3. I can manage my class easier when children have mild disabilities than when children have severe disabilities</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>4. Children with severe disabilities should be included in the regular classroom</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>5. I prefer a special school to an inclusive class because children with a disability are more likely to improve their academic skills there</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>6. Children with disabilities are likely to exhibit more challenging behaviours than their normal peers in an inclusive classroom setting</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>7. It is difficult to manage a classroom that contains both children with disabilities and children without disabilities</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>8. Inclusion causes children with disabilities to disrupt other children’s learning</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>9. It is easier for me to teach in a small inclusive class</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>10. Teachers need to give most of their attention to children with disabilities if these children are included in the regular class</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>11. Training about inclusion is important for preschool teachers to teach young children with a disability</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>12. Preschool teachers should receive in service training before working with children with a disability in the regular classroom.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>13. I have enough training about teaching children with disabilities</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>14. I need specific rather than general training on inclusion</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>15. Training can enrich my knowledge to manage the inclusive classroom</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>16. I am concerned about my workload because of the implementation of inclusion</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>
**Section C: Educational preparation**

Directions: Please answer the following items by circling the number that most closely reflects your opinion 1=strongly disagree; 2= disagree; 3= agree; 4= strongly agree.

<p>| | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1. I know how and where to seek information about including children with disabilities in the classroom</td>
<td>strongly disagree</td>
<td>disagree</td>
<td>agree</td>
<td>strongly agree</td>
</tr>
<tr>
<td>2. It is important to be able to identify a child with disability as soon as possible</td>
<td>strongly disagree</td>
<td>disagree</td>
<td>agree</td>
<td>strongly agree</td>
</tr>
<tr>
<td>3. The strategies and adaptations necessary to assist children with a disability are easy to prepare and implement</td>
<td>strongly disagree</td>
<td>disagree</td>
<td>agree</td>
<td>strongly agree</td>
</tr>
<tr>
<td>4. I am aware of ways to effectively assess the skills of children with disabilities (e.g., complete data sheets, prepare progress reports highlighting strengths and needs)</td>
<td>strongly disagree</td>
<td>disagree</td>
<td>agree</td>
<td>strongly agree</td>
</tr>
<tr>
<td>5. I can effectively observe children to learn about their developmental skills and needs (e.g., observe at various times and during different activities, be objective and specific)</td>
<td>strongly disagree</td>
<td>disagree</td>
<td>agree</td>
<td>strongly agree</td>
</tr>
<tr>
<td>6. I know how to develop an Individualized Education Plan (IEP)</td>
<td>strongly disagree</td>
<td>disagree</td>
<td>agree</td>
<td>strongly agree</td>
</tr>
<tr>
<td>7. I understand how to implement IEP goals and objectives into an existing curriculum</td>
<td>strongly disagree</td>
<td>disagree</td>
<td>agree</td>
<td>strongly agree</td>
</tr>
<tr>
<td>8. I am able to implement positive guidance approaches to encourage appropriate behaviour with all children, including children with disabilities</td>
<td>strongly disagree</td>
<td>disagree</td>
<td>agree</td>
<td>strongly agree</td>
</tr>
<tr>
<td>9. I can use strategies to encourage communication skills with children with disabilities</td>
<td>strongly disagree</td>
<td>disagree</td>
<td>agree</td>
<td>strongly agree</td>
</tr>
<tr>
<td>10. I am familiar with alternative forms of communication and their use (e.g., sign language, picture system, assistive technology).</td>
<td>strongly disagree</td>
<td>disagree</td>
<td>agree</td>
<td>strongly agree</td>
</tr>
<tr>
<td>11. I prefer using my usual teaching methods and style when children with disabilities are in my classroom</td>
<td>strongly disagree</td>
<td>disagree</td>
<td>agree</td>
<td>strongly agree</td>
</tr>
<tr>
<td>12. I am able to adapt learning activities for children with disabilities</td>
<td>strongly disagree</td>
<td>disagree</td>
<td>agree</td>
<td>strongly agree</td>
</tr>
<tr>
<td>13. I need continuous in-service professional development to meet the needs of children with disabilities</td>
<td>strongly disagree</td>
<td>disagree</td>
<td>agree</td>
<td>strongly agree</td>
</tr>
<tr>
<td>14. I apply my knowledge on special needs when teaching children with disabilities</td>
<td>strongly disagree</td>
<td>disagree</td>
<td>agree</td>
<td>strongly agree</td>
</tr>
<tr>
<td>15. I am able to put what I learnt about inclusion into practice</td>
<td>strongly disagree</td>
<td>disagree</td>
<td>agree</td>
<td>strongly agree</td>
</tr>
</tbody>
</table>
**Section D: Process of collaboration**
Directions: Please answer the following items by circling the number that most closely reflects your opinion 1=strongly disagree; 2= disagree; 3= agree; 4=; strongly agree.

<p>| | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1. My personal philosophy and goals are in agreement those of the school</td>
<td>strongly disagree</td>
<td>disagree</td>
<td>agree</td>
<td>strongly agree</td>
</tr>
<tr>
<td>2. I know how to engage in collaboration and problem solving with parents and carers</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>3. The school environment provides a positive working environment for staff</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>4. I am aware of the service provided by related professionals (e.g., speech therapist, physiotherapist and child psychologist)</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>5. I am able to work effectively with professionals from other disciplines (e.g., speech therapist, physiotherapist and child psychologist)</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>6. I have an opportunity to consult and report about young children with disabilities with my school principal or supervisor</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>7. The school staff has a clear understanding of their roles and responsibilities about the inclusion</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>8. I can rely on colleagues for support and assistance about inclusion when needed</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>9. I make time to meet and discuss with my colleagues and other staff about the progress of young children with disabilities</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>10. Parents of children with disabilities should be involved in their children’s development</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>11. I can communicate with parents of young children with disabilities to discuss their child at any time</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>12. Collaborative working is significant for inclusion</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>13. Collaborative working takes time and makes my work complicated</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>14. It is not necessary for parents of children without disabilities to be involved in inclusion</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>15. I can ask for other support about the inclusion from my local community</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Section E: Please indicate your personal training needs related to working with young children with disabilities

Directions: Please answer the following items by circling the number that most closely reflects your opinion:
1 = no training need  2 = little training need  3 = moderate training need  4 = critical training need.

<table>
<thead>
<tr>
<th></th>
<th>no training need</th>
<th>little training need</th>
<th>moderate training need</th>
<th>critical training need</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Child assessment</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>2. Developing IEP</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>3. Behavior management</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>4. Learning adaptation</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>5. Partnerships with families and professionals</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>6. Adaptation materials</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>7. Introduction to special education and children with disabilities</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>8. Environmental consideration</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>

Other topic of critical training need please specify ______________________

Section F: Please indicate your personal training options

Directions: Please answer the following items by circling the number that most closely reflects your opinion:
1 = no training need  2 = little training need  3 = moderate training need  4 = critical training need.

<table>
<thead>
<tr>
<th></th>
<th>no training need</th>
<th>little training need</th>
<th>critical training need</th>
<th>critical training need</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. On-site workshop or in-service</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>2. Off-site workshop or in-service</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>3. Individual consultation/technical assistance</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>4. Training with a small group</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>5. Review resources (e.g., videos, websites, articles)</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>6. College/University courses</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>

Other critical training option please specify ______________________

Thank you very much
เรียน ครูอนุบาลทุกท่าน

ขออนุมัติรับเรื่องว่าจะมีการวิจัยเกี่ยวกับการรับรู้ของครูอนุบาลไทยเกี่ยวกับการเรียนรวมสําหรับเด็กปฐมวัยที่มีความต้องการพิเศษ ครั้งที่ 1 วันที่ 17/02/10

เรียน ครูอนุบาลทุกท่าน

จดหมายฉบับนี้ส่งมาเพื่อเรียนเชิญเข้าร่วมโครงการวิจัยภายใต้หัวข้อที่ระบุไว้ข้างต้นซึ่งกำลังดำเนินการโดย

นางศศิพินต์ สุขบุญพันธ์ ซึ่งเป็นนักศึกษาปริญญาเอกภายใต้การดูแลของ รองศาสตราจารย์ ไมเคิล อาเธอร์เคลลีและ รองศาสตราจารย์ เอียน เดมซี จากศูนย์เพื่อการศึกษาพิเศษและการศึกษาคนพิการ คณะศึกษาศาสตร์และศิลปะ มหาวิทยาลัยนิวคาสเซิล ประเทศออสเตรเลีย

งบประมาณนี้ประกอบด้วยระยะสำรวจและระยะสัมภาษณ์

วัตถุประสงค์ของการวิจัย

ในขณะที่มีความก้าวหน้าในการพัฒนาการเรียนรวมสําหรับเด็กที่มีความต้องการพิเศษในประเทศไทย การศึกษาวิจัยและรายงานเกี่ยวกับการรับรู้ของครูอนุบาลที่มีคุณลักษณะของเด็กที่มีความต้องการพิเศษยังมีจํานวนน้อยและไม่เพียงพอ ซึ่งทัศนคติ ความต้องการ การเตรียมความพร้อมและประสบการณ์ ตลอดจนการสร้างความร่วมมือในการทำงานร่วมกับผู้ปกครองของครูนับเป็นสิ่งสำคัญและจําเป็นในการพัฒนาการเรียนรวมสําหรับเด็กที่มีความต้องการพิเศษ ให้ประสบความสำเร็จในอนาคต

ผลการศึกษานี้จะช่วยในการวางแผนและพัฒนาคุณภาพครูประจําการในเรื่องของการศึกษาอบรมและจัดเตรียมหลักสูตรการเรียนสำหรับนักศึกษาครูสาขาการศึกษาพิเศษในมหาวิทยาลัยราชการต่างๆ ในการได้รับความรู้และประสบการณ์เกี่ยวกับการจัดการศึกษาสำหรับเด็กที่มีความต้องการพิเศษ เพื่อให้ครูมีความพร้อมอย่างเพียงพอในการทำงานในโรงเรียนที่มีการจัดการเรียนรวม ดังนั้น

อาจช่วยให้ครูอนุบาลไทยได้รับการบริการและการให้การสนับสนุนที่ตรงกับความต้องการของครูอนุบาลที่มีความต้องการพิเศษ

ผู้เข้าร่วมโครงการวิจัย

ครูที่สอนในระดับชั้นอนุบาลของเรือน 4 จังหวัดภาคเหนือจะถูกเชิญชวนให้เข้าร่วมในการศึกษานี้

รายชื่อของโรงเรียนจากในกระดาษเล่มสําหรับครูตามฐานข้อมูลออนไลน์ของสำนักงานคณะกรรมการการศึกษาขั้นพื้นฐาน
ทางเลือกของท่าน
ท่านมีสิทธิ์ตัดสินใจที่จะเข้าร่วมหรือไม่เข้าร่วมในโครงการวิจัยครั้งนี้ ไม่ว่าท่านจะตัดสินใจที่จะเข้าร่วมโครงการวิจัยหรือไม่ การตัดสินใจจะไม่เกิดผลกระทบต่อท่าน ถ้าท่านตัดสินใจที่จะเข้าร่วมโครงการ ท่านมีสิทธิ์ที่จะถอนตัวจากโครงการได้ทุกเมื่อโดยไม่จำเป็นต้องให้เหตุผลและท่านมีสิทธิ์ที่จะเพิกถอนข้อมูลใดๆที่ท่านได้ให้ไว้ในการวิจัยนี้

การมีส่วนร่วมของท่าน

ระยะเวลา
เอกสารฉบับนี้ส่งถึงท่านเพื่อขอความร่วมมือจากท่านเข้าร่วมในการวิจัยครั้งนี้ หากท่านเห็นด้วยผู้วิจัยขอให้ท่านตอบแบบสอบถาม: การรับรู้ของครูอนุบาลไทยเกี่ยวกับการเรียนรวมซึ่งมีข้อคำถามเกี่ยวกับข้อมูลส่วนบุคคลของท่านและเพื่อที่จะเก็บ
ข้อมูลคำถามเกี่ยวกับทัศนคติของท่านต่อการเรียนรวม ปฏิสัมพันธ์ของท่านต่อเพื่อนร่วมงานและผู้ปกครองและความต้องการในการอบรมของท่าน ซึ่งท่านอาจใช้เวลาประมาณ 30 ถึง 45 นาที เพื่อตอบแบบสอบถาม

ระยะสัมภาษณ์
ถ้าท่านได้ตอบแบบสอบถามแล้ว ได้โปรดส่งแบบสอบถามให้สิ้นสุดในการสัมภาษณ์ที่ก่อนกระบวนการที่ก่อนที่จะมีส่วนร่วมในโครงการนี้ท่านจะได้รับเชิญให้เข้าร่วมในกระบวนการที่เกิดขึ้นเพื่อวิเคราะห์และทางการกับที่เกิดขึ้น
การสัมภาษณ์จะดำเนินการตามวันเวลาและสถานที่ที่ท่านสะดวก การสัมภาษณ์อาจใช้เวลาประมาณ 45 นาที

ความเสี่ยงและประโยชน์ในการเข้าร่วมโครงการวิจัย
ท่านจะไม่ได้รับความเสี่ยงใดๆจากการเข้าร่วมในโครงการวิจัยนี้

ความตกลงและการเป็นส่วนหนึ่ง
ในการตอบแบบสอบถามที่ส่งไปให้ท่านท่านต้องตอบแบบสอบถามข้อมูลส่วนบุคคลเกี่ยวกับการเรียนรวมซึ่งมีข้อคำถามเกี่ยวกับข้อมูลส่วนบุคคลของท่านและเพื่อที่จะเก็บ
ข้อมูลคำถามเกี่ยวกับทัศนคติของท่านต่อการเรียนรวม ปฏิสัมพันธ์ของท่านต่อเพื่อนร่วมงานและผู้ปกครองและความต้องการในการอบรมของท่าน ซึ่งท่านอาจใช้เวลาประมาณ 30 ถึง 45 นาที เพื่อตอบแบบสอบถาม

ผลสรุปของการวิจัยจะถูกเสนอแก่ทุกท่านที่เข้าร่วมโครงการวิจัยทุกท่าน
สิ่งที่ท่านต้องทำในการเข้าร่วมโครงการ
กรุณาอ่านเอกสารชี้แจงข้อมูลสำหรับผู้เข้าร่วมโครงการและทำความเข้าใจก่อนที่ท่านจะตัดสินใจยินยอมในการเข้าร่วม ถ้าท่านมีข้อสงสัย กรุณาติดต่อผู้วิจัย

ถ้าท่านมีความประสงค์ที่จะเข้าร่วมในระยะสำรวจ
กรุณาตอบแบบสอบถามให้ครบถ้วนและใส่ซองจดหมายที่แนบมา
ชื่อและสกุลของท่านให้ความยินยอมในการเข้าร่วมการวิจัยครั้งนี้

ถ้าท่านมีความประสงค์ที่จะเข้าร่วมในระยะสำรวจและระยะสัมภาษณ์ กรุณาตอบแบบสอบถามพร้อมกับกรอกหนังสือให้ความยินยอมในกรณีสัมภาษณ์ (ที่อยู่ด้านหลังของแบบสอบถาม) ให้ครบถ้วนและใส่ซองจดหมายที่แนบมา จากนั้นผู้วิจัยจะติดต่อกับท่านทางโทรศัพท์เพื่อนัดหมายวันเวลาที่สะดวกในการดำเนินการสัมภาษณ์

ข้อมูลเพิ่มเติม
ถ้าท่านมีความประสงค์ที่จะขอสอบถามข้อมูลเพิ่มเติมเกี่ยวกับโครงการวิจัยนี้ กรุณาติดต่อ รองศาสตราจารย์ไมเคิล อารเธอร์ เคลลี ภาควิชาครุศาสตร์ คณะศึกษาศาสตร์และศิลปะ มหาวิทยาลัยนิวคาสเซิล รัฐนิวเซาเวลส์ ประเทศออสเตรเลีย รหัสไปรษณีย์ 2308 โทรศัพท์ +61 2 4921 6284 อีเมล Michael.Arthur-Kelly@newcastle.edu.au
ขอขอบคุณสำหรับการพิจารณาค้าเชิญเข้าร่วมโครงการวิจัยนี้

ขอแสดงความนับถือ
รองศาสตราจารย์ไมเคิล อารเธอร์ เคลลี นางศศิพินต์ สุขบุญพันธ์
รองศาสตราจารย์เอียน เดมซี นักศึกษาปริญญาเอก
อาจารย์ที่ปรึกษา

17 กุมภาพันธ์ 2553

โครงการวิจัยได้รับการอนุมัติโดยคณะกรรมการจริยธรรมมนุษย์ของมหาวิทยาลัย หมายเลขอนุมัติ H- 2010-1017 หากท่านมีข้อสงสัยเกี่ยวกับสิทธิของท่าน โปรดติดต่อ รองศาสตราจารย์ไมเคิล อารเธอร์ เคลลี ภาควิชาครุศาสตร์ คณะศึกษาศาสตร์และศิลปะ มหาวิทยาลัยนิวคาสเซิล รัฐนิวเซาเวลส์ ประเทศออสเตรเลีย รหัสไปรษณีย์ 2308 โทรศัพท์ +61 2 4921 6284 อีเมล Michael.Arthur-Kelly@newcastle.edu.au หรือผู้ช่วยศาสตราจารย์เยี่ยมลักษณ์ อุดาการ คณบดีคณะครุศาสตร์ มหาวิทยาลัยราชภัฏเชียงใหม่ โทรศัพท์ 053 885500 สำนักงานวิจัย สํานักอธิการบดี มหาวิทยาลัยนิวคาสเซิล University Drive Callaghan NSW 2308 โทรศัพท์ +61 2 4921 6333 อีเมล Human-Ethics@newcastle.edu.au
การรับรู้ของครูอนุบาลไทยเกี่ยวกับการเรียนรวมสำหรับเด็กปฐมวัยที่มีความต้องการพิเศษ

ระยะสั้นกวจ

คณะผู้วิจัย

นางศศิพินต์ สุขบุญพันธ์ รองศาสตราจารย์ไมเคิล เคลลี รองศาสตราจารย์เอียน เดมซี

สถานที่ติดต่อ

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คณะครุศาสตร์ มหาวิทยาลัยราชภัฏเชียงใหม่ อ้านบุรีเมือง จังหวัดเชียงใหม่ 53000 โทรศัพท์: 053 412328 อีเมล: c9602050@uon.edu.au
แบบสอบถาม “การรับรู้ของครูอนุบาลไทยเกี่ยวกับการเรียนรวม”

ตอนที่ 1 : ข้อมูลส่วนตัวของผู้ตอบแบบสอบถาม โปรดทำเครื่องหมาย / ในช่องที่เห็นว่าเหมาะสมกับท่าน

1) เพศของท่าน  1.1 □ ชาย  1.2 □ หญิง

2) อายุ  2.1 □ 20-30 ปี  2.2 □ 31-40 ปี  2.3 □ 41-50 ปี  2.4 □ 51-60 ปี

3) จังหวัดของโรงเรียนที่ท่านปฏิบัติงานอยู่  3.1 □ เชียงใหม่  3.2 □ เชียงราย  3.3 □ ลำปาง  3.4 □ ลำพูน

4) จำนวนห้องเรียนอนุบาลทั้งหมดในโรงเรียนของท่าน  4.1 □ 1 ห้องเรียน  4.2 □ 2-3 ห้องเรียน  4.3 □ 4 ห้องเรียนหรือมากกว่า

5) ระดับการศึกษาสูงสุดของท่าน  5.1 □ อนุปริญญาหรือเทียบเท่า  5.2 □ ปริญญาตรี  5.3 □ ปริญญาโทหรือสูงกว่า

6) ในห้องเรียนของท่านมีนักเรียนที่ได้รับการระบุอย่างเป็นทางการว่าเป็นเด็กที่มีความต้องการพิเศษหรือไม่  6.1 □ มี  โปรดตอบคำถามต่อในข้อ 7  6.2 □ ไม่มี  โปรดข้ามไปตอบคำถามในข้อ 9

7) ป่วยร่างกายประเภทและจำนวนของเด็กพิเศษที่ได้รับการระบุอย่างเป็นทางการในห้องเรียนของท่าน  7.1 □ เด็กที่มีความบกพร่องทางการเห็น ______ คน  7.2 □ เด็กที่มีความบกพร่องทางการได้ยิน ______ คน  7.3 □ เด็กที่มีความบกพร่องทางการพิการทางตา ______ คน  7.4 □ เด็กที่มีความบกพร่องทางการพิการทางต่างกาย ______ คน  7.5 □ เด็กที่มีปัญหาทางการเรียนรู้ ______ คน  7.6 □ เด็กที่มีปัญหาด้านพฤติกรรมและจิตใจ ______ คน  7.7 □ เด็กที่มีปัญหาด้านพฤติกรรมตอบรวม ______ คน  7.8 □ เด็กที่พิการ ______ คน  7.9 □ เด็กที่มีปัญหาอื่น ______ คน

8) รวมจำนวนเด็กพิเศษที่ได้รับการระบุอย่างเป็นทางการว่าเป็นเด็กพิเศษในห้องเรียนของท่านทั้งสิ้น _________ คน

9) ระดับชั้นที่ท่านทำการสอน  9.1 □ ชั้นอนุบาล 3 ขวบ (ชั้นอนุบาล 3 ขวบ)  9.2 □ ชั้นอนุบาล 4-5 ปี (ชั้นอนุบาล 4)  9.3 □ ชั้นอนุบาล 5-6 ปี (ชั้นอนุบาล 2)

10) ประสบการณ์การสอนที่ท่านเคยสอนที่ผ่านมา  10.1 □ ต่ำกว่า 2 ปี  10.2 □ 2-5 ปี  10.3 □ 6-10 ปี  10.4 □ 11-15 ปี  10.5 □ 15-20 ปี  10.6 □ มากกว่า 20 ปี

11) ประสบการณ์ในการสอนเด็กที่มีความต้องการพิเศษ  11.1 □ ไม่มี  11.2 □ ต่ำกว่า 2 ปี  11.3 □ 2-5 ปี  11.4 □ มากกว่า 5 ปี
12) จำนวนชั่วโมงที่ท่านได้รับการอบรมเกี่ยวกับความรู้ทางการศึกษาพิเศษในระยะ 2 ปีที่ผ่านมา
12.1 □ ไม่เคยรับการอบรม  12.2 □ น้อยกว่า 10 ชั่วโมง  12.3 □ 11 - 15 ชั่วโมง
12.4 □ 16 -20 ชั่วโมง  12.5 □ มากกว่า 20 ชั่วโมง

13) ท่านได้รับหรือมีประสบการณ์บังคับการอบรมทางการศึกษาพิเศษ
13.1 □ ใช่  13.2 □ ไม่ใช่
ตอนที่ 3  การเตรียมการด้านความรู้

โปรดทําเครื่องหมาย วงกลมรอบตัวเลขลงในช่องที่ตรงกับความคิดเห็นของท่าน

<table>
<thead>
<tr>
<th>ชิ้นงาน</th>
<th>1 (ไม่เห็นด้วยอย่างยิ่ง)</th>
<th>2 (ไม่เห็นด้วย)</th>
<th>3 (เห็นด้วย)</th>
<th>4 (เห็นด้วยอย่างยิ่ง)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. ฉันทราบถึงวิธีการและสถานที่ในการค้นหาข้อมูลสำหรับการเรียนเกี่ยวกับเด็กพิการ</td>
<td>1</td>
<td>2</td>
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<tr>
<td>2. การหลากหลายการค้นหาข้อมูลที่โครงสร้างการเรียนรู้มีความสอดคล้องกับงานที่ต้องการ</td>
<td>1</td>
<td>2</td>
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<td>4</td>
</tr>
<tr>
<td>3. วิธีการและบริการที่ได้รับในที่ทำงานที่มีความต้องการพัฒนา สามารถเตรียมการและสนับสนุนได้ง่าย</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
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<tr>
<td>4. ฉันสามารถใช้การประเมินทักษะของเด็กที่มีการต้องการพิเศษ (ตัวอย่างเช่น การประเมินความก้าวหน้าอย่างเป็นจุดเด่นและความต้องการของเด็กเป็นหลัก)</td>
<td>1</td>
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<td>5. ฉันสามารถแสดงเหตุผลในการพัฒนาทักษะการเรียนรู้และความต้องการของการเด็ก (เช่น การสัมภาษณ์ในหลากหลายหลักและแนวทางการพัฒนาการทำงานต่าง ๆ รวมถึง การมีเป้าหมาย และวัตถุประสงค์)</td>
<td>1</td>
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<td>4</td>
</tr>
<tr>
<td>6. ฉันสามารถใช้การพัฒนาและจัดเตรียมการจัดการศึกษาเฉพาะบุคคล (IEP)</td>
<td>1</td>
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<td>4</td>
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<tr>
<td>7. ฉันสามารถใช้การพัฒนาการปฏิบัติตามเป้าหมายและวัตถุประสงค์ของ IEP ให้สอดคล้องกับหลักสูตร</td>
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<td>4</td>
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<tr>
<td>8. ฉันสามารถใช้การพัฒนาการเรียนรู้ในที่ทำงานที่เหมาะสม และพัฒนาทักษะพัฒนาการของเด็ก (เช่น การสัมภาษณ์ในหลากหลายหลักและแนวทางการพัฒนาการทำงานต่าง ๆ รวมถึง การมีเป้าหมาย และวัตถุประสงค์)</td>
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<tr>
<td>9. ฉันสามารถใช้การจัดการเรียนรู้ที่เหมาะสมและวัตถุประสงค์</td>
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<td>10. ฉันสามารถใช้การจัดการเรียนรู้ที่เหมาะสมและวัตถุประสงค์ (ตัวอย่างเช่น กำหนดเป้าหมายร่วมกับการสอน)</td>
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<td>2</td>
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<td>11. ฉันสามารถใช้การจัดการเรียนรู้ที่เหมาะสมและวัตถุประสงค์ (ตัวอย่างเช่น การจัดการเรียนรู้ที่เหมาะสมและวัตถุประสงค์)</td>
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<td>12. ฉันสามารถใช้การจัดการเรียนรู้ที่เหมาะสมและวัตถุประสงค์ (ตัวอย่างเช่น การจัดการเรียนรู้ที่เหมาะสมและวัตถุประสงค์)</td>
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<td>13. ฉันสามารถใช้การจัดการเรียนรู้ที่เหมาะสมและวัตถุประสงค์ (ตัวอย่างเช่น การจัดการเรียนรู้ที่เหมาะสมและวัตถุประสงค์)</td>
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<td>14. ฉันสามารถใช้การจัดการเรียนรู้ที่เหมาะสมและวัตถุประสงค์ (ตัวอย่างเช่น การจัดการเรียนรู้ที่เหมาะสมและวัตถุประสงค์)</td>
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<td>15. ฉันสามารถใช้การจัดการเรียนรู้ที่เหมาะสมและวัตถุประสงค์ (ตัวอย่างเช่น การจัดการเรียนรู้ที่เหมาะสมและวัตถุประสงค์)</td>
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ตอนที่ 4 กระบวนการในการสร้างความร่วมมือ
โปรดทำเครื่องหมาย วงกลมรอบตัวเลข ลงในช่องที่ตรงกับความคิดเห็นของท่าน

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<th>ลำดับ</th>
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<th>2= ไม่เห็นด้วย</th>
<th>3= เห็นด้วย</th>
<th>4= เห็นด้วยอย่างยิ่ง</th>
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</thead>
<tbody>
<tr>
<td>1.</td>
<td>ปรัชญาและการทํางานกับเด็กของฉัน �อดคล้องกับนโยบายหรือข้อตกลงของโรงเรียน</td>
<td>1</td>
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<td>2.</td>
<td>อัตมาสำนึกวิจารณ์ในการสร้างความร่วมมือและจัดการกับปัญหา ร่วมกับผู้ปกครองหรือสมาชิกอื่นในครอบครัว</td>
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<td>3.</td>
<td>สภาพแวดล้อมของโรงเรียนถือในการทํางานร่วมกันที่ดีเพื่อส่งเสริมงาน</td>
<td>1</td>
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<td>4.</td>
<td>อัตมาสำนึกในการทํางานร่วมกับเด็กที่มีปัญหาที่เกี่ยวกับผู้ช่วยทางยาสุข</td>
<td>(เช่น นักแก้ไขการพูด, นักกายภาพบําบัด และ นักจิตวิทยาเด็ก)</td>
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<tr>
<td>5.</td>
<td>อัตมาสำนึกในการทํางานร่วมกับผู้ช่วยทางยาสุขที่ได้รับการประสานภาระ</td>
<td>(เช่น นักแก้ไขการพูด, นักกายภาพบําบัด และ นักจิตวิทยาเด็ก)</td>
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<td>6.</td>
<td>อัตมาสำนึกในการทํางานร่วมกับผู้ช่วยทางยาสุขที่มีความต้องการพิเศษ</td>
<td>(เช่น นักแก้ไขการพูด, นักกายภาพบําบัด และ นักจิตวิทยาเด็ก)</td>
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<td>7.</td>
<td>เพื่อนร่วมงานมีความเข้าใจในบทบาทและความรับผิดชอบของตนเองอย่างชัดเจน</td>
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<td>8.</td>
<td>อัตมาสำนึกในการทํางานร่วมกับเพื่อนร่วมงาน</td>
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<td>9.</td>
<td>อัตมาสำนึกในการทํางานร่วมกับเพื่อนร่วมงาน</td>
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<td>10.</td>
<td>ผู้ปกครองของเด็กที่มีความต้องการพิเศษมีส่วนร่วมเกี่ยวกับพัฒนาการของเด็ก</td>
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<td>11.</td>
<td>อัตมาสำนึกในการทํางานร่วมกับผู้ปกครองของเด็กที่มีความต้องการพิเศษ</td>
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<td>12.</td>
<td>อัตมาสำนึกในการทํางานร่วมกับผู้ปกครองของเด็กที่มีความต้องการพิเศษ</td>
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<td>13.</td>
<td>อัตมาสำนึกในการทํางานร่วมกับผู้ปกครองของเด็กที่มีความต้องการพิเศษ</td>
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<td>14.</td>
<td>อัตมาสำนึกในการทํางานร่วมกับผู้ปกครองของเด็กที่มีความต้องการพิเศษ</td>
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<td>15.</td>
<td>อัตมาสำนึกในการทํางานร่วมกับผู้ปกครองของเด็กที่มีความต้องการพิเศษ</td>
<td></td>
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ตอนที่ 5 ความต้องการในการอบรม เพื่อท่านแม้จะยังมีความต้องการพิเศษ
โปรดระบุระดับความต้องการของท่านด้วยการวงกลมรอบตัวเลขที่ตรงกับความต้องการของท่าน
1= ไม่มีความต้องการ 2= ต้องการเพียงเล็กน้อย 3= ต้องการปานกลาง 4= ต้องการมาก

<table>
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<tr>
<th>ลำดับ</th>
<th>หัวข้อ</th>
<th>ไม่มีความต้องการ</th>
<th>ต้องการเพียงเล็กน้อย</th>
<th>ต้องการปานกลาง</th>
<th>ต้องการมาก</th>
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<tbody>
<tr>
<td>1.</td>
<td>การตรวจสอบเด็ก</td>
<td>1</td>
<td>2</td>
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<td>2.</td>
<td>การพัฒนาแผนการสอนเฉพาะบุคคลสำหรับเด็กพิเศษ (IEP)</td>
<td>1</td>
<td>2</td>
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<td>3.</td>
<td>การจัดการพฤติกรรม</td>
<td>1</td>
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<td>4.</td>
<td>การปรับเปลี่ยนเพื่อส่งเสริมการเรียนรู้</td>
<td>1</td>
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<td>5.</td>
<td>การทำงานร่วมกับผู้ปกครองและผู้เชี่ยวชาญ</td>
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<td>6.</td>
<td>การปรับเปลี่ยนการสอนสำหรับเด็กพิเศษ</td>
<td>1</td>
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<td>7.</td>
<td>ความรู้เบื้องต้นเกี่ยวกับการศึกษาพิเศษและเด็กที่มีความต้องการพิเศษ</td>
<td>1</td>
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<td>8.</td>
<td>การจัดสภาพแวดล้อมที่เหมาะสม</td>
<td>1</td>
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โปรดระบุ หัวข้อที่ท่านเห็นว่าท่านต้องการมากนอกเหนือจากนี้ ____________________

ตอนที่ 6 รูปแบบที่ต้องการในการอบรม เพื่อท่านแม้จะยังมีความต้องการพิเศษ
โปรดระบุระดับความต้องการของท่านด้วยการวงกลมรอบตัวเลขที่ตรงกับความต้องการของท่าน
1= ไม่มีความต้องการ 2= ต้องการเพียงเล็กน้อย 3= ต้องการปานกลาง 4= ต้องการมาก

<table>
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<tr>
<th>ลำดับ</th>
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<th>ต้องการเพียงเล็กน้อย</th>
<th>ต้องการปานกลาง</th>
<th>ต้องการมาก</th>
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<tbody>
<tr>
<td>1.</td>
<td>การจัดอบรมในพื้นที่หรือสถานศึกษาของท่าน</td>
<td>1</td>
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<tr>
<td>2.</td>
<td>การจัดอบรมนอกพื้นที่หรือสถานศึกษาของท่าน</td>
<td>1</td>
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<tr>
<td>3.</td>
<td>การจัดบริการให้คำปรึกษาส่วนบุคคล /การให้การช่วยเหลือด้านเทคโนโลยี</td>
<td>1</td>
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<td>4.</td>
<td>การอบรมผู้สอน</td>
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<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>5.</td>
<td>การจัดบริการแหล่งความรู้ (เช่น วิดีทัศน์, เวปไซต์, บทความ)</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>6.</td>
<td>การจัดอบรมให้เรียนเป็นรายวิชาในวิทยาลัย หรือในมหาวิทยาลัย</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>

โปรดระบุ หัวข้อที่ท่านเห็นว่าท่านต้องการมากนอกเหนือจากนี้ ____________________

โปรดตรวจสอบอีกครั้งว่าท่านทําครบทุกตอน
ขอขอบพระคุณที่ท่านให้ความร่วมมือ
Appendix F: English version of materials for teachers in interview Phase

ASSOCIATE PROFESSOR MICHAEL ARTHUR-KELLY
SCHOOL OF EDUCATION
FACULTY OF EDUCATION AND ARTS
UNIVERSITY OF NEWCASTLE NSW 2308
PHONE: (02) 4921 6284
FAX: (02) 4921 6939
EMAIL: Michael.Arthur-Kelly@newcastle.edu.au

Consent Form for the Research Project

The perceptions of Thai preschool teachers about inclusive education
for young children with disabilities
Sasipin Sukbunpant

Document Version 1 dated 17/02/10
Interview Phase

I agree to participate in the above research project and give my consent freely.

I understand that the project will be conducted as described in the Information Statement, a copy of which I have retained.

I understand I can withdraw from the project at any time and do not have to give any reason for withdrawing.

I consent to participating in an interview and having it recorded.

I am aware I will be able to review, edit or erase the transcribed interview records.

I understand that my personal information will remain confidential to the researchers

I have had the opportunity to have questions answered to my satisfaction.

Print Name: __________________________________________________________

Signature: __________________________ Date: _______________________

Contact number: ______________________________________________
Questions for interviewing

The perceptions of Thai preschool teachers about inclusive education for young children with disabilities

Researcher: Sasipin Sukbunpant, School of Education, University of Newcastle.

1) In your opinion, how would you define the meaning of inclusive education?

2) Please tell me about inclusive education in your school

3) Do you agree or not that “a child with disability should be included in the same classroom with normal peers no matter how high their support needs are”?
   Please give me your reasons.

4) What knowledge and skills do teachers require in inclusive classrooms?

5) Did you have any experience of children with disabilities before being involved with children with disabilities? If so, Are you able to share these details with me.

6. Have you undergone some course or training before being involved with children with disabilities? If so, please tell me the details.

7) What kinds of teaching pedagogy have you applied in your class?

8) Do you need significant in-service training in order to teach preschool children with disabilities in your regular class? Can you tell me the most important areas of training you need and why?

9) Do you need any assistance and/or collaboration from your colleagues or principal regarding teaching children with disability?

10) Should parents of children with disabilities be involved with their children’s education? If so, why do you think that?

11) Do you have any concern about working with other staff or parents? If so, please give me more detail.

12) Any other comments you would like to tell?
หนังสือให้ความยินยอมเข้าร่วมโครงการวิจัย
การรับรู้ของครูอนุบาลไทยเกี่ยวกับการเรียนรวมสำหรับเด็กปฐมวัยที่มีความต้องการพิเศษ
นางศศิพินต์ สุขบุญพันธ์
เอกสาร ครั้งที่ 1 วันที่ 17/02/10

ข้าพเจ้ายินดีและยินยอมที่จะเข้าร่วมในโครงการวิจัยที่ระบุไว้ด้านบน

ข้าพเจ้ายินดีที่จะแนะนำแนวทางในการดำเนินการวิจัยตามที่ระบุไว้ในเอกสารที่แนบมา

ข้าพเจ้าทราบแล้วว่าข้าพเจ้าสามารถถอนตัวออกจากโครงการวิจัยเมื่อใดก็ได้ โดยไม่ต้องให้เหตุผลใด ๆ

ข้าพเจ้ายินดีที่จะเข้าร่วมในการสัมภาษณ์และอนุญาตให้มีการบันทึกเสียง

ข้าพเจ้าสามารถที่จะตรวจสอบบทสัมภาษณ์ และแก้ไข และลบข้อมูลที่ถูกบันทึกของข้าพเจ้าได้

ข้าพเจ้ายินดีที่จะเข้าร่วมในการสัมภาษณ์และสนับสนุนส่วนตัวของข้าพเจ้าได้เป็นความลับ

ข้าพเจ้าสามารถที่จะเลือกตอบข้อความตามที่ข้าพเจ้าพึงพอใจ

ชื่อ  - สกุล ...........................................................

ลายมือชื่อ ................................................................................................................

เบอร์โทรศัพท์ติดต่อ.................................................................................................
คำถามสำหรับการสัมภาษณ์
การรับรู้ของครูอนุบาลไทยเกี่ยวกับการเรียนรวม
สำหรับเด็กปฐมวัยที่มีความต้องการพิเศษ

นักวิจัย: ศศิพินต์ สุขบุญพันธ์, คณะศึกษาศาสตร์และศิลปะ, มหาวิทยาลัยนิวคาสเซิล ออสเตรเลีย

1) โปรดอธิบายความหมายของการเรียนรวมตามความคิดเห็นของท่าน

2) โปรดเล่าให้นักวิจัยฟังเกี่ยวกับการจัดการเรียนรวมในโรงเรียนของท่าน

3) ท่านเห็นด้วยกับข้อความนี้หรือไม่
   “เด็กพิการควรเรียนรวมกับเด็กปกติไม่ว่าเด็กจะมีความพิการระดับใดก็ตามหรือต้องการช่วยเหลือมากน้อยแค่ไหนก็ตาม โปรดให้เหตุผลของท่าน

4) ความรู้และทักษะใดที่ท่านต้องการสำหรับการสอนในชั้นเรียนรวม

5) ท่านเคยมีประสบการณ์เกี่ยวกับเด็กพิการมาก่อน
   ที่จะมาเกี่ยวข้องกับเด็กพิการในโรงเรียนของท่านหรือไม่ ถ้าหากมี โปรดระบุรายละเอียด

6) ท่านเคยได้รับการอบรมหรือเรียนในรายวิชาที่เกี่ยวกับเด็กพิการมาก่อนหรือไม่
   ถ้าหากมี โปรดระบุรายละเอียด

7) ท่านใช้วิธีการสอนใดบ้างที่น่าไปใช้ในห้องเรียนของท่าน

8) ท่านต้องการอบรมเฉพาะด้านใดในเรื่องใดที่จะน่ามาสอนเด็กที่มีความต้องการพิเศษ
   ในห้องเรียนของท่าน ถ้าหากต้องการ ท่านคิดว่าที่จอดีที่จะนำไปใช้ ท่านไม่ต้องการเห็น

9) ท่านต้องการช่วยเหลือหรือการอบรมต่อๆ จากรูปแบบงานหรือผู้บริหารเกี่ยวกับการสอนเด็กที่มีความต้องการพิเศษ
   หรือไม่ อย่างไร

10) ผู้ปกครองของเด็กที่มีความต้องการพิเศษควรมีส่วนร่วมในการเรียนของลูกหรือไม่
    ท่านไม่ต้องการเห็น

11) ท่านมีความกังวลเกี่ยวกับการทำงานร่วมกับเพื่อนร่วมงานหรือผู้ปกครองหรือไม่
    ถ้าหากมี โปรดระบุรายละเอียด

12) มีข้อคิดเห็นอื่นใดที่ท่านต้องการเพิ่มเติม
Appendix H: Agreement letter about translation for Ethics Committee

Ms Suwadee Mongkol
PhD candidate (Education)
School of Education
Faculty of Education and Arts
University Drive, Callaghan
NSW 2308, Australia
Tel: +61 2 4921 5162
Suwadee.Mongkol@studentmail.newcastle.edu.au

10 February, 2010

Secretary
Human Ethics Committee
The University of Newcastle
University Drive, Callaghan NSW, 2308

Dear Secretary

My name is Suwadee Mongkol. I am a PhD student in Education in the faculty of Education and Arts at the University of Newcastle. I am fluent in both English and Thai languages. At the request of Associate Professor Michael Arthur-Kelly and Associate Professor Ian Dempsey, I did the double translation of Thai instruments and other documentation presented in the appendices of Mrs. Sasipin Sukbunpant’s application for Ethics Approval for Research involving Humans. I confirm that the Thai translations of the English versions of these instruments and documents are more than 90 per cent accurate. Apart from undertaking this review, I am not involved in the research being conducted by Mrs. Sasipin Sukbunpant and have no other involvement with Associate Professor Michael Arthur-Kelly and Associate Professor Ian Dempsey.

Should you wish to discuss any aspect of this letter please do not hesitate to contact me either by phone or email.

Yours sincerely,

Suwadee Mongkol
Appendix I: Approval letter from Human Research Ethics Committee

HUMAN RESEARCH ETHICS COMMITTEE

Notification of Expedited Approval

To Chief Investigator or Project Supervisor:  Associate Professor Michael Arthur-Kelly
Cc Co-investigators / Research Students:  Associate Professor Ian Dempsey
Mrs Sasipin Sukbunpant
Re Protocol:  The perceptions of Thai preschool teachers about inclusive education for young children with disabilities
Date:  27-Apr-2010
Reference No:  H-2010-1017
Date of Initial Approval:  23-Apr-2010

Thank you for your Response to Conditional Approval submission to the Human Research Ethics Committee (HREC) seeking approval in relation to the above protocol.

Your submission was considered under Expedited review by the Chair/Deputy Chair.

I am pleased to advise that the decision on your submission is Approved effective 23-Apr-2010.

For noting: Any subsequent changes to the questionnaire must be submitted to the HREC for approval via a variation application.

In approving this protocol, the Human Research Ethics Committee (HREC) is of the opinion that the project complies with the provisions contained in the National Statement on Ethical Conduct in Human Research, 2007, and the requirements within this University relating to human research.

Approval will remain valid subject to the submission, and satisfactory assessment, of annual progress reports. If the approval of an External HREC has been "noted" the approval period is as determined by that HREC.

The full Committee will be asked to ratify this decision at its next scheduled meeting. A formal Certificate of Approval will be available upon request. Your approval number is H-2010-1017.

If the research requires the use of an Information Statement, ensure this number is inserted at the relevant point in the Complaints paragraph prior to distribution to potential participants. You may then proceed with the research.
Conditions of Approval

This approval has been granted subject to you complying with the requirements for Monitoring of Progress, Reporting of Adverse Events, and Variations to the Approved Protocol as detailed below.

PLEASE NOTE:
In the case where the HREC has "noted" the approval of an External HREC, progress reports and reports of adverse events are to be submitted to the External HREC only. In the case of Variations to the approved protocol, or a Renewal of approval, you will apply to the External HREC for approval in the first instance and then Register that approval with the University's HREC.

- Monitoring of Progress

Other than above, the University is obliged to monitor the progress of research projects involving human participants to ensure that they are conducted according to the protocol as approved by the HREC. A progress report is required on an annual basis. Continuation of your HREC approval for this project is conditional upon receipt, and satisfactory assessment, of annual progress reports. You will be advised when a report is due.

- Reporting of Adverse Events

1. It is the responsibility of the person first named on this Approval Advice to report adverse events.
2. Adverse events, however minor, must be recorded by the investigator as observed by the investigator or as volunteered by a participant in the research. Full details are to be documented, whether or not the investigator, or his/her deputies, consider the event to be related to the research substance or procedure.
3. Serious or unforeseen adverse events that occur during the research or within six (6) months of completion of the research, must be reported by the person first named on the Approval Advice to the (HREC) by way of the Adverse Event Report form within 72 hours of the occurrence of the event or the investigator receiving advice of the event.
4. Serious adverse events are defined as:
   - Causing death, life threatening or serious disability.
   - Causing or prolonging hospitalisation.
   - Overdoses, cancers, congenital abnormalities, tissue damage, whether or not they are judged to be caused by the investigational agent or procedure.
   - Causing psycho-social and/or financial harm. This covers everything from perceived invasion of privacy, breach of confidentiality, or the diminution of social reputation, to the creation of psychological fears and trauma.
o Any other event which might affect the continued ethical acceptability of the project.

5. Reports of adverse events must include:
   o Participant's study identification number;
   o date of birth;
   o date of entry into the study;
   o treatment arm (if applicable);
   o date of event;
   o details of event;
   o the investigator's opinion as to whether the event is related to the research procedures; and
   o action taken in response to the event.

6. Adverse events which do not fall within the definition of serious or unexpected, including those reported from other sites involved in the research, are to be reported in detail at the time of the annual progress report to the HREC.

- **Variations to approved protocol**

If you wish to change, or deviate from, the approved protocol, you will need to submit an Application for Variation to Approved Human Research. Variations may include, but are not limited to, changes or additions to investigators, study design, study population, number of participants, methods of recruitment, or participant information/consent documentation. **Variations must be approved by the (HREC) before they are implemented** except when Registering an approval of a variation from an external HREC which has been designated the lead HREC, in which case you may proceed as soon as you receive an acknowledgement of your Registration.

**Linkage of ethics approval to a new Grant**

HREC approvals cannot be assigned to a new grant or award (ie those that were not identified on the application for ethics approval) without confirmation of the approval from the Human Research Ethics Officer on behalf of the HREC.

Best wishes for a successful project.
Associate Professor Alison Ferguson
Chair, Human Research Ethics Committee
For communications and enquiries:
Human Research Ethics Administration
Research Services
Research Office
The University of Newcastle
Callaghan NSW 2308
T +61 2 492 18999
F +61 2 492 17164
Human-Ethics@newcastle.edu.au
Factor loadings of questionnaire items

<table>
<thead>
<tr>
<th>Items</th>
<th>Attitude</th>
<th>Training</th>
<th>Educational preparation</th>
<th>Collaboration</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Section B (Attitude) ( \alpha = .79 )</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. It is difficult to manage a classroom that contains both children with disabilities and children without abilities</td>
<td>.78</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. Inclusion causes children with disabilities to disrupt other children’s learning</td>
<td></td>
<td>.76</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Children with disabilities should receive services in early childhood settings alongside their same-age peers</td>
<td></td>
<td>.75</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Inclusion represents a positive change in the education system</td>
<td></td>
<td></td>
<td>.70</td>
<td></td>
</tr>
<tr>
<td>5. I prefer special school to inclusive class because children with a disability are more likely to improve their academic skills</td>
<td></td>
<td></td>
<td>.69</td>
<td></td>
</tr>
<tr>
<td><strong>Section B (Training) ( \alpha = .73 )</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12. Preschool teachers should receive in service training before working with children with a disability in the regular classroom</td>
<td></td>
<td></td>
<td>.82</td>
<td></td>
</tr>
<tr>
<td>11. Training about inclusion is important for preschool teacher to teach young children with a disability</td>
<td></td>
<td></td>
<td>.82</td>
<td></td>
</tr>
<tr>
<td>15. Training can enrich my knowledge to manage the inclusive classrooms</td>
<td></td>
<td></td>
<td>.79</td>
<td></td>
</tr>
<tr>
<td>14. I need specific, rather than general training on inclusion</td>
<td></td>
<td></td>
<td>.59</td>
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Factor loadings of questionnaire items (continue)

<table>
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<tr>
<th>Items</th>
<th>Attitude</th>
<th>Training</th>
<th>Educational preparation</th>
<th>Collaboration</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Section C (Educational Preparation) α = .85</strong></td>
<td></td>
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<td></td>
<td></td>
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<tr>
<td>6. I know how to develop an Individualized Education Plan (IEP)</td>
<td></td>
<td></td>
<td>.85</td>
<td></td>
</tr>
<tr>
<td>7. I understand how to implement IEP goals and objectives into an existing curriculum</td>
<td></td>
<td></td>
<td>.85</td>
<td></td>
</tr>
<tr>
<td>10. I am familiar with alternative forms of communication and their use (e.g., sign language, picture system, assistive technology)</td>
<td></td>
<td></td>
<td>.77</td>
<td></td>
</tr>
<tr>
<td>9. I can use strategies to encourage communication skills with children with disabilities</td>
<td></td>
<td></td>
<td>.77</td>
<td></td>
</tr>
<tr>
<td>12. I am able to adapt learning activities for children with disabilities</td>
<td></td>
<td></td>
<td>.71</td>
<td></td>
</tr>
<tr>
<td>1. I know how and where to seek information about including children with disabilities in the classroom</td>
<td></td>
<td></td>
<td>.64</td>
<td></td>
</tr>
<tr>
<td>3. The strategies and adaptations necessary to assist children with a disability are easy to prepare and implement</td>
<td></td>
<td></td>
<td>.50</td>
<td></td>
</tr>
<tr>
<td><strong>Section D (Process of collaboration) α = .81</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. I can rely on colleagues for support and assistance about inclusion when needed</td>
<td></td>
<td></td>
<td>.87</td>
<td></td>
</tr>
<tr>
<td>7. The school staffs have a clear understanding of their roles and responsibilities about the inclusion</td>
<td></td>
<td></td>
<td>.83</td>
<td></td>
</tr>
<tr>
<td>9. I make time to meet and discuss with my colleagues and other staff about the progress of young children with disabilities</td>
<td></td>
<td></td>
<td>.82</td>
<td></td>
</tr>
<tr>
<td>15. I can ask for other support about the inclusion from my local community</td>
<td></td>
<td></td>
<td>.67</td>
<td></td>
</tr>
<tr>
<td>3. The school environment provides a positive working environment for staff</td>
<td></td>
<td></td>
<td>.53</td>
<td></td>
</tr>
</tbody>
</table>
Appendix K: The output of the multiple regression model

REGRESSION
/MISSING LISTWISE
/STATISTICS COEFF OUTS R ANOVA COLLIN TOL
/CRITERIA=PIN(.05) POUT(.10)
/NOORIGIN
/DEPENDENT ATTITUDE
/METHOD=ENTER PREPARATION COLLABORATION Age GenTeaching
Experiec_Teaching_Dis_HoursofTraining certificate
/SCATTERPLOT=(*ZRESID ,*ZPRED)
/RESIDUALS NORMPROB(ZRESID)
/CASEWISE PLOT(ZRESID) OUTLIERS(3)
/SAVE MAHAL.

<table>
<thead>
<tr>
<th>Variables Entered/Removed(^b)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model</td>
</tr>
<tr>
<td>-------</td>
</tr>
<tr>
<td>1</td>
</tr>
</tbody>
</table>

\(^a\) All requested variables entered.
\(^b\) Dependent Variable: ATTITUDE

<table>
<thead>
<tr>
<th>Model Summary(^b)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model</td>
</tr>
<tr>
<td>-------</td>
</tr>
<tr>
<td>1</td>
</tr>
</tbody>
</table>

\(^a\) Predictors: (Constant), cert of spec ed , Gen Teach, COLLABORATION ,Ex_Teaching_Dis, Age, PREPARATION, Hours of Training
\(^b\) Dependent Variable: ATTITUDE
### ANOVA

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Regression</td>
<td>38.243</td>
<td>7</td>
<td>5.463</td>
<td>20.469</td>
</tr>
<tr>
<td></td>
<td>Residual</td>
<td>130.247</td>
<td>488</td>
<td>.267</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>168.490</td>
<td>495</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), cert of spec ed, Gen Teach, COLLABORATION, Ex_Teaching_Dis, Age, PREPARATION, Hours of Training
b. Dependent Variable: ATTITUDE

### Coefficients

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>Collinearity Statistics</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
</tr>
<tr>
<td>(Constant)</td>
<td>.940</td>
<td>.160</td>
<td></td>
</tr>
<tr>
<td>PREPARATION</td>
<td>.150</td>
<td>.051</td>
<td>.143</td>
</tr>
<tr>
<td>COLLABORATION</td>
<td>.326</td>
<td>.062</td>
<td>.240</td>
</tr>
<tr>
<td>Age</td>
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a. Dependent Variable: ATTITUDE
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*a. Dependent Variable: ATTITUDE*

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*a. Dependent Variable: ATTITUDE*
Appendix L: Paper published from this research

*Thai preschool teachers’ views about inclusive education for young children with disabilities*

Sasipin Sukbunpant*, Michael Arthur-Kelly and Ian Dempsey

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(Received 1 May 2012; final version received 14 October 2012)

It is generally assumed that preschool teachers play a crucial daily role in the inclusion of young children with a disability in education settings. In many countries, however, there are little available data to inform such a view. Part of a larger project with 528 preschool teachers from northern Thailand, the aim of the study reported here was to examine Thai preschool teachers’ views of inclusive education for young Thai children with disabilities. Twenty preschool teachers with a range of attitudes to the inclusion of young children with a disability were interviewed about their views and five themes developed from the interview analysis. Those themes were the current situation, teachers’ knowledge and expertise, teachers’ attitude towards inclusion and disability, collaboration, and challenges for future inclusion.

**Keywords:** attitudes to inclusion; preschool teachers; inclusive education; Thailand

*Introduction*

In March 1990 at Jomtein, Pattaya, Thailand, 155 countries and representatives of 160 governmental and non-governmental agencies participated in a world conference and accepted the notion of Education for All. This conference led to an action plan to identify strategies for providing education for all on a human rights basis (Peters 2007). Additionally, the Salamanca Statement at the 1994 World Conference on Special Needs Education reinforced the Education for All agreement by stating that regular schools have a responsibility to provide education to all children with diverse needs. It was also recognised that teachers have to be adequately prepared to meet the educational needs of all students in the class in order to have equality in education (Peters 2007).

Inclusive education has created significant challenges for teachers (Foreman 2011). There is an expectation that teachers will educate and manage children with disabilities to meet the children’s individual needs (Chang, Early, and Winton 2005). Developing teaching and support strategies for both children and the parents of these children is an example of the challenges that teachers face. These challenges impact on teachers’ perceptions in three dimensions: their personal characteristics including training and qualifications (Bruns and Mogharreban 2007; Frankel 2004; Wongsirikul 2007;
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Zhang 2011), their professional efficacy (Buyssse et al. 1999; Essa et al. 2008), and their collaborative competence (McDonnell, Brownell, and Wolery 2001; Smith and Smith 2000).

In terms of teachers’ training and qualifications, several researchers have studied teachers’ attitudes and needs that have been found to influence the success of inclusion in classrooms (Avramidis and Norwich 2002; Bennett, Deluca, and Bruns 1997; Ocloo and Subbey 2008; Singal 2008). Teachers’ needs for adequate training were reported by participating teachers in several studies (Campbell et al. 2005; Singal 2008; Smith and Smith 2000). In addition, Bruns and Mogharreban (2007) emphasised the need for training of early childhood practitioners to improve their teaching skills. In one study, preschool teachers with graduate degrees were found to be uncomfortable with the idea of inclusion, perceiving that they were not prepared to work in inclusive classrooms (Mitchell and Hegde 2007). In another context, Serbian preschool teachers with more experience in teaching children with disabilities had more positive beliefs about inclusion than teachers with less relevant experience (Sretenov 2000).

Professional efficacy is another concern for teachers in terms of their educational and experiential preparation. Teachers’ knowledge and skills related to children’s typical development have been associated with higher quality inclusive programming (Buyssse et al. 1999). Further, Essa et al. (2008) argue that the question of whether or not teachers have received disability-specific coursework is strongly associated with their acceptance of children with a disability in classrooms.

Teacher collaboration with parents and other staff is also strongly associated with successful inclusion. One of the barriers to effective collaboration is limited opportunities for involvement in planning by family members (Buyssse, Wesley, and Keyes 1998). In preschool settings, regular classroom teachers would like to have special education staff in their classroom so that they can plan a programme together (McDonnell, Brownell, and Wolery 2001). However, teachers report that they need more reliable support both in class and at administrative levels for effective collaboration (Smith and Smith 2000).

Numerous studies on these three dimensions of teachers’ perceptions have yielded valuable information concerning teachers’ attitudes about inclusion and their need for training including collaboration with parents and other staff. This article reports specifically on the current situation in Thailand for early childhood educators.

Inclusive education for young Thai children with disabilities

In 1999, the Thai Ministry of Education mandated that all schools provide children with disabilities the opportunity to be included in regular education programmes, namely ‘The Educational Year 1999 for the Children with Disabilities Policy’ (Ministry of Education 2008).

The number of children with disabilities at the preschool level in inclusive schools under the supervision of the Offices of the Basic Education Commission was 16,826 in 2006, whereas the total number of the students in formal schooling at the pre-primary level in the same year was 2,497,928. Therefore, 0.67% of Thai pre-primary school children with a disability in inclusive settings (The Office of the Education Council 2008). The major groups of young Thai children with disabilities are those with intellectual disability, language and communication disorder, physical disability, and health impairment.
In the decade following the mandating of inclusive education in Thailand, several local studies have found impediments to the process of inclusion. For example, Jareonrit (2003) and Noksakul (2002) reported that teacher initial training and on-going training were issues raised by the teachers in inclusive schools that they interacted with. In addition, in a study by Visarathanont (2009), preschool teachers displayed a generally positive attitude towards young children with autism when these children were included in the classroom and these teachers needed consistent and sufficient training in working with young children with autism.

Despite the growing trend towards inclusion of children with disabilities in Thailand, little is known about Thai preschool teachers' views on inclusion of young children with disabilities. For this reason, this study sought to examine preschool teachers' attitudes to the inclusion of young children with a disability, as well as some of the factors that may be associated with these attitudes.

**Method**

**Research design**

The present qualitative study was part of a larger mixed methods investigation of Thai preschool teachers' opinions on inclusive education. The qualitative phase reported here utilised semi-structured interviews to investigate preschool teachers' perceptions about inclusive education. The aim of the interviews was to solicit descriptive and in-depth data from the participants (Cohen, Manion, and Morrison 2000). This study received ethics approval from the University of Newcastle prior to data collection.

**Participants**

In the first phase of the larger study, a self-reported questionnaire, Thai Preschool Teachers' Perceptions on Inclusive Education Rating Scale, was completed by 528 preschool teachers in the upper northern part of Thailand (Chiangmai, Chiangrai, Lampang, and Lampoon provinces). These teachers were employed at government primary schools in either kindergarten or preschool classes. A section of the questionnaire included 16 items that addressed aspects of teachers' attitudes to inclusion. Responses to this section were analysed and teachers' attitude scores were ranked. A total of 226 preschool teachers agreed to participate in the interview phase. To facilitate a diversity of views, the principal author selected those teachers with the 10 lowest scores and the 10 highest scores on attitudes to inclusion and invited them to participate in the interview phase. All the invited teachers agreed to be interviewed. Of the 20 preschool teachers who participated, 9 were from Chiangmai province, 7 from Chiangrai, and 4 from Lampang.

**Instrumentation**

The initial interview questions were developed from the earlier literature review that outlines inclusion and teacher perspectives. After developing the English interview protocol, the first author checked the content and the translation into Thai with four selected experts. Two of the experts were Thai lecturers in the Special Education programme at Rajabhat Chiangmai University, while one expert was Thai director of the Language Centre at Rajabhat Chiangmai University. The last expert was a senior Thai
special education teacher who had experience teaching preschool children. After scrutiny by the experts, ambiguous statements in the interview protocol were modified before conducting the interview study (Appendix A).

Patton (2002) suggested that interviews begin with descriptive questions that are close to the informant’s current experience and expertise. Once a clear description is obtained, often with the help of interview probes and prompts, opinions and interpretations can be solicited based on the mutually understood content that has been discussed. A semi-structured protocol has the advantage of asking all informants the same core questions with the freedom of asking follow-up questions that build on the responses received (Brenner 2006).

**Procedures**

The researcher contacted those purposefully selected 20 teachers and inquired about a convenient time and place for conducting the individual interviews. All interview sessions were conducted in the participants’ schools and took 40–60 min. Rossman and Rallis (2003) affirm that it is ideal to conduct interviews in the language which is considered to be most comfortable for both parties. Therefore, the interviews in this inquiry were conducted in Thai.

Data collection took approximately 3 months (August–October 2010). A digital voice recorder was used to record interviews to reduce the distractions of note-taking during the interviews. De-identified audio files were stored first on the laptop computer of the first author and later transferred to the first author’s desktop computer with access limited to the research team. Pseudonyms were used throughout this study in order to protect the confidentiality of all the participants.

**Data analysis**

The first step of data analysis took place after the voice-recordings from the 20 teachers were collected and transcribed (Creswell 2002). Five of the recordings (25%) were then randomly selected and sent to two Thai experts, both with relevant PhD qualifications, with a request that they independently transcribe the recordings. The experts’ and the researcher’s transcripts were compared for mismatched words by using the Microsoft Word file comparison program. The result was 99.23% accuracy calculated by using the formula Matched words/Matched + Mismatched words × 100.

Transcribed data were then divided into meaningful analytical units (segmenting the data) by the principal author. When a meaningful segment of text in a transcript was found, coding of the segment was commenced and this produced 44 code segments. To reduce this large number of codes, the researcher clustered similar topics into 18 categories. Then, the researcher used a diagram to draw a relationship of these categories, thereby collapsing these 18 categories into five themes. This approach is consistent with that reported by Smith and Smith (2000).

As noted by Creswell (2009), cross-checking or inter-coder agreement is an important strategy to demonstrate the reliability of researcher coding. In the current study, the researcher randomly selected a second group of five interview transcriptions and sent them to a Thai PhD student with a background in school education. The Thai student independently coded these transcriptions using the same process followed by the researcher. During the last stage of coding verification, the segments, codes, and themes produced from the first author and independent coder were compared. The
meaning and the explanations were discussed. For example, some codes from the author and the independent coder had different names, but the meanings were the same. In this study, inter-coder reliability for the coding of segments, categories, and themes was 82.97%, 83.33%, and 100%, respectively. The mean reliability of all the coding was 88.76% calculated by using the formula Agreements/Agreements + Disagreements × 100 (Miles and Huberman 1994).

Results
The results presented in this article represent the views of two groups of teachers with differing attitudes to inclusion. For the purpose of this study, they were grouped into a least positive attitude (LPA) group and a most positive attitude (MPA) group.

All respondents were female teachers aged between 23 and 58 years. Seventeen teachers had a Bachelor’s degree, while three of the preschool teachers held a Master’s degree. More than half of the respondents (n = 13) had general teaching experience before teaching in early childhood. Early childhood teaching experience ranged from 1 to 30 years. In terms of teaching experience with children with disabilities, seven teachers had less than 5 years of experience, while 11 teachers had between 5 and 10 years of experience. Only two teachers reported more than 10 years of teaching experience with children with disabilities.

There were no more than three children with disabilities included in each of the teacher’s classrooms including individuals with a physical disability, Down syndrome, and autism. However, according to the interviewees, children with a learning disability and attention deficit hyperactivity disorder were the most common disability groups in their classrooms.

Five broad themes emerged from the analysis of interviews with preschool teachers. Those themes were the current situation, teachers’ knowledge and expertise, teachers’ attitude towards inclusion and disability, collaboration, and challenges for future inclusion.

Theme 1: The current situation
The preschool teachers discussed several sub-themes that were relevant to the current situation with respect to inclusion. These were inclusion in Thai schools, supporting processes, children entering into inclusion, and Thai families of children with disabilities.

Inclusion in Thai schools and supporting processes for inclusion
The participating teachers reported that some schools (n = 7) had not yet implemented an inclusion policy, while others (n = 7) had just started inclusion and were not yet fully supporting children with disabilities. In the other schools (n = 6), inclusion was fully implemented and extra support was provided, such as special education teachers and other resources. Only 11 teachers reported that their schools implemented inclusive education from the preschool level. Lacking a preschool teacher degree was also identified as an issue by some interviewees (n = 8) in this study. Eleven participating teachers reported that the majority of the government support for inclusion focused on the primary level. When the school implemented an inclusive policy, some units such as a Special Education Centre and the Regional Educational Office
had the responsibility of supervising the teachers and schools. However, 13 teachers mentioned that the Special Education Centre was unaware of them and provided no supervision.

*Children entering inclusion*

The majority of preschool teachers \((n = 13)\) indicated that the children with disabilities were included in their classrooms because of the teachers’ attitude:

> I don’t think there’s any problem because I’m an early childhood teacher; I always put children first. (LPA1)

More than half of the participating teachers \((n = 11)\) mentioned both the National Education Act of B.E. 2542 (1999) and the Ministry of Education policy on 16 February 1999, which established the rights of children with a disability to be included in the regular school. Finally, 11 teachers reported that parents preferred their children to join the class with their peers without a disability because of the chance for improvements in social skills and because the parents could not afford for their child to attend a segregated setting.

*Thai families of children with disabilities*

Some preschool teachers \((n = 7)\) explained that parents believed that assisting their child consistent with the principle of Thai culture would relieve their grief of having a child with a disability. However, 14 teachers expressed difficulty in consulting with some families on the child’s needs because those parents had trouble accepting their child’s disability without a formal diagnosis. In terms of parents of children without a disability, five preschool teachers reported that these parents did not object to inclusion, as long as the teacher could manage the usual classroom activity or behaviour problems of the child with a disability.

**Theme 2: Teachers’ knowledge and expertise**

The interviewed teachers reported four aspects of necessary knowledge and expertise, namely teachers’ understanding of inclusion, teachers’ knowledge of children with disabilities, teaching implementation, and professional development for teachers.

*Teachers’ understanding of inclusion*

Only four preschool teachers described the process of inclusion of a child with a disability entering the school and the other services provided to the child, including the detailed process of inclusion. Eleven preschool teachers indicated that inclusion was a classroom that contains children with and without disabilities. The experience of studying together could improve the self-esteem of the child with a disability, and for children without a disability, the benefit of inclusion related to learning to accept people different from themselves.

*Teachers’ knowledge of children with disabilities and teaching implementation*

Eighteen of the teachers had not undergone special education pre-service training. Even though two teachers had undergone pre-service training on special education, they reported that they did not appreciate the relevance of the course at the time. Seventeen
teachers were unsure as to how to evaluate the needs of the child with a disability. Four LPA teachers expressed difficulty in whole classroom management involving both children with and children without disabilities studying together. The interview results revealed that all teachers taught children with disabilities in the same class with their normal peers and adapted some classroom activities to suit the children’s own abilities, such as being a teacher’s helper in the class. The most popular teaching pedagogy was peer tutoring. All preschool teachers employed several practices to manage the children’s behaviour such as using a contract, time out, and behaviour reinforcement.

**Professional development for teachers**

Eight teachers had no training in how to include children with disabilities. Many teachers \((n = 9)\) reported that training for the teachers mainly focused on promoting development for children without disabilities. Although 10 of the teachers had participated in in-service training about special education, they found that the topics were general and the content was mainly on theory rather than on practice. Most teachers \((n = 18)\) asked for further in-service training for teaching methods and knowledge of the characteristics of children with disabilities in inclusive classes. Two-thirds of the teachers desired training on how to use specific teaching methods and behaviour management and practical ways to apply that knowledge in the classrooms including demonstration and case study.

**Theme 3: Teachers’ attitude towards inclusion and disability**

The interviewed teachers commented on three related areas: teachers’ views, teachers’ resilience, and the influence of Thai culture on teachers’ attitude.

**Teachers’ views**

The MPA group of teachers believed that Thai society was becoming increasingly aware of both inclusion policy and the educational opportunities of people with disabilities. However, all the participating teachers clearly recognised the strengths and needs of these children. All of the LPA teachers believed that children with severe disabilities should not be included in the regular classroom because services would be better provided to these children in special schools. However, 9 of the 10 MPA teachers reported welcoming children with severe disabilities in the regular classroom for the purpose of social skills learning and to lessen parents’ stress.

**Teachers’ resilience**

Preschool teachers with either an MPA or an LPA made the effort to assist the children the best they could. Even though some teachers \((n = 12)\) had not received support from schools, they were continuing to work with the child with a disability. However, most of the LPA teachers worried about their insufficient knowledge and skills, when compared with special education teachers.

**The influence of Thai culture on teachers’ attitudes**

All of the teachers applied Buddhist practice and beliefs in their explanation of disability, working aspirations, and classroom management. In terms of the cause of disability, one participant commented that
It’s a religious belief. For people who follow Buddhism they would say it’s Karma. Karma is what happens to you as a result of your action. Doesn’t matter if it’s in this life or in your last life, it can always catch up with you. If we can help these kids at some stage, we do. They certainly don’t want to be like this. Right? We do whatever we can to help. This is Thai way. (LPA4)

**Theme 4: Collaboration**

The teachers expressed their views on collaboration in line with how they perceived their role, their relationship with colleagues, parent involvement, and support from the principal.

**Teacher’s role**

All of the preschool teachers identified their roles as an initial screener for all children in the classrooms by observing the children’s behaviour and their ability to complete tasks. The teachers perceived another role in working collaboratively with medical professionals such as medical doctors and psychologists. However, several teachers ($n = 7$) viewed their roles as working independently from the special educational sector.

**Relationships with teacher colleagues**

According to the interview data, the teachers often used informal communication and consultation with their co-workers about the child with a disability such as during lunchtime. Eight teachers discussed the importance of collaboration with and acceptance of a child with a disability by the primary school teachers.

**Parent involvement**

All teachers highlighted the benefits of involving parents in improving outcomes for their children in inclusive education. Additionally, all teachers claimed that parents should take their responsibilities for caring for their children seriously and follow what teachers suggested. Half of the teachers felt stressed from a lack of collaboration from parents, especially from parents from a low socio-economic background.

**Principal’s roles**

Only three teachers of this interview indicated the full support of the school principal for inclusion, while the remainder mentioned that they received insufficient managerial and material support from the principal. In addition, four teachers claimed that some principals refused to enrol children with disabilities because they believed that the children’s progress would impact negatively on school achievements.

**Theme 5: Challenges for future inclusion**

Teachers’ own abilities were perceived as barriers relating to inclusion in this sample. Preschool teachers indicated their need for adequate and consistent support to implement the inclusive education policy.

**Barriers**

Seventeen teachers reported a lack of confidence in teaching children with disabilities in the regular classroom. In addition, most teachers ($n = 14$) claimed that their ability to teach these children was lower than that of special education teachers. Most teachers
recognised the value of the incentive payment from the government provided to teachers who participated in the inclusive education programme. However, one teacher declined that pay because of the stress and additional work required to report about the children with a disability.

**Teachers’ needs and readiness for implementation**

The teachers needed support systems to work with children who were identified with disabilities. However, some teachers ($n = 5$) failed to implement inclusive practices due to a lack of support from the school principal. Several teachers ($n = 7$) complained about a lack of action after they provided the planning data to the Ministry of Education. Most teachers ($n = 11$) identified that there was a lack of consistent commitment to inclusive education across the school.

**Teachers’ recommendations for improving inclusion**

First, the need to enhance teachers’ training was mentioned by 75% of the preschool teachers. Second, the principal needed to take charge of the school inclusion policy, along with the teachers. Third, other personnel such as special education teachers and teacher assistants were seen as important supports. Seven LPA teachers preferred the special education teacher teaching the children with disabilities separately in another class, with the opportunity to join their regular classroom in some activities. Fourth, resources such as educational materials, school budgets, and teacher assistants were mentioned as other elements contributing to successful inclusion. Finally, the preschool teachers suggested that government agencies (e.g. Special Education Centre) should promote the inclusion policy to the preschool level and use an effective follow-up strategy.

**Discussion**

The findings of this study revealed the complexity and challenges of inclusive education for teachers supporting young Thai children with disabilities. Only a few participating teachers fully described the detailed process and the management procedure of children in terms of the whole system of inclusion. There were different practices of inclusion for young Thai children in the Thai schools. The preschool teachers working in the schools which have fully implemented the inclusive policy have a clear understanding of the inclusion process and know how to manage the classroom and teaching children with disabilities. In contrast, the preschool teachers working in schools which have not yet fully implemented the inclusion policy would have difficulty in obtaining support in order to teach and manage the classroom. This was an explanation for why several preschool teachers felt undertrained to teach children with disabilities and believed that special education teachers were better placed to meet these students’ needs. This finding is consistent with that of Hwang and Evans (2011), who found that Korean regular teachers assumed that special education teachers were responsible for the children’s academic development, while their role was only to provide a social learning environment for students with disabilities in the regular classroom.

On the basis of the data from this study, it is clear that professional development for teachers needs to be improved. Most Thai preschool teachers in this study argued for an increase in training in special education support. This finding was consistent with
research conducted in Hong Kong where Zhang (2011) found that preschool teachers reported a lack of training and felt inadequately prepared in terms of special education skills and knowledge of teaching children with disabilities. The Thai preschool teachers in this study also argued for such training to be practically oriented. Both Frankel (2004) and Wongsriruk (2007) also found that the early childhood teachers in their studies requested practical experience to link the theory and the practice of inclusion.

Thai university pre-service training provided to the student teachers may not be enough to enrich their understanding of people with disabilities, given the views of the preschool teachers in this study. Killoran, Tymon, and Frempong (2007) and Burke and Sutherland (2004) have also suggested the need for more extensive preparation programmes for early childhood teachers.

Many teachers in this study identified themselves as supervisors from a bureaucratic point of view. Many of them prefer parents to follow what they said. According to O’Connor’s (2008) study, it was indicated that parents did not want only to be recipients in their child’s education. Therefore, the preschool teachers should respect the right of parents to share knowledge regarding information about their child and realise the actual concept of parent involvement. For example, the preschool teachers work with parent as equal partners and should allow parents to be involved in their child’s education at school.

Although the need for the principal’s support in successful inclusion is well demonstrated (Smith and Smith 2000), this study found that there was insufficient support from the principal from the preschool teachers’ perspective. The support of the principal is essential for teachers in order to reduce the feeling of isolation and in supporting each other and increasing opportunities for collaboration. Mastroiopieri and Scruggs (2004) stated that the school administration support would affect the attitudes of regular education teachers, regular education students, and the regular education students’ parents positively. In other words, increasing opportunity for collaboration in school would facilitate successful inclusion practices.

This study has underlined the role of cultural factors such as Buddhism along with teachers’ explanations about the cause of disability and the reason for working with children with disabilities. For example, Buddhist people believe that people should develop the present for a better life (Carter 2006). This perception could motivate these Thai teachers to continue their work in supporting inclusion.

**Recommendations for the Thai context**

Five recommendations are made. First, although inclusion has been implemented in Thai primary schools since 1999, inclusion policy and inclusion support need to span the wider education system to address younger children. This wider policy scope should provide preschool teachers with the opportunity to consult with administrators to improve the implementation of inclusion.

Second, teacher preparation programmes should ensure that they provide adequate special needs training and the option of specialisation in early childhood special education. Practical experience with young children with a disability is an essential part of such training.

Third, a public education programme is needed to assist the Thai community to reconcile traditional Buddhist beliefs about disability with those beliefs that are inherent in the inclusion of children with a disability in regular classes.
Fourth, some traditional views held by Thai teachers about the role of parents with a child with a disability need to be challenged. The successful inclusion of children with disabilities in school and in the wider community will be enhanced by teachers viewing parents as partners and by regarding an important outcome from inclusion as the empowerment of parents.

Finally, the implementation of inclusive policy needs commitment and the proactive leadership of the principal. The data collected in this study suggest that the combined efforts of the school leadership, in collaboration with teachers and families, will maximise the design and delivery of inclusive learning contexts.

Limitations of the study
The participants in this study may not be representative of all Thai preschool teachers. Moreover, the interpretation of the participating teachers' attitudes was based on their interviews without direct observation of class behaviour. Finally, because culture and practice vary across countries, the findings and conclusions reported here may only be relevant in the Thai context.

Conclusion
This study aimed to investigate a sample of Thai teachers' views of inclusive education and emphasise the noteworthy role of preschool teachers working to support children with disabilities. These teachers have to understand their roles and work collaboratively with other staff and parents to reach the goal of inclusion. Most preschool teachers interviewed in this study did appear to have an understanding of the meaning and purpose of inclusive education. These teachers had encountered little support from schools. A shortage of preschool teachers in many schools was mentioned as one of the obstacles to implementing inclusive education for young children with disabilities.

Most participating preschool teachers perceived themselves as having insufficient knowledge and skills in special education. Also, these preschool teachers found the training that they received to be too theoretical instead of being practical.

The level of principal support was perceived as one of the critical variables in relation to the efficient implementation of inclusion by these teachers. In addition, working collaboratively with colleagues and parents was required to assist the children.

The preschool teachers interviewed in this study highlighted the responsibility of the Ministry of Education and the Special Education Centre in laying the groundwork for the further development of inclusive education in Thailand.

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References


**Appendix A**

**Interview questions**

1. In your opinion, how would you define the meaning of inclusive education?
2. Please tell me about inclusive education in your school?
3. Do you agree that a child with disability should be included in the same classroom with normal peers no matter how high their support needs are? Please give me your reasons?
4. What knowledge and skills do teachers require in inclusive classrooms?
5. Did you have any experience of children with disabilities before teaching children with disabilities? If so, are you able to share these details with me?
6. Have you undergone any course or training before being involved with children with disabilities? If so, please tell me the details?
7. What kinds of teaching pedagogy have you applied in your class?
8. Do you need significant in-service training in order to teach preschool children with disabilities in your regular class? Can you tell me the most important areas of training you need and why?
9. Do you need any assistance and/or collaboration from your colleagues or principal regarding teaching children with disability?
10. Should parents of children with disabilities be involved with their children’s education? If so, why do you think that?
11. Do you have any concerns about working with other staff or parents? If so, please give me more detail?
12. Any other comments you would like to tell?