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Examining the Effectiveness of a Basic Functional Behavior Assessment Training Package on Special Education Teachers in Thailand: A Replication Study

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EXAMINING THE EFFECTIVENESS OF A BASIC FUNCTIONAL BEHAVIOR ASSESSMENT TRAINING PACKAGE ON SPECIAL EDUCATION TEACHERS IN THAILAND: A REPLICATION STUDY

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ABSTRACT

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Challenging behaviors are one of the basic problems that all pre- and in-service teachers have to be prepared to deal with in schools. In Thailand, it was found that challenging behaviors of students with disabilities had an effect on teachers' stress because many teachers perceived that they were lacking the knowledge and skills to deal with these problems. The primary purpose of this study was to evaluate the effectiveness of a modified version of a basic functional assessment (FBA) training package developed by Loman and Horner (2014) on increasing the knowledge and skills of Thai special education teachers with respect to the functional behavior assessment process. This process is a set of procedures developed in the United States for assisting practitioners in identifying appropriate function-based interventions in which the motivations of students are taking into account (Dunlap & Fox, 2011; Dunlap, Kern-Dunlap, Clarke, & Robbins, 1991; Foster-Johnson & Dunlap, 1993; Horner, 1994; Horner & Carr, 1997; Lane, Umbreit, & Beebe-Frankenberger, 1999).

The original research questions from the Loman and Horner (2014) study were used. However, this study also examined whether a modified version of this training package would be effective within the cultural context of Thailand and whether it would

be perceived as effective and acceptable by Thai special education teachers for implementation with Thai students in a Thai school. Twelve special education teachers who worked at a laboratory school in Thailand participated in this study. Nine of these special education teachers were randomly assigned to be in the intervention group, which received the training. The three remaining teachers were randomly assigned to the control group and did not receive the training. The results across a variety of measures indicated that all trained special education teachers increased their knowledge of the FBA process after receiving the training. Using a questionnaire that assessed the social validity of the training procedure, it was found that these teachers perceived the training as efficient, valuable, and acceptable for use by Thai teachers with Thai students in Thai schools. A number of recommendations are made based on this study with respect to how to improve the training process when used in Thailand or another country outside of the United States. Nevertheless, the most important finding of this study was that these procedures were effective in preparing these teachers to use the FBA process with their students.

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CHAPTER I

INTRODUCTION

> Some of the children have difficult behavior problems and some have difficulty communicating and socializing well with other children. If I look after only the child with disabilities, I may not be able to look after other children thoroughly in the classroom. . . . I like the idea of inclusion. . . . I think it is good for all children . . . children with disabilities can develop their social skills from others. But the problem is that I do not have knowledge about inclusion. . . . If he still study in the kindergarten he may not get anything because I also do not have knowledge to teach him (Agbenyega & Klibthong, 2014, para 2).

The above paragraph is an example of a response that a classroom teacher in Thailand might have about students with disabilities, him/herself as a classroom teacher, and an inclusive classroom. Challenging behaviors are one of the major concerns that classroom teachers have in relation to including students with disabilities in their classrooms.

Agbenyega and Klibthong (2014), in their study of 175 early childhood teachers who worked in Thai preschools, found that these teachers perceived themselves as lacking knowledge and skills to support students with disabilities in inclusive classrooms. One of their findings that was included in this study was teachers felt stressful when dealing with challenging behaviors of students with disabilities in the classroom.

To minimize the above problems and increase the number of students with disabilities in inclusive classrooms, researchers and scholars in Thailand must find effective behavior interventions for educators to support students with disabilities who

have challenging behaviors in schools. To respond to this problem, the primary purpose of this study was to evaluate a behavior intervention training program to increase teachers' knowledge and skills about how to analyze behaviors and increase their awareness of motivational factors so that they can be better prepared to address behavior problems in their classrooms in Thailand.

Functional behavior assessment (FBA) is a procedure used for identifying motivations and environments that maintain the occurrence of behaviors (Dunlap, Kern-Dunlap, Clarke, & Robbins, 1991; Horner & Carr, 1997). To identify this information, multiple data collection methods such as interviews, observations, and an experimental functional analysis are used to collect FBA data. As a result of collecting FBA data, educators can identify the function of a behavior and how the environment reinforces the occurrence of problem behaviors. By utilizing FBA data, educators can select effective behavior interventions and develop behavior change plans to decrease challenging behaviors and increase socially positive behaviors (Sugai, Lewis-Palmer, & Hagan, 1998).

The use of the FBA process allows educators to create and design behavior interventions in a systematic way, instead of randomly selecting behavior plan components (Herzinger & Campbell, 2007). The behavior intervention plan (BIP) that is developed based on FBA data responds to each student as an individual and represents the context in which the student lives. Hence, the BIP has a higher probability of success for changing a student's behavior than a plan that is developed without consideration of the individual or the reasons he/she does certain behaviors in the environment that he/she lives in.

In the United States, the FBA process recognizes as an effective first step in the design of behavior intervention plans by many scholars (Anderson, Rodriguez, & Campbell, 2015; Carr & McDowell, 1980; Cooper, 1993; Cunningham & O'Neill, 2007; Dufrene, Doggett, Henington, & Watson, 2007; Dunlap et al., 1991; Dwyer, Rozewski, & Simonsen, 2012; Haydon, 2012). Accordingly, the FBA process is required for teachers who are developing BIPs to support students with disabilities who have challenging behaviors. However, the research results also continually indicate that educators who are expected to utilize the FBA process do not always effectively utilize this process when creating their BIPs (Blood & Neel, 2007; Van Acker, Boreson, Gable, & Potterton, 2005). Van Acker et al. (2005) emphasized in their study that there were differences between trained and untrained educators when it comes to completing the FBA process and developing BIPs. As these research studies made clear, a high level of skills is required to effectively use FBA data to develop BIPs.

In Thailand, the FBA process is considered a new innovation (Opartkiattikul, Arthur-Kelly, & Dempsey, 2015). There are only a very few studies that have been conducted examining the use of the FBA process in Thailand (Locharoenrat, Saengsawang, & Jackson, 2016; Opartkiattikul et al., 2015; Opartkiattikul, Arthur-Kelly, & Dempsey, 2016). Hence, in order for the FBA process to become a more frequently used process by Thai teachers in the creation of the BIP, there is a need for research on the FBA process in Thailand. This research needs to directly address how Thai teachers can be trained in the use of the FBA process and whether it is likely that they will value this process and continue to use it in their classrooms for the development of BIPs. This research can benefit from studies completed in the United States that have explored how

to best teach teachers to use the FBA process. After all, the United States has been using this procedure successfully for several decades now.

The primary purpose of this study was to replicate the study "Examining the Efficacy of a Basic Functional Behavior Assessment Training Package for School Personnel," which was conducted by Loman and Horner (2014). The research questions used, modified from the Loman and Horner (2014) study, were whether Thai special education teachers following training using the Loman and Horner (2014) package: (a) increased their knowledge and skills in FBA; (b) demonstrated procedural adequacy in the use of the FBA process; and (c) perceived the training program and the FBA process as efficient and socially valid within their schools.

In the following sections of this chapter, I will, first, introduce the concept of challenging behaviors. Second, I will discuss the impact of challenging behaviors in classrooms in the United States and in Thailand. Third, I will discuss behavior interventions that have been used in the United States and in Thailand. Fourth, I will discuss the research shortage on the FBA process in Thailand. Fifth, I will briefly introduce the training materials and processes used in the study by Loman and Horner (2014). Sixth, I will clarify the purpose of this study and the research questions that I used. Seventh, I will discuss the significance of this study. Eighth and finally, I will define key terms for my study.

Challenging Behaviors

In the education field, challenging behaviors are not limited to significant problem behaviors such as aggression, tantrums, property destruction, and self-injurious behaviors. These behaviors also include any behaviors that constitute barriers for an

individual to learn, to develop social relationship skills with others, and to stay healthy either for him/herself and for others (Bailey & Wolery, 1992; Chandler & Dahlquist, 2006; Dunlap & Fox, 2011; Hastings & Brown, 2002; Heyvaert, Maes, & Onghena, 2010; Holden & Gitlesen, 2006; Machalicek, O'Reilly, Beretvas, Sigafoos, & Lancioni, 2007). Examples of challenging behaviors of this type include noncompliance, talking without permission, walking about the classroom, verbal and/or non-verbal aggressiveness, and clowning behaviors. The most important indicators that are used to identify challenging behaviors in a school setting are whether a student's behavior has a negative impact on a student's learning, completing school activities, socializing, and/or living with others in a school.

Behaviors that are classified as challenging behaviors are also dependent on culture, perspective, and context. For example, "walking out of a classroom quietly during a lesson to the restroom" in one culture can be categorized as challenging, and in another as normal. When the social norm of that culture requires a person to ask for permission, omitting asking for permission means an individual is not showing respect to the teachers. As a result, walking out of a classroom to go to the bathroom would be defined as challenging in that culture. Inversely, the same behavior can be defined as appropriate when the social norm of that culture permits a student to do so without asking permission. Accordingly, identifying behaviors as challenging is dependent on the cultural context. In Thailand, behaviors that are identified as challenging are any behaviors that do not follow Thai social norms (Jammaree, 2003; Promchai, 2015; Suetrong, 2012), and these may be different in the United States.

Regardless of culture, a number of motivating factors tend to underlie the production of challenging behaviors. In general, people exhibit behaviors including challenging behaviors in order to fulfill biological, safety, social, esteem, and self-actualization needs (Atkins & Harmon, 2016). For students with disabilities, challenging behaviors in a classroom setting are typically demonstrated and are centered on gaining attention, accessing preferred activities or objects, and escaping or avoiding tasks and activities (Embregts, Didden, Schreuder, Huitink, & Van, 2009). As an example, to gain attention, students may demonstrate challenging behaviors such as off-task behaviors and non-compliance behaviors (Janney, Umbreit, Ferro, Liaupsin, & Lane, 2013; Lo & Cartledge, 2006; Parker, Skinner, & Booher, 2010; Trussell, Lewis, & Stichter, 2008). These behaviors usually interfere with the learning process and instruction in a classroom; thus, these behaviors are defined as challenging.

Factors that may result in an individual demonstrating undesired or challenging behaviors are typically unique to that individual and his/her relationship with the environment. For different individuals, these factors can include health conditions, physical conditions, and level of skills (such as communication, social, and life skills). These factors will control or limit individuals to behave in a certain ways. Love, Carr, and LeBlanc (2009) showed how language and social skill limitations can have an effect on students with autism who demonstrate challenging behaviors. Given a lack of social skills, these students may use such behaviors as kicking, hitting, and/or touching in order to gain social attention. Other studies using other participants with other disabilities have shown the same phenomenon, especially in relation to classroom attention (Dufrene et

al., 2007; Janney et al., 2013; Lo & Cartledge, 2006; McLaren & Nelson, 2009; Parker et al., 2010; Trussell et al., 2008; Wood, Ferro, Umbreit, & Liaupsin, 2011).

Another factor that influences a student's selection and use of challenging behaviors is the environment. An environment is not just a place such as a classroom or community setting, it is also the people who are present. Several studies revealed that teachers and classmates encourage the occurrence of challenging behaviors. In order to receive the teacher's and/or peer's attention, students with disabilities may demonstrate different challenging behaviors such as yelling out, speaking without permission, and/or hitting others (Dufrene et al., 2007; Janney et al., 2013; Lo & Cartledge, 2006; McLaren & Nelson, 2009; Parker et al., 2010; Trussell et al., 2008; Wood et al., 2011). These behaviors may develop because the student finds that they work to get the attention he/she needs, and he/she may not know how to do other behaviors that may work for the same purpose and be more socially correct. The behaviors may occur first by accident, but when they are reinforced by students, teachers, and/or peers, they begin to increase in frequency and become challenging for the teachers and peers.

The prevalence of students with disabilities demonstrating challenging behaviors varies depending on each population and the specific characteristics of each population. For instance, demonstration of challenging behaviors of students with autism spectrum disorder (ASD) is one of the main characteristics that is used to identify the severity of ASD (Matson, Wilkins, & Macken, 2008). People with mild ASD demonstrate less-intense challenging behaviors than those with severe ASD. According to Murphy, Healy, and Leader (2009), more than half of the children with ASD in schools demonstrate challenging behaviors. Within this group, 32% exhibit self-injurious, aggressive, and

stereotyped behaviors. Focusing on self-injurious behaviors, Soke et al. (2016) reported that almost 20% of 8-year-old children with ASD in schools demonstrated self-injurious behaviors.

Regarding other groups of students with disabilities, students with emotional and behavioral disorders (EBD) demonstrate a higher number of challenging behaviors in classrooms when compared to students with learning disabilities (LD) (Lane, Carter, Pierson, & Glaeser, 2006). Another group of students with disabilities that is prone to demonstrate challenging behaviors is students with intellectual disability (ID). More than 70% of the students with mild, moderate, and severe ID demonstrate challenging behaviors in school at different severity levels (Kostikj-Ivanovikj, 2009; Oliver, Petty, Ruddick, & Bacarese-Hamilton, 2012). Based on these reports, there are high percentages of students with disabilities demonstrating challenging behaviors.

The Impact of Challenging Behaviors in a Classroom

When students with disabilities demonstrate challenging behaviors, these behaviors typically interfere with the development of academic and non-academic skills. The same challenging behaviors also interfere with the learning processes of their classmates (LeGray, Dufrene, Sterling-Turner, Olmi, & Bellone, 2010), have negative effects on teachers (Agbenyega & Klibthong, 2014; Hastings & Brown, 2002; Lecavalier, Leone, & Wiltz, 2006), and have negative effects on students' placement. In the following sub-section, I will discuss the impact of challenging behaviors in classrooms in the United States and in Thailand.

Classrooms in the United States

According to many studies that have been conducted in the United States, there are several impacts of challenging behaviors in classroom settings. First, demonstrating challenging behaviors has an effect on academic learning and academic outcomes of the students who demonstrate challenging behaviors and their peers in the classroom (Holden & Gitlesen, 2006; LeGray et al., 2010). Exhibiting challenging behaviors distracts all students' concentration on teacher instructions, classroom materials, and classroom assignments. Students in a classroom cannot follow the classroom directions to learn and complete the classroom assignments. Consequently, the students do not effectively learn and do not have high academic outcomes.

Especially for students with disabilities who have challenging behaviors, the complexity of learning conditions, combined with challenging behaviors, significantly decreases their opportunities to learn in a regular classroom. In the case of students with disabilities, Haydon (2012) found that when the disruptive and off-task behaviors of a fifth grade student with LD decreased during the implementation of a behavior intervention, the student's correct responses and academic outcomes increased. Thus, decreases in challenging behaviors can significantly affect the learning process and academic outcomes of these students.

Second, challenging behaviors also impede the opportunities of students with disabilities to develop social skills and to form relationships (Kearney & Healy, 2011). To effectively develop and generalize social skills, it is vital for the students with disabilities to learn from and interact with peers in natural settings (Gregg, 2017). Having challenging behaviors causes students with disabilities to be rejected by their

peers and segregated from general classrooms. This rejection and segregation can result in decreasing opportunities to learn social skills from peers in natural settings.

Third, demonstrating challenging behaviors can interrupt the teaching processes. When challenging behaviors are demonstrated in a classroom, teachers normally respond to these challenging behaviors by correcting the students. This results in the interruption in the teaching process. Teachers may then have to re-teach the instruction and re-direct the students after dealing with these behaviors. Thus, these teachers are spending more time than usual repeating the teaching process when challenging behaviors occur (Alter, Walker, & Landers, 2013). Students are also impacted by these challenging behaviors, by being distracted from the instruction and needing time to regain their concentration back to the instruction. Consequently, it is difficult for both teachers and students to teach and learn when challenging behaviors are occurring in classroom environments.

Fourth, challenging behaviors can cause stress for the teachers (Chang, 2013; Gebbie, Ceglowski, Taylor, & Miels, 2012; Hastings & Brown, 2002). When challenging behaviors are demonstrated, it is difficult for teachers to complete the lesson or follow their designated plan. Being unable to complete or follow the lesson plan can result in increased emotional burnout and increased stress for teachers (Chang, 2013). Also, when teachers are unable to effectively deal with challenging behaviors, this is associated with stress and burn out. Westling (2010) indicated that many teachers have not received enough training to sufficiently deal with challenging behaviors in a classroom. Thus, the frequency of challenging behaviors may be high in classrooms of these teachers. This means that these teachers are consistently dealing with the same

problems every day in their teaching routine. This situation leads teachers to feel emotionally exhausted and eventually burn out.

Fifth, demonstrating challenging behaviors relates to a classroom climate as well. To teach or support students to learn, classroom climate is an important variable. Turner and colleagues (Turner et al., 2002) found that a positive classroom climate decreases the prevalence of task avoidance behaviors of students. A positive classroom climate helps students to keep learning, engaging, and staying motivated during the teaching process. Thus, teachers should create friendly, safe, and supportive classroom climates.

To create a healthy/positive classroom climate, teachers must be concerned with the frequency and intensity of challenging behaviors. Challenging behaviors can impact the health of the relationship and the conflict between a student and both his/her peers and the teachers (Buyse, Verschueren, Doumen, Van Damme, & Maes, 2008). Clearly, teachers cannot maintain a positive classroom climate when the frequency and the intensity of the challenging behaviors is high. Thus, it is essential that teachers find strategies to help them reduce challenging behaviors so that they can maintain a positive classroom climate and student learning.

Sixth, challenging behaviors can affect whether students are to be placed or excluded from a regular education classroom (Perry et al., 2013). A major responsibility of teachers is to encourage students to learn in a safe and positive environment. Since challenging behaviors have a significant impact on student learning process and the climate of the classroom environment (Geving, 2007; Holden & Gitlesen, 2006; LeGray et al., 2010), teachers typically must create strategies or behavior interventions in order to decrease these problem behaviors. When they are unable to do so, the students with

challenging behaviors are likely to be removed. Consequently, the presence or absence of challenging behaviors is a strong indicator of whether they will have access to general education classrooms.

Classrooms in Thailand

When the issue of challenging behaviors is considered within the Thai education system, educators and scholars perceive these challenging behaviors as inappropriate actions against Thai social norms, Thai culture, classroom/school rules, and/or regular law (Jammaree, 2003; Promchai, 2015; Suetrong, 2012). For students with disabilities, researchers have tended to focus on those behaviors that are especially harmful, such as aggression.

To my knowledge, there is limited research in Thailand related to challenging behaviors and behavior intervention in both the numbers of published research articles and in the areas that have been researched. With respect to impact on Thai classrooms, there is no research directly studying this issue. However, in survey research conducted by Agbenyega and Klibthong (2014), the authors found that challenging behaviors of students with disabilities had an impact on classroom teachers' attitudes toward inclusive education and classroom teachers' frustration and stress.

In sum, there is very limited research on the impact of challenging behaviors on Thai classrooms. It is clear that more research is needed in this area in Thailand.

Behavior Intervention

Behavior intervention refers to an approach or procedure that is used for the purpose of changing a target behavior (Gresham, 2004). Generally, behavior interventions can be categorized into three groups, namely prevention strategies, skill

training strategies, and consequence strategies (Machalicek et al., 2007; Wood, Blair, & Ferro, 2009). The behavior interventions that are categorized as prevention strategies are social stories, video modeling, visual cueing, and classroom adjustment. The behavior interventions that are categorized as skill training strategies are prompting, embedded instruction, and functional communication training. Lastly, behavior interventions that are considered as consequence strategies employ differential reinforcement and self-management. In classroom settings, all three of these behavior intervention categories can be used by teachers working with students who have challenging behaviors.

To apply behavior interventions in classroom settings, teachers are not only expected to find effective behavior interventions, but also these teachers are expected to develop a plan to implement behavior interventions with students who have challenging behaviors. Such a plan is called a BIP. Regarding the purpose of a BIP, it is a written action plan that should be developed to prevent the occurrence of a problem behavior in the future, teach a desired behavior, respond when a problem behavior and a desired behavior occur, and evaluate the effect of the BIP (Hirsch, Bruhn, Lloyd, & Katsiyannis, 2017). In the following sub-section, I will discuss the characteristics of behavior intervention in the United States and in Thailand.

Behavior Interventions in the United States

In the United States, there are numerous studies examining behavior interventions and BIPs. For example, a study by Falcomata, White, Muething, and Fragale (2012) examined the effects of using functional communication training (FCT) and chained schedules of reinforcement on reducing disruptive behaviors that serve different functions. The participant was an 8-year-old boy with autism. Based on an experimental

functional analysis process, the disruptive behaviors were exhibited to serve multiple functions, including escaping from non-preferred activities, access to preferred activities, and attention. A reversal research design was employed to examine the effects of FCT and chained schedule of reinforcement. Functional communication training was used to teach the student to use verbal requests to access the preferred activities, instead of using disruptive behaviors. Chained schedules of reinforcement, which consisted of a fixed ratio and a fixed time, were used to reinforce verbal requesting and to decrease disruptive behaviors. The results of this study indicated that when implementing FCT and chained schedules of reinforcement, the disruptive behaviors were decreased and verbal requesting was increased.

In the United States, one of the supports for behavior intervention processes is the legal system. In the Individuals with Disabilities Education Act (IDEA), the behavior interventions that can be utilized in schools in the United States must be positive behavioral supports that are developed and selected based on the use of the FBA process (Collins & Zirkel, 2017; Gable, Park, & Scott, 2014; Goh & Bambara, 2012; Zirkel, 2011). These two characteristics are described below.

First, according to this act, a main characteristic of behavior interventions that is to be used in schools in the United States is that they utilize positive behavioral supports. Positive behavioral supports are any strategies that are applied in order to: (a) prevent the occurrence of challenging behaviors, (b) increase the occurrence of expected behaviors, and (c) increase the quality of life of students who have challenging behaviors (Carr et al., 2002; Goh & Bambara, 2012; Neitzel, 2010). The purpose of using this type of

support is to ensure that students who have challenging behaviors do not receive aversive interventions or punishment-based interventions.

The second characteristic is that behavior interventions have to be selected based on the FBA process. The use of the FBA process helps educators to identify the functions of target behaviors and environments that reinforce the occurrence of target behaviors. The result will lead teachers to determine what behavior interventions will be effective to use to match the functions of the challenging behaviors. This process is required to ensure that a challenging behavior is responded to in a manner that is sensitive to the needs of the student.

In conclusion, in accordance with regulations in the United States, behavior interventions that should be utilized in classrooms are positive behavior interventions. The behavior interventions that are utilized are aimed to create a healthy and safe learning environment for every student. Finally, before selecting and applying positive behavior interventions with the students who have challenging behaviors, it is a requirement for teachers to conduct the FBA process.

Behavior Interventions in Thailand

According to the Ministry of Education, there is a regulation that prevents the use of aversive punishment with a student who demonstrates behaviors that are in violation of school regulations (Office of the Basic Education Commission, 2005). The procedures of punishment that teachers can use for this situation are providing verbal notice, using a behavior contract, taking away student points, or assigning the student to a behavior counselling program. This is the regulation that is applied to all students in Thailand.

However, unlike in the United States, there is no special regulation indicating what planning procedures should be used when students with disabilities exhibit problem behaviors.

The research on behavior interventions and BIPs is also limited in Thailand. Most of the studies that have been conducted in Thailand tend to select specific behavior interventions to implement with the students with disabilities who have challenging behaviors and then simply report the results of using these interventions (Boonsanu & Yunibhand, 2012; Puenpueng, Singhalert, Simmathan, & Odton, 2008; Sangkaew, Nukaew, & Suttharangsee, 2017; Sukkasame, Channate, & Naksuwan, 2011; Suwanakasa & Tantixalerm, 2012). The behavior interventions that have been studied are positive reinforcement with token economic systems, visual communication signal such as pictures, behavior therapy, check-in and out strategies, and social modeling. The target behaviors that have been studied included hitting him/herself and/or others, slapping him/herself and/or others, destroying property, throwing things, and yelling out. The settings that have been used are schools or hospitals.

With respect to the school, typically what teachers do is select a behavior intervention and report how it works and does not work with students with disabilities who have challenging behaviors. For example, Puenpueng et al. (2008) examined the effects of using reinforcement with a token economy on student academic outcomes and aggressive behaviors. The participants of this study were three first-grade students with autism. This study employed the ABAB research design. The results indicated that when applying token reinforcement during the intervention phase, all students significantly

increased their academic outcomes and also significantly decreased their aggressive behaviors.

Even though these studies showed positive effects of using specific behavior interventions with students with disabilities who have challenging behaviors, the FBA process is not used as a process for selecting and developing behavior interventions and BIPs. Hence, currently the special education field in Thailand needs more research using the FBA process in the decision processes about what behavior interventions should be applied with the students.

Research on the Functional Behavior Assessment Process in Thailand

Based on my knowledge, there are two published research studies that mention the FBA process in Thailand. First, a study by Opartkiattikul et al. (2015) described issues when implementing the FBA process in Thailand. Moreover, this study also provided details on the program that they are using to teach Thai teachers how to use the FBA process. In a study done by the same group of authors (Opartkiattikul et al., 2016), the effectiveness of an FBA training program on increasing knowledge and skills of classroom teachers implementing the FBA process in classrooms was examined. The details of both articles will be reviewed and presented in the next chapter.

Clearly, when compared to the United States, there is a dearth of studies that have been done on FBA in Thailand. There is also a shortage of studies on training teachers in Thailand to use the FBA process. Additionally, although one of these studies at least raised questions about FBA use in Thai culture (Opartkiattikul et al., 2015), I am unaware of any research studies that actually examined whether Thai teachers feel that FBA is a useful process in Thailand. Clearly, there is a need for more studies of this nature.

A Basic Functional Behavioral Assessment Training Package

As mentioned in the previous section, there are many studies in the United States on the use of the FBA process including FBA training programs. In contrast, in Thailand there is limited research on behavior interventions or the FBA process and no research on FBA to develop BIPs. Without a doubt, there is a need of this research in Thailand.

In this study, I examined a training package that I believe might be useful in Thailand to provide teachers with the skills and strategies that they needed for using FBA in the development of BIPs. The training package is "A Basic Functional Behavioral Assessment Training Package," and it was developed by Loman, Strickland-Cohen, Borgmeier, and Horner (2013). The purpose of this training package is to provide a tool for trainers to deliver and teach the FBA process for teachers. The training package was developed for increasing knowledge and skills on the FBA process for school personnel in different roles who had to deal with students who had mild to moderate challenging behaviors. This training package consists of four 1-hour training units. The full training package was applied in a study by Loman and Horner (2014). The components of this training package and the training procedure will be discussed in detail in the next chapter.

Based on review of the literature, this training package has never been used to train educators from other countries. As a result, it is not known whether using this training package with teachers and students in different countries and cultures can provide the same positive results as achieved in the United States.

Purpose of the Study

In my research, I replicated the study "Examining the Efficacy of a Basic Functional Behavior Assessment Training Package for School Personnel" in a university

laboratory school for K–12 students in Bangkok, Thailand. Using training and modified research procedures from the Loman and Horner study (2014), the research proposed here examined the training of educators in this Thai school to adequately collect student behavior information, complete an FBA analysis, and initiate the planning process for a BIP. Also, this study examined the acceptability, efficiency, and social validity of the Basic Functional Behavior Assessment Training Package. Based on the study by Loman and Horner (2014), the research questions of this study were the following:

Q1 Is there a change in knowledge of Thai special education teachers following training using the Loman and Horner (2014) package?

Q2 Is there consistency between FBA summary statements that are developed by Thai special education teachers following training and the FBA summary statements that are developed by the principal investigator? Is there a difference between summary statements completed by the trained Thai special education teachers and summary statements completed by untrained Thai special education teachers?

Q3 Are the FBAs conducted by Thai special education teachers procedurally adequate following training?

Q4 Is the Basic FBA training process perceived as efficient and socially valid by Thai special education teachers?

Significance of the Study

A major issue in the special education system of Thailand is a lack of knowledge and skills among special education teachers for conducting FBA and start BIP. This replication study examined a particular training process (Loman & Horner, 2014) for preparing special education teachers to conduct FBA and develop BIPs. A major component of the study was to actually train special education teachers in Thailand to conduct FBA and use these data in developing behavioral hypotheses. This study

provides evidence regarding the preparation of special education teachers to do these processes.

Additionally, the study addresses the acceptability, efficiency, and social validity of the training and the FBA process when applied in a different cultural context. Since in Thai culture the definition and the perceptions of challenging behaviors are different from how they are defined and perceived in the United States, cultural differences might be a factor when these processes that were successful in the United States are tried in Thailand. In other words, this study attempted to confirm the effectiveness of the training and the FBA process when applied in a different cultural context.

Lastly, this study adds to the literature in Thailand about the use of the FBA process in schools. At the time of this study, the amount of published research in Thailand was inadequate to gain the attention of educators who might need to use these processes in their work.

Definition of Terms

Functional Behavior Assessment. Functional behavior assessment (FBA) is a process designed to collect information, using different methods such as interviews, direct observations, and an experimental functional analysis, in order to gain a better understanding of a student's challenging behaviors. The collected information is purposefully used to identify functions of behaviors and the environments that prompt target behaviors to occur (Dunlap et al., 1991; Horner, 1994). With the data from the FBA process, educators should be able to: (a) identify target behaviors; (b) identify when, where, and with whom the target behaviors will and will not occur; (c) identify the consequences that encourage the target behaviors to occur; (d) summarize and test the

hypotheses about the occurrence of the target behaviors, the functions of the behaviors, and the environments that maintain the behaviors; and (e) design intervention plans based on the functions of the target behaviors (Horner & Carr, 1997; Lewis & Sugai, 1996).

Social Validation. Social validation is an evaluation process to determine participants' perceptions on whether an intervention is socially important to the participants (Callahan, Henson, & Cowan, 2008; Wolf, 1978). According to Wolf (1978), to evaluate social validation of an intervention, there are three dimensions that are included: (a) whether there are changes in participants' behaviors, (b) whether an intervention is acceptable based on participants' perspectives, and (c) whether an intervention is effective based on participants' perspectives. In this study, social validation was used to evaluate special education teachers' perceptions on: (a) whether an FBA training process was perceived as effective and acceptable in changing knowledge and skills by Thai special education teachers, and (b) whether the FBA process was perceived as effective and acceptable by Thai special education teachers for implementation with Thai students, in a Thai school, and in a Thai culture.

Special Education Teachers. In Thailand, Thai National Education Act of 1999 (Office of the Council of State, 2008) states:

> Special education teachers mean teachers who have education degree higher than Bachelor's Degree or teachers who have Bachelor's Degree in special education. These teachers have to pass the evaluation of teaching people with disabilities that is regulated by Educational Promotion Commission for People with Disabilities. These teachers are responsible for teaching, managing education, supervising, and doing other responsibilities related to educating people with disabilities who study in public and private schools. (p. 2, para. 2)

Students with Disabilities. According to Thai National Education Act 1999 (Office of the Council of State, 2008), under section 10, persons with disabilities are

those “with physical, mental, intellectual, emotional, social, communication, and learning deficiencies; those with physical disabilities; or the cripples; or those unable to support themselves; or those destitute or disadvantaged” (p. 1, para. 1). Thai National Education Act 1999 also says that these individuals “shall have the right and opportunities to receive basic education specially provided” (Office of the National Education Commission, August 2017, para.2).

Based on this education act, there are nine types of students with disabilities who are eligible for receiving special education services. These are students with visual impairments; students who are deaf and have hearing difficulties; students with intellectual disabilities; students with physical, movement, or health disabilities; students with learning disabilities; students with communication and language disabilities; students with emotional and behavior disorders; students with autism spectrum disorder; and students with multiple disabilities (Jatejumnongnuch, Wisetsuwannaphom, Tunticharoen, & Tinmala, 2011).

CHAPTER II

REVIEW OF LITERATURE

As mentioned in Chapter I, challenging behaviors can have significant negative effects on other students and teachers and on the learning environment in general. Based on empirical evidence and personal experience in school, educators in both the United States and Thailand believe that challenging behaviors have a negative effect on their instruction and their students' learning processes. To be able to deal with challenging behaviors of students with disabilities, educators are required to have sufficient knowledge and skills. Knowledge and skills that educators in the United States have to have for supporting students with disabilities who have challenging behaviors are the knowledge and skills of the FBA process, which is a systematic process for selecting an appropriate functional-based intervention to develop an effective behavior intervention plan (Dunlap & Fox, 2011; Dunlap et al., 1991; Foster-Johnson & Dunlap, 1993; Horner, 1994; Horner & Carr, 1997; Lane et al., 1999).

In Chapter I, I mentioned that the purpose of this research was to replicate the study "Examining the Efficacy of a Basic Functional Behavior Assessment Training Package for School Personnel" (Loman & Horner, 2014). As a result of this replication, this research attempted to determine whether this training and the FBA process is effective and acceptable with special education teachers in a Thai school. In this chapter, there are three sections. In the first section, I will describe information about the FBA

process, including foundations and advances in understanding of the FBA process. In the second section, I will discuss research on changing teacher practices, including traditional professional development training, implementation science, professional development of teachers in the FBA, an exemplary FBA training described in Loman and Horner (2014), and cross-cultural issues. In the third and final section, I will discuss the methodological issues, including replication studies, cross-cultural issues in replication, and replicating the study by Loman and Horner (2014).

Functional Behavior Assessment Process

Based on applied behavior analysis, challenging behaviors can occur in students in order for them to get certain needs met. Put differently, challenging behaviors serve a function for students, and the success of the behaviors to meet those functions maintains the behaviors. Therefore, to effectively decrease challenging behaviors, behavior intervention plans (BIPs) should be developed based on the functions of the behaviors (Carr, 1977; Iwata, Dorsey, Slifer, Bauman, & Richman, 1994). The systematic process that is used to identify functions of behaviors is functional behavior assessment (FBA).

This section will examine the origins and evolution of FBA as a product of science and a practice in schools. This section consists of three sub-sections. The first sub-section is about the foundations of the FBA process. The second sub-section is about advances in understanding the FBA process, including the evidence of effectiveness of the FBA process, expanding the process of measurement, and the practicality of the FBA process in schools. The third and final sub-section is about cross-cultural issues of the FBA process.

The Foundation of Functional Behavior Assessments (FBA)

In the 1950s, a new direction in behavioral research emerged, one in which the focus shifted from basic behavioral research to applied behavior research. Applied behavioral research differed from earlier behavioral research in that it included humans as participants. Its purpose remained very much the same: to examine and explain the occurrence of behaviors in relation to stimulus and consequence conditions (Baer, Wolf, & Risley, 1968). Due to this change, the research questions addressed in the field became more complex, and questions about why behavior occurred became more important (Watson & Steege, 2003). To answer new and emerging research questions, applied behavior analysis was developed to examine the complexity of factors that result in the occurrence of behaviors. According to Baer et al. (1968), applied behavior analysis is to be used to identify the motivations and the environmental factors that encourage significant change in the behavior of individuals in specific natural settings. To advance our understanding about the occurrence of behaviors, Bijou, Peterson, and Ault (1968) proposed that data collection not only include the frequency of behaviors, but also descriptive data. A combination of qualitative and quantitative data can support researchers as they explore and explain human action.

As this new direction of behavioral research evolved, the concept of applying behavioral interventions for decreasing or changing human behaviors began to emerge. To decrease challenging behaviors, different interventions could be tried depending on the motivations and environments in which the challenging behaviors occurred (Carr, 1977; Iwata et al., 1994). In a comprehensive literature review by Carr (1977), self-injurious behaviors could be linked to five essential motivations. These consisted of: (a)

positive social reinforcement, (b) negative reinforcement, (c) sensory stimulation, (d) physiological processes, and (e) mental or emotional processes. Carr indicated that since there were different motivations driving the occurrence of self-injurious behaviors in different individuals, the interventions for decreasing self-injurious behaviors should be based on the motivations within each person. Carr recommended that motivations of behaviors and environmental factors should be examined and used as information for designing effective behavior support plans for each individual with challenging behaviors.

Carr's motivation theory induced researchers to be interested in experimental functional analysis and the functional assessment process (Dunlap & Fox, 2011). In a seminal study by Iwata et al. (1994), the relationship between antecedents and the occurrence of self-injurious behaviors was explored by recruiting nine participants with developmental delay who had self-injurious behaviors. Four antecedents were included in this study: (a) social attention, (b) academic activity, (c) unstructured play, and (d) being alone. Exposing the participants to different sets of these conditions, the researchers were able to evaluate which conditions encouraged high rates of self-injurious behaviors. The results indicated that frequency of self-injurious behaviors was functionally related to specific antecedents. Put differently, the same self-injurious behaviors could be prompted by different antecedents. The authors suggested that the same self-injurious behaviors would need to be treated by different interventions, depending on the antecedents.

As applied behavior analysis began to show how behavior was related to specific and unique environmental and motivational factors, the process of designing and

applying interventions to decrease challenging behaviors began to change to function-based interventions. Function-based interventions involve the process of finding effective behavior intervention contingencies for decreasing challenging behaviors based on the functions of the behaviors (Dunlap & Fox, 2011). To be able to identify functions of behaviors, the process called FBA became an important process used by many educators to identify functions of the behaviors and environments that reinforce the occurrence of challenging behaviors.

Advances in Understanding the Functional Behavior Assessment Process

Numerous studies have expanded our understanding of the FBA process, including how this process is done, how this process can be used, and how effective the process is. In this section, I will review three areas of studies. These are the areas of evidence of effectiveness of the FBA process, evidence of expanding processes of measurement, and evidence of practicality in schools.

Evidence of effectiveness of the functional behavior assessment process. Studies that have examined the effectiveness of the FBA process have been completed across many different populations of people, types of behaviors, and environmental settings. For instance populations have included students without disabilities (Carr & McDowell, 1980), students with disabilities such as emotional and behavior disorders (Dwyer et al., 2012; Kern, Starosta, Cook, Bambara, & Gresham, 2007; Lo & Cartledge, 2006; Parker et al., 2010), students with learning disabilities (Haydon, 2012; Whitford, Liaupsin, Umbreit, & Ferro, 2013), students with intellectual disabilities (Wadsworth, Hansen, & Wills, 2015), and students with autism (Banda, Hart, & Kercood, 2012; Gann,

Ferro, Umbreit, & Liaupsin, 2014; Wood et al., 2011). Example target behaviors include disruptive behaviors, non-compliance behaviors, off-task behaviors, aggressive behaviors, and food refusal behavior. Finally, settings that have been used for collecting and implementing the FBA process and BIPs include home and schools. In most cases "effectiveness" means that the FBA process can be used for developing successful BIPs.

A study by Carr and McDowell (1980) was one of the first to examine whether an intervention that is based on a hypothesis about the function of the behavior can be effective. In this research, the participant was a 10-year-old boy without disabilities. Self-injurious scratching behaviors were diagnosed as part of physical illness and received treatment via medication. With the treatment, the illness was cured, but the scratching behaviors were still demonstrated. To analyze the motivation of the behaviors and create an effective behavior plan, Carr and McDowell utilized an experimental FBA process on scratching behaviors. They also collected both interview and observation data to augment the FBA process. As a result of these data collection processes, scratching behaviors were identified as serving social attention functions. The results of this early examination of FBA indicated that the target behaviors were maintained because they were successful in eliciting social attention. A behavioral intervention was developed and implemented based on this function for this scratching behavior. The intervention consisted of time out and positive reinforcement. During the treatment phase, the scratching behaviors decreased. These findings showed probably for the first time in the applied behavior experimental research that the FBA process was an effective procedure identifying the function of self-injurious behaviors (SIB) and for developing effective behavior intervention plans for decreasing SIB.

Lo and Cartledge (2006) examined the effectiveness of the FBA process for creating BIPs for decreasing off-task behaviors of in both general and special education classroom settings. Four elementary students with and without disabilities participated in this study. An important feature of this study was the use of the concept of *replacement behavior*. Replacement behaviors are desirable behaviors that can achieve the same goal as the challenging behaviors, and those are then taught to the participant.

Lo and Cartledge (2006) collected data following the FBA procedure. These authors also collected a number of other supporting assessments, student interviews, student information records, a problem behavior questionnaire, the Motivation Assessment Scale (MAS) (Durand, 1989), a reinforcement preference assessment, scatter plot, and Antecedent Behavior Consequences (ABC) recordings. After analyzing the FBA data and all supplementary data, it was determined that the function of all students' target behaviors was adult attention. Behavior intervention plans were developed for these students to decrease off-task behaviors, decrease inappropriate behaviors for gaining adult attention, and increase replacement behaviors for gaining adult attention. To evaluate students' behavior changes, data were collected on both challenging behaviors and replacement behaviors during a baseline, training, BIP, maintenance, and generalization phases. Behavior intervention plans included differential reinforcement of incompatible behaviors, differential reinforcement of alternative behavior, and self-monitoring. Results of this study indicated that all students' off-task behaviors generally decreased during intervention and maintenance. Specially, during the intervention, all students demonstrated a decrease in inappropriate behaviors for gaining adult attention, and three of the students demonstrated an increase in acceptable behaviors for gaining

adult attention consistently. During the maintenance, when students were supposed to perform behaviors that they had learned without teachers' instructions and the self-monitoring process was withdrawn, three of the students could not maintain acceptable behaviors.

In another study by Banda et al. (2012) , a third grader with autism who exhibited disruptive vocalizations was recruited. The purpose of the study was to decrease the disruptive behavior by using the FBA process to develop a BIP. The setting was in three general education classrooms. The study employed an AB design. Banda et al. collected data following the FBA procedure, augmenting this assessment with direct observation, ABC recordings, the MAS, and teacher and student interviews. Based on the FBA and other data, the function of the target behavior was to gain teacher attention. After identifying the function of the target behavior, a BIP was developed using non-contingent attention strategy. The classroom teachers were trained how to deliver the BIP. To evaluate the effectiveness of the BIP, the data were collected during baseline and intervention phase. The result showed that the student's disruptive behaviors decreased in all settings during the intervention phase.

As shown in the above studies, the FBA process can be an effective process for identifying the functions of target behaviors for the purpose of developing BIPs. By using the FBA data, educators can develop an individualized behavior intervention plan for a student to decrease challenging behaviors and increase replacement behaviors.

Evidence of expanding processes of measurement. In the beginning when the FBA process first occurred in the behavioral field, the methods that were used for gathering data emphasized the experimental functional analysis process, but may have

also included interviews and observations (Horner & Carr, 1997; Sugai et al., 1998). An experimental functional analysis is included in the FBA process in order to test with certainty the developed hypotheses on the functions of the target behaviors. The experimental functional analysis is an experimental method for accurately and effectively identifying the function of the target behaviors (Alter, Conroy, Mancil, & Haydon, 2008). During this analysis, environmental conditions are manipulated to identify which and what environmental and motivational factors are controlling the occurrence of the target behaviors (Bloom, Iwata, Fritz, Roscoe, & Carreau, 2011; Davis, Fredrick, Alberto, & Gama, 2012; Iwata et al., 1994; Lloyd, Weaver, & Staubitz, 2016).

However, since the reauthorization of IDEA 1997, which required schools in the United States to employ the FBA processes for supporting students with disabilities (Hendrickson & Gable, 1999; Peck Peterson, 2002; Sugai et al., 1998), an FBA process that includes experimental functional analysis process is not widely used among educators. To complete an experimental functional analysis along with the other type of data requires extra time, additional resources, and behavioral intervention specialists (Kodak, Fisher, Paden, & Dickes, 2013; Lloyd et al., 2015; Sasso, Conroy, Stichter, & Fox, 2001). What has emerged is a simplified FBA process that does not employ an experimental functional analysis, and this is now widely used among educators (Crone, Hawken, & Bergstrom, 2007; Hirsch, Kennedy, Haines, Newman Thomas, & Alves, 2015; Loman & Horner, 2014; Strickland-Cohen, Kennedy, Berg, Bateman, & Horner, 2016).

To conduct this simplified FBA process, educators use a variety of methods, which include direct methods (direct observations using an A-B-C recording form and

interviewing students) and indirect methods (interviewing teachers and parents and completing other types of assessments) (Horner & Carr, 1997; Lennox & Miltenberger, 1989). For example, in a study by Wadsworth et al. (2015), three students with intellectual disabilities who exhibited non-compliance behaviors were recruited. The researchers collected the FBA data, which consisted of teacher interviews and direct observations to identify the functions of the non-compliance behaviors. The results from the FBA data indicated that the function of the non-compliance behaviors for all participants was escape from following academic instructions. Behavior intervention plans were developed based on the FBA data. The target behaviors in all cases were compliance. Behavior intervention plans included token economy systems and self-monitoring. To evaluate students' behavior changes, the data were collected during baseline, teacher monitoring, reversal, teacher monitoring, and a self-monitoring phase. Results revealed that compliance behaviors increased during teacher monitoring and the self-monitoring phase. However, one of the students could not maintain compliance behaviors during the reversal phase.

Without using the experimental functional analysis process as one component of the FBA process, the effectiveness of FBA for developing a good BIP becomes questionable. There are two studies that have examined the accuracy of using different methods for identifying the function of the behavior (Alter et al., 2008; Lewis, Mitchell, Harvey, Green, & McKenzie, 2015).

In these two studies, the data collection methods that were examined included interviews, observations, and assessment scales. To examine the accuracy of these data collection methods on identifying the function of the behavior, the hypotheses that were

developed based on different methods were compared with the hypotheses that would be developed based on the experimental functional analysis process. The methodologies used in these studies were similar. First, the student's basic information was gathered. Second, the FBA process was conducted by using interview, observation, and/or other assessments. The data from each method was used to develop the hypothesis of the function of the behaviors. Third, the experimental functional analysis process was conducted. The data from the experimental functional analysis process was used to develop the hypothesis of the function of the behavior. Each hypothesis that was developed based on each method was compared with the hypothesis that was developed based on the experimental functional analysis to examine the agreement.

In the study by Alter et al. (2008), four students who had challenging behaviors were included. The FBA process was conducted for each student using interviews, direct observations, and the MAS (Durand, 1989) to determine the functions of the behaviors of each student. After gathering these data, an experimental functional analysis process was conducted. When the authors compared the hypotheses that were developed with each of these methods with an experimental functional analysis process, the findings indicated that the hypotheses that were developed based on the direct observation data were consistent with the hypotheses of the functions of the behaviors that were developed based on the experimental functional analysis data in all four cases. Two hypotheses that were developed based on the MAS data were consistent with the hypotheses that were developed based on the experimental functional analysis data. Only one hypothesis that was developed based on interview data was consistent with the hypothesis that was developed based on the experimental functional analysis data.

Similar to Alter et al. (2008), Lewis et al. (2015) conducted research with five elementary and one middle school students who had mild disabilities and challenging behaviors. In the FBA process that was conducted for each student data from interviews, a scale called the Problem Behavior Questionnaire (Lewis, Scott, & Sugai, 1994), and observations were collapsed to create hypotheses for the behavior for each student. The authors then also did the experimental functional analysis process. Comparison between the hypotheses that were developed by using the three data collections of measure with that achieved using an experimental functional analysis found that the hypotheses from the three data collection methods generally matched the results from the experimental functional analysis for three of the students. For the remaining three students, the results were more mixed with some hypotheses matching, and some not.

The evidence indicates that these various sources of information can help develop hypotheses for behaviors; however, the results from these different methods of collecting data do not always match the results that would come about if one used the experimental functional analysis process. Questions, of course, can be raised as to whether a direct match between the experimental functional analysis and other methods of data collection is absolutely necessary. Nevertheless, the research evidence at this time suggests that it is highly useful to conduct an experimental functional analysis along with using the other FBA type measure.

Evidence of practicality in schools. Studies **(**Blood & Neel, 2007; Couvillon, Bullock, & Gable, 2009; Katsiyannis, Conroy, & Zhang, 2008) have indicated that the FBA process is mostly likely to be used by teachers when students exhibit aggressive and disruptive behaviors. These same studies also suggested that the most common data

collections that are used by educators in their FBA analysis are interviews and observations.

The FBA process may be effective, but if it is not practical, it is not likely to continue to be used. There are some studies that have been conducted to address the issues of implementation of the FBA process in schools. Blood and Neel (2007), for example, conducted a study with 15 schools where there were 46 students with EBD. To collect data, they used file review and teacher interview. They found that the FBA process was used with some of the students with EBD in the participating schools, but the BIPs were not based on the FBA data. The research results implied that the participating teachers neither knew how to use the FBA data, nor had sufficient knowledge of and skills in the FBA process. This study also revealed several other factors related to the implementation of the FBA process. First, the behaviors that often showed in the FBA and BIPs were aggressive behaviors, absence/tardy, and disruptive behaviors. Second, the researchers found that though 43 out of 46 students with EBD had a behavior goal in their individualized education plan (IEP), more than half of these students did not have evidence of the FBA process being conducted in their files. Third and lastly, related to FBA data collection, the study showed that teachers used interviews (47%), observations (27%), and rating scales (27%).

As another illustration, Couvillon et al. (2009) conducted an online survey with 134 elementary and high school special education teachers, special education teachers in an alternative school, and special education administrators or consultants. The online survey included 20 items. Results of the survey could be summarized as follows: 15% of the participants (20 respondents) responded that they never received FBA training while

serving as teachers; of these 20 teachers, 16 of them had been working in the schools for as long as 10 years or more. More than half of the participants responded that they had received FBA training, most of them receiving this training in their fifth year of teaching. Respondents of the participants indicated that when students exhibited chronic classroom problem behaviors and verbal and physical aggressive behaviors, teachers tended to collect FBA process data for supporting these students.

These two studies and similar research (Katsiyannis et al., 2008) yielded the following key findings. First, even though the FBA process can be used to develop BIPs, there is the potential that teachers will gather FBA data that will necessary use it and develop the plan. Second and finally, there is the possibility that many educators need more training to develop the necessary FBA knowledge and skills for translating these data into BIPs.

Cross-Cultural Issues of the Functional Behavior Assessment Process

Undoubtedly, the FBA process has promise as an effective, practical, and measurable tool that can be used by teachers for supporting students with disabilities who have challenging behaviors in the United States. However, the effectiveness of this process when applied in different cultural contexts remains uncertain (Blair, Liaupsin, Umbreit, & Kweon, 2006). Different countries, cultures, and languages may have an effect on the effectiveness of the FBA process. There are only a few studies that have examined the use of the FBA process with students who are not from the United States.

Blair et al. (2006) conducted a study with three Korean kindergarteners who had disabilities and challenging behaviors. The purpose of that study was to determine the

another country, for example, mainly Korea. The setting was in general education classrooms. The FBA assessments that were conducted included structured interviews and direct observations. Upon analyzing these data, the functions of the target behaviors provided adult attention and access to materials and activities. These hypotheses of the target behaviors were confirmed by using experimental functional analysis. Behavior intervention plans were then developed based on the FBA data. Behavior intervention plans included antecedent modifications such as curricular and environment changes and consequence modifications. To evaluate students' behavior changes, data were collected during a baseline and an intervention phase. A multiple baseline design across subjects was employed. Results of this study illustrated that all students significantly decreased challenging behaviors and increased desired behaviors.

Similar to the study of Blair et al. (2006), Turton, Umbreit, Liaupsin, and Bartley (2007) examined the effectiveness of an FBA process in Bermuda. In this study, a high school student with EBD who had challenging behaviors was recruited. The setting was an alternative school. The methodologies of this study were the same as the study by Blair et al. (2006). There were two phases, which were the FBA data collection phase and the BIP development phase. Based on the FBA data, the functions of the target behaviors were gaining attention and escaping from doing assignments. A BIP was developed to decrease the challenging behavior, which was using inappropriate language in response to teacher directions, and to increase desired behaviors, which were using appropriate words or gestures in response to teacher directions. To evaluate the student's behavior changes, an ABAB design was employed. Results of this study indicated that

during intervention phases, the student increased both the use of appropriate behaviors and responding to teacher directions.

Even though the findings of the above two studies illustrated that the FBA process can be effective when applied outside of the United States, these two studies are inadequate for determining the overall value of the FBA process in other cultures including Thailand. It is worth noting that these two studies did not address the cultural context issue in the implementation of the FBA process. It is also important to note that effectiveness alone is inadequate. It is also important to address questions of measurement and questions of practicality.

According to my knowledge, there is only one published article that examined implementation issues of a cultural context such as that of Thailand. Opartkiattikul et al. (2015) described three factors of Thai culture that can impact the implementation of the FBA process in Thai schools. First, in Thai culture, the norm is to use negative consequences for dealing with challenging behaviors. It is believed among Thai families that when your children misbehave, parents should respond by using some kind of punishment in order to help their children to learn how to behave. Based on this belief, many Thai teachers also believe that using negative consequences is an effective strategy to support students who have challenging behaviors. Thus, it is a barrier for Thai teachers to change their beliefs and behavior from using negative consequences to using positive behavior support following the theory of the FBA process.

Second is the school culture. In Thai school culture, working as a team with other teachers and students' families to deal with students' challenging behaviors is not a common practice. In contrast, the good practice for implementing the FBA process

requires teachers to work as a team to deal with students' challenging behaviors. Therefore, this cultural difference can be another barrier when implementing the FBA process in Thai schools.

Third and finally, the administrative system of the schools within Thai culture may have an impact on implementing the FBA process. In Thai culture, teachers show respect to administrators who have a higher position by being compliant with their expectations. Thus, to enhance the implementation of the FBA process in Thai schools, the approval and support from administrators and school policy makers is absolutely essential.

In spite of these possible barriers, it is my perspective that the implementation of the FBA process in Thai schools can be successful if Thai special education teachers receive high quality FBA training and gain sufficient knowledge and skills to be able to do this process in their classrooms. It is my perspective that when teachers see how effective the FBA process is for solving behavior problems, they are very likely to use these processes in their classrooms. Administrators are likely to support this process if teachers are reporting fewer problems using it.

Changing Teacher Practices

Teacher training in special education is essential to ensure that every special education teacher is qualified for teaching and supporting students with disabilities (Clemons, Mason, Garrison-Kane, & Wills, 2016). To effectively train special education teachers, a program has to help these teachers learn how to implement new knowledge and skills (Fixsen, Blase, Naoom, & Wallace, 2009). Accordingly, implementation science has relevance to how we conduct teacher training. In this section, there will be

five sub-sections. In the first section, I will discuss traditional professional development training. In the second, I will discuss implications of implementation science for professional development training. In the third section, I will review professional development of teachers in FBA. In the fourth section, I will review an exemplary FBA training program described by Loman and Horner (2014). In the fifth and final section, I will consider cross-cultural issues that may arise specific to teacher training.

Traditional Professional Development Training

Traditionally, teacher training often used short formats such as one day with lecture (Barrio & Hollingshead, 2017; Klingner, 2004; Wood, Goodnight, Bethune, Preston, & Cleaver, 2016). Guskey (1985) explained that the purpose of the traditional training was focused on changing teachers' perspectives. In accordance with this perspective, it was presumed that teachers would change their teaching behaviors and students would increase their learning outcomes when teachers applied their changed perspectives to their instruction.

Unfortunately, even though traditional teacher training might change perspectives, the evidence suggests that this model has had little impact on actual teacher behaviors and subsequent student learning outcomes (Abbott, Walton, Tapia, & Greenwood, 1999; Malouf & Schiller, 1995). In the special education field, traditional teacher training has also failed to encourage special education teachers to implement new research-based instructions and/or interventions to improve their teaching and support and increase students' learning outcomes. To close the gap between research-to-practice issues, it is

important to consider the recommendation of implementation science (Cook & Odom, 2013; Odom, Duda, Kucharczyk, Cox, & Stabel, 2014). This is discussed in the next section.

Implications of Implementation Science for Professional Development Training

Implementation science applies the scientific methods toward understanding the transfer of knowledge from research findings to actual use in routine practice (Cook & Odom, 2013; Eccles & Mittman, 2006; Odom et al., 2014). The implementation science method emerged when it was found that many interventions that had been identified as effective were not being successfully implemented in natural settings (Fixsen, Blase, Metz, and Van Dyke, 2013).

In the special education field, there are numbers of interventions that are identified as effective interventions based on research findings. Generally, these interventions are introduced to special education teachers through research in either journals, government policy, or teacher training. However, the existence of these sources does not ensure that these interventions will be implemented or implemented effectively by special education teachers. This is where implementation science becomes valuable. The training of teachers in research-based practices must consider actual implementation as an important factor (Diamond & Powell, 2011; Kennedy, Hirsch, Rodgers, Bruce, & Lloyd, 2017; Martin, Drasgow, & Halle, 2015).

Based on implementation science, there are seven core implementation components that should be considered when developing teacher training in order to increase the implementation of new knowledge and skills of special education teachers in

schools. Cook and Odom (2013) and Fixsen et al. (2009) described these components as "staff selection, preservice and in-services training, ongoing coaching and consultation, staff evaluation, decision support data system, facilitative administrative support, and system interventions" (Cook & Odom, 2013, p. 149 ; Fixsen et al., 2013, p. 533). This will be expanded upon in a later section.

Professional Development of Teachers in Functional Behavior Assessment

As mentioned in the section on the practicality of FBA in schools, the FBA process can be used to decrease and prevent student challenging behaviors that are exhibited across different populations and settings. However, the success of using this process depends on several factors. One of the factors is whether the teachers who use the process really know how to use it. As reported earlier, there is evidence that teachers often lack sufficient knowledge and skills about the FBA process to effectively implement it in their classrooms (Blood & Neel, 2007; Couvillon et al., 2009; Katsiyannis et al., 2008). Hence, it is reasonable to believe that a rigorous and systematic training program in conducting and using an FBA is a good idea for supporting teachers.

There are several studies that have been conducted that examined the effectiveness of FBA training programs for teaching both preservice and inservice teachers (Borgmeier, Loman, Hara, & Rodriguez, 2015; Crone et al., 2007; Fallon, Jie Zhang, & Eun-Joo Kim, 2011; Hirsch et al., 2015; Lane et al., 2015). For example, Fallon and colleagues (2011) conducted a study that examined the effectiveness of an FBA unit that was embedded in a one-year special education program for teachers in a certificate program in special education. There were 59 preservice teachers who

participated in this study. The measures that were used for indicating the effectiveness of the training program were pre- and post-test scores. The FBA training program was embedded in one of the course requirements that had to be completed in a one-semester-long course. The FBA training program that was provided in this course could be divided into three phases. The first phase was a content knowledge training phase, including knowledge about the FBA process and BIPs. The second phase was the implementation of the FBA process. The third phase was the implementation of the BIPs that were developed based on the FBA data. During the second and third phases, preservice teachers received feedback from mentors as an on-going coaching support. Within 14 weeks, each participant had to submit the final project representing all information that they had from collecting FBA data and implementing BIPs for their case studies. Experts evaluated each participant's final project and provided scores. The results illustrated that this course was able to increase the knowledge and skills related to the FBA process and BIP development.

A study by Crone et al. (2007) examined a three-year FBA training program for preparing in-service educators. There were 68 educators from 11 schools who participated in this study. These educators were assigned to work as a team during the implementation of the FBA process and behavior support planning. There were 11 teams in total. Each team consisted of administrators, paraeducators, general education teachers, and special education teachers. Throughout the program, the participants received both workshops and consultations for increasing their knowledge and skills about implementing the FBA along with behavior support planning. During the first year, the training program was designed to increase the knowledge and skills of the in-

service teachers about the FBA process and behavior support planning. During the second and third years, the training program focused on providing support and feedback through on-site consultation to help the in-service teachers implement their knowledge and skills. Scores from an "FBA Knowledge Test" and scores from an "Individual Systems Evaluation Tool" were collected to assess the effectiveness of the training program. As a result of this training program, all participants increased their knowledge about FBA and behavior support planning and their skills to implement the knowledge in schools. In addition, although some participants had left the study, the findings revealed that all remaining participants continued to implement the FBA process with more than 75% fidelity after one year.

Lane et al. (2015) conducted a study to examine the effectiveness of a one-year FBA training program for training 48 in-service teachers. The program consisted of four main sessions and one optional session. The content knowledge of this training included how to determine which students needed to conduct the FBA process, how to conduct the FBA and develop the hypothesis, how to collect baseline data, how to develop an intervention, and how to test an intervention. After each session, the training program also provided an on-site consultant for the participants to receive feedback. Before and after the training program, the participants were required to complete surveys, which assessed both their knowledge and skills about the FBA process, their confidence in using the FBA process, and their views about the usefulness of the training program. The results from these surveys indicated that the participating in-service teachers had

increased their knowledge and skills about the FBA process, their confidence in implementing the FBA process, and their perception of the usefulness of the FBA process.

An Exemplary Functional Behavior Assessment Teacher Training Program: Loman and Horner (2014)

Each of the forgoing training programs proposed well-developed training components and demonstrated a very reasonable rate of success when implemented and evaluated within the rigorous process. Another exemplary FBA training program is that proposed in the work of Loman and Horner (2014). I have chosen to focus on the Loman and Horner (2014) study in my own work because the materials are well documented and readily available. I was able to access all of the training materials and assessment instruments either online or in the dissertation of the first author (Loman, 2010). Additionally, the Loman and Horner (2014) study itself was well described. The Loman and Horner (2014) training program can be done as a succinct service process, which matches my needs to provide teachers with an efficient and timely training in FBA.

In their study "Examining the Efficacy of a Basic Functional Behavioral Assessment Training Package for School Personnel," Loman and Horner (2014) detailed a FBA training program for increasing knowledge and skills of educators on using and implementing the FBA process. Twelve educators in schools including school counselors, learning specialists, and administrators were recruited for the research. These individuals, first, received four 1-hour sessions that were designed to increase their knowledge about FBA and how to use FBA for collecting students' data and identify students' target behaviors. To assess knowledge change of these individuals, each

individual had to complete a pre- and posttest on FBA knowledge assessment. The comparison between pre- and posttest scores of each individual were compared to identify knowledge change of each individual. Second, these individuals were assigned to conduct an FBA process with case studies in order to support these individuals to practice and examine their abilities to implement FBA in their schools. To assess the implementation process of these individuals, a FBA Procedural Adequacy Checklist was used to evaluate whether these individuals completed the FBA process with fidelity. Additionally, the accuracy of the FBA summary statements that were developed by these individuals were also assessed by comparing with the FBA summary statements that were developed by authors using experimental functional analysis. The social validity and efficiency of the FBA process and training program were also assessed by using an Acceptability Rating Questionnaire and an FBA Task Time log.

The results of this study indicated that every educator increased average posttest scores after receiving training. All FBA processes that were conducted by educators were conducted with fidelity. The average time that educators spent collecting FBA processes was below two hours. Overall, educators were satisfied with the FBA process and the basic FBA training program.

As a further test of this study's potential usefulness as a FBA training process, I examined its relationship with the seven core implementation components from implementation science (Cook & Odom, 2013; Fixsen et al., 2009). At least four of these implementation components are met by the Loman and Horner (2014) study.

First is the process of staff selection. It is important to select staff who have enough background knowledge to learn new knowledge and skills and who also have

experience in a specific area. It is important because there has to be an existing base of knowledge in order for teachers to acquire more expertise in the same knowledge domain. Additionally, these selected individuals have to be working in situations where the new expertise will be applicable and will make sense in their day-to-day operations. In the FBA training program of Loman and Horner (2014), even though this training program was developed focusing on increasing knowledge and skills of many different educators in schools, the educators who were included in this study had experience working with students who had challenging behaviors because they were part of behavior support teams. This means in the Loman and Horner (2014) study, the educators who were selected had background knowledge and experience about behavior intervention and had experience working with students who had challenging behaviors.

Second is the process of training. The process of training should not only deliver new content knowledge, but also the training program should include activities for practicing skills and receiving feedback (Fixsen et al., 2009; Spodek, 1996). In the FBA training program of Loman and Horner (2014), this training program consisted of four sessions. In each session, educators had an opportunity to practice their knowledge and skills on the FBA process through hands-on activities such as doing class assignments, doing role-playing, and conducting interviews and observations in schools. In addition, after completing each classroom assignment for each session, educators received feedback from either the trainers or other participants. The practice opportunities of this training program support and ensure that these participants learned how to effectively

implement the FBA process. Consequently, this type of training enhances the likelihood that these educators will continually implement the FBA process in their schools after receiving the training.

Third is staff performance assessment. Staff performance assessment must include: (a) effectiveness of the training, (b) effectiveness of subsequent implementation, (c) implementation fidelity, and (d) reporting knowledge and skills change (Arden, Gandhi, Edmonds, & Danielson, 2017; Fixsen et al., 2009). Based on the implementation science concept, when interventions are effectively implemented with fidelity, positive outcomes will be produced. These positive outcomes will increase the likelihood of these new interventions being implemented in the future. The FBA training program of Loman and Horner (2014) meets this core component by providing continuous feedback and by carefully evaluating FBA implementation in the participants.

Fourth is facilitative administration. Based on a study by Bambara, Nonnemacher, and Kern (2009), to be able to maintain the use of an evidence-based practice such as individualized positive behavior support in schools, administration plays an important role. Without support from the administrators, teachers do not participate in training, they do not implement new interventions in schools, and they will not collaborate well with other teachers. Consequently, training programs that are developed to train teachers in schools should also encourage administrators to participate. Loman and Horner (2014) included principals and vice principals of the schools as well.

Three of the core implementation components were not addressed in the Loman and Horner (2014) study. These were ongoing coaching and consultation, decision support data system, and system interventions. There were training studies in the

literature that addressed on-going coaching; for example, the study by Crone et al. (2007) and Lane et al. (2015). However, these studies were conducted for a year or longer, and that was impractical for this study. Given that the Loman and Horner (2014) study was successful in terms of the impact on teacher knowledge of the FBA process, and given the short time to spend for the training, their training program appeared feasible for my study.

Cross-Cultural Issues and Teacher Training

Similar to the purpose of teacher training in the United States, the purpose of teacher training in Thailand is to support teachers to change perspectives, knowledge, and skills for improving teaching instruction in classrooms (Boonmak, Tesaputa, & Duangpaeng, 2015). To support these changes, the Office of the Basic Education Commission developed a teacher training project called the "Teacher Development Coupon Project." The purpose of this project is to improve and advance knowledge and skills of Thai teachers in teaching and supporting Thai students. In this project, there are a numbers of training programs that are offered to Thai teachers. In 2017, under the responsibility of the Teachers and Basic Education Personnel Development Bureau, there were 1,460 teacher training programs approved for Thai teachers who might be interested in increasing their skills ("Teachers and Basic Education Personnel Development Bureau," 2017). Among these, there were 19 training programs in the area of special education. It is important to note that all of these programs were voluntary; that is, teachers did not have to participate in any of these programs.

Teacher training programs in Thailand, as in other parts of the world, may use different models for training, including the traditional teacher training model and

workshop training in which participants practice their learned knowledge and skills. Although the extant research does not provide a basis for identifying which models are frequently used for teacher training in Thailand, a small number of studies have been done examining the impact of teacher training on teacher learning and performance (Kantavong & Sivabaedya, 2010; Opartkiattikul et al., 2016).

One of these studies was specifically conducted in relation to FBA training. Opartkiattikul et al. (2016) conducted a study to evaluate the effects of FBA training on behavior change in teachers and students with respect to the implementation of FBA processes in schools. Four classroom teachers and four students from two elementary schools participated in this study. The school principal and an assistant principal were also included in this study.

This study was divided into three phases. The first phase was before receiving the training. During this phase, interview and observation data were collected. Teacher and administrators were interviewed by using semi-structured interviews. The classrooms of the participating teachers were also observed. Information from interviews and observations were used to assess the school environment, classroom environments, teacher needs, behavior intervention that were currently used, and students' behaviors before the implementation of training.

The second phase was the teacher training phase. The training in this session was conducted across three sessions. Three sessions included knowledge about the principle of the FBA process, how to develop hypotheses and a BIP, evaluating an implementation plan, and working with parents and other related services. The training occurred every two weeks. Following these three sessions, teachers had time to apply what they had

learned in these sessions. Observations of the participants to assess the behavior change of both teachers and students were conducted between these training sessions.

The third phase of this study occurred after the training was over. During this phase, observations and interview data were collected. During this phase, observations, semi-structured interviews, and a focus group were used to assess and evaluate teachers' and administrators' perceptions of the FBA process and the training program.

The results of this study indicated that during the training phase, all teachers increased the use of positive behavior strategies and the use of the FBA process to support their students. Also, during the training phase, all students decreased some of their challenging behaviors. Based on the interview and focus group data, findings indicated that the success of implementing the FBA process was dependent on teacher attitudes, teacher workload, school staff support, parent support, and coaching during the implementation.

Even though the Opartkiattikul et al. (2016) study is very promising, it by itself is inadequate for reaching conclusions about models for training and the utilization of FBA processes in Thailand. There is a need for more varied studies of teacher training processes as they relate to the implementation of FBA in Thailand.

Methodological Issues

In accordance with the scientific method, to confirm the effectiveness of an intervention and a training program, more than one study is required. To confirm the effectiveness of an intervention and a training program, the specific intervention and training program must be examined across applications with different populations, in different settings, and with variation. The generalizability of an intervention and a

training program should be evaluated by using a method called *replication* (Cook, 2014; Leppink & Pérez-Fuster, 2017).

In this section, there will be three sub-sections. In the first sub-section, I will discuss general replication study issues and the need for replication studies in the field of education. In the next sub-section, I will discuss cross-cultural replication. In the third and final sub-section, I will review the study by Loman and Horner (2014).

Replication Studies

Replication refers to the process of utilizing the scientific method to reproduce previous research studies in order to examine whether the same and/or similar results can be shown to occur again (Cook, 2014; De Lone, 1990; Lindsay & Ehrenberg, 1993; Travers, Cook, Therrien, & Coyne, 2016). In replication studies, variations in populations, settings, and methodology can be introduced in order to extend the findings of previous studies. However, these modifications that are used have to retain the essential integrity of the previous research (De Lone, 1990).

The purposes behind replication can vary depending on the intention of the authors in completing a replication of previous studies. However, the major purpose of this type of study is to examine the generalizability of an intervention and a training program--whether an intervention and training can be implemented within different conditions (Cook, 2014; Lindsay & Ehrenberg, 1993; Travers et al., 2016). Some replication studies can also be used for the purpose of making improvement on the implementation processes of previous studies (De Lone, 1990). However, a primary purpose of replication is to gain an understanding of whether a set of intervention procedures described in previous studies can result in positive changes within a different

population of people or in a different set of circumstances. In other words, replication studies can be used to explore whether implementation processes can be performed in new settings and contexts resulting in the same or similar results as in the original research studies.

In the education field, evidence-based practices (EBPs) are the practices that need to be used by teachers to ensure successful student outcomes (Gromoske & Berger, 2017). To identify an intervention and training program as an EBP, it needs to be repeatedly conducted in experimental research. Without replication, an intervention and training program cannot be really identified as an EPB in the education field (Cook, 2014; Therrien, Mathews, Hirsch, & Solis, 2016; Travers et al., 2016). In addition, replication studies can validate the findings of other research studies (Cook, 2014; Therrien et al., 2016; Travers et al., 2016). The more replication studies that are conducted on the same intervention and training program, the stronger the empirical evidence is that the particular intervention and training program is effective. Lastly, replication studies can strengthen our knowledge about how an intervention and training program works and why it is effective (Lindsay & Ehrenberg, 1993). Replication studies can help identify specific intervention components that are effective and necessary and other components which may be less effective or unnecessary. Hence, replication studies can guide a field toward intervention training programs that are more efficient and more productive.

As mentioned above, replication studies can adopt all or some elements from the previous studies that are being replicated. These different levels of adaptation can be categorized (Lindsay & Ehrenberg, 1993; Travers et al., 2016). First, a replication study

can maintain all of the elements or conditions from the original research project such as methods, measurement, and analysis. This is called "close replication" or "direct replication." For example, in a study by Gromoske and Berger (2017), which replicated the study of Parrish and Rubin (2011), the purpose was to examine whether an EBP continuing education training model was effective across a different population of trainers and trainees. The research procedure, measurement, and analysis that were used in the replication study were similar to the original model. The results of the study by Gromoske and Berger (2017) were similar to those found in the previous study. The training had an effect on improving knowledge, skills, attitudes, and implementation of the EBP. The only adaptations that the researchers used in the replication were a different trainer, a different population of trainees, and a different amount of time for training.

Second, a replication study can use some, but not all, of the major elements of the original research project. This type of replication research is called "differentiated replication" or "conceptual replication." Studies of this sort can examine specific processes associated with the original research to see what impact they have on learning and behaviors. While direct replication studies provide evidence of validity of the original research, conceptual replication does not achieve this result (Travers et al., 2016).

Cross-Cultural Issues in Replication

As mentioned in the previous sub-section, there is a need for replications of studies in teacher training as a means to validate and show the generalizability of these different teacher training programs. Most replications of teacher training processes that I

have examined in the field of education are conducted in the same or similar cultural context. While such studies are valuable, a more stringent test is whether a program that has been developed in one culture can be used in a totally different cultural context.

It appears that very few studies have been done that examine the replication of training programs from one culture to another. I was able to find one study. Higbee et al. (2016) duplicated the program used by Pollard, Higbee, Akers, and Brodhead (2014).

In the study by Higbee et al. (2016), the work of Pollard et al. (2014), which was done with undergraduate students and special education teachers in the United States, was replicated in Brazil. This study was conducted to determine the effects of interactive computer training (ICT) on increasing knowledge and skills of participants to implement discrete-trial instruction (DTI). All materials in this training program were translated into Brazilian Portuguese. This study was divided into two sub-studies. The first study consisted of four voluntary participants who were undergraduate students and who were to implement DTI on four young children diagnosed with autism. The second study consisted of four special education teachers who were to implement DTI on four young children diagnosed with autism. A multiple baseline design across participants was used in both these studies to determine the effectiveness of the training program. In both studies, the research method was the same. The results of this training indicated that all participants demonstrated increased knowledge and skills on using DTI. However, most of the participants required extra feedback in order to retain the DTI skills. In the discussion section of this research, Higbee et al. (2016) reported that the cultural difference between the current study and the original study might have had an impact on the completion time associated with the ICT modules. In this study, Higbee et al. (2016)

found that the average time that all participants spent to learn from ICT modules was longer than the average time that all participants spent in the original study.

Although research associated with the replication of teacher training activities across cultures is very limited, there are a number of advantages for doing replication across cultures. First, replicating teacher training reduces the high cost of developing a brand new teacher training activity (Higbee et al., 2016). Instead of developing a new teacher training activity, adopting an evidence-based teacher training program will help reduce the cost for developing a new teacher training program. In a developing country such as Thailand, to invest large amounts of money to develop a new teacher training program that may or may not be effective to increase knowledge and skills of teachers is difficult and has a high risk. Therefore, adopting an existing teacher training activity will support the developing countries in saving their budget for increasing the quality of the teachers.

Second, replicating teacher training helps solve the problem of a lack of qualified professionals for training teachers (Higbee et al., 2016). In Thailand, there are limited numbers of highly qualified individuals for training teachers, especially in special education. By adopting an already-designed teacher training program, there is less need for recruiting a highly qualified professional to create a training program. The language barrier is also an issue related to this problem. When using a highly qualified professional who comes from another country and who speaks in a different language, the instructional process during the teacher training can be affected.

Third, replicating teacher training programs reduces time spent on developing new teacher training programs. By adopting an existing teacher training program, the time required to develop, conduct, and evaluate the new program is saved.

Replicating the Study of Loman and Horner (2014)

Previous sections have identified FBA as an important practice for teachers who need to develop BIPs for students. Previous sections have also identified that teachers will need training to be able to do this process with their students. I have also raised questions in previous sections about both the feasibility of training practices used in the United States and the utility of FBA practices in Thailand. To examine these concerns, as noted in Chapter I, this study described here replicates the Loman and Horner (2014) study "Examining the Efficacy of a Basic Functional Behavioral Assessment Training Package for School Personnel." This allows me to evaluate, in combination, a particular training process and the FBA process within the context of a school in Thailand.

The purpose of the research conducted by Loman and Horner (2014) was to determine the effect of the FBA process and a basic FBA training package on the behavior of teachers. There were 12 elementary educators and 10 students with and without disabilities who participated in this study. Educators worked as counselors, learning specialists, and administrators. The 10 students were recruited to be case studies for the elementary educators who implemented the FBA process in their schools.

Their study was divided into three phases, which were a training phase, an implementation phase, and an experimental functional analysis phase. Each of these phases will be described below.

In the training phase, the educators were provided with skill training on the use of FBA for the development of BIPs. The training phase was based on the basic FBA training package developed by Loman and Borgmeier (2010). In this phase, educators received four 1-hour training sessions. The first session was an introduction session. A basic FBA training package and the FBA concept were introduced to these educators. The second session was about investigating behaviors including learning how to use a Functional Assessment Checklist (FACTS) to conduct interview data. The third session was about learning how to conduct observational data using an ABC recording form and learning how to develop a summary statement for the behavior. The fourth and final phase was about learning how to use the competing behavior pathway for developing behavior intervention supports and learning strategies for working with FBA teams to develop functional-based behavioral supports.

The instructions that were used in this first training phase included lecturing, modeling, and practicing. During the second and third session, educators were assigned to practice their learned knowledge and skills in their classrooms. To evaluate the understanding of each educator after receiving each training session, each educator had to complete a "Checks for Understanding" worksheet. The material used in this training was the "basic FBA training" manual, which included content knowledge, worksheets, and PowerPoints that were part of the lecturing series. Before and after receiving this training, educators were required to complete a pretest and a posttest that assessed their FBA knowledge.

During the implementation phase, each educator conducted the FBA process with a targeted student that they selected in their schools. Upon completion of the FBA

process, these educators turned in their data to the trainers. When conducting the FBA processes with their students, these educators did not receive any support from the trainers. The processes and materials that these educators were to be using were those provided in the basic FBA training manual and including a FBA task time log.

The experimental functional analysis phase occurred last and provided the basis for determining the effectiveness of the teacher training program. After receiving the FBA data from each educator, Loman and Horner (2014) developed an experimental functional analysis process for each student testing the summary hypotheses that had been developed by educators. During this process, each student was placed in different conditions including control, attention, and escape conditions to assess the occurrence and non-occurrence of the target behaviors. Observational data were gathered. Each experimental functional analysis process was designed differently depending on student's target behavior, the summary hypothesis, and the appropriate setting for analyzing behavior function.

As previously summarized, results of this study were that all educators increased their knowledge about the FBA process and were able to conduct an FBA with fidelity. The FBA process and the training were also rated by the participants as acceptable and useful.

Proposed Study

Since the FBA process is a new intervention that has only been recently introduced in Thailand, there are limited resources and few qualified professionals who can implement the FBA process effectively. To solve this problem, a FBA teacher training program would be useful for training teachers in Thailand. As noted previously,

to develop a new FBA training program for training, Thai teachers might take time, cost money, and require a cadre of highly qualified trainers. A replication study provides a reasonable and efficient option for exploring FBA training with Thai Teachers.

The review of the literature indicates that the Loman and Horner (2014) FBA training program is potential doable and could be an effective way for training teachers in Thailand. This training is a practical one because it could not only increase knowledge and skills of participants, but it also could show teachers how to implement the FBA process after the training is over. In addition, the training does not require a long period of time. Based on these reasons, I chose to replicate the study of Loman and Horner (2014).

The research method that I used in this study is similar to that of the Loman and Horner (2014) study. I modified their research questions to address the above purposes and also to explore Thai culture as a variable when considering the social validity of the FBA process and the training. Twelve special education teachers who worked at a laboratory school in Bangkok, Thailand are the participants in this study. The research was divided into three phases: (a) training phase, (b) conducting a FBA procedure by the nine special education teachers phase, and (c) conducting a FBA procedure by the principal investigator phase. The *Practical Functional Behavioral Assessment Training Manual* was provided to the participants to use during the training. All materials that were used in the previous study including the FBA Knowledge Assessment, the FBA Procedure Adequacy Checklist, the Acceptability Rating Questionnaire, and the FBA task time log were used. These materials were used for assessing teachers' knowledge and skills, implementation fidelity, efficacy, and social validity. As will be described in

Chapter III, some of additional materials were added based on the use of the control group and based on the application occurring in Thailand.

Summary

To develop an effective behavior intervention plan (BIP) for supporting students with disabilities, understanding the functions of behaviors is an essential component that educators have to know before developing an effective BIP. The benefit of using the functions of the behaviors to develop a BIP is not only decreasing the challenging behaviors, but also helping educators to develop a BIP that increases replacement behavior and prevents the occurrence of the challenging behaviors. As a result, in developing the BIP based on the function of the behavior, each student will have an individualized BIP based on his/her wants and needs.

The effective process that is used to identify the functions of the behaviors is called FBA. In the United States, this process has been used in the schools since the reauthorization of IDEA 1997 (Hendrickson & Gable, 1999; Peck Peterson, 2002; Sugai et al., 1998). Evidence of effectiveness, measurement, and practicality of the FBA process as shown in studies in the United States illustrate that this process is effective for supporting students who have difficult behaviors across populations and settings. However, the effectiveness of this process in different countries that have different cultural contexts is still questionable. There is limited research on the effectiveness of the FBA process when used in different cultural contexts. To expand knowledge about the effectiveness of the FBA process, research on the effectiveness of the FBA process in different cultural contexts needs to be conducted.

To effectively implement the FBA process, teachers must possess adequate knowledge and skills. As shown in the literature review, traditional professional development training designed to only change teachers' attitudes and knowledge is not sufficient to change teachers' behavior. Hence, with respect to teacher training in FBA process, it is necessary to use a program that includes practical experiences. In the United States, there are several FBA training programs that aim to help increase knowledge and skills of educators to conduct the FBA process. These training programs have been developed and successfully used for training educators in the United States. It is unknown whether these training programs would be effective if used in other countries such as Thailand. To explore this issue, the study reported here replicates the Loman and Horner (2014) training program in a Thai school with Thai teachers.

CHAPTER III

METHODOLOGY

This chapter focuses on describing the methodology that was used for answering the research questions of this study. As described previously, this study was a replication study of "Examining the Efficacy of a Basic Functional Behavior Assessment Training Package for School Personnel" (Loman & Horner, 2014). Therefore, the research questions that were used were mainly based on those within that study. However, the research questions were adapted to respond to the unique sample population and culture represented by the participants in this study, as well as some revisions in the research processes. The research questions were as follows:

Q1 Is there a change in knowledge of Thai special education teachers following training using the Loman and Horner (2014) package?

Q2 Is there consistency between FBA summary statements that are developed by Thai special education teachers following training and the FBA summary statements that are developed by the principal investigator? Is there a difference between summary statements completed by the trained Thai special education teachers and summary statements completed by untrained Thai special education teachers?

Q3 Are the FBAs conducted by Thai special education teachers procedurally adequate following training?

Q4 Is the Basic FBA training process perceived as efficient and socially valid by Thai special education teachers?

The study that addressed these research questions was divided into three phases. Each phase employed a different set of measurements to address the forgoing research

questions, as will be explained later in this chapter. In this chapter, I cover information about the setting and participants, sampling procedure, experimental procedure, measurement, and data analysis. I will begin with setting and participants.

Setting and Participants

The setting and participants are described in this section. Information includes the characteristics of the setting, the characteristics of the participants, and the sampling procedure.

Setting

The setting was a university laboratory school in Bangkok, Thailand. The school consisted of elementary, middle, and high school levels. Thus, this school had students from Grades 1 through 12. Each grade level was divided into seven classes that had approximately 40 students each. In total, there were approximately 280 students in each grade level. In each classroom, there were at least two classroom teachers.

Typically, students in this school began their education in the first grade and continued until they had completed all grades. Acceptance in the school was competitive, requiring an admission test upon application. An admission committee selected students based on scores; however, there was always representation of students from families at the university. A certain number of children with autism were also admitted to the school population in a collaborative effort with a local hospital. A certain number of students with learning disabilities (LD) also met school criteria and were admitted.

In this school, there was a center for supporting students with special needs who had LD or autism or were at risk educationally. The services that this center offered

supported students with special needs, depending on their disabilities. The services included resource classrooms, self-contained classrooms, and the provision of accommodations and modifications for children in general education classrooms. The services that a particular child received depended mostly on his/her academic achievement. This means that if students with disabilities had minor problems with academic achievement, they would be mostly included in general education classrooms and studied in the resource classrooms as needed. This group of students typically received accommodations. The students with disabilities who had significant academic achievement problems were likely to be placed in a self-contained classroom where they received curriculum that had been extensively modified. Students who were eligible for receiving these services had to be referred by classroom teachers and they had to be diagnosed by a doctor as having disabilities.

Participants

Teachers. Twelve teachers participated in the study. These were special education teachers employed by the school. To qualify for participating, the participants had to meet the following criteria: (a) be nominated by the director of the center to participate in this study, (b) have volunteered to participate in this study, (c) have at least one year experience teaching in this school, (d) have at least one student with disabilities who had challenging behavior whom he/she was teaching, and (e) had received in the past either minimum training on the FBA process or no training at all.

Students. Twelve students in total were selected to participate in the study. These students were nominated by their special education teachers, one per special education teacher. These were to be students with disabilities who received special

education services from the center for students with special needs. The twelve teachers were encouraged to select their most challenging cases.

To qualify for participating, the students had to meet the following criteria: (a) diagnosed as having disabilities such as learning disabilities or autism; (b) exhibited challenging behaviors that impeded their learning or that of others and/or impeded development of relationship with peers; (c) the exhibited behaviors occurred frequently--i.e., at least three or four times per week; and (d) the students who participated in the study were all younger than 18 years of age. Behaviors that met these criteria could include, but were not limited to, consistently out of seat, yelling out during class instruction, talking with others during class instruction, refusing to follow class instruction, crying, and/or hitting others.

The students who were finally selected for this study were all served in general education classrooms, either partially or fully. Ten of these students had autism. Two of these students had learning disabilities.

Sampling Procedure

To recruit 12 special education teachers for this study, convenience sampling was used. Remler and Van Ryzin (2010) have described convenience sampling as a process of selecting participants based on their accessibility to the researcher within the population being studied. I chose this laboratory school to be the setting of the study because I had contact with the principal of the school and the director of the center for students with special needs.

For this study, after receiving approval from the Institutional Review Board (IRB) (Appendix A) and the principal of the laboratory school (Appendix B), the director of the

special education center informed the teachers about this research including the purposes of the research study, the approximate time requirement for the study, and the characteristics of the children that were needed to complete the study. Nominated special education teachers who met the requirements and indicated a desire to participate in the study then contacted the director of the center who contacted the researcher.

Consistent with the way Loman and Horner (2014) gathered their sample, I sought nominations from the director, and the individuals that the director selected either chose or did not choose to be part of the study. As noted previously, an attempt was made to select teachers who were supporting students in general education, and this attempt was successful. As just noted, these teachers were contacted to determine their willingness to be part of the study (Appendix C). Additionally, approval of the families and children was sought for the children that were the participants of the study under these teachers (Appendices D and E).

Before participating in this study, the 12 special education teachers who were in the subject pool were randomly assigned either to an intervention group or a control group. Nine of these teachers were in the intervention group. Three of these teachers were in the control group. The three teachers in the control group did not receive any FBA training during this study. However, these teachers were offered an opportunity to receive the FBA training after the study was over. The participants in both groups received and had to sign the consent form indicating agreement that they were volunteering to participate in this study.

As noted previously, these 12 teachers had to identify 12 students with disabilities to participate in this study. Based on the assignment of the teachers these 12 students

would either be in the intervention group or in the control group. That is, the 9 teachers who were assigned to be in the intervention group would have 9 students now assigned to that group; the 3 teachers who were assigned to be in the control group would now have 3 students automatically assigned to that group.

Experimental Procedure

The experimental procedure of the study was divided into three phases. These phases consisted of (a) training sessions, (b) conducting the FBA process by Thai special education teachers, and (c) conducting FBA process by the principal investigator.

Phase 1 Training Sessions

As already described, the special education teachers were divided into two groups, which were an intervention and a control group. For the intervention group, before the first training sessions began, the nine special education teachers who volunteered to be in the study and were randomly assigned to be the intervention group were given explanations about the purpose of this study and the procedure of this study. During this period, the nine special education teachers received the training manual, *Practical Functional Behavioral Training Manual for School-Based Personnel: Participant's Guidebook.* For the most part, the manual was translated and then used as described by Loman and Horner (2014). However, examples and some of the wording was changed to match the terminology of Thai language. At no time would information be changed such that the knowledge assessment would have to be changed. Also, the nine special education teachers had to complete a pretest of the FBA Knowledge Assessment instrument. For the control group, during the first week of the training of the intervention group, the three special education teachers who volunteered to be in the

study and were randomly assigned to be the control group took a pretest of the FBA Knowledge Assessment instrument.

The nine special education teachers who were assigned to the intervention group participated in four 1-hour training sessions that were those used in Loman and Horner (2014) study. These training sessions were developed by Loman et al. (2013). The three special education teachers who were members of the control group did not receive any training.

I delivered the training program to the nine special education teachers. The format of the training in every session was in the following pattern. First, I began with the objectives of the session, reviewed previous knowledge, conducted training activities, provided time for feedback and discussion, reviewed main points of the session, and ended with reporting the task for the coming week. Throughout each training session these special education teachers had opportunities to learn new knowledge and skills, practice using new knowledge and skills, present their understanding after each session, and receive feedback from the trainer. During Sessions 1-3, each special education teacher was required to complete and submit at least two assignments. The first assignment in all three sessions was for the special education teachers to complete a worksheet called "Checks for Understanding." The second assignment was different for each of the three sessions, and it was a task that they completed related to the materials that ware covered, which they had to perform and complete before the next training session. In Session 4, there was one assignment that the special education teachers were assigned to perform and complete, which was conducting an FBA process with their case study students.

In the first session, as was done by Loman and Horner (2014), the training started with providing overview information about the basic training process and the FBA process. This included basic concepts of behavior and functions of a behavior. The second session focused on learning and practicing how to conduct an interview. During this session, special education teachers learned how to conduct interviews with teachers and students using the Functional Assessment Checklist (FACTS). In addition, these special education teachers learned how to develop summary statements about target behaviors based on interview information. The third session focused on learning and practicing how to conduct direct observation. During this session, special education teachers learned how to plan before observations, conduct observations by using an ABC recording form device, and develop summary statements regarding a target behavior based on that data. The fourth session focused on how to create behavior intervention plans based on the FBA data (interview and observation data). Special education teachers used, among the other things, the competing behavior pathway analysis (Crone, Hawken, & Horner, 2015) and learned how to use this as a tool to better understand the functions of identified target behaviors. This session emphasized how a team should work together to create an intervention plans for students. At the end of this session, the nine special education teachers completed a posttest of the FBA Knowledge Assessment.

For the three special education teachers who were in the control group, within the same week, these teachers completed a posttest of the FBA Knowledge Assessment. Additionally, these special education teachers participated in semi-structured interviews. The purpose of these interviews was to determine how they perceived the problem behaviors of their case study students, what they thought caused the students to

demonstrate these behaviors, what types of strategies they would use for dealing with these behaviors, and what summary statements they would produce about the behaviors and the causes.

Phase 2 Conducting Functional Behavior Assessment Process by Thai Special Education Teachers

Following the procedures described by Loman and Horner (2014), after the training, the nine special education teachers in the intervention group were required to conduct the FBA processes with their case study students. First, these special education teachers conducted interviews using FACTS materials. After conducting the interview process, these special education teachers summarized and developed summary statements of their case study students. Second, they conducted direct observations using the ABC recording forms. After conducting the direct observations, they used their observation data to develop summary statements for their case study students. Lastly, these special education teachers had to combine these two data sources and their respective summary statements to develop final summary statements for their case study students. During this process, the special education teachers recorded the time that they spent conducting interviews, conducting observations, and developing summary statements of their case study students in the FBA Task Time Log. The log used in this study was exactly the same as the log used by Loman and Horner (2014), and every effort was made to give the same instructions as was done by Loman and Horner.

These special education teachers conducted the FBA process by themselves without any coaching from the trainer. After completing the full FBA process, the special education teachers submitted all documents, including FACTS materials, ABC

recording forms, summary statements of behaviors, and the FBA Task Time Log to the principal investigator.

Phase 3 Conducting Functional Behavior Assessment Process by the Principal Investigator

After the nine special education teachers conducted the FBA process with their case study students, the principal investigator conducted a FBA process with the same case study students and developed summary statements for each of the case study students. The FBA procedure and materials that were used in this phase were identical to those used by the nine special education teachers in the intervention group.

However, it is in this phase where the major difference existed between the way I conducted the FBA process and how Loman and Horner (2014) conducted the FBA process. While Loman and Horner used an experimental functional analysis procedure to identify functions of problem behaviors of case students, I created my FBA summary statements using the same kind of data that were used by the trained special education teachers.

Measurement

To answer the four research questions used in this research, seven different assessment processes were used: FBA knowledge assessment(Appendix F); control group interview questionnaire(Appendix G); functional assessment checklist (FACTS) (Appendix H); Antecedent Behavior Consequence (ABC) recording form (Appendix I); FBA procedural adequacy checklist (Appendix J); FBA task time log (Appendix K); and a modified acceptability rating questionnaire (ARQ) (Appendix L). These instruments were the same as those used by Loman and Horner (2014) to answer the four research

questions, with some changes that are reported below. The translation of these instruments from English to Thai was accomplished by the principal investigator. The translation was checked by a graduate student who was also proficient in both English and Thai for accuracy and quality of representation.

In the sub-sections below, I describe the research instruments that were used by Loman and Horner (2014) and that I used for this study. Also, I identified which research questions were addressed by each instrument.

Functional Behavior Assessment
Knowledge Assessment

The FBA knowledge assessment (see appendix F) is an instrument that can be used to assess knowledge change in persons participating in this program. Special education teachers completed a pretest and a posttest. The FBA Knowledge Assessment consists of six parts, with a total of nine questions. This knowledge assessment has both multiple-choice and opened-ended questions. Each part is developed to assess different knowledge and skills that are taught during the training, including knowledge on the FBA process, knowledge on behavior, knowledge on settings, antecedents, consequences, and functions of behaviors, and finally knowledge about writing summary statements for the behavioral hypotheses. The pretest and posttest scores of the special education teachers were compared to answer Research Question 1.

The pretest and the posttest were given to the special education teachers in the intervention group during the first session and the last session of the training. As previously mentioned, the control group also completed the pretest and the posttest shortly before the intervention group participants completed their tests.

The total possible score for this assessment was 35 points. There were two raters to check and provide scores for these pretest and posttest results, using an answer key. I was the first rater. I checked and provided scores for all pretest and posttest results. The second rater was a doctoral student of a program in special education who had a background in FBA. Consistent with the way Loman and Horner (2014) calculated the scores of the FBA knowledge assessment, 25% of each group of pretest and posttest scores (4 pretests and 4 posttests) were randomly rated by the second rater in order to check the agreement of scores. The scores from the first and second rater were compared.

Control Group Interview Questionnaire

The control group interview questionnaire is an instrument that is used to assess the knowledge of control group participants regarding their understanding of the causes of the behaviors and how best to work with problem behaviors (see appendix G). Additionally, this interview was used to assess how these participants would develop summary statements of the functions of the behavior. This interview questionnaire consisted of four questions asking about what the problem behaviors of their case study students were, what caused the case study students to demonstrate these behaviors, what strategies the teachers was using, and how they would compose summary statements for these behaviors. The interview sessions took approximately 15–20 minutes. The data from this instrument were used to answer aspects of Research Question 2. Specifically, the summary statements of the teachers in the control group were examined and compared with the summary statements of the teachers in the intervention group. The results were examined to determine what kinds of qualitative differences exist between

the two groups in term of how they address the functions of problem behaviors. The interview questionnaire described here was new, and it was not used by Loman and Horner (2014). Loman and Horner (2014) did not have a control group in their study.

Functional Assessment Checklist (FACTS)

The Functional Assessment Checklist (FACTS) (March et al., 2000; McIntosh et al., 2008) (see appendix H) is an interview tool that can be used by special education teachers to develop a better understanding of student behavior in the context of activities and school routines. The FACTS is divided into two parts. Part A contains information about a student's strengths, routines, analysis, and problem behaviors. Part B of this document contains information about the target routine, antecedent, consequence, setting event, and summary of target behaviors.

For Research Question 2, FACTS was used to assess the consistency between FBA summary statements that were developed by the nine special education teachers in the intervention group using interview information and FBA summary statements that were developed by the principal investigator. To answer this research question, in the last section of FACTS Part B, each special education teacher was required to write a summary statement of the selected target behavior of the case study student. The summary statement of each case study student that was written by each special education teachers was compared to FBA summary statements that were developed by the principal investigator.

For Research Question 3, FACTS was used as evidence indicating whether the FBA processes conducted by the special education teachers in the intervention group were procedurally adequate. To answer this research question, the completed FACTS,

both Parts A and B, was submitted to the principal investigator by the nine special education teachers. These completed FACTS were scored by using the FBA Procedural Adequacy Checklist, described later in this section.

Antecedent Behavior Consequence Recording Form

The Antecedent Behavior Consequence (ABC) recording form (Van Norman, 2008) (see Appendix I) is an observational tool that can be used by special education teachers to develop a better understanding of the environment (activity/task) that may have an affect on the target behavior. This recording form contains information about the activities that will be observed, dates and times, antecedents, the target behaviors, and the consequences of the behavior.

When conducting the FBA process, the nine special education teachers in the intervention group used direct observations with their case study students over time. During these observations, the nine special education teachers used the ABC recording forms to record the observation information. After completing the FBA process, these special education teachers submitted the ABC recording form to the principal investigator, along with their summary statements based on the observational data.

For Research Question 2, these data were used to assess the consistency between the FBA summary statements that were developed by the nine special education teachers in the intervention group using observational information and FBA summary statements that were developed by the principal investigator. Additionally, the nine special education teachers in the intervention group were required to write an overall summary statements representing both sets of data. These summary statements were also compared to those written by the principal investigator. Finally, the overall summary

statements of the nine trained special education teachers were compared to the summary statements of the three untrained special education teachers. The latter step offered an additional indicator on the impact of the training.

Information from the ABC recording form was used to assess the procedural adequacy of the direct observation processes conducted by the nine special education teachers (Research Question 3). This information was scored by using the FBA Procedural Adequacy Checklist, as was used with FACTS.

Functional Behavior Assessment
Procedural Adequacy Checklist

The FBA Procedural Adequacy Checklist (see appendix F) is a six-item instrument that can be used to assess whether special education teachers can demonstrate procedural adequacy in conducting an FBA process. The checklist assesses whether: (a) interviews were conducted with appropriate teachers, (b) operational definitions of target behaviors were observable and measurable, (c) direct observations were conducted in routines that were most likely to included exhibit a target behavior, (d) an antecedent was identified, and (e) the primary function of a target behavior was identified. The scores were used for Research Question 3.

After the nine special education teachers in the intervention group conducted the FBA process with their case study students, they submitted all FBA data including FACTS and the ABC recording form (Van Norman, 2008) to the researcher. The FBA Procedural Adequacy Checklist was used for reviewing FACTS and the ABC recording form (Van Norman, 2008).

The total score of this checklist is 5 points. There were two raters scoring the checklist. I was the first rater. I reviewed all FBA data that were submitted by the nine

special education teachers and provided scores. The second rater was a doctoral student of a program in special education who had a background in FBA. Consistent with the way Loman and Horner (2014) calculated the scores in this process, 60% of these data (the FBA data of the six special education teachers) were reviewed and scored by the second rater in order to check the agreement of scores.

Functional Behavior Assessment Task Time Log

The FBA Task Time Log (see appendix K) is an instrument that can be used to assess whether the FBA process is efficient when used in this Thai school. This instrument is a time log requiring each special education teacher to record the time that they spent from the beginning to the end of activities associated with the FBA process. The activities that are included in this time log are scheduling interviews, conducting interviews, conducting student-guided FACTS, observing students, completing summary statements, and other tasks that may be related to the FBA process. This log was identical to that used in Loman and Horner (2014).

The total time that each special education teacher in the intervention group spent on conducting FBA-related procedures was calculated. The average time per special education teacher was also calculated, and this was used as part of research question 4.

Modified Acceptability Rating Questionnaire

The modified Acceptability Rating Questionnaire (modified ARQ) is an instrument that was used with the intervention participants to assess the social validity of the FBA process and the training program in relation to Thai culture and the practices of the school. The scores from the modified ARQ assessed whether these special education

teachers perceived the FBA process and training program as acceptable and valuable in Thai culture. This instrument was used for Research Question 4.

The original ARQ that was developed by Loman and Horner (2014) was a Likert-scale questionnaire, which consisted of 10 items (Item 1–10). For the purpose of this study, 7 additional items were added. These 7 items (Items 11–17) were created to determine whether the FBA process and the training program were acceptable, valuable, and suitable for Thai students, Thai teachers, and Thai schools based on the opinions of these special education teachers. The modified ARQ is shown in appendix L. In addition, the special education teachers were asked to provide comments on the use of these materials in their routines as teachers in a Thai school and how they perceived these materials in term of Thai culture.

To complete the modified ARQ, these special education teachers were required to rate their agreement level on each item. If they strongly agreed with an item, they would choose Number 6. In contrast, if they strongly disagreed with an item, they would choose Number 1. The nine special education teachers received this questionnaire upon completion of the FBA case study activities.

Additional Measurement

In addition to the instruments described above, the principal investigator kept a journal log of experiences associated with using these materials developed in the United States to train these Thai special education teachers. Issues discussed included concerns with translation, discoveries regarding the different training needs of these teachers, and insights into the role of culture. The journal log identified the dates, problems, issues,

and insights related to the training of these Thai teachers using the Loman and Horner (2014) materials.

Data Analysis Process

To answer the four research questions, I used the following data analyses procedures. These procedures are described in detail in the next sections.

Research Question 1

To answer whether there was a change in Thai special education teacher knowledge about FBA after receiving the basic FBA training, the pretest and posttest scores on the FBA Knowledge Assessment were used to evaluate individual and overall knowledge change in these special education teachers. Additionally, the pretest and posttest scores on the FBA Knowledge Assessment of the intervention group were compared with those of the control group to provide an additional assessment of the effectiveness of basic FBA training on changing knowledge and skills of the intervention group.

Descriptive statistics were used to analyze knowledge change of the special education teachers. Descriptive statistics were used in accordance with the sample size of this study (n = 12), which was too small to use other inferential analyses. After receiving the pretest and posttest scores, these scores were input into an Excel program. The raw pretest and posttest score for each participant were calculated as a percentage. The difference between percent correct of pretest and posttest scores for each participant and overall percent correct were calculated to identify individual knowledge change and overall knowledge change. The difference between percent correct of pretest and posttest

scores for the intervention and the control group were also calculated to identify knowledge differences between these two groups.

Research Question 2

To answer whether there was consistency between the summary statement of special education teachers in the intervention group and the summary statement of the principal investigator, each summary statement of each special education teacher that was developed by using FBA data was compared with the summary statement that was developed by the principal investigator. To be consistent, the functions of the target behaviors identified by the special education teachers had to be the same as the functions of the target behaviors identified by the principal investigator. The overall percentage of agreement of all summary statements was calculated.

Additionally, the summary statements that were developed by these nine trained special education teachers were compared with the summary statements that were developed by the three untrained special education teachers in the control group. This comparison illustrated what differences existed between these two groups with respect to their ability to identify the causes of behaviors in ways that were useful for program development. These data were analyzed using descriptive methods. As previously noted, there were differences between this study and the Loman and Horner (2014) study in how the functions of problem behaviors were identified by the principal investigators. Loman and Horner conducted an experimental functional analysis procedure, while I conducted my FBA process based on the same kind of data that were used by the participants. That is, interview and observational data.

Research Question 3

To answer whether the FBAs that were conducted by special education teachers in the intervention group were procedurally adequate, results from the FBA Procedural Adequacy Checklist were calculated. Since there were five items on the checklist, each item represented the procedural adequacy of one event. A total of 5 meant that a special education teacher was procedurally adequate in all events. These numeric scores were changed into percentages for each of the special education teachers to ascertain the overall adequacy realized by each of the teachers. These were the exact same procedures used by Loman and Horner (2014).

Research Question 4

To answer whether the basic FBA training process was perceived as efficient and socially valid by the nine special education teachers in the intervention group, I examined the results of the FBA Task Time Log (see appendix K) and the modified version of the ARQ (see appendix L). In terms of the FBA Task Time Log, time spent on these activities by these teachers was compared to time spent on these activities by the teachers in the Loman and Horner (2014) study. To the extent that they were similar, this would lead to a conclusion of equivalent efficiency. To the extent that Thai teachers required a lot more time than the United States teachers in the Loman and Horner (2014) study, questions could be raised about the time efficiency associated with this procedure. I also analyzed further to see which activities required more time.

In terms of the modified ARQ, descriptive statistics were computed, mainly Mean, Standard Deviation, Min, and Max for each item. These were the exact same procedures used by Loman and Horner (2014).

Summary

This study examined the feasibility of using a modified version of the training procedures described in Loman and Horner (2014) for training Thai special education teachers to use the FBA process in a Thai school. In this chapter, I reviewed information about setting and participants of the study, the process for gathering the sample, the process for collecting data, the instruments that were used for measurement, and how the data were analyzed. This chapter also addressed the training procedures and materials that were used in this study and how they replicated or differed from those of the Loman and Horner (2014) study.

It is important to note that this study examined whether the FBA process and the basic FBA training package were perceived as acceptable and valuable and fit within Thai culture and a Thai school. To accomplish this, Research Question 4 of the Loman and Horner (2014) study was modified. Knowing whether this training package will be effective in changing knowledge and skills of these teachers plus knowing whether this concept is acceptable within Thai culture can make a significant contribution to the research literature related to behavior interventions in Thailand.

CHAPTER IV

RESULTS

This study used a modified version of the Basic Functional Behavior Assessment (FBA) training package of Loman and Horner (2014) to increase knowledge and skills of special education teachers in Thailand on Functional Behavior Assessment. To accomplish this purpose, and to examine the impact of training, a variety of quantitative and qualitative data were collected. This chapter focuses on presenting these data to answer the following research questions:

Q1 Is there a change in knowledge of Thai special education teachers following training using the Loman and Horner (2014) package?

Q2 Is there consistency between FBA summary statements that are developed by Thai special education teachers following training and the FBA summary statements that are developed by the principal investigator? Is there a difference between summary statements completed by the trained Thai special education teachers and summary statements completed by untrained Thai special education teachers?

Q3 Are the FBAs conducted by Thai special education teachers procedurally adequate following training?

Q4 Is the Basic FBA training process perceived as efficient and socially valid by Thai special education teachers?

As described in the previous chapter, 12 Thai special education teachers participated in this study. All of these teachers served children who were in general education classrooms and all of these teachers chose children being served in general

education classrooms. All of these teachers indicated at the beginning of the study that they had had no training in the FBA process.

Nine of these Thai special education teachers were randomly assigned to the intervention and received the training. Three of these Thai special education teachers were randomly assigned to the control and did not receive the training. All original participants who participated at the beginning of this study stayed participating until the end of this study.

The data gathered in this study were analyzed in a manner similar to that completed by Loman and Horner (2014). This chapter describes results of this analysis in six sections. The first section describes reliability of measurement. The next four sections present the data in relationship to the four research questions. The sixth and final section summarizes these results.

Measurement Reliability

Reliability was measured on the scoring process for the FBA Knowledge Assessment test, which was completed before and after the training. Reliability was also completed on the scoring process for the FBA Procedural Adequacy Checklist. Four pretest and four posttest FBA assessments were randomly selected from the full participant pool, and these were rated by the second rater to examine the reliability of the scoring process. There was 88% agreement between the two raters on the scores of the FBA Knowledge Assessment. Six FBAs conducted by the special education teachers after training were rated by the second rater to examine the reliability of this scoring process. There was 100% agreement between the two raters on the scores of the checklist.

Research Question 1

Regarding Research Question 1, addressing whether special education teachers in Thailand changed in their knowledge on FBA after receiving the training, quantitative pretest and posttest data were compared, Table 1 shows the results of the pretest and posttest scores for both trained and untrained special education teacher groups. As shown in Table 1, the average pretest score of the trained special education teachers was 10.61 (*SD* = 2.74). After receiving the training, the average posttest score of the trained special education teachers increased to 21.00 (*SD* = 4.85). The untrained special education teachers began with similar average pretest scores to the trained special education teachers, which was 10.67 (*SD* = 3.06). The average posttest score of the untrained special education teachers also increased to 15.67 (*SD* = 3.06). The overall average percent change of the trained special education teachers from pretest to posttest assessment was +86% compared with the overall average percent change of the untrained special education teachers from pretest and posttest assessment, which was +49%.

Table 1

Overall Pre-/Post-Test Mean, Standard Deviation, and Percent Change on the FBA Knowledge Assessment

Participants	Pretest Scores		Posttest Scores		Percent Change
	M	*SD*	*M*	*SD*	
Trained special education teachers (*N* = 9)	10.61	2.74	21.00	4.85	+86
Untrained special education teachers (*N* = 3)	10.67	3.06	15.67	3.06	+49

Table 2 illustrates the results of the pretest and posttest scores for each of the special education teachers on the FBA Knowledge Assessment. At the beginning of the training, all special education teachers had scores less than 50% on the pretest. After the training, all trained special education teachers increased their posttest scores. Six of the nine trained special education teachers had posttest scores higher than 50%. Seven of the nine trained special education teachers had their percent change increased by more than 70%. For the untrained special education teachers, most of their posttest scores were still less than 50%.

Table 2

Pretest and Posttest Test Scores, Percent, and Percent Change on the FBA Knowledge Assessment of Each Special Education Teacher

	Pretest		Posttest		
Participants	Raw Score	%	Raw Score	%	Percent Change
Trained special ed. teachers					
Participant 1	10.00	29	20.00	57	+100
Participant 2	9.00	26	27.00	77	+200
Participant 3	16.00	46	21.00	60	+31
Participant 4	10.50	30	27.00	77	+157
Participant 5	8.00	23	15.00	43	+88
Participant 6	9.00	26	16.00	46	+78
Participant 7	8.00	23	24.00	69	+200
Participant 8	11.00	31	15.00	43	+36
Participant 9	14.00	40	24.00	69	+71
Overall	10.61	30	21.00	60	+107
Untrained special ed. teachers					
Participant 10	8.00	23	13.00	37	+63
Participant 11	10.00	29	15.00	43	+50
Participant 12	14.00	40	19.00	54	+36
Overall	10.67	30	15.67	45	+49

Research Question 2

There were two sub-questions in this research question. The first sub-question of Research Question 2 was whether there is consistency between FBA summary statements that were developed by trained special education teachers following training and the FBA summary statements that were developed by the principal investigator. To answer this question, the trained special education teachers were expected to develop three summary statements. These three summary statements were a summary statement based on interview data, a summary statement based on observational data, and a final summary statement based on overall data. Table 3 shows summary statements of all participants including the principal investigator. As shown in the last two columns in Table 3, all of the overall summary statements that were developed by trained special education teachers identified the same functions of the problem behaviors as the summary statements that were developed by the principal investigator (100%). However, there were two differences between the summary statements of the trained special education teachers and the summary statements of the principal investigator existed. First, three trained special education teachers identified additional functions of the behaviors that were not identified by the principal investigator. One trained special education teacher did not identify an additional function of the behavior that was identified by the principal investigator. For example, Participant 7 identified that the functions of the problem behaviors were getting what he wanted (gain something) and gaining teacher attention. Second, even though two trained special education teachers (Participants 6 and 9) identified the same the functions of the behaviors as identified by the principal investigator, but they only

completed the writing of the final summary statements; i.e., they did not write the summary statements for the interview or for the observation, but only the final statements.

In terms of the functions identified for these case study students, using the data of the principal investigator, more than half of these students used their problem behaviors to gain teachers' attention (55.56%). Another large percentage of these students used their behaviors to gain peer attention (33.33%) or to get what he wanted (33.33%). A small percentage of these students used their behaviors to avoid peers (11.11%) or tasks (11.11%).

Table 3

Summary Statements from Interviews, Observations, and Overall

Participant	Summary Component	Interview	Observation	Overall	Overall from Principal Investigator
Participant 1	Setting Event			Not specific	Not specific
	Antecedent(s)	Large group, the word "Amazon" is mentioned by friends	Large group, reminded by some friends to stay on task and keep working	Large group: -when the words "Amazon" or "Chicken drumstick" are mentioned by friends -when reminded by friends to stay on task and keep working -	Large group, friends tease each other and the word "chaining" is mentioned
	Behavior(s)	Raised voice and vulgar language is used	Raised voice	Raised voice and vulgar language is used	Raised voice, vulgar language and inappro-priate physical language are used
	Consequence(s)	Changes seat	Ignored by friends Talked to by teachers	Doesn't like to get teased and told what to do by friends	Ignored by friends Friends move on to a different subject.
	Function	Get peer and teacher attention	Avoid friend attention	Avoid friend attention*	- Avoid friends to say something that he didn't like*

Table 3 (continued)

Participant	Summary Component	Interview	Observation	Overall	Overall from Principal Investigator
Participant 2	Setting Event				Not taking medicine
	Antecedent(s)	No one pays attention to him Doing boring activities	During break time, surrounded by friends	Surrounded by friends	Large group or during break time When teachers attend to other students or no one pays attention to him
	Behavior(s)	Touch or poke friends	Touch or poke friends	Touch, poke, hit nearby friends	- Touch or poke nearby people
	Consequence(s)		Friends pay attention to him Friends play with him Friends get angry Friends get annoyed		Friends make faces and move their body away A teacher reminds him to stay on task
	Function	Get peer attention	- Get peer attention	Get peer and teacher attention*	Get peer and teacher attention*

Table 3 (continued)

Participant	Summary Component	Interview	Observation	Overall	Overall from Principal Investigator
Participant 3	Setting Event				Eating too much during lunch
	Antecedent(s)	During social studies or Buddhist class	During lectures of social studies or Buddhist class	During lectures of social studies or Buddhist class	Large group, during lectures of social studies or Buddhist class
	Behavior(s)	Looking outside a window Sleeping Lagging behind in class	Not paying attention Looking outside a window Sleeping	Not paying attention Looking outside a window Sleeping	Not paying attention Looking outside a window Sleeping Not taking notes -
	Consequence(s)	The student is asked to stand during the lecture Changes position -	No note taking Lagging behind	No note taking Lagging behind	A teacher reminds him to stay on task No note taking
	Function	Get teacher attention More con-centration from the student	Avoid taking notes Avoid doing difficult tasks	Avoid tasks*	Avoid tasks such as note taking or listening to lectures*

Table 3 (Continued)

Participant	Summary Component	Interview	Observation	Overall	Overall from Principal Investigator
Participant 4	Setting Event	Not specific	Not specific		Not specific
	Antecedent(s)	When class is asked to share opinions During story time	When class is asked to share opinions or answer questions When friends answer the questions	During large group conversation class is asked to share opinions During group activities	During math or language class, when teachers require participation from the students
	Behavior(s)	Speaking without permission	Answering questions with a loud voice without permission from teachers to answer	Answering questions with a loud voice without permission from teachers to answer	Answering questions with a loud voice without permission from teachers to answer
	Consequence(s)	Get praised by teachers when the answer is correct Get teachers attention Get friends attention (look at him and respond to his words) -			Teachers and friends respond to his answers by saying and/or looking at him
	Function	Get peer and teacher attention	Get peer and teacher attention	Get peer and teacher attention*	Get peer and teacher attention*

Table 3 (Continued)

Participant	Summary Component	Interview	Observation	Overall	Overall from Principal Investigator
Participant 5	Setting Event	Not specific	Not specific	Not specific	Not specific
	Antecedent(s)	The student loses something or talk about something that he feels stressful	The student loses something	Something changes in the classroom He loses something such as stationaries or doesn't bring something to school	During break and transition time, when he cannot do something or find something by himself (cannot find his pencil or do class activities)
	Behavior(s)	Crying, whining	Crying, whining	Crying, whining, talking about things that he wants to talk about without listening to anybody's explanation or reasons	Crying, whining, keeps talking without listening to anybody
	Consequence(s)	The student is not flexible The student has to find what he loses without listening to any reason from teachers		Frustrated when he loses something Frustrated when he gets something that he doesn't want	Teacher helps him (find his pencil or help him doing tasks) Other classmates walk away
	Function	Get teacher attention and get what he wants	Get teacher attention and get what he wants	Get teacher attention and get what he wants*	Get teacher attention and get what he wants*

Table 3 (continued)

Participant	Summary Component	Interview	Observation	Overall	Overall from Principal investigator
Participant 6	Setting Event			Not specific	Not specific
	Antecedent(s)	Teacher is doing math problems on the blackboard Teacher asks students to keep doing math problems on the worksheet	The teacher is doing math problems on the blackboard	Doing something that was difficult and complicated	Teacher asked to do math problems and asked him to correct his work
	Behavior(s)	Whining, drawing pictures without permission	Whining, drawing pictures without permission	Lacking effort, whining when doing tasks, could not complete tasks, drawing pictures without permission	Crying, whining
	Consequence(s)	Teacher walks toward him, asks him to calm down Change his seat to sit next to teacher Teacher helps him complete math problems When he completes tasks, the teacher allows him to draw	Teacher walks toward him, asks him to calm down Change his seat to sit next to the teacher Teacher helps him complete math problems When he completes tasks, the teacher allows him to draw	Needed help When he gets helps, he can calm down Complete the tasks Get permission to draw	Teachers tell him what to do and what to write
	Function			Get help* and does what he wants	Get help*

Table 3 (continued)

Participant	Summary Component	Interview	Observation	Overall	Overall from Principal Investigator
Participant 7	Setting Event	During break and lunch time	During transition		Not specific
	Antecedent(s)	Walks around to find the teachers who he knows	During transition	Whenever he has chance, he will walk around to find the teachers who he knows	During break, transition, and unstructured activity
	Behavior(s)	Keep talking with and asking that person	Keep asking that person to get what he wants	Walking around to find teachers and keep asking to get what he wants	Walking around to find teachers and keep asking whether that person has coupon or receipt
	Consequence(s)				Get receipts or coupon from teachers
	Function	Get what he wants and teacher attention	Get what he wants and teacher attention	Get what he wants* and teacher attention	Get what he wants*

Table 3 (continued)

Participant	Summary Component	Interview	Observation	Overall	Overall from Principal Investigator
Participant 8	Setting Event	Didn't complete work from previous class			Didn't complete work from previous class
	Antecedent(s)	Teachers ask about the homework that students have to submit Have to do difficult tasks	In math/Thai language class	Teachers ask about the homework that students have to submit -Have to do difficult tasks and have a lot of homework -Have to talk in front of the whole classroom about something that has a lot of detail	In math/Thai language class when teachers: -Ask about the homework that students have to submit -Ask students to do difficult tasks -Ask questions
	Behavior(s)	Talking without permission	Talking out loud without permission	Talking without permission to share his opinion	Talking without permission
	Consequence(s)		Have to do difficult tasks Have to do a lot of homework		Teachers responded to his answer by talking, looking, and re-directing him to his task
	Function	Get peer and teacher attention in a negative way	Get peer and teacher attention	Get peer and teacher attention*	Get teacher attention*

Table 3 (Continued)

Participant	Summary Component	Interview	Observation	Overall	Overall from Principal Investigator
Participant 9	Setting Event			Not specific	Not specific
	Antecedent(s)	Teacher lecture and students had to listen Teachers ask him to complete tasks when he is drawing	Not doing any activity, only sitting and listening to teachers Asking him to complete task when he is drawing	Not doing any activity Teachers ask him to complete tasks when he is drawing Doing boring tasks	Teachers explains the contents or tasks while students sit and listen
	Behavior(s)	Yelling out, throwing things, crying	Yelling out, crying, and laying down on the floor	Yelling out, banging his hands, throwing the table, crying, and/or laying down on the floor	Yelling out, walking around the room, throwing the table, crying, and/or laying down on the floor
	Consequence(s)	Teachers give him verbal warning, touch him, or move him out of the classroom	Teachers give him verbal warning and touch him	Teachers get closer to him and try to stop his behaviors	Teachers responded to his behaviors by talking to him, looking at him, and/or touching him Other students look at him
	Function		Get teacher attention	Get teacher attention*	Get teacher* and peer attention

*Represents consistency between the participants and the principal investigator in overall summary statements.

The second sub-question of Research Question 2 was whether there is a difference between summary statements completed by the trained Thai special education teachers and summary statements completed by untrained Thai special education teachers. Table 4 shows the summary statements that were developed by the untrained special education teachers. The antecedents that were identified by most of the trained special education teachers were the events or activities that happened right before the behaviors occurred. In contrast, as shown in Table 4, the antecedents that were identified by the untrained special education teachers described antecedents that were not specific and did not happen right before the behaviors occurred. Most of the trained special education teachers identified problem behaviors that were observable and measurable. In contrast, most of the untrained special education teachers did not identify problem behaviors that were observable and measurable. For example, Participant 11 referred to the behaviors as absent-minded and work slow. Half of the consequences that were identified by the trained special education teachers were events, activities, or behaviors that happened right after the behaviors occurred. All consequences that were developed by the untrained special education teachers were not events, activities, or behaviors that happened right after the behaviors, but rather, occurred when these untrained special education teachers focused on the presence of the disabilities, affect, or personal inclinations inherent in the students. In terms of the function of behavior, there were no summary statements of the trained special education teachers that identified problem behaviors associated with disabilities. However, two of the three untrained special education teachers identified that their case study students demonstrated problem behaviors because of their disabilities which were ADHD and autism.

Table 4

Summary Statement of the Untrained Special Education Teachers

Participant		Summary Statement
10	Setting Event	
	Antecedent(s)	During school activity, when there is something such as Lego is sold in school,
	Behavior(s)	the student tries to verbally manipulate teachers to get what he wants
	Consequence(s)	because he likes it or wants to get it for a friend.
	Function	Thus, he will do anything that he can such as lying to get what he wants.
11	Setting Event	
	Antecedent(s)	During studying, when the teacher is teaching,
	Behavior(s)	the student will demonstrate absent-minded and work slow
	Consequence(s)	because the student has ADHD and because of environment. Environment which is his friends that consistently talk to him and other stimulations.
	Function	ADHD problem and surrounding environment
12	Setting Event	
	Antecedent(s)	Anytime the student has a problem such as a broken watch strap,
	Behavior(s)	whenever the student is crying and whining
	Consequence(s)	because he has autism so he cannot reason and express his emotion
	Function	because he has autism so he cannot reason and express his emotion.

Research Question 3

To answer whether the FBAs conducted by the trained special education teachers were procedurally adequate following training, the scores from the FBA procedural Adequacy Checklist were used. As described in Chapter III, this checklist was used to identify whether the FBA process (interview and observational process) was conducted correctly and whether the four terms (Behavior, Antecedent, Consequence, and Function of the Behavior) that were used to develop the summary statement of the behaviors were described correctly.

The average score for the nine trained special education teachers on the checklist was 91%. Five of the nine trained special education teachers received a score of 100% on this checklist. In term of errors made, three of the nine trained special education teachers did not correctly complete the observational processes. One of the nine trained special education teachers did not adequately describe the problem behaviors in measurable terms.

Research Question 4

There were two sub-questions in this research question. First, to answer whether the basic FBA training process was perceived as efficient, the time that the nine trained special education teachers needed to complete the FBA process following their training was used. Table 5 shows the average time that the nine trained special education teachers spent on receiving the training and completing each task on conducting the FBA process. The total time the nine special education teachers spent on training was 240 minutes or 4 hours. This time is the same as that used by Loman and Horner (2014) in their training.

Table 5

Time Spent for Receiving Training and Completing the FBA Process

Task	*M*	*SD*	Min	Max
Training sessions				
Training Session 1	60.00	0	N/A	60
Training Session 2	60.00	0	N/A	60
Training Session 3	60.00	0	N/A	60
Training Session 4	60.00	0	N/A	60
Total	240.00	0	N/A	60
Conducting FBA process				
Scheduling interview with teacher	970.67	2020.84	1	5760
Interviewing teacher	40.56	17.40	10	60
Interviewing student	12.22	13.94	0	30
Conducting observations	654.00	2759.68	11	8640
Writing summary statement	683.33	1016.66	30	2880
Other related tasks	3.33	10.00	0	30
Total time	2364.11	3003.12	315	7685

Note: Values are in minutes.

The total average time that the nine special education teachers spent to complete the FBA process was 2364.11 minutes, or approximately 39 hours 40 minutes. The task that took the longest time to complete was scheduling the interview (M = 970.67, SD = 2030.84). The task that took the shortest time to complete was other related tasks which were reviewing information before submitting the FBA document (M = 3.33, SD = 10.00). The trained special education teachers who took the shortest time spent 315 minutes, or approximately 5 hours 25 minutes, to complete the FBA process. The trained

special education teacher who took the longest time spent 7685 minutes, or approximately 128 hours, to complete the FBA process.

The interpretation of these data in terms of efficiency will be discussed in Chapter V. It is worth noting that, as show in Table 6 (below), when the trained teachers were asked whether the time that was spent in completing the FBA process was reasonable (ARQ Item 9), the scores were very high between 4 and 6, with the average of 5.00 (*SD* = 0.71).

Table 6

Scores from Modified Acceptability Rating Questionnaire

Item No.	Item	*M*	*SD*	Min	Max
1	The "Practical FBA" training you received equipped you for conducting an FBA in your school.	5.67	0.5	5	6
2	I will use these FBA procedures again with another student for whom an FBA would be appropriate.	5.67	0.5	5	6
3	I would suggest this training to other school professionals needing to learn to conduct FBA	5.22	0.97	4	6
4	The tools used within this FBA process were relatively easy to use.	4.89	0.78	4	6
5	I will use the FACTS interview with teachers when conducting my next FBA.	5.33	0.71	4	6
6	I will use the student-guided FACTS with students when conducting my next FBA.	5.22	0.67	4	6
7	I will use the ABC observation form when conducting my next FBA.	5.33	0.71	4	6
8	I feel confident that I can conduct an FBA that will inform interventions for a student.	5.44	0.73	4	6

Table 6 (continued)

Item No.	Item	*M*	*SD*	Min	Max
9	The time spent in completing the FBA was reasonable.	5.00	0.71	4	6
10	Overall, the experience in using "Practical FBA" was beneficial for me.	5.89	0.33	5	6
11	The materials used within this training were easy to understand.	5.33	0.87	4	6
12	The tools used within this FBA process were appropriate to use with Thai students.	5.11	0.78	4	6
13	I would suggest other Thai teachers to use FBA procedure when their students have problem behaviors.	5.22	0.67	4	6
14	I would suggest other Thai schools to adopt FBA procedure to use in their schools.	5.00	0.71	4	6
15	The FBA process was suitable for using in my school.	5.78	0.44	5	6
16	Other teachers in my school supported me to use FBA process.	4.78	0.83	4	6
17	The FBA process that I used fit the activities and routines of students within my school.	5.00	0.87	4	6
	Total	5.29	0.32		

Second, to answer whether the basic FBA training process was perceived as socially valid by the Thai special education teachers who received the training, the scores from the ARQ (Modified) were used. Table 6 shows the average scores for each item. On average, all trained special education teachers scored between *slightly agreed* and *strongly agreed* across all 17 items ($M = 5.29$, $SD = 0.32$). The highest score was on Item 10, which assessed the overall experience of these teachers with respect to the

practical value of the FBA process (M = 5.89, SD = 0.33). The lowest score was on Item 16, which addressed whether these teachers felt supported by other teachers in the school when using the FBA process (M = 4.78, SD = 0.83).

At the end of the ARQ (Modified), the trained special education teachers were encouraged to provide additional comments on this training and the manual. Two of these teachers commented that the FBA process was a useful and practical process for identifying the function of the behaviors and developing the behavior intervention plan. One trained special education teacher mentioned that before using an interview and observation form, the user should have sufficient knowledge or learn how to use these forms.

Summary

The purpose of this study was to examine knowledge change of special education teachers in Thailand after they received a modified version of the training procedure described in Loman and Horner (2014). This study also examined whether the FBA process was perceived as efficient and socially valid in Thai culture and this Thai school. There were four research questions that were used to accomplish these purposes.

The first research question aimed to examine whether trained special education teachers increased their knowledge on the FBA process. The posttest scores of each trained special education teachers indicated that all trained special education teachers increased their knowledge on the FBA process. Most of these special education teachers increased their knowledge on this process by more than 70%. The untrained special education teachers also showed some changes in their posttest scores; however, their percent change was lower, averaging 49%.

The second research question aimed to examine the accuracy of the summary statements that were developed by the trained special education teachers. To answer this question, the summary statements that were developed by the trained special education teachers were compared with the summary statements that were developed by the principal investigator. The findings showed that all summary statements that were developed by the trained special education teachers were consistent with those developed by the principal investigator (100%). When the summary statements of the trained special education teachers were compared to those of the untrained special education teachers, it was found that summary statements of the trained special education teachers were more consistent with the principle and the processes of FBA.

The third research question aimed to answer the question whether the FBA process used by the trained special education teachers were procedurally adequate. The results indicated that more than half of the trained special education teachers got full scores on the FBA Procedural Adequacy Checklist, and all scores were 4 or above on the 5-point checklist.

The fourth research question aimed to answer whether the basic FBA training process was perceived as efficient. The time that all trained special education teachers spent on learning and conducting the FBA process was used to indicate the efficiency of the training. The results showed that the average time that all trained special education teachers used was approximately 43 hours 40 minutes to complete the entire process. To answer whether the FBA process was socially valid based on the trained special education teachers' perceptions, the scores from the modified ARQ were used. The results indicated that the trained special education teachers either *slightly agreed*, *agreed*,

or *strongly agreed* (score 4 or above) with the statements in all items (M = 5.29, SD = 0.32). It is notable that these special education teachers all *agreed* or *strongly ag*reed that participating in the FBA training process was beneficial for them (M = 5.89, SD = 0.33). Additionally, on those items that assessed the value and usefulness of these procedures in Thai school and in the relation of Thai culture, scores were consistently high.

In Chapter V, these data will be interpreted in relationship to the research questions of this study. Also, these data will be compared with the data from the study of Loman and Horner (2014). Limitations, implications, and recommendations will be included in chapter V.

CHAPTER V

DISCUSSION

As previously mentioned, special education teachers in Thailand need essential training in order to increase their abilities to support students with disabilities. One of the essential trainings that special education teachers in Thailand should participate in is training on strategies for analyzing and addressing challenging behaviors. The FBA process is a procedure that helps teachers understand the basic functions of behavior so that they can develop effective behavior intervention plans.

Responding to this need, the major purpose of this study was to replicate the training package used by Loman and Horner (2014) "Examining the Efficacy of a Basic Functional Behavior Assessment Training Package for School Personnel." According to this purpose, this study aimed to reveal whether a modified version of the basic FBA training package of Loman and Horner could be used to change the knowledge and skills on the FBA process of special education teachers in Thailand after they have received the training. As described in Chapter III, two primary differences existed between the present study and that of Loman and Horner (2014). First, unlike Loman and Horner, in this study a control group was used. Nine of the special education teachers received training and the three did not. The second major difference between this study and that of Loman and Horner was that Loman and Horner applied an experimental functional analysis in the development of the summary statements that were used to compare with

the summary statements of the trained participants. In this study, the summary statements of the principal investigator were prepared using the same types of data as the participants of the study.

This study also aimed to examine whether the special education teachers in Thailand perceived this FBA training and the FBA process as efficient, valuable, and acceptable in Thai culture. Since this replication of the Loman and Horner (2014) study was being done in a different culture, additional measures were required, and this was part of a modified Acceptability Rating Questionnaire.

In this chapter, I will provide a summary and discussion of the findings. Additionally, I will describe limitations, implications for practice, and research recommendations.

Summary and Discussion of the Findings

In this study, there were four research questions. These research questions aimed to reveal (a) whether Thai special education teachers changed their knowledge and skills after receiving the training, and (b) whether the modified version of the basic FBA training package and FBA training was perceived as efficient and acceptable to implement with Thai teachers, with Thai students, in a Thai school, and in Thai culture. The summary and discussion of each research question are presented below.

Knowledge about Functional Behavior Assessment (Research Question 1)

The first research question was to determine knowledge change of the trained special education teachers after receiving a modified version of the basic FBA training package. Pretest and posttest scores of the trained and the untrained special education teachers were used. Overall, every trained special education teacher increased his/her

knowledge on the FBA process. When compared with the untrained special education teachers, the average posttest score of the trained special education teachers (M = 21.00, SD = 4.87) was higher than the average posttest score of the untrained special education teachers (M = 15.67, SD = 3.06).

It was noted that change occurred between the pretest and posttest scores for both the trained and the untrained teachers, although the trained teachers showed more increases in the average posttest scores than the untrained teachers. It is important to consider why the scores of the untrained teachers also went up. One possibility is that familiarity with the test and the terminology, provided by taking the test the first time, provided the basis for higher scores. Another possibility is that communication between the teachers impacted the knowledge base of the untrained participants. It is my perception as the principal investigator that the second possibility was not likely, and that the first possibility was the more likely one.

When comparing the results from this current study and the results from the study by Loman and Horner (2014), it was found that the average pretest score of this current study (30%) was lower than the average pretest score of the study of the Loman and Horner (39.50%). The average posttest scores of the trained special education teachers of the current study (60%) were also lower than the average posttest scores of the participants of the study of Loman and Horner (92.55%).

Part of the problem may be that these teachers simply had more to learn than their United States counterparts, as evidenced by their lower pretest scores. Nevertheless, an in-depth analysis of the posttest responses of these nine Thai teachers suggested a specific area of weakness. Most of these teachers had difficulty on the item that assessed

identify measurable and observable behavior. Based on the journal log that I kept during the study, I found that even during the training process, these teachers continued to have problems with the process of identifying and measuring observable behaviors. For example, a participant included the words "Lagging behind in class" when collecting data on her case study student's behaviors.

It was my perception as the trainer that some of the concepts associated with FBA were difficult for these Thai teachers to understand, and that lower scores, in general, reflected these difficulties. It is my belief that more training time is required to effectively communicate these concepts to Thai teachers. This result is consistent with the report of Opartkiattikul et al. (2015, 2016), which indicated that the amount of training time needed by Thai teachers in order to learn and implement new interventions is high.

In conclusion with respect to Research Question 1, although confounded by change scores for the untrained teachers, it appeared that the training package increased the knowledge of the nine trained special education teachers. However, additional research is needed to confirm this result. As noted, it is recommended more time be used for this process.

Skills Change about Functional Behavior Assessment (Research Question 2)

The second research question consisted of two sub-questions. These were (a) consistency between the summary statements that were developed by the trained special education teachers and those that were developed by the principal investigator and (b) comparisons between the summary statements that were developed by the trained special

education teachers and those that were developed by the untrained special education teachers. Based on this research question, the study aimed to examine skill change of the trained special education teachers on developing summary statements for explaining the functions of behaviors.

The results revealed that after the nine special education teachers received the training, all of them were able to develop final summary statements that were consistent with the summary statements that were developed by the principal investigator (100%). In addition, when these summary statements were compared with those developed by the untrained special education teachers, there were differences between the two groups. These differences favored the trained special education teachers.

Although the overall summary statements developed by the trained special education teachers were consistent with those developed by the principal investigator, two dissimilarities were noted. First, three final summary statements of the trained special education teachers identified additional functions of the behaviors that were not identified by the principal investigator. Second, in one case the principal investigator identified multiple functions and the trained special education teacher identified only one of these two functions. It is my belief that these added, secondary functions reflected contextual differences between observation situations. For example, a student with the primary function of teacher attention enjoyed the reaction of peers to his remarks, an event that occurred when the principal investigator was observing the situation but did not occur when the trained teacher observed the situation.

It is important to note that my analysis replicated that described in Loman and Horner (2014). These authors also reported 100% and yet had situations in which one of

the observers identified a secondary function that was not identified by the other observer. In both my study and that of Loman and Horner, the fact that the training was associated with 100% agreement between the principal investigator and trained teachers is a positive finding. However, my study and their study gave evidence of some differences in the presence of these secondary functions. This leads to questioning the best way to assess learning of the FBA process. It is possible that more observations over an expanded time period may provide a better basis for assessing the consistency between summary statements of principal investigators and of those trained teachers. This is consistent with previous studies (Alter et al., 2008; Cunningham & O'Neill, 2007) which used longer observational times in the development of summary statements in which consistency was sought between participants and the principal investigator.

In contrast to the summary statements developed by the trained special education teachers, the summary statements that were developed by the untrained special education teachers were not even consistent with the FBA process. Overall summary statements of the untrained special education teachers were focused on the presence of the disabilities, affect, or perceptions of the personal inclinations inherent to the students. These results are consistent with the results of Dukes, Rosenberg, and Brady (2008) which found that intensive FBA training was needed in order for teachers to able to identify accurately functions of problem behaviors.

In conclusion, with respect to Research Question 2, it is apparent that the training package affected the ability of the trained teachers to develop summary statements based on the FBA process. Both their abilities to match summary statements that were prepared by the principal investigator and the contrast between their summary statements and those

of the untrained teachers provided evidence supporting the training package. In particular, I note that the innovation of using a control group helped to clearly demonstrate the effect of the innovation on the training participants.

Completion of the Functional Behavior Assessment Process (Research Question 3)

The third research question examined whether the trained special education teachers were able to conduct the FBA process with procedural adequacy. The scores on the FBA Procedural Adequacy Checklist were used to determine the skill change. The results revealed that more than half of the trained special education teachers (n = 5) got 100%; that is, they conducted the FBA process with procedural adequacy in all areas. The remaining four of the trained special education teachers got 80%; that is, they conducted the FBA process with procedural adequacy in four of the five areas. The latter special education teachers either did not get the score for identifying observable or measurable behaviors or they did not get the score for collecting observational data in the appropriate routines based on their initial analysis of settings associated with the behaviors.

These data are consistent with the findings from the pretest/posttest comparison in Research Question 1. That is, the teachers often missed the item on identifying measurable and observable behaviors. Using both participant worksheet data and journal entries from my journal, an in-depth analysis suggested that sometimes the problems were related to their difficulty in using language of observation for describing behaviors. For example, a teacher might persist in using an expression like “Lagging effort” when attempting to analyze why the student was not doing his/her work. As indicated in my

journal log, a teacher saying these things may actually record a summary statement that is measurable and observable, but their ongoing language during data collection suggested reliance on non-observable hypothetical causes in their day-to-day understanding of the behavior.

Also, some trained special education teachers had difficulty using the ABC recording form. After receiving the third training, which explained the content about conducting observational data by using the ABC recording form, the trained special education teachers were required to practice conducting observational data with the students in their classrooms. Based on their works, several trained special education teachers could not use the ABC recording form correctly. For instance, in the ABC recording form, there were 11 rows to record 11 events that happened within 10-15 minutes. Several trained special education teachers used only 1 row in the ABC form to record and summarize the events that happened within the entire class period. Others did not do the observation in the time period that had been targeted as the one associated with the problem behaviors. Finally, others did not submit their observation assignment at all.

When compared with the results of the Loman and Horner study (2014), every participant in their study received 100% score. This meant that all participants in the study by Loman and Horner mastered all needed skills for conducting the FBA process. As was true for the test results in Research Question 1, it is my belief as the principal investigator that these teachers could all have achieved the higher score by extending the time period and amount of training.

Efficiency and Acceptability of the Training and the Functional Behavior Assessment Process (Research Question 4)

Research Question 4 aimed to determine the efficiency, value, and acceptability of the FBA training process and the FBA procedure for these special education teachers. To assess the efficiency, the time spent in training and in practice as recorded on the FBA Task Time Log was used. On average the nine trained special education teachers spent approximately 44 hours to completing the formal training and subsequently practicing the FBA process. For conducting the FBA process, the approximate time that these trained special education teachers reported spending on these activities was a little less than 40 hours. Comparing this with the reported time spent on the same tasks by the participants in the Loman and Horner study (2014), the latter participants spent less than 2 hours on the same tasks.

The task that the participants in the current study took the longest time on average was scheduling interviews with other teachers in the school, on average requiring about 16 hours. Another task that some trained special education teachers also took a long time to complete was writing the summary statement, on average requiring about 11 hours.

These extreme differences between what Loman and Horner (2014) reported and what I found in my study may be indicative of differences in how time was perceived and measured across the two studies. For example, one Thai teacher reported that she took two days to complete her summary statements. It is not known whether the American teachers perceived questions of time differently for this task. The American teachers might have recorded actual time spent on completing a task while the Thai teachers

considered all of the time since they began thinking about the task until their actual completion of the task. It is my belief that this reflects differences in how the two groups of teachers perceived the task of recording time spent on different activities. Loman and Horner did not describe precise procedures for measuring time.

It should be noted that in my study I used the same form as was used by Loman and Horner (2014); however, it is possible that the language that I used to describe for the participants how to complete the form did not lead to them completing this task in the same way as the participants in the Loman and Horner study. It is also possible that the teachers in my study used their own way to understand time when responding to the requirement of the log. Nevertheless, the contrasting results between the two studies suggest that these data are probably not comparable.

To examine the value and acceptability of the FBA training and the FBA process for these special education teachers, the scores on the modified ARQ were used. On average, the nine trained special education teachers *slightly agreed, agreed*, or *strongly agreed* (scores 4 or above) on all items ($M = 5.29$, $SD = 0.32$). Most items were rated by the trained special education teachers with an average of 5 or above. This indicates that most of the trained special education perceived that the FBA training package was beneficial and the FBA process was valuable and acceptable. Comparing with the study by Loman and Horner (2014), most of the participants in both studies agreed that the FBA training was beneficial and that other teachers should receive this training.

To explore whether the FBA training and the FBA process could be used with Thai teachers, with Thai students, and within Thai school, there were five items in this questionnaire addressing these cultural issues. On average, most trained special

education teachers agreed that the FBA training and the FBA process could be used with Thai teachers, with Thai students, and within Thai school (scores 5 or above). This indicates that most trained teachers perceived that the FBA training was efficient and acceptable for training special education teachers in Thailand. Additionally, this indicates that the FBA process was perceived as efficient and acceptable to be implemented by Thai teachers with Thai students in their school. However, additional research is needed to confirm these results with respect to Thai culture.

Limitations

There were limitations of this study that related to the small sample size and the specific setting of the study. Due to the fact that there were only 12 Thai special education teachers in total, 9 in the intervention group and 3 in the control group, these teachers might not well represent all special education teachers in Thailand. In addition, these teachers came from the same school. Therefore, additional research is clearly needed to determine whether the findings of this study can be extended to other schools and other Thai teachers. I would note that one of my conclusions was that additional time for the training is required in order for the training to be effective with Thai teachers. It is my belief that any replication of this study would need to consider this conclusion when designing training for other Thai teachers.

The second limitation of this study was a translation issue. All original materials were in English. To replicate the previous study, all materials such as the training package and assessments had to be translated into Thai because it was the participants' first language. There are several terminologies that were used in this training package and assessments that had never been used or translated into Thai before, to my

knowledge. Thus, even though the original manual was used for training educational staff who might and might not have background knowledge about the FBA process in the U.S. it was found that some content in the original manual was very difficult for these special education teachers in Thailand to understand. It is possible that some translation issue may have been resolved, or the translated text improved, if I had used a procedure in which the translation text had been re-translated back into English. This would have allowed for an examination of any meaning shifts that need to be corrected to the Thai training materials.

The third limitation was measurement issues. One measurement issue relates to potential differences in how time was perceived between the original participants of the Loman and Horner (2014) study when completing the time log and the participants in the current study. It is not known for sure whether time was conceptualized in the same manner or in a different way; however, extreme differences in the time requirements reported when the two studies are contrasted with each other suggests that differences existed. The second issue relates to the use of the modified ARQ to examine the efficiency and acceptability of the training and the FBA procedure. This modified ARQ required the trained special education teachers to rate whether they agreed with each statement related to the efficiency and the acceptability of the basic FBA training and the FBA process. This type of instrument was a self-report instrument. Thus, Thai special education teachers might not have provided feedback that reflected all their thoughts and feelings about this FBA training and this FBA process.

Although additional research is needed, this may be a cultural issue. Thai people, as a rule, respect researchers, and would not want to say anything bad about their work.

The degree to which cultural perception of researchers impacts how participants respond to self-report about the value of a training across different countries is not known, and this represents an area needing further research.

Implications for Practice

The results of this current study disclosed three main new ideas about the FBA process and training in Thailand. First, the results suggested that the modified version of the basic FBA training package could be used for training special education teachers in Thailand. As done in this study, materials in the manual were translated into the Thai language in order to make these materials more understandable. Also, as was done in this study, some of these materials were adapted to correspond with culture considerations about the roles of teachers and students and how the behaviors in classrooms are understood. Further, the results of this study suggest the training sessions should be more than an hour long in order to deliver the entire concept in each area and to provide more time for participants to learn and practice new knowledge and skills. This suggestion is consistent with other studies that are designed to provide more than four hours to increase knowledge and skills of teachers on the FBA process (Crone et al., 2007; Dukes et al., 2008; Fallon et al., 2011; Lane, Barton-Arwood, Spencer, & Kalberg, 2007; Renshaw, Christensen, Marchant, & Anderson, 2008)

Second, the results suggest that the FBA process itself can be effectively used in Thai schools by Thai special education teachers to help them identify the functions of problem behaviors (Opartkiattikul et al., 2015, 2016). Currently, schools in Thailand do not actually have a system or strategies for special education teachers to follow or use when students demonstrate challenging behaviors. By using the FBA process, Thai

special education teachers will have a practical strategy to deal with students who demonstrate challenging behaviors. However, as already noted these teachers might need more time to learn and practice how to use the FBA process before these teachers can actually use this process with their students. It could be concluded that the FBA process can be used in Thailand, but that relatively intense training is required.

Third and finally, the results illustrate that knowledge and skills on how to describe observable and measurable behaviors and how to collect observational data were the most difficult concepts for Thai special education teachers. Thus, when professional development personnel are planning to deliver FBA process training in the future, they should plan to spend more time for training in these two areas.

Research Recommendations

As mentioned previously in Chapter II, the FBA process has only recently used in Thailand (Opartkiattikul et al., 2015). This study was one of a very few studies (Locharoenrat et al., 2016; Opartkiattikul et al., 2015, 2016) examining further the FBA process in Thailand. Therefore, there is a need for more research in this area in Thailand. First, it would be interesting to examine whether the modified version of the basic FBA training package could be effective when used for training other special education teachers in Thailand who come from diverse educational backgrounds and areas. Second, if this training package is re-designed by extending training time, adding more examples, and/or adding coaching strategies, research is needed to examine whether the addition of these processes could enhance the instruction provided special education teachers in Thailand. As shown in the study by Opartkiattikul et al. (2016), coaching strategies could be useful for training Thai teachers on how to use the FBA process.

Third, there needs to be extension of this research in how to effectively train teachers to both use the FBA process and develop effective behavior interventions and implement these plans with students (Christensen, Renshaw, Caldarella, & Young, 2012; Crone et al., 2007; Lane et al., 2007; Strickland-Cohen et al., 2016). Using technique such as real-life examples within Thai schools, direct coaching and modeling, teacher-to-teacher collaboration, and extended training time, this research could then examine how these trained teachers conducted the FBA process and with what results with students.

Even though the purpose of the basic FBA training package aims to train educators how to support students who have challenging behaviors, the challenging behaviors expressed by the students in this study were not especially serious. Therefore, there is a need for more research on interventions for supporting students who have serious challenging behaviors using these procedures. This future research should consider examining which interventions special educations teachers can use for dealing with more serious challenging behaviors uncovered by the FBA process (Jackson, 2018).

In this study, cultural issues were explored. As shown in this study, the trained special education teachers in Thailand could increase knowledge and skills on the FBA process by using a modified version of a basic FBA training package that was developed in the United States for training. However, these materials had to be translated into these teachers' first language and time had to be provided for these teachers to learn and practice. An issue for future research is the need to develop a technical terminology to match that used in an English-speaking country. It was found that a number of concepts could not be directly translated from English to Thai. Hence, there is a need to create and examine the value of a technical language embedded within Thai language.

In this study, it was found that this FBA training package could be used across cultures at least for Thai culture. However, further research is needed to examine whether this FBA training package can be used across other schools in Thailand. Also, research is needed on whether this FBA training package can be used across other cultures in Southeast Asia. Finally, there is a need for cross-comparative research to examine the use of the FBA process across a variety of countries (Blair et al., 2006; Turton et al., 2007).

Furthermore, there is an emphasis in our field on whether the results of a study are *reproducible*, defined as the "extent to which research findings are robust and repeatable" (Cook, Lloyd, Mellor, Nosek, & Therrien, 2018, p. 105). The study reported here is important in part because it provides support for the reproducibility of the Loman and Horner (2014) study. As Cook et al. (2018) emphasized in their work, studies that provide validation for other studies are significant in their own right, contributing to the building of a strong data base for practices in special education. Hence, there is a need for more research like this one, which replicates findings under different cultural and setting conditions.

Summary

In this chapter, I summarized and discussed the significant findings of the current study. The results indicated that after receiving the training that was modified from the study of Loman and Horner (2014), these special education teachers showed evidence of increased knowledge and skills about the FBA process. Additionally, the results indicated that most of the trained special education teachers basically agreed that the FBA training package and the FBA process are effective for using with Thai students and

in Thai schools. However, to master all needed skills associated with the FBA process it appears that it would have been helpful to have more training time.

The major implications of this study for practice were that it demonstrated how this procedure designed in the United States could be used to provide FBA training to teachers in Thailand. However, as noted, additional studies are needed to enhance and refine this instruction for it to be most effective in schools in Thailand.

REFERENCES

Abbott, M., Walton, C., Tapia, Y., & Greenwood, C. R. (1999). Research to practice: A "blueprint" for closing the gap in local schools. *Exceptional Children*, *65*(3), 339.

Agbenyega, J. S., & Klibthong, S. (2014). Assessing Thai early childhood teachers' knowledge of inclusive education. *International Journal of Inclusive Education*, *18*(12), 1247–1261.

Alter, P. J., Conroy, M. A., Mancil, G. R., & Haydon, T. (2008). A comparison of functional behavior assessment methodologies with young children: Descriptive methods and functional analysis. *Journal of Behavioral Education*, *17*(2), 200–219.

Alter, P., Walker, J., & Landers, E. (2013). Teachers' perceptions of students' challenging behavior and the impact of teacher demographics. *Education and Treatment of Children*, *36*(4), 51–69.

Anderson, C., Rodriguez, B., & Campbell, A. (2015). Functional behavior assessment in schools: Current status and future directions. *Journal of Behavioral Education*, *24*(3), 338–371.

Arden, S. V., Gandhi, A. G., Edmonds, R. Z., & Danielson, L. (2017). Toward more effective tiered systems: Lessons from national implementation efforts. *Exceptional Children*, *83*(3), 269–280.

Atkins, W. A., & Harmon, A. (2016). Maslow's hierarchy of needs. In *The gale encyclopedia of children's health: Infancy through adolescence* (3rd ed., Vol. 3, pp. 1680–1683). Farmington Hills, ML. Retrieved from http://go.galegroup.com.unco.idm.oclc.org/ps/i.do?p=GVRL&u=uncol&id=GALE%7CCX3630900497&v=2.1&it=r&sid=GVRL&asid=8e1dae7d

Baer, D. M., Wolf, M. M., & Risley, T. R. (1968). Some current dimensions of applied behavior analysis. *Journal of Applied Behavior Analysis*, *1*(1), 91–97.

Bailey, D. B., & Wolery, M. (1992). *Teaching infants and preschoolers with disabilities* (2nd ed.). New York, NY: Macmillan Publishing Company.

Bambara, L. M., Nonnemacher, S., & Kern, L. (2009). Sustaining school-based individualized positive behavior support: Perceived barriers and enablers. *Journal of Positive Behavior Interventions*, *11*(3), 161–176.

Banda, D. R., Hart, S. L., & Kercood, S. (2012). Decreasing disruptive vocalizations of a student with high-functioning autism across three general education classrooms. *Preventing School Failure: Alternative Education for Children and Youth*, *56*(2), 104-109.

Barrio, B. L., & Hollingshead, A. (2017). Reaching out to paraprofessionals: Engaging professional development aligned with universal design for learning framework in rural communities. *Rural Special Education Quarterly*, *36*(3), 136–145.

Bijou, S. W., Peterson, R. F., & Ault, M. H. (1968). A method to integrate descriptive and experimental field studies at the level of data and empirical concepts. *Journal of Applied Behavior Analysis*, *1*(2), 175.

Blair, K.-S. C., Liaupsin, C. J., Umbreit, J., & Kweon, G. (2006). Function-based intervention to support the inclusive placements of young children in Korea. *Education and Training in Developmental Disabilities*, 48–57.

Blood, E., & Neel, R. S. (2007). From FBA to implementation: A look at what is actually being delivered. *Education & Treatment of Children*, *30*(4), 67–80.

Bloom, S. E., Iwata, B. A., Fritz, J. N., Roscoe, E. M., & Carreau, A. B. (2011). Classroom application of a trial-based functional analysis. *Journal of Applied Behavior Analysis*, *44*(1), 19–31.

Boonmak, T., Tesaputa, K., & Duangpaeng, A. (2015). The ultimate impacts for Thai teachers: Teachers development system in learning management. *International Education Studies*, *8*(12), 193.

Boonsanu, K., & Yunibhand, J. (2012). The effect of behavior therapy on aggressive behaviors of children with Attention-Deficit/Hyperactivity Disorder. *The Journal of Psychiatric Nursing and Mental Health*, *26*(1), 114–128.

Borgmeier, C., Loman, S. L., Hara, M., & Rodriguez, B. J. (2015). Training school personnel to identify interventions based on functional behavioral assessment. *Journal of Emotional & Behavioral Disorders*, *23*(2), 78–89.

Buyse, E., Verschueren, K., Doumen, S., Van Damme, J., & Maes, F. (2008). Classroom problem behavior and teacher-child relationships in kindergarten: The moderating role of classroom climate. *Journal of School Psychology*, *46*(4), 367–391.

Callahan, K., Henson, R. K., & Cowan, A. K. (2008). Social validation of evidence-based practices in autism by parents, teachers, and administrators. *Journal of Autism and Developmental Disorders*, *38*(4), 678–692.

Carr, E. G. (1977). The motivation of self-injurious behavior: A review of some hypotheses. *Psychological Bulletin*, *84*(4), 800–816.

Carr, E. G., Dunlap, G., Horner, R. H., Koegel, R. L., Turnbull, A. P., Sailor, W., … Fox, L. (2002). Positive behavior support: Evolution of an applied science. *Journal of Positive Behavior Interventions*, *4*(1), 4–16.

Carr, E. G., & McDowell, J. J. (1980). Social control of self-injurious behavior of organic etiology. *Behavior Therapy*, *11*(3), 402–409.

Chandler, L. K., & Dahlquist, C. M. (2006). *Functional assessment: Strategies to prevent and remediate challenging behavior in school settings* (2nd ed.). Columbus, OH: Pearson Education Inc.

Chang, M.-L. (2013). Toward a theoretical model to understand teacher emotions and teacher burnout in the context of student misbehavior: Appraisal, regulation and coping. *Motivation & Emotion*, *37*(4), 799–817.

Christensen, L., Renshaw, T., Caldarella, P., & Young, J. (2012). Training a general educator to use function-based support for students at risk for behavior disorders. *Education*, *133*(2), 313-335.

Clemons, L. L., Mason, B. A., Garrison-Kane, L., & Wills, H. P. (2016). Self-monitoring for high school students with disabilities. *Journal of Positive Behavior Interventions*, *18*(3), 145–155.

Collins, L. W., & Zirkel, P. A. (2017). Functional behavior assessments and behavior intervention plans: Legal requirements and professional recommendations. *Journal of Positive Behavior Interventions*, *19*(3), 180-190.

Cook, B. G. (2014). A call for examining replication and bias in special education research. *Remedial and Special Education*, *35*(4), 233–246.

Cook, B. G., Lloyd, J. W., Mellor, D., Nosek, B. A., & Therrien, W. J. (2018). Promoting open science to increase the trustworthiness of evidence in special education. *Exceptional Children*, *85*(1), 104-118.

Cook, B. G., & Odom, S. L. (2013). Evidence-based practices and implementation science in special education. *Exceptional Children*, *79*(2), 135–144.

Cooper, L. J. (1993). Functional assessment for a student with a mild mental disability and persistent behavior problems. *Teaching Exceptional Children*, *25*(3), 56–57.

Couvillon, M. A., Bullock, L. M., & Gable, R. A. (2009). Tracking behavior assessment methodology and support strategies: A national survey of how schools utilize functional behavioral assessments and behavior intervention plans. *Emotional & Behavioural Difficulties*, *14*(3), 215–228.

Crone, D. A., Hawken, L. S., & Bergstrom, M. K. (2007). A demonstration of training, implementing, and using functional behavioral assessment in 10 elementary and middle school settings. *Journal of Positive Behavior Interventions*, *9*(1), 15–29.

Crone, D. A., Hawken, L. S., & Horner, R. H. (2015). *Building positive behavior support systems in schools: Functional behavioral assessment*. City, State: Guilford Publications.

Cunningham, E. M., & O'Neill, R. E. (2007). Agreement of functional behavioral assessment and analysis methods with students with EBD. *Behavioral Disorders*, 211–221.

Davis, D. H., Fredrick, L. D., Alberto, P. A., & Gama, R. (2012). Functional communication training without extinction using concurrent schedules of differing magnitudes of reinforcement in classrooms. *Journal of Positive Behavior Interventions*, *14*(3), 162–172.

De Lone, R. H. (1990). Replication: A strategy to improve the delivery of education and job training programs. *Public/Private Ventures*, 69.

Diamond, K. E., & Powell, D. R. (2011). An iterative approach to the development of a professional development intervention for Head Start teachers. *Journal of Early Intervention*, *33*(1), 75–93.

Dufrene, B., Doggett, R., Henington, C., & Watson, T. (2007). Functional assessment and intervention for disruptive classroom behaviors in preschool and Head Start classrooms. *Journal of Behavioral Education*, *16*(4), 368–388.

Dukes, C., Rosenberg, H., & Brady, M. (2008). Effects of Training in Functional Behavior Assessment. *International Journal of Special Education*, *23*(1), 163-173.

Dunlap, G., & Fox, L. (2011). Function-based interventions for children with challenging behavior. *Journal of Early Intervention*, *33*(4), 333–343. https://doi.org/10.1177/1053815111429971

Dunlap, G., Kern-Dunlap, L., Clarke, S., & Robbins, F. R. (1991). Functional assessment, curricular revision, and severe behavior problems. *Journal of Applied Behavior Analysis*, *24*(2), 387–397.

Durand, V. M. (1989). *The Motivation Assessment Scale.* City, State: Pergamon Press.

Dwyer, K., Rozewski, D., & Simonsen, B. (2012). A comparison of function-based replacement behaviors for escape-motivated students. *Journal of Emotional & Behavioral Disorders*, *20*(2), 115–125.

Eccles, M. P., & Mittman, B. S. (2006). Welcome to implementation science. *Implementation Science*, *1*(1), 1.

Embregts, P. J., Didden, R., Schreuder, N., Huitink, C., & Van, N. M. (2009). Aggressive behavior in individuals with moderate to borderline intellectual disabilities who live in a residential facility: An evaluation of functional variables. *Research in Developmental Disabilities*, *30*(4), 682–688.

Falcomata, T., White, P., Muething, C., & Fragale, C. (2012). A functional communication training and chained schedule procedure to treat challenging behavior with multiple functions. *Journal of Developmental & Physical Disabilities*, *24*(6), 529–538.

Fallon, M., Jie Zhang, & Eun-Joo Kim. (2011). Using course assessments to train teachers in functional behavior assessment and behavioral intervention plan techniques. *Journal of the International Association of Special Education*, *12*(1), 50–58.

Fixsen, D., Blase, K., Metz, A., & Van Dyke, M. (2013). Statewide implementation of evidence-based programs. *Exceptional Children*, *79*(2), 213–230.

Fixsen, D. L., Blase, K. A., Naoom, S. F., & Wallace, F. (2009). Core implementation components. *Research on Social Work Practice*, *19*(5), 531–540.

Foster-Johnson, L., & Dunlap, G. (1993). Using functional assessment to develop effective, individualized interventions for challenging behaviors. *Teaching Exceptional Children*, *25*(3), 44–50.

Gable, R. A., Park, K. L., & Scott, T. M. (2014). Functional behavioral assessment and students at risk for or with emotional disabilities: Current issues and considerations. *Education & Treatment of Children*, *37*(1), 111.

Gann, C. J., Ferro, J. B., Umbreit, J., & Liaupsin, C. J. (2014). Effects of a comprehensive function-based intervention applied across multiple educational settings. *Remedial & Special Education*, *35*(1), 50–60. https://doi.org/10.1177/0741932513501088

Gebbie, D. H., Ceglowski, D., Taylor, L. K., & Miels, J. (2012). The role of teacher efficacy in strengthening classroom support for preschool children with disabilities who exhibit challenging behaviors. *Early Childhood Education Journal*, *40*(1), 35–46.

Germer, K. A., Kaplan, L. M., Giroux, L. N., Markham, E. H., Ferris, G. J., Oakes, W. P., & Lane, K. L. (2011). A function-based intervention to increase a second-grade student's on-task behavior in a general education classroom. *Beyond Behavior*, *20*(3), 19–30.

Geving, A. M. (2007). Identifying the types of student and teacher behaviours associated with teacher stress. *Teaching and Teacher Education*, *23*(5), 624–640.

Goh, A. E., & Bambara, L. M. (2012). Individualized positive behavior support in school settings: A meta-analysis. *Remedial & Special Education*, *33*(5), 271–286.

Gregg, K. (2017). Communication disorders and challenging behaviors: Supporting children's functional communication goals in the classroom. *Early Childhood Education Journal*, *45*(4), 445–452.

Gresham, F. M. (2004). Current status and future directions of school-based behavioral interventions. *School Psychology Review*, *33*(3), 326.

Gromoske, A. N., & Berger, L. K. (2017). Replication of a continuing education workshop in the evidence-based practice process. *Research on Social Work Practice*, *27*(6), 676–682.

Guskey, T. R. (1985). Staff development and teacher change. *Educational Leadership*, *42*(7), 57.

Hastings, R. P., & Brown, T. (2002). Coping strategies and the impact of challenging behaviors on special educators' burnout. *Mental Retardation*, *40*(2), 148.

Haydon, T. (2012). Using functional behavior assessment to match task difficulty for a 5th grade student: A case study. *Education and Treatment of Children*, *35*(3), 459-476.

Hendrickson, J. M., & Gable, R. A. (1999). Behavioral problems in schools: Ways to encourage functional behavior assessment (FBA) of discipline-evoking behavior of students with emotional and/or behavioral disorders (EBD). *Education & Treatment of Children*, *22*(3), 280.

Herzinger, C. V., & Campbell, J. M. (2007). Comparing functional assessment methodologies: A quantitative synthesis. *Journal of Autism and Developmental Disorders*, *37*(8), 1430–1445.

Heyvaert, M., Maes, B., & Onghena, P. (2010). A meta-analysis of intervention effects on challenging behaviour among persons with intellectual disabilities. *Journal of Intellectual Disability Research*, *54*(7), 634–649.

Higbee, T. S., Aporta, A. P., Resende, A., Nogueira, M., Goyos, C., & Pollard, J. S. (2016). Interactive computer training to teach discrete-trial instruction to undergraduates and special educators in Brazil: A replication and extension. *Journal of Applied Behavior Analysis*, *49*(4), 780–793.

Hirsch, S. E., Bruhn, A. L., Lloyd, J. W., & Katsiyannis, A. (2017). FBAs and BIPs: Avoiding and addressing four common challenges related to fidelity. *TEACHING Exceptional Children*, *49*(6), 369–379.

Hirsch, S. E., Kennedy, M. J., Haines, S. J., Newman Thomas, C., & Alves, K. D. (2015). Improving preservice teachers' knowledge and application of functional behavioral assessments using multimedia. *Behavioral Disorders*, *41*(1), 38–50.

Holden, B., & Gitlesen, J. P. (2006). A total population study of challenging behaviour in the county of Hedmark, Norway: Prevalence and risk markers. *Research in Developmental Disabilities*, *27*(4), 456–465.

Horner, R. H. (1994). Functional assessment: Contributions and future directions. *Journal of Applied Behavior Analysis*, *27*(2), 401.

Horner, R. H., & Carr, E. G. (1997). Behavioral support for students with severe disabilities functional assessment and comprehensive intervention. *The Journal of Special Education*, *31*(1), 84–104.

Iwata, B. A., Dorsey, M. F., Slifer, K. J., Bauman, K. E., & Richman, G. S. (1994). Toward a functional analysis of self-injury. *Journal of Applied Behavior Analysis*, *27*(2), 197–209.

Jackson, L. (2018). We have come so far, yet we have a ways to go: Commentary on Agran et al.(2018). *Research and Practice for Persons with Severe Disabilities*, *43*(2), 82-89.

Jammaree, N. (2003). *The development of clinical care system to prevent undesirable behavior of students in Mueang Chiang Rai School, Chiang Rai Province*. Rajabhat Institute Chiangrai, City, Thailand.

Janney, D. M., Umbreit, J., Ferro, J. B., Liaupsin, C. J., & Lane, K. L. (2013). The effect of the extinction procedure in function-based intervention. *Journal of Positive Behavior Interventions*, *15*(2), 113–123.

Jatejumnongnuch, W., Wisetsuwannaphom, P., Tunticharoen, C. A., & Tinmala, D. (2011). Professional standards for special education teacher. Khurusapa The Teachers Council of Thailand. Retrieved from http://portal.edu.chula.ac.th/pub/jrm/index.php/jrm/article/view/585/pdf_v30i2_a03

Kamps, D., Wendland, M., & Culpepper, M. (2006). Active teacher participation in functional behavior assessment for students with emotional and behavioral disorders risks in general education classrooms. *Behavioral Disorders*, *31*(2), 128–146.

Kantavong, P., & Sivabaedya, S. (2010). A professional learning program for enhancing the competency of students with special needs. *International Journal of Whole Schooling*, *6*(1), 53–62.

Katsiyannis, A., Conroy, M., & Zhang, D. (2008). District-level administrators' perspectives on the implementation of functional behavior assessment in schools. *Behavioral Disorders*, *34*(1), 14–26.

Kearney, D. S., & Healy, O. (2011). Investigating the relationship between challenging behavior, co-morbid psychopathology and social skills in adults with moderate to severe intellectual disabilities in Ireland. *Research in Developmental Disabilities*, *32*(5), 1556–1563.

Kennedy, M. J., Hirsch, S. E., Rodgers, W. J., Bruce, A., & Lloyd, J. W. (2017). Supporting high school teachers' implementation of evidence-based classroom management practices. *Teaching & Teacher Education*, *63*, 47–57.

Kern, L., Starosta, K. M., Cook, C. R., Bambara, L. M., & Gresham, F. R. (2007). Functional assessment-based intervention for selective mutism. *Behavioral Disorders*, 94–108.

Klingner, J. K. (2004). The science of professional development. *Journal of Learning Disabilities*, *37*(3), 248–255.

Kodak, T., Fisher, W. W., Paden, A., & Dickes, N. (2013). Evaluation of the utility of a discrete-trial functional analysis in early intervention classrooms. *Journal of Applied Behavior Analysis*, *46*(1), 301–306.

Kostikj-Ivanovikj, V. (2009). Behavioral problems in children with mild and moderate intellectual disability. *Journal of Special Education and Rehabilitation*, *10*(1–2), 49–62.

Lane, K. L., Barton-Arwood, S. M., Spencer, J. L., & Kalberg, J. R. (2007). Teaching elementary school educators to design, implement, and evaluate functional assessment-based interventions: Successes and challenges. *Preventing School Failure: Alternative Education for Children and Youth*, *51*(4), 35-46.

Lane, K. L., Carter, W., Pierson, M. R., & Glaeser, B. C. (2006). Academic, social, and behavioral characteristics of high school students with emotional disturbances or learning disabilities. *Journal of Emotional & Behavioral Disorders*, *14*(2), 108–117.

Lane, K. L., Oakes, W. P., Powers, L., Diebold, T., Germer, K., Common, E. A., & Brunsting, N. (2015). Improving teachers' knowledge of functional assessment-based interventions: Outcomes of a professional development series. *Education and Treatment of Children*, *38*(1), 93–120.

Lane, K. L., Umbreit, J., & Beebe-Frankenberger, M. E. (1999). Functional assessment research on students with or at risk for EBD: 1990 to the present. *Journal of Positive Behavior Interventions*, *1*(2), 101–111.

Lecavalier, L., Leone, S., & Wiltz, J. (2006). The impact of behaviour problems on caregiver stress in young people with autism spectrum disorders. *Journal of Intellectual Disability Research*, *50*(3), 172–183.

LeGray, M. W., Dufrene, B. A., Sterling-Turner, H., Olmi, D. J., & Bellone, K. (2010). A comparison of function-based differential reinforcement interventions for children

engaging in disruptive classroom behavior. *Journal of Behavioral Education*, *19*(3), 185–204.

Lennox, D. B., & Miltenberger, R. G. (1989). Conducting a functional assessment of problem behavior in applied settings. *Journal of the Association for Persons with Severe Handicaps*, *14*(4), 304–311.

Leppink, J., & Pérez-Fuster, P. (2017). We need more replication research - A case for test-retest reliability. *Perspectives on Medical Education*, *6*(3), 158–164.

Lewis, T. J., Mitchell, B. S., Harvey, K., Green, A., & McKenzie, J. (2015). A comparison of functional behavioral assessment and functional analysis methodology among students with mild disabilities. *Behavioral Disorders*, *41*(1), 5–20.

Lewis, T. J., Scott, T. M., & Sugai, G. (1994). The problem behavior questionnaire: A teacher-based instrument to develop functional hypotheses of problem behavior in general education classrooms. *Diagnostique*, *19*(2–3), 103–115.

Lewis, T. J., & Sugai, G. (1996). Functional assessment of problem behavior: A pilot investigation on the comparative and interactive effects of teacher and peer social attention on students in general education settings. *School Psychology Quarterly*, *11*(1), 1.

Lindsay, R. M., & Ehrenberg, A. S. (1993). The design of replicated studies. *The American Statistician*, *47*(3), 217–228.

Lloyd, B. P., Wehby, J. H., Weaver, E. S., Goldman, S. E., Harvey, M. N., & Sherlock, D. R. (2015). Implementation and validation of trial-based functional analyses in

public elementary school settings. *Journal of Behavioral Education*, *24*(2), 167–195.

Lloyd, B., Weaver, E., & Staubitz, J. (2016). A review of functional analysis methods conducted in public school classroom settings. *Journal of Behavioral Education*, *25*(3), 324–356.

Lo, Y., & Cartledge, G. (2006). FBA and BIP: Increasing the behavior adjustment of African American boys in schools. *Behavioral Disorders*, 147–161.

Locharoenrat, W., Saengsawang, T., & Jackson, L. (2016). Behavior interventions and attitudes in inclusive setting: Special education teachers in Thailand. Presented at the 2016 TASH Conference, St. Louis, MO.

Loman, L. S. (2010). An evaluation of the efficacy of a practical functional behavioral assessment training model for personnel in schools. (Doctoral dissertation, University of Oregon).

Loman, S., & Borgmeier, C. (2010). Practical functional behavioral assessment training manual for school-based personnel. Retrieved from https://pdxscholar.library.pdx.edu/cgi/viewcontent.cgi?article=1001&context=sped_fac

Loman, S. L., & Horner, R. H. (2014). Examining the efficacy of a basic functional behavioral assessment training package for school personnel. *Journal of Positive Behavior Interventions*, *16*(1), 18–30.

Loman, S., Strickland-Cohen, M. K., Borgmeier, C., & Horner, R. (2013). Basic FBA to BSP trainer's manual. Retrieved from

https://pdxscholar.library.pdx.edu/cgi/viewcontent.cgi?article=1000&context=sped_fac

Love, J., Carr, J., & LeBlanc, L. (2009). Functional assessment of problem behavior in children with autism spectrum disorders: A summary of 32 outpatient cases. *Journal of Autism & Developmental Disorders*, *39*(2), 363–372.

Machalicek, W., O'Reilly, M. F., Beretvas, N., Sigafoos, J., & Lancioni, G. E. (2007). A review of interventions to reduce challenging behavior in school settings for students with autism spectrum disorders. *Research in Autism Spectrum Disorders*, *1*(3), 229–246.

Malouf, D. B., & Schiller, E. P. (1995). Practice and research in special education. *Exceptional Children*, *61*(5), 414–424.

March, R. E., Horner, R. H., Lewis-Palmer, T., Brown, D., Crone, D., Todd, A., & Carr, E. (2000). Functional assessment checklist for teachers and staff (FACTS). *Eugene, OR: Educational and Community Supports*.

Martin, C. A., Drasgow, E., & Halle, J. W. (2015). Training teachers to enhance the play skills of young children with developmental disabilities during outdoor time by embedding instructional interactions. *Journal of Early Intervention*, *37*(4), 247–269.

Matson, J. L., Wilkins, J., & Macken, J. (2008). The relationship of challenging behaviors to severity and symptoms of autism spectrum disorders. *Journal of Mental Health Research in Intellectual Disabilities*, *2*(1), 29–44.

McIntosh, K., Borgmeier, C., Anderson, C. M., Horner, R. H., Rodriguez, B. J., & Tobin, T. J. (2008). Technical adequacy of the functional assessment checklist: Teachers

and staff (facts) FBA interview measure. *Journal of Positive Behavior Interventions*, *10*(1), 33–45.

McLaren, E. M., & Nelson, C. M. (2009). Using functional behavior assessment to develop behavior interventions for students in Head Start. *Journal of Positive Behavior Interventions*, *11*(1), 3–21.

Murphy, O., Healy, O., & Leader, G. (2009). Risk factors for challenging behaviors among 157 children with autism spectrum disorder in Ireland. *Research in Autism Spectrum Disorders*, *3*(2), 474–482.

Neitzel, J. (2010). Positive behavior supports for children and youth with autism spectrum disorders. *Preventing School Failure: Alternative Education for Children and Youth*, *54*(4), 247–255.

Odom, S. L., Duda, M. A., Kucharczyk, S., Cox, A. W., & Stabel, A. (2014). Applying an implementation science framework for adoption of a comprehensive program for high school students with autism spectrum disorder. *Remedial and Special Education*, *35*(2), 123–132.

Office of the Basic Education Commission. (2005). Thai National Education Act of B.E. 2548 (2005): Student punishment regulation. Retrieved from http://kormor.obec.go.th/discipline/dis021.pdf

Office of the Council of State. (2008). Thai National Education Act of B.E. 2542 (1999). Retrieved from http://web.krisdika.go.th/data/law/law2/%A1125/%A1125-20-9999-update.pdf

Office of the National Education Commission. (2017, August 10). National Education Act of B.E. 2542 (1999). Retrieved from http://asean.org/storage/2016/08/Thailand184.pdf

Oliver, C., Petty, J., Ruddick, L., & Bacarese-Hamilton, M. (2012). The association between repetitive, self-injurious and aggressive behavior in children with severe intellectual disability. *Journal of Autism and Developmental Disorders*, *42*(6), 910–919.

Opartkiattikul, W., Arthur-Kelly, M., & Dempsey, I. (2015). Implementing functional behavior assessment in Thailand. *Intervention in School & Clinic*, *51*(1), 58–64.

Opartkiattikul, W., Arthur-Kelly, M., & Dempsey, I. (2016). Professional development and learning by general teachers implementing functional behavioural assessment in Thai inclusive classrooms. *International Journal of Disability, Development and Education*, *63*(5), 545–564.

Parker, M., Skinner, C., & Booher, J. (2010). Using functional behavioral assessment data to infer learning histories and guide interventions: A consultation case study. *International Journal of Behavioral Consultation and Therapy*, *6*(1), 24.

Parrish, D. E., & Rubin, A. (2011). An effective model for continuing education training in evidence-based practice. *Research on Social Work Practice*, *21*(1), 77–87.

Peck Peterson, S. M. (2002). Introduction to special issue: Functional behavior assessment in natural settings. *Education & Treatment of Children*, *25*(1), 1.

Perry, J., Allen, D. G., Pimm, C., Meek, A., Lowe, K., Groves, S., … Felce, D. (2013). Adults with intellectual disabilities and challenging behaviour: The costs and

outcomes of in- and out-of-area placements. *Journal of Intellectual Disability Research*, *57*(2), 139–152.

Pollard, J. S., Higbee, T. S., Akers, J. S., & Brodhead, M. T. (2014). An evaluation of interactive computer training to teach instructors to implement discrete trials with children with autism. *Journal of Applied Behavior Analysis*, *47*(4), 765–776.

Promchai, W. (2015). *Solving the undesirable behaviors of the lower secondary student of Ban Phai Thantawan Phittayasan School under the office of Sakon Nakhon Primary Education Service Area 2*. Sakon Nakhon Rajabhat University, Sakon Nakhon, Thailand.

Puenpueng, A., Singhalert, R., Simmathan, P., & Odton, M. (2008). The adaption of aggressive behavior of autistic grade 1 students be reinforcement with token economy in Thai language exercises. *Rajabhat Maha Sarakham University Journal*, *2*(2), 151–162.

Remler, D. K., & Van Ryzin, G. G. (2010). *Research methods in practice: Strategies for description and causation*. City, State: Sage Publications.

Sangkaew, T., Nukaew, O., & Suttharangsee, W. (2017). The effects of an aggressive behavior management program on behaviors of children suffering from Attention Deficit-Hyperactivity Disorder (ADHD): A preliminary study. *Southern College Network Journal of Nursing and Public Health*, *4*(2), 214–229.

Sasso, G. M., Conroy, M. A., Stichter, J. P., & Fox, J. J. (2001). Slowing down the bandwagon: The misapplication of functional assessment for students with emotional or behavioral disorders. *Behavioral Disorders*, 282–296.

Soke, G. N., Rosenberg, S. A., Hamman, R. F., Fingerlin, T., Robinson, C., Carpenter, L., … Durkin, M. S. (2016). Brief report: Prevalence of self-injurious behaviors among children with Autism Spectrum Disorder—A population-based study. *Journal of Autism and Developmental Disorders*, *46*(11), 3607–3614.

Spodek, B. (1996). The professional development of early childhood teachers. *Early Child Development and Care*, *115*(1), 115–124.

Strickland-Cohen, M. K., Kennedy, P. C., Berg, T. A., Bateman, L. J., & Horner, R. H. (2016). Building school district capacity to conduct functional behavioral assessment. *Journal of Emotional & Behavioral Disorders*, *24*(4), 235–246.

Suetrong, C. (2012). *Problems and guidelines to solve and develop students' undesirable behaviors in Bankhai School, Bankhai District, Rayong Province*. Burapha University, Saen Suk, Thailand.

Sugai, G., Lewis-Palmer, T., & Hagan, S. (1998). Using functional assessments to develop behavior support plans. *Preventing School Failure: Alternative Education for Children and Youth*, *43*(1), 6–13.

Sukkasame, S., Channate, R., & Naksuwan, J. (2011). *The techniques of visual communication experience: The aggressive behavior of children with autism.* Department of Special Education-Rajanukul Institutions. Rajanukul. Retrieved from http://www.sedthailand.com/images/introc_1355940749/03pic.pdf

Suwanakasa, B., & Tantixalerm, C. (2012). Effects of using check in/check out program to reduce undesirable behaviors of lower secondary school students with special needs. *An Online Journal of Education*, *7*(1), 2161–2174.

Teachers and Basic Education Personnel Development Bureau. (2017). The lists of teacher training programs that were approved by Teachers and Basic Education Personnel Development Bureau. Retrieved from https://drive.google.com/file/d/1ZJDNNbIj3fkSzkfosAtXU3lgEavvAKRB/view

Therrien, W. J., Mathews, H. M., Hirsch, S. E., & Solis, M. (2016). Progeny review: An alternative approach for examining the replication of intervention studies in special education. *Remedial and Special Education*, *37*(4), 235–243.

Travers, J. C., Cook, B. G., Therrien, W. J., & Coyne, M. D. (2016). Replication Research and Special Education. *Remedial & Special Education*, *37*(4), 195–204.

Trussell, R. P., Lewis, T. J., & Stichter, J. P. (2008). The impact of targeted classroom interventions and function-based behavior interventions on problem behaviors of students with emotional/behavioral disorders. *Behavioral Disorders*, *33*(3), 153–166.

Turner, J. C., Midgley, C., Meyer, D. K., Gheen, M., Anderman, E. M., Kang, Y., & Patrick, H. (2002). The classroom environment and students' reports of avoidance strategies in mathematics: A multimethod study. *Journal of Educational Psychology*, *94*(1), 88.

Turton, A. M., Umbreit, J., Liaupsin, C. J., & Bartley, J. (2007). Function-based intervention for an adolescent with emotional and behavioral disorders in Bermuda: Moving across culture. *Behavioral Disorders*, 23–32.

Van Acker, R., Boreson, L., Gable, R. A., & Potterton, T. (2005). Are we on the right course? Lessons learned about current FBA/BIP practices in schools. *Journal of Behavioral Education*, *14*(1), 35–56.

Van Norman, R. (2008). ABC recording form. *Eds. JO Cooper, TE Heron, & WL Heward. Applied Behavior Analysis: Second Edition. Pearson: Upper Saddle River, NJ*.

Wadsworth, J. P., Hansen, B. D., & Wills, S. B. (2015). Increasing compliance in students with intellectual disabilities using functional behavioral assessment and self-monitoring. *Remedial & Special Education*, *36*(4), 195–207.

Watson, T. S., & Steege, W. M. (2003). *Conducting school-based functional behavioral assessments: A practitioner's guide*. New York, NY: The Guilford Press.

Westling, D. L. (2010). Teachers and challenging behavior: Knowledge, views, and practices. *Remedial & Special Education*, *31*(1), 48–63.

Whitford, D. K., Liaupsin, C. J., Umbreit, J., & Ferro, J. B. (2013). Implementation of a single comprehensive function-based intervention across multiple classrooms for a high school student. *Education and Treatment of Children*, *36*(4), 147–167.

Wolf, M. M. (1978). Social validity: The case for subjective measurement or how applied behavior analysis is finding its heart. *Journal of Applied Behavior Analysis*, *11*(2), 203–214.

Wood, B. K., Blair, K.-S. C., & Ferro, J. B. (2009). Young children with challenging behavior function-based assessment and intervention. *Topics in Early Childhood Special Education*, *29*(2), 68–78.

Wood, B. K., Ferro, J. B., Umbreit, J., & Liaupsin, C. J. (2011). Addressing the challenging behavior of young children through systematic function-based intervention. *Topics in Early Childhood Special Education*, *30*(4), 221–232.

Wood, C. L., Goodnight, C. I., Bethune, K. S., Preston, A. I., & Cleaver, S. L. (2016). Role of professional development and multi-level coaching in promoting evidence-based practice in education. *Learning Disabilities: A Contemporary Journal*, *14*(2), 159–170.

Zirkel, P. A. (2011). State special education laws for functional behavioral assessment and behavior intervention plans. *Behavioral Disorders*, 262–278.

APPENDIX A

INSTITUTIONAL REVIEW BOARD APPROVAL

UNIVERSITY OF
NORTHERN COLORADO

Institutional Review Board

DATE:	July 5, 2018
TO:	Weeramol Locharoenrat
FROM:	University of Northern Colorado (UNCO) IRB
PROJECT TITLE:	[1240571-4] Examining the Effectiveness of a Basic Functional Behavior Assessment Training Package on Special Education Teachers in Thailand: A Replication Study
SUBMISSION TYPE:	Amendment/Modification
ACTION:	APPROVED
APPROVAL DATE:	July 5, 2018
EXPIRATION DATE:	July 4, 2019
REVIEW TYPE:	Expedited Review

Thank you for your submission of Amendment/Modification materials for this project. The University of Northern Colorado (UNCO) IRB has APPROVED your submission. All research must be conducted in accordance with this approved submission.

This submission has received Expedited Review based on applicable federal regulations.

Please remember that informed consent is a process beginning with a description of the project and insurance of participant understanding. Informed consent must continue throughout the project via a dialogue between the researcher and research participant. Federal regulations require that each participant receives a copy of the consent document.

Please note that any revision to previously approved materials must be approved by this committee prior to initiation. Please use the appropriate revision forms for this procedure.

All UNANTICIPATED PROBLEMS involving risks to subjects or others and SERIOUS and UNEXPECTED adverse events must be reported promptly to this office.

All NON-COMPLIANCE issues or COMPLAINTS regarding this project must be reported promptly to this office.

Based on the risks, this project requires continuing review by this committee on an annual basis. Please use the appropriate forms for this procedure. Your documentation for continuing review must be received with sufficient time for review and continued approval before the expiration date of July 4, 2019.

Please note that all research records must be retained for a minimum of three years after the completion of the project.

If you have any questions, please contact Nicole Morse at 970-351-1910 or Nicole.Morse@unco.edu. Please include your project title and reference number in all correspondence with this committee.

Thank you both for your patience with the IRB process and heeding the recommended modifications for the necessary consent and assent process.

Dr. Montemayor, the first reviewer, and I have both recommended approval for the revised protocols and materials. Please be sure to use these approved consent and assent forms and revised protocols in your participant recruitment and data collection.

Best wishes with this research and please don't hesitate to contact me with any IRB-related questions or concerns.

Sincerely,

Dr. Megan Stellino, UNC IRB Co-Chair

This letter has been electronically signed in accordance with all applicable regulations, and a copy is retained within University of Northern Colorado (UNCO) IRB's records.

APPENDIX B

LETTER TO SCHOOL DIRECTOR FOR PERMISSION TO CONDUCT RESEARCH

UNIVERSITY OF
NORTHERN COLORADO

ขอความอนุเคราะห์เก็บข้อมูลงานวิจัยในโรงเรียน

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จตุจักร กรุงเทพฯ
ประเทศไทย 10900

เรียน [redacted]
เรื่อง ขอความอนุเคราะห์เก็บข้อมูลงานวิจัยในโรงเรียน

ด้วย ดิฉัน นางสาววีรมลล์ โล้เจริญรัตน์ นักศึกษาระดับปริญญาเอก สาขาวิชาการศึกษาพิเศษ มหาวิทยาลัย Northern Colorado และอยู่ระหว่างขั้นตอนการทำวิทยานิพนธ์ โดยในการทำวิทยานิพนธ์ครั้งนี้มีจุดมุ่งหมายเพื่อศึกษาการอบรมเกี่ยวกับกระบวนการวิเคราะห์เพื่อหาสาเหตุของการเกิดพฤติกรรม หรือ Functional Behavior Assessment (FBA)

กระบวนการวิเคราะห์เพื่อหาสาเหตุของการเกิดพฤติกรรมมีวัตถุประสงค์เพื่อใช้ในการระบุหาสาเหตุหรือแรงจูงใจของการเกิดพฤติกรรมและระบุสิ่งแวดล้อมที่มีผลต่อการแสดงพฤติกรรมอย่างต่อเนื่อง โดยผลจากการใช้กระบวนการดังกล่าวนี้จะมีผลทำให้อาจารย์สามารถสร้างแผนการปรับพฤติกรรมให้นักเรียนที่มีความต้องการพิเศษและมีการแสดงพฤติกรรมที่เป็นปัญหาได้อย่างมีประสิทธิภาพ ในประเทศสหรัฐอเมริกาอาจารย์การศึกษาพิเศษทุกท่านจะต้องมีความรู้และความสามารถในการใช้กระบวนการดังกล่าวนี้เพื่อให้ความช่วยเหลือนักเรียนที่มีความต้องการพิเศษและมีการแสดงพฤติกรรมที่เป็นปัญหา

(ลายเซ็นผู้อำนวยการ)

จากเหตุผลดังกล่าวข้างต้นดิฉันจึงมีความสนใจที่จะนำเสนอและสนับสนุนให้อาจารย์การศึกษาพิเศษในประเทศไทยมีความรู้เกี่ยวกับกระบวนการวิเคราะห์เพื่อหาสาเหตุของการเกิดพฤติกรรม และใช้กระบวนการดังกล่าวนี้เพื่อให้ความช่วยเหลือเด็กที่มีความต้องการพิเศษและมีการแสดงพฤติกรรมที่เป็นปัญหา วัตถุประสงค์ของการเขียนจดหมายฉบับนี้เพื่อขอความอนุเคราะห์จากทางผู้อำนวยการอนุญาตให้ดิฉันได้จัดการอบรมและเก็บข้อมูลงานวิจัยในโรงเรียนของท่าน โดยรายละเอียดของงานวิจัยมีดังต่อไปนี้

ชื่องานวิจัย: ศึกษาผลของการอบรมโดยใช้โปรแกรม Basic Functional Behavior Assessment Training Package ในการอบรมอาจารย์การศึกษาพิเศษในประเทศไทยเกี่ยวกับกระบวนการวิเคราะห์เพื่อหาสาเหตุของการเกิดพฤติกรรม หรือ Functional Behavior Assessment: การศึกษาโดยใช้วิธีการทำซ้ำจากงานวิจัยต้นแบบ

ผู้วิจัย: นางสาววีรมลล์ ไล้เจริญรัตน์ นักศึกษาระดับปริญญาเอก สาขาวิชาการศึกษาพิเศษ
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จุดประสงค์ของงานวิจัย: เพื่อศึกษาผลของการอบรมโดยใช้กระบวนการวิจัยและรูปแบบของการอบรมตามแบบงานวิจัย "ศึกษาผลสัมฤทธิ์ของโปรแกรม Basic Functional Behavior Assessment Training Package ในการอบรมอาจารย์ในโรงเรียน" ซึ่งจัดทำโดย Loman and Horner (2014) จากงานวิจัยต้นแบบผลของงานวิจัยครั้งนี้จะแสดงให้เห็นว่า (1) โปรแกรม Basic Functional Behavior Assessment Training Package สามารถนำมาใช้เพื่อการอบรมอาจารย์การศึกษาพิเศษในประเทศไทยให้มีความรู้และสามารถในการนำกระบวนการวิเคราะห์เพื่อหาสาเหตุของการเกิดพฤติกรรมไปใช้ได้หรือไม่ (2) อาจารย์การศึกษาพิเศษที่อยู่ในกลุ่มทดลองมีความคิดเห็นต่อโปรแกรมการอบรมและกระบวนการวิเคราะห์เพื่อหาสาเหตุของการเกิดพฤติกรรมว่ามีเป็นกระบวนการที่มีประโยชน์ มีความเหมาะสม และมีความสอดคล้องกับวัฒนธรรมไทยหรือไม่

กลุ่มตัวอย่าง: อาจารย์การศึกษาพิเศษ 12 คน นักเรียนที่มีความต้องการพิเศษ(ความบกพร่องทางการเรียนรู้และมีภาวะออทิซึม)และมีการแสดงพฤติกรรมที่เป็นปัญหา 12 คน ผู้เข้าร่วมงานวิจัยครั้งนี้จะต้องลงนามในเอกสารยินยอมเข้าร่วมงานวิจัยก่อนการเข้าร่วมงานวิจัยครั้งนี้ทุกคน

สถานที่: ห้องเรียนระดับอนุบาล - มัธยมศึกษาปีที่ 6

(ลายเซ็นผู้อำนวยการ)

กลุ่มตัวอย่างและกระบวนการเก็บรวบรวมข้อมูลในการวิจัยครั้งนี้:

อาจารย์การศึกษาพิเศษ 12 คนจะถูกแบ่งออกเป็น 2 กลุ่มด้วยวิธีการสุ่มอย่างง่าย โดยในกลุ่มที่ 1 หรือ กลุ่มควบคุมจะประกอบด้วยอาจารย์การศึกษาพิเศษ 3 คน ในกลุ่มที่ 2 หรือกลุ่มทดลองจะประกอบไปด้วยอาจารย์การศึกษาพิเศษ 9 คน

อาจารย์การศึกษาพิเศษที่อยู่ในกลุ่มควบคุมทั้ง 3 คนจะต้องทำแบบทดสอบ "FBA Knowledge Assessment" ก่อนและหลังการอบรม (ซึ่งจะเป็นช่วงเวลาที่ใกล้เคียงกับกลุ่มทดลองที่จะต้องทำแบบทดสอบฉบับเดียวกัน) นอกจากนี้อาจารย์กลุ่มนี้จะต้องให้สัมภาษณ์เกี่ยวกับนักเรียนที่อยู่ในความดูแลที่มีความต้องการพิเศษและมีการแสดงพฤติกรรมที่เป็นปัญหา โดยในการสัมภาษณ์ดังกล่าวจะใช้เวลาประมาณ 15 – 20 นาที

อาจารย์การศึกษาพิเศษที่อยู่ในกลุ่มทดลองทั้งหมด 9 คนจะต้องเข้าร่วมการอบรมเกี่ยวกับการนำกระบวนการวิเคราะห์เพื่อหาสาเหตุของการเกิดพฤติกรรมไปใช้ในห้องเรียน การอบรมครั้งนี้ประกอบด้วยการปฐมนิเทศและการอบรมทั้งหมด 4 ครั้ง ระหว่างการปฐมนิเทศผู้วิจัยจะอธิบายเกี่ยวกับงานวิจัยและกระบวนการฝึกอบรม การอบรมครั้งที่ 1 – 4 จะเป็นการอบรมที่เกี่ยวข้องกับกระบวนการวิเคราะห์เพื่อหาสาเหตุของการเกิดพฤติกรรม หรือ FBA

การปฐมนิเทศจะเป็นการให้ข้อมูลเกี่ยวกับงานวิจัยและกระบวนการฝึกอบรม อาจารย์การศึกษาพิเศษจะได้รับทราบเกี่ยวกับวัตถุประสงค์และภาพรวมของรูปแบบในการอบรมในครั้งนี้ ส่วนในการอบรมครั้งที่ 1 – 4 จะเป็นการอบรมที่เกี่ยวข้องกับกระบวนการวิเคราะห์เพื่อหาสาเหตุของการเกิดพฤติกรรมโดยตรง โดยในแต่ละครั้งของการอบรมอาจารย์การศึกษาพิเศษจะได้เรียนรู้และได้รับการฝึกปฏิบัติในทักษะที่แตกต่างกัน โดยทักษะเหล่านี้จะเป็นส่วนหนึ่งในการเก็บรวบรวมข้อมูลตามกระบวนการวิเคราะห์เพื่อหาสาเหตุของการเกิดพฤติกรรมหรือ FBA โดยความรู้และทักษะดังกล่าวจะประกอบไปด้วย (1) ความรู้เกี่ยวกับกระบวนการวิเคราะห์เพื่อหาสาเหตุของการเกิด(2) เรียนรู้และฝึกทักษะสัมภาษณ์ (3) เรียนรู้และฝึกทักษะการสังเกต และ(4) เรียนรู้และฝึกทักษะการวางแผนเพื่อปรับพฤติกรรมนักเรียน หลังการอบรมในแต่ละครั้งอาจารย์การศึกษาพิเศษจะต้องทำแบบฝึกหัดหรืองานที่กำหนดให้เพื่อนำมาส่งในครั้งต่อไปที่มีการอบรม

หลังจากอาจารย์การศึกษาพิเศษในกลุ่มทดลองเข้าร่วมการอบรมครบทั้ง 4 ครั้งอาจารย์การศึกษาพิเศษทุกคนในกลุ่มนี้จะต้องนำความรู้ที่ได้เรียนและฝึกปฏิบัติไปใช้กับนักเรียนที่อาจารย์แต่ละท่านได้เลือกไว้เพื่อใช้เป็นกรณีศึกษา โดยผลที่ได้จากการการเก็บรวบรวมข้อมูลตามกระบวนการวิเคราะห์เพื่อหาสาเหตุของการเกิดพฤติกรรมกับกรณีศึกษาของอาจารย์กลุ่มนี้จะถูกนำมาเปรียบเทียบกับผลจากการเก็บรวบรวมข้อมูลตามกระบวนการเดียวกันแต่รวบรวมข้อมูลโดยผู้วิจัย

(ลายเซ็นผู้อำนวยการ)

หลังจากที่อาจารย์การศึกษาพิเศษทั้ง 9 คนเก็บรวบรวมข้อมูลจากกรณีศึกษาเรียบร้อยแล้ว ผู้วิจัยจะทำการเก็บรวบรวมข้อมูลโดยใช้กระบวนการและวิธีการเดียวกันกับนักเรียนที่เป็นกรณีศึกษากลุ่มเดียวกัน ผลจากการใช้วิธีการดังกล่าวผู้วิจัยจะสามารถวิเคราะห์ได้ว่าอาจารย์การศึกษาพิเศษที่เข้ารับการอบรมมีการความรู้และทักษะใหม่จากการฝึกอบรมและการฝึกปฏิบัติในครั้งนี้หรือไม่

จากที่กล่าวมาข้างต้นในงานวิจัยครั้งนี้จะมีนักเรียนที่มีความต้องการพิเศษ(ที่มีความบกพร่องทางการเรียนรู้ละมีภาวะออทิซึม)เข้าร่วมทั้งหมด 12 คน โดยอาจารย์การศึกษาพิเศษทั้ง 12 คนจะเป็นผู้เลือกนักเรียนที่จะเข้าร่วมในงานวิจัยครั้งนี้ อาจารย์ 1 ท่านจะเลือกนักเรียนเป็นกรณีศึกษา 1 คน ถ้าอาจารย์ที่เลือกนักเรียนอยู่ในกลุ่มควบคุมนักเรียนคนนั้นก็จะต้องอยู่ในกลุ่มควบคุมด้วยเช่นกัน แต่ถ้าอาจารย์ที่เลือกนักเรียนอยู่ในกลุ่มทดลองนักเรียนคนนั้นก็จะต้องอยู่ในกลุ่มทดลอง นักเรียนที่อยู่ในกลุ่มควบคุมนั้นจะไม่ได้รับหรือไม่มีการเก็บรวบรวมข้อมูลตามกระบวนการวิเคราะห์เพื่อหาสาเหตุของการเกิดพฤติกรรมใด ๆ เลย แต่อาจารย์การศึกษาพิเศษในกลุ่มควบคุมจะใช้ข้อมูลของนักเรียนเพื่อตอบคำถามในช่วงการสัมภาษณ์เท่านั้น จำนวนนักเรียนในกลุ่มควบคุมจะมีทั้งหมด 3 คน

ในส่วนของกลุ่มทดลอง อาจารย์การศึกษาพิเศษทั้ง 9 คนจะเลือกนักเรียนเป็นกรณีศึกษาท่านละ 1 คน ดังนั้นในกลุ่มทดลองจะมีนักเรียนทั้งหมด 9 คน นักเรียนที่อยู่ในกลุ่มนี้จะถูกเก็บรวบรวมข้อมูลตามกระบวนการวิเคราะห์เพื่อหาสาเหตุของการเกิดพฤติกรรมจากอาจารย์การศึกษาพิเศษในกลุ่มทดลองและผู้วิจัย

โดยในระหว่างการเก็บรวบรวมข้อมูลตามกระบวนการวิเคราะห์เพื่อหาสาเหตุของการเกิดพฤติกรรม วิธีการที่ใช้ในการเก็บข้อมูลจะประกอบไปด้วยการสัมภาษณ์และการสังเกต วัตถุประสงค์ของการเก็บรวบรวมข้อมูลในครั้งนี้ก็เพื่อศึกษาพฤติกรรมที่เป็นปัญหาของนักเรียนและศึกษาสาเหตุหรือแรงจูงใจในการแสดงพฤติกรรมดังกล่าว โดยในการสัมภาษณ์แต่ละครั้งจะใช้เวลาประมาณ 20 นาที ส่วนการสังเกตนั้นในแต่ละครั้งจะใช้เวลาประมาณ 30 – 50 นาที

ดิฉันในฐานะผู้วิจัยไม่พบความเสี่ยงใด ๆ ที่จะเกิดขึ้นกับโรงเรียนหรือตัวผู้เข้าร่วมงานวิจัยในครั้งนี้เกินไปกว่าความเสี่ยงที่จะเกิดขึ้นตามปกติที่อาจจะสามารถเกิดขึ้นได้ภายในโรงเรียน ผู้วิจัยจะเคารพในการตัดสินใจของผู้เข้าร่วมงานวิจัยและจะรักษาข้อมูลของผู้เข้าร่วมวิจัยไว้เป็นความลับ ผู้เข้าร่วมงานวิจัยทุกท่านมีสิทธิ์ที่จะเข้าร่วมหรือไม่เข้าร่วมงานวิจัยครั้งนี้ก็ได้ สำหรับผู้เข้าร่วมงานวิจัยที่เป็นนักเรียนผู้ปกครองมีสิทธิ์ที่จะอนุญาตหรือไม่อนุญาตให้ลูกของท่านเข้าร่วมหรือไม่เข้าร่วมงานวิจัยครั้งนี้ก็ได้ และถึงแม้ว่าผู้เข้าร่วมงานวิจัยที่ตัดสินใจเข้าร่วมงานวิจัยครั้งนี้ไปแล้วแต่มีความประสงค์จะเปลี่ยนใจผู้เข้าร่วมงานวิจัยสามารถหยุดหรือถอดตัวออกจากงานวิจัยครั้งนี้ได้ทันที หรือในกรณีที่อาจารย์การศึกษาพิเศษที่ตัดสินใจเข้าร่วมงานวิจัยมีคำถามหรือข้อกังวลใด ๆ เกี่ยวกับงานวิจัยครั้งนี้อาจารย์สามารถติดต่อผู้วิจัยโดยตรงหรือติดต่อทางอาจารย์หัวหน้าศูนย์เพื่อรับคำอธิบายเพิ่มเติมได้ สำหรับผู้ปกครองของนักเรียนที่ได้รับความยินยอมให้เข้าร่วมงานวิจัยครั้งนี้มีข้อสงสัยหรือความกังวลใด ๆ ผู้ปกครองก็สามารถติดต่ออาจารย์หัวหน้า -

(ลายเซ็นผู้อำนวยการ)

ศูนย์เพื่อข้อรับคำอธิบายเพิ่มเติมได้ หรือถ้าผู้เข้าร่วมงานวิจัยคนใดมีข้อสงสัยหรือข้อกังวลใด ๆ เกี่ยวกับขั้นตอนการคัดเลือกกลุ่มตัวอย่างหรือกระบวนการวิจัยในฐานะผู้เข้าร่วมงานวิจัยท่านสามารถติดต่อคณะกรรมการจริยธรรมการวิจัย หน่วยงานSponsored Programs ในตึก Kepner Hall ของมหาวิทยาลัย Northern Colorado ในเมือง Greeley รัฐ Colorado รหัสไปรษณีย์ 80639 เบอร์โทรศัพท์ (1) 970-351-1910 ได้ สุดท้ายนี้ดิฉันขอรับรองว่าเอกสารต่าง ๆ ที่เกี่ยวข้องกับผู้เข้าร่วมงานวิจัย ทุกท่านจะถูกเก็บไว้เป็นความลับ

สุดท้ายนี้ หากท่านพิจารณาอนุญาตให้ดิฉันเข้าไปดำเนินการเก็บข้อมูลงานวิจัย โปรดลงนามในเอกสารฉบับนี้ จักขอบพระคุณยิ่ง

ด้วยความเคารพอย่างสูง

วีรมลล์ โล้เจริญรัตน์

วีรมลล์ โล้เจริญรัตน์
ผู้วิจัย

ข้าพเจ้า ผศ.ดร. ศศิธร จ่างภากร พิจารณาแล้วอนุญาตให้ นางสาววีรมลล์ โล้เจริญรัตน์เข้าดำเนินการเก็บข้อมูลงานวิจัยตามจดหมายขอความอนุเคราะห์ที่ส่งมายังโรงเรียนสาธิตแห่งมหาวิทยาลัยเกษตรศาสตร์ ศูนย์วิจัยและพัฒนาการศึกษา

[redacted]
ผู้อำนวยการ
โรงเรียน[redacted]

UNIVERSITY OF NORTHERN COLORADO

PERMISSION LETTER TO CONDUCT THE RESEARCH
UNIVERSITY OF NORTHERN COLORADO

Weeramol Locharoenrat
105 Soi. Mahadthai 1
Wangthonglang Plubpla
Bangkok Thailand
10310
loch2257@bears.unco.edu
(Date)

Dr. Sasithorn Changpakorn
Principal
Kasetsart University Laboratory School
50 Phaholyothin Rd.
Chatuchak
Bangkok Thailand
10900

Dear Dr. Sasithorn Changpakorn
RE: Permission to Conduct the Research

I am Weeramol Locharoenrat, a doctoral student in School of Special Education at University of Northern Colorado. I am in the process of doing my doctoral dissertation. For this dissertation, I will conduct a research study on functional behavior assessment (FBA) training. The FBA process is a procedure used for identifying how motivation and the environment maintain the occurrence of problem behaviors so that teachers can develop effective behavior intervention plans for students with disabilities. In the United States, every special education teacher is required to learn and implement this process for supporting students with disabilities who have challenging behaviors. According to these reasons, I am interested in introducing and encouraging special education teachers in Thailand to learn and apply this process with their students. The purpose of this letter is to ask for your permission to conduct the research in your school and to provide you with information about the study. Details of this study are described below.

Project Title: Examining the Effectiveness of a Basic Functional Behavior Assessment Training Package on Special Education Teachers in Thailand: A Replication Study
Researcher: Weeramol Locharoenrat, School of Special Education
Phone Number: [redacted] E-mail: loch2257@bears.unco.edu
Research Advisor: Lewis Jackson, Ed.D., School of Special Education
Phone: [redacted] E-mail: lewis.jackson@unco.edu

Purpose of the research: To replicate the study "Examining the Efficacy of a Basic Functional Behavior Assessment Training Package for School Personnel," which was conducted by Loman and Horner (2014). The results of this study will indicate, first, whether special education teachers in Thailand can be trained to adequately conduct the FBA process by using a training program called, "Basic Functional Behavior Assessment Training Package." Second, whether the trained Thai special education teachers working with students who have both disabilities and behavior problems will perceive the FBA process and the FBA training as useful and valid within Thai culture.

Setting: K-12 classrooms

Participants and Data Collection Procedure:

The participants will be twelve special education teachers and twelve of their students with disabilities who have challenging behaviors. Signed consent forms will be collected for all participants before the study begins.

The twelve special education teachers will be divided into two groups. The first group will be a control group and will consist of three special education teachers. The second group will be an intervention group and will consist of nine special education teachers.

For the control group, the three special education teachers will be required to complete a pre- and post-test that assesses their FBA knowledge. Additionally, these special education teachers will participate in interview sessions in which their understanding about students' problem behaviors will be examined. These interview sessions will take approximately 15 – 20 minutes.

For the intervention group, the nine special education teachers will complete the training on the use and application of FBA procedures. The participants will be provided with a training manual, *"Practical functional behavioral training manual for school Based personnel: Participant's guidebook."* The training will consist of an introductory session and four training sessions. These are described below.

During the introductory session, the nine special education teachers in the intervention group will receive information about the purpose and the procedure of the training. After that these teachers will receive four training sessions. In each training session, these teachers will learn and be trained on the different skills for conducting the FBA process, including knowledge and skills on the FBA process, the interview process, observational processes, and behavior intervention

planning. At the end of each session, these teachers will be required to complete assignments that are submitted to the instructor during the next training session.

After the nine special education teachers complete the training sessions, they will be required to conduct the FBA process with their case study students. Their results and their data will be submitted to the principal investigator.

Next, I will conduct the FBA process with the same case study students whom these special education teachers conducted their FBA process, and I will be using the same procedures. I can then compare my results with their results to assure that they have learned the skills.

As briefly noted above, twelve students with learning disabilities and autism will participate in this study. These students will be nominated by the twelve special education teachers. The three students who are in the control group will not experience any FBA procedures. The special education teachers who are in the control group will only use these students as basis to answer questions about behaviors during an interview session.

Those students nominated by the nine special education teachers who were assigned to be in the intervention group will be fully assessed by using the FBA process by their special education teachers and by the principal investigator, who is myself. During the FBA process, there will be two data collection processes that will used. One of these processes is an interview process and one of these processes is a direct observation process. Both of the teachers of these students and the principal investigator will use these processes to assess student's behavior and its function. The interviews will last approximately 20 minutes and the observations may take approximately 30 to 50 minutes.

I foresee no risks to the school or to the participants beyond those that normally occur in a regular educational setting. All participants will be treated respectfully and confidentially. First, all participants have the right to decide to participate or not participate in the study. For the student participants, parents can decide to allow or not allow their children to participate in this study. Second, even if participants begin to participate these participants may still decide to stop and withdraw at any time. Third, if any participants have questions and/or concerns about the study, they can contact the researcher or the directors for further explanation. For parents who have questions and/or concerns they can contact the directors of the center for supporting students with special needs to receive further explanation. If they have additional concern about their selection or treatment as research participants, they can contact the IRB Administrator, Office of Sponsored Programs, Kepner Hall, University of Northern Colorado Greeley, CO 80639: (1) 970-351-1910. Finally, all documents that relate to the participants will be anonymous.

I would greatly appreciate your support in allowing me to conduct the study in your school. Please sign below if you approve for me to conduct the study in your school. Thank you very much.

Sincerely,

Weeramol Locharoenrat
Researcher

I, Sasithorn Changpakorn, approves for Miss Weeramol Locharoenrat to conduct a study as described in this letter at Kasetsart University Laboratory School.

_____
Sasithorn Changpakorn, Ed.D.
Principal
Kasetsart University Laboratory School

APPENDIX C

TEACHER CONSENT FORM

UNIVERSITY OF
NORTHERN COLORADO

แบบฟอร์มการยินยอมเข้าร่วมงานวิจัย

UNIVERSITY OF NORTHERN COLORADO

ชื่องานวิจัย: ศึกษาผลของการอบรมโดยใช้โปรแกรม Basic Functional Behavior Assessment Training Package ในการอบรมอาจารย์การศึกษาพิเศษในประเทศไทยเกี่ยวกับกระบวนการวิเคราะห์เพื่อหาสาเหตุของการเกิดพฤติกรรม หรือ Functional Behavior Assessment: การศึกษาโดยใช้วิธีการทำซ้ำจากงานวิจัยต้นแบบ

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ดิฉัน นางสาววีรมลล์ โล้เจริญรัตน์ นักศึกษาระดับปริญญาเอก สาขาวิชาการศึกษาพิเศษ มหาวิทยาลัย Northern Colorado และอยู่ระหว่างขั้นตอนการทำวิทยานิพนธ์ โดยในการทำวิทยานิพนธ์ครั้งนี้มีจุดมุ่งหมายเพื่อศึกษาการอบรมเกี่ยวกับกระบวนการวิเคราะห์เพื่อหาสาเหตุของการเกิดพฤติกรรม หรือ **Functional Behavior Assessment (FBA)** โดยในการอบรมครั้งนี้ผู้เข้าร่วมอบรมจะเรียนรู้เกี่ยวกับการเก็บรวบรวมข้อมูลเกี่ยวกับพฤติกรรมที่เป็นปัญหาของนักเรียน ผลจากการเก็บรวบรวมข้อมูลโดยใช้กระบวนการดังกล่าวจะมีส่วนช่วยทำให้ผู้เข้าร่วมอบรมมีความเข้าใจเกี่ยวกับสาเหตุของการแสดงพฤติกรรมมากยิ่งขึ้น และนำข้อมูลเหล่านี้มาช่วยในการออกแบบหรือสร้างแผนการปรับพฤติกรรมที่มีประสิทธิภาพมากยิ่งขึ้น

วัตถุประสงค์หลักของงานวิจัยครั้งนี้คือ เพื่อศึกษาผลของการอบรมโดยใช้กระบวนการวิจัยและรูปแบบของการอบรมตามแบบงานวิจัย "ศึกษาผลสัมฤทธิ์ของโปรแกรม Basic Functional Behavior Assessment Training Package ในการอบรมอาจารย์ในโรงเรียน" ซึ่งจัดทำโดย Loman and Horner (2014) จากงานวิจัยต้นแบบผลของงานวิจัยครั้งนี้จะแสดงให้เห็นว่า (1) โปรแกรม Basic Functional

ลงนามผู้เข้าร่วมงานวิจัย

Behavior Assessment Training Package สามารถนำมาใช้เพื่อการอบรมอาจารย์การศึกษาพิเศษในประเทศไทยให้มีความรู้และสามารถในการนำกระบวนการวิเคราะห์เพื่อหาสาเหตุของการเกิf พฤติกรรมไปใช้ได้หรือไม่ (2) อาจารย์การศึกษาพิเศษที่อยู่ในกลุ่มทดลองมีความคิดเห็นต่อโปรแกรมการอบรมและกระบวนการวิเคราะห์เพื่อหาสาเหตุของการเกิดพฤติกรรมว่ามีเป็นกระบวนการที่มีประโยชน์ มีความเหมาะสม และมีความสอดคล้องกับวัฒนธรรมไทยหรือไม่

หากท่านยินดีที่จะเข้าร่วมในงานวิจัยครั้งนี้ ท่านจะต้องมีนักเรียนที่ท่านกำลังดูแลและมีคุณสมบัติดังต่อไปนี้ (1) ได้รับการวินิจฉัยว่ามีความบกพร่องทางการเรียนรู้ หรือ มีภาวะออทิซึม (2) แสดงพฤติกรรมที่เป็นปัญหาที่มีผลต่อการเรียนของนักเรียนหรือมีผลต่อนักเรียนในการสร้างปฏิสัมพันธ์กับบุคลรอบข้าง และ (3) มีการแสดงพฤติกรรมที่เป็นปัญหาบ่อยครั้ง หากท่านมีนักเรียนที่ตรงกับคุณสมบัติดังกล่าวและท่านยินดีที่จะเข้าร่วมงานวิจัยครั้งนี้ท่านอาจถูกเลือกโดยใช้วิธีการสุ่มอย่างง่าย (วิธีการจับฉลาก) ให้อยู่ในกลุ่มทดลอง หรือ กลุ่มควบคุม

หากท่านอยู่ในกลุ่มทดลอง ท่านจะต้องเข้าร่วมกิจกรรมดังต่อไปนี้

ท่านจะต้องเข้าร่วมการอบรมเกี่ยวกับการนำกระบวนการวิเคราะห์เพื่อหาสาเหตุของการเกิดพฤติกรรมไปใช้ในห้องเรียน การอบรมครั้งนี้ประกอบด้วยการปฐมนิเทศและการอบรมทั้งหมด 4 ครั้ง ระหว่างการปฐมนิเทศผู้วิจัยจะอธิบายเกี่ยวกับงานวิจัยและกระบวนการฝึกอบรม การอบรมครั้งที่ 1 – 4 จะเป็นการอบรมที่เกี่ยวข้องกับกระบวนการวิเคราะห์เพื่อหาสาเหตุของการเกิดพฤติกรรม หรือ FBA

การปฐมนิเทศจะเป็นการให้ข้อมูลเกี่ยวกับงานวิจัยและกระบวนการฝึกอบรม ท่านได้รับทราบเกี่ยวกับวัตถุประสงค์และภาพรวมของรูปแบบในการอบรมในครั้งนี้ ส่วนในการอบรมครั้งที่ 1 – 4 จะเป็นการอบรมที่เกี่ยวข้องกับกระบวนการวิเคราะห์เพื่อหาสาเหตุของการเกิดพฤติกรรมโดยตรง โดยในแต่ละครั้งของการอบรมท่านจะได้เรียนรู้และได้รับการฝึกปฏิบัติในทักษะที่แตกต่างกัน โดยทักษะเหล่านี้จะเป็นส่วนหนึ่งในการเก็บรวบรวมข้อมูลตามกระบวนการวิเคราะห์เพื่อหาสาเหตุของการเกิดพฤติกรรมหรือ FBA โดยความรู้และทักษะดังกล่าวจะประกอบไปด้วย (1) ความรู้เกี่ยวกับกระบวนการวิเคราะห์เพื่อหาสาเหตุของการเกิด(2) เรียนรู้และฝึกทักษะสัมภาษณ์ (3) เรียนรู้และฝึกทักษะการสังเกต และ(4) เรียนรู้และฝึกทักษะการวางแผนเพื่อปรับพฤติกรรมนักเรียน หลังการอบรมในแต่ละครั้งท่านจะต้องทำแบบฝึกหัดหรืองานที่กำหนดให้เพื่อนำมาส่งในครั้งต่อไปที่มีการอบรม

หลังจากเสร็จสิ้นการอบรมท่านจะต้องนำความรู้ที่ได้จากการอบรมไปฝึกปฏิบัติกับนักเรียนที่ท่านได้เลือกไว้เพื่อใช้เป็นกรณีศึกษา โดยผลที่ได้จากการการเก็บรวบรวมข้อมูลตามกระบวนการ

วิเคราะห์เพื่อหาสาเหตุของการเกิดพฤติกรรมกับกรณีศึกษาของท่านจะถูกนำมาเปรียบเทียบกับผลจากการเก็บรวบรวมข้อมูลตามกระบวนการเดียวกันแต่รวบรวมข้อมูลโดยผู้วิจัย

หากท่านอยู่ในกลุ่มควบคุม ท่านจะไม่ได้เข้าร่วมในการอบรมใด ๆ ในระหว่างการวิจัยครั้งนี้ หากท่านสนใจที่จะเข้ารับการอบรมการใช้กระบวนการดังกล่าวทางผู้วิจัยจะจัดการอบรมให้กับผู้ที่สนใจหลังจากงานวิจัยครั้งนี้เสร็จสิ้น ระหว่างการวิจัยท่านจะต้องทำแบบทดสอบวัดความรู้และเข้าร่วมการสัมภาษณ์

ในกรณีที่ท่านเลือกที่จะเข้าร่วมในงานวิจัยครั้งนี้ ผู้วิจัยขอความกรุณาผู้เข้าร่วมงานวิจัยทุกท่านไม่ให้เผยแพร่ข้อมูลที่เกี่ยวข้องกับการอบรม งานที่ได้รับมอบหมาย และแบบทดสอบที่ท่านต้องทำในระหว่างการอบรมกับบุคคลภายนอกหรืออาจารย์ท่านอื่นภายในโรงเรียน เนื่องจากการเผยแพร่ข้อมูลดังกล่าวอาจมีผลต่อการสรุปผลที่ได้จากงานวิจัยในครั้งนี้ได้

ดิฉันในฐานะผู้วิจัยไม่พบความเสี่ยงใด ๆ ที่จะเกิดขึ้นกับท่านมากเกินไปกว่าความเสี่ยงที่อาจจะเกิดขึ้นได้ภายในโรงเรียน ท่านอาจต้องเสียเวลาของท่านในการเข้าร่วมการอบรมและทำกิจกรรมที่เกี่ยวข้องกับงานวิจัยครั้งนี้ค่อนข้างมาก แต่อย่างไรก็ตามกิจกรรมที่อยู่ในการอบรมครั้งนี้ถูกออกแบบมาเพื่อช่วยให้ท่านได้พัฒนาทักษะเฉพาะด้านที่เกี่ยวข้องกับพฤติกรรมที่เป็นปัญหาของนักเรียน นอกจากนี้ท่านจะต้องทำแบบทดสอบเพื่อทดสอบความเข้าใจของท่านหลังการอบรม ข้อมูลต่าง ๆ ของท่านจะถูกเก็บไว้เป็นความลับ ชื่อของท่านจะถูกเปลี่ยนเพื่อไม่ให้บุคคลอื่นนอกจากผู้วิจัยสามารถระบุตัวตนของท่านได้จากเอกสารที่ใช้ในงานวิจัยครั้งนี้ นอกจากนี้ชื่อของท่านจะไม่ปรากฏอยู่ในเอกสารรายงานใด ๆ ในงานวิจัยครั้งนี้ หากท่านมีข้อกังวลที่ต้องการสอบถามเพิ่มเติมเกี่ยวกับงานวิจัยครั้งนี้ท่านสามารถสอบถามดิฉันในฐานะผู้วิจัยได้โดยตรงหรือสอบถามได้จากหัวหน้าศูนย์ ฯ ซึ่งเป็นผู้สนับสนุนให้ท่านเข้าร่วมในงานวิจัยในครั้งนี้

หลังจากเสร็จสิ้นงานวิจัยครั้งนี้ท่านสามารถเก็บและทำสำเนาเอกสารที่ใช้ในการอบรมเพื่อใช้ในอนาคตต่อไปได้ นอกจากนี้คุณจะได้รับค่าตอบแทนเป็นจำนวนเงินประมาณ 500 บาทเพื่อเป็นการขอบคุณที่ให้ความอนุเคราะห์เข้าร่วมงานวิจัยในครั้งนี้

ลงนามผู้เข้าร่วมงานวิจัย

การเข้าร่วมงานวิจัยครั้งนี้เป็นไปตามความสมัครใจ ท่านมีสิทธิ์ที่จะเข้าร่วมงานวิจัยครั้งนี้ได้ และถึงแม้ว่าท่านจะอยู่ในระหว่างงานวิจัยท่านสามารถหยุดหรือถอนตัวออกจากงานวิจัยครั้งนี้ได้ทันที ผู้วิจัยจะเคารพสิทธิในการตัดสินใจของท่านและลูกของท่านจะไม่เสียสิทธิประโยชน์ใด ๆ ที่ เมื่อท่านได้อ่านข้อความด้านบนและได้ถามคำถามที่เกี่ยวข้องกับงานวิจัยที่ท่านสงสัยแล้ว หากท่านมีความประสงค์จะเข้าร่วมงานวิจัยครั้งนี้โปรดลงนามในเอกสารด้านล่าง สำเนาของเอกสารฉบับนี้จะถูกส่งกลับให้ท่านเพื่อใช้เป็นหลักฐาน

หากท่านมีข้อสงสัยหรือข้อกังวลใด ๆ เกี่ยวกับขั้นตอนการคัดเลือกกลุ่มตัวอย่างหรือกระบวนการวิจัยในฐานะผู้เข้าร่วมงานวิจัย ท่านสามารถติดต่อคณะกรรมการจริยธรรมการวิจัย หน่วยงานSponsored Programs ในตึก Kepner Hall ของมหาวิทยาลัย Northern Colorado ในเมือง Greeley รัฐ Colorado รหัสไปรษณีย์ 80639 เบอร์โทรศัพท์ (1) 970-351-1910 ได้

[redacted] 6/7/61

ลงนามผู้เข้าร่วมงานวิจัย วัน/เดือน/ปี

อิงเกล โล่ห์สิงรัตน์ 6/7/61

ลงนามผู้วิจัย วัน/เดือน/ปี

UNIVERSITY OF NORTHERN COLORADO

CONSENT FORM FOR HUMAN PARTICIPANTS IN RESEARCH
UNIVERSITY OF NORTHERN COLORADO

Project Title: Examining the Effectiveness of a Basic Functional Behavior Assessment Training Package on Special Education Teachers in Thailand: A Replication Study
Researcher: Weeramol Locharoenrat, School of Special Education
Phone Number: [redacted] E-mail: loch2257@bears.unco.edu
Research Advisor: Lewis Jackson, Ed.D., School of Special Education
Phone: [redacted] E-mail: lewis.jackson@unco.edu

My name is Weeramol Locharoenrat. I am a doctoral student in School of Special Education at University of Northern Colorado, the United States. I am in the process of doing my doctoral dissertation. For this dissertation, I will conduct a research study on functional behavior assessment (FBA) training; that is, training on how on collect data on student behavior to better understand its function so that more effective behavior intervention plans can be created. The primary purpose of this study is to replicate the study "Examining the Efficacy of a Basic Functional Behavior Assessment Training Package for School Personnel," which was conducted by Loman and Horner (2014). The results of this study will indicate, first, whether special education teachers in Thailand can be trained to adequately conduct the FBA process by using a training program called, "Basic Functional Behavior Assessment Training Package." Second, whether the trained Thai special education teachers working with students who have both disabilities and behavior problems will perceive the FBA process and the FBA training as useful and valid within Thai culture.

If you wish to be part of this study, you must be able to identify a student that you teach who meets the following conditions: (a) be diagnosed as having learning disabilities or autism, (b) exhibit challenging behaviors that impede his/her and others from learning and/or developing relationship with their peers, and (c) the exhibited behaviors occur frequently. If you have a student meeting these conditions and you now volunteer to participate in this study, you will be randomly assigned to be either in an intervention group or in a control group.

If you are assigned to be in the intervention group, you will be asked to do the following:

You will participate in a FBA training program. This training consists of an introductory session and four 1-hour sessions. During the introductory session, the principal investigator will inform you about the purpose of the study and the procedure of the training. After that you will participate in four 1-hour training sessions. In each training session, you will learn and be trained on the different skills for conducting the FBA process, including knowledge and skills on the FBA process, the interview process, observational processes, and behavior intervention planning. At the end of each session, you will be required to complete assignments that will be submitted to the instructor during the next training session.

After you complete the training sessions, you will be required to conduct the FBA process with your case study student. Then, you will submit all collected documents and FBA data to the principal investigator. During this process, you will be asked to record the time that you spend conducting interviews, conducting observations, and developing summary statements of your case study student in the FBA Task Time Log. In addition, you will be asked to complete a questionnaire that examines your opinion of the training and the FBA process.

If you are in a control group, you will not receive any FBA training during this study; however, you will be offered an opportunity to receive the FBA training after the study is over. During the study, you will be required to complete assessments and participate in semi-structured interviews.

To be a part of this study, you are not allowed to share any information about the training and assessments with other teachers in the school before the study is over. Otherwise this sharing information may affect the results of this study.

I foresee no risks to you beyond those that normally occur in a regular educational setting. The activities include training sessions which will take some of your time; however, these training sessions are designed to help you be a better teacher. You also need to do the assessment activities but these are not dissimilar to what you have to do as a teacher anyway. All your data and documents will be treated confidentially. Your identity will be replaced by pseudonym identifier. Your name will not appear in any report of this research. If you have any concerns that you wish to raise about the training and the procedure you can talk to both myself as a researcher and also the administrators who recruited you for this study.

After completing this training, you can keep the FBA materials for using in the future. Also, you will receive a thank-you gift card worth 15 U.S. dollars.

Participation is voluntary. You may decide not to participate in this study and if you begin to participate you may still decide to stop and withdraw at any time. Your decision will be respected and will not result in loss of benefits to which you are otherwise entitled. Having read the above and having had an opportunity to ask any questions, please sign below if you would like to participate in this research. A copy of this form will be given to you to retain for future reference. If you have any concerns about your selection or treatment as a research participant, please contact the IRB Administrator, Office of Sponsored Programs, Kepner Hall, University of Northern Colorado Greeley, CO 80639: (1) 970-351-1910.

_____

Subject's Signature Date

_____

Researcher's Signature Date

APPENDIX D

PARENTAL CONSENT FORM

UNIVERSITY OF
NORTHERN COLORADO

แบบฟอร์มการยินยอมเข้าร่วมงานวิจัย

UNIVERSITY OF NORTHERN COLORADO

ชื่องานวิจัย: ศึกษาผลของการอบรมโดยใช้โปรแกรม Basic Functional Behavior Assessment Training Package ในการอบรมอาจารย์การศึกษาพิเศษในประเทศไทยเกี่ยวกับกระบวนการวิเคราะห์เพื่อหาสาเหตุของการเกิดพฤติกรรม หรือ Functional Behavior Assessment: การศึกษาโดยใช้วิธีการทำซ้ำจากงานวิจัยต้นแบบ

ผู้วิจัย: นางสาววีรมลล์ โล้เจริญรัตน์ นักศึกษาระดับปริญญาเอก สาขาวิชาการศึกษาพิเศษ
เบอร์โทรศัพท์: [redacted] อีเมล์: loch2257@bears.unco.edu
อาจารย์ที่ปรึกษา: ดร.ลูอิส แจ็คสัน อาจารย์ประจำภาควิชาการศึกษาพิเศษ
เบอร์โทรศัพท์: [redacted] อีเมล์: lewis.jackson@unco.edu

การแสดงพฤติกรรมที่ไม่พึงประสงค์ของนักเรียนถือเป็นเรื่องปกติในชั้นเรียนทั่วไป พฤติกรรมเหล่านี้อาจหมายรวมถึงในขณะที่มีการเรียนการสอนนักเรียนพูดคุยโดยไม่ได้รับอนุญาต ตะโกนเสียงดัง หรือ ไม่ปฏิบัติตามคำสั่งหรือทำงานที่ได้รับมอบหมาย เพื่อที่จะรับมือกับสถานการณ์ที่เกี่ยวข้องกับพฤติกรรมเหล่านี้ได้อย่างมีประสิทธิภาพอาจารย์จำเป็นอย่างยิ่งที่จะต้องมีความรู้และทักษะที่เพียงพอในการรับมือกับสถานการณ์ดังกล่าว และเพื่อเป็นการสนับสนุนให้อาจารย์มีความพร้อมในการรับมือกับสถานการณ์ดังกล่าว ดิฉันในฐานะผู้วิจัยมีความประสงค์จะจัดอบรมอาจารย์ในโรงเรียนเรื่อง **กระบวนการวิเคราะห์เพื่อหาสาเหตุของการเกิดพฤติกรรม หรือ Functional Behavior Assessment (FBA)** ซึ่งเป็นกระบวนการที่ได้รับการพัฒนามาอย่างต่อเนื่องและใช้กันอย่างแพร่หลายในประเทศสหรัฐอเมริกา วัตถุประสงค์หลักของการใช้กระบวนการดังกล่าวเพื่อให้อาจารย์เข้าใจเกี่ยวกับสาเหตุของการแสดงพฤติกรรมที่ต้องการศึกษาผ่านกระบวนการสัมภาษณ์และการสังเกต โดยในระหว่างการเก็บรวบรวมข้อมูลโดยใช้กระบวนการดังกล่าวลูกของท่านจะได้รับการเรียนการสอนตามตารางเรียนปกติ

จากความคิดเห็นของอาจารย์การศึกษาพิเศษที่เข้าร่วมงานวิจัยในครั้งนี้ระบุว่า ลูกของท่านมีพฤติกรรมบางอย่างที่อาจมีผลกระทบต่อการเรียนรู้ของลูกท่าน ดังนั้นอาจารย์การศึกษาพิเศษและดิฉันจึงมีความคาดหวังที่จะทำความเข้าใจสาเหตุของการแสดงพฤติกรรมดังกล่าวของลูกของท่าน

(ลงนามผู้ปกครอง)

โดยผลจากการอบรมอาจารย์ในงานวิจัยครั้งนี้จะมีส่วนช่วยทำให้อาจารย์เข้าใจสาเหตุของการแสดงพฤติกรรมที่มีผลกระทบต่อการเรียนของลูกท่านมากยิ่งขึ้น ถ้าท่านในฐานะผู้ปกครองของนักเรียนยินยอมให้ลูกของท่านเข้าร่วมงานวิจัยในครั้งนี้ลูกของท่านจะยังคงเข้าร่วมในกิจกรรมการเรียนโดยใช้กระบวนการการสอนแบบปกติในห้องเรียนที่นักเรียนเข้าเรียนตามตารางเรียนปัจจุบัน

เพื่อทดสอบผลของการฝึกอบรมและประสิทธิภาพของกระบวนการวิเคราะห์เพื่อหาสาเหตุของการเกิดพฤติกรรมในงานวิจัยครั้งนี้อาจารย์การศึกษาพิเศษจะถูกแบ่งออกเป็น 2 กลุ่ม ได้แก่ กลุ่มที่ได้รับการอบรม (กลุ่มทดลอง) และ กลุ่มที่ไม่ได้รับการอบรม (กลุ่มควบคุม) ลูกของท่านอาจอยู่ในกลุ่มทดลอง หรือ กลุ่มควบคุมโดยจะขึ้นอยู่กับอาจารย์การศึกษาพิเศษของลูกท่านว่าอยู่ในกลุ่มใดในงานวิจัยครั้งนี้

ถ้าลูกของท่านอยู่ในกลุ่มทดลองอาจารย์การศึกษาพิเศษและดิฉันจะเก็บรวบรวมข้อมูลเกี่ยวกับพฤติกรรมที่ต้องการศึกษาของลูกท่านโดยใช้กระบวนการวิเคราะห์เพื่อหาสาเหตุของการเกิดพฤติกรรม วิธีการเก็บรวบรวมข้อมูลที่ใช้ในกระบวนการดังกล่าวจะประกอบไปด้วยการสังเกตและการสัมภาษณ์ โดยในการสังเกตแต่ละครั้งจะใช้ระยะเวลาประมาณ 30 – 50 นาที ส่วนการสัมภาษณ์จะใช้เวลาประมาณ 20 นาที

ถ้าลูกของท่านอยู่ในกลุ่มควบคุม อาจารย์การศึกษาพิเศษจะ ไม่ดำเนินการเก็บรวบรวมข้อมูลใด ๆ กับลูกของท่านทั้งสิ้น แต่อาจารย์การศึกษาพิเศษจะนำข้อมูลเกี่ยวกับลูกของท่านมาใช้ในการตอบคำถามระหว่างการสัมภาษณ์เท่านั้น

ดิฉันในฐานะผู้วิจัยไม่พบความเสี่ยงใด ๆ ที่จะเกิดขึ้นกับลูกของท่านเกินไปกว่าความเสี่ยงที่อาจจะเกิดขึ้นได้ภายในห้องเรียนทั่วไป การเก็บรวบรวมข้อมูลด้วยวิธีการสังเกตจะดำเนินการในระหว่างที่ลูกของท่านเรียนอยู่ในชั้นเรียนตามตารางการเรียนการสอนปกติเพื่อให้เข้าใจสาเหตุของการแสดงพฤติกรรมในสถานการณ์ปกติ ในระหว่างการเก็บรวบรวมข้อมูลลูกของท่านอาจเกิดความวิตกกังวล แต่อย่างไรก็การเก็บรวบรวมข้อมูลครั้งนี้จะ ไม่มีการเปลี่ยนแปลงการเรียนการสอนใด ๆ ของลูกท่าน ทางอาจารย์การศึกษาพิเศษและดิฉันจะคำนึงถึงความสบายใจของลูกท่านเป็นสำคัญ ผลจากการสังเกตจะถูกนำมาพูดคุยกับลูกของท่านเพื่ออธิบายผลการสังเกตดังกล่าว

ข้อมูลเกี่ยวกับชื่อของลูกท่านและเอกสารอื่น ๆ ที่สามารถนำมาใช้ในการระบุตัวตนของลูกท่านจะ ไม่ถูกนำมาใช้ในการรายงานผลใด ๆ ในงานวิจัยครั้งนี้ กรุณาติดต่อดิฉัน ได้โดยตรงผ่านทางโทรศัพท์

(ลงนามผู้ปกครอง)

ถ้าท่านมีข้อคำถามหรือข้อกังวลใด ๆ เกี่ยวกับงานวิจัยครั้งนี้ ท่านสามารถสอบถามข้อมูลเพิ่มเติมจากอาจารย์การศึกษาพิเศษของลูกท่านหรืออาจารย์หัวหน้าศูนย์ ฯ เกี่ยวกับงานวิจัยครั้งนี้ได้เช่นกัน กรุณาถ่ายสำเนาจดหมายฉบับนี้ไว้เป็นหลักฐาน

ด้วยความเคารพและขอขอบพระคุณท่านเป็นอย่างสูงที่อนุญาตให้ลูกของท่านเข้าร่วมงานวิจัยในครั้งนี้

รัชเลล์ โล้เหลืองรัตน์

การเข้าร่วมงานวิจัยครั้งนี้เป็นไปตามความสมัครใจ ท่านมีสิทธิ์ที่จะไม่อนุญาตให้ลูกของท่านเข้าร่วมงานวิจัยครั้งนี้ได้ และถึงแม้ว่าลูกของท่านจะอยู่ในระหว่างงานวิจัยท่านสามารถให้ลูกของท่านหยุดหรือถอนตัวออกจากงานวิจัยครั้งนี้ได้ทันที ผู้วิจัยจะเคารพสิทธิในการตัดสินใจของท่านและลูกของท่านจะไม่เสียสิทธิประโยชน์ใด ๆ ที่พึงได้จากทางโรงเรียนตามปกติ เมื่อท่านได้อ่านข้อความด้านบนและได้ถามคำถามที่เกี่ยวข้องกับงานวิจัยที่ท่านสงสัยแล้ว ถ้าท่านอนุญาตให้ลูกของท่านเข้าร่วมงานวิจัยครั้งนี้โปรดลงนามในเอกสารด้านล่าง สำเนาของเอกสารฉบับนี้จะถูกส่งกลับให้ท่านเพื่อใช้เป็นหลักฐาน

หากท่านมีข้อสงสัยหรือข้อกังวลใด ๆ เกี่ยวกับขั้นตอนการคัดเลือกกลุ่มตัวอย่างหรือกระบวนการวิจัยในฐานะผู้เข้าร่วมงานวิจัย ท่านสามารถติดต่อคณะกรรมการจริยธรรมการวิจัย หน่วยงานSponsored Programs ในตึก Kepner Hall ของมหาวิทยาลัย Northern Colorado ในเมือง Greeley รัฐ Colorado รหัสไปรษณีย์ 80639 เบอร์โทรศัพท์ (1) 970-351-1910 ได้

[redacted]	๑๕ ๑๐๑ ๒๕๔
ชื่อนักเรียน (ตัวบรรจง)	วัน/เดือน/ปีเกิดของนักเรียน
[redacted]	๑๗ ๑๓ ๒๐๑๗
ลงนามผู้ปกครอง	วัน/เดือน/ปี
รัชเลล์ โล้เหลืองรัตน์	16 ก.ค. 61.
ลงนามผู้วิจัย	วัน/เดือน/ปี

UNIVERSITY OF NORTHERN COLORADO

CONSENT FORM FOR HUMAN PARTICIPANTS IN RESEARCH
UNIVERSITY OF NORTHERN COLORADO

Project Title: Examining the Effectiveness of a Basic Functional Behavior Assessment Training Package on Special Education Teachers in Thailand: A Replication Study
Researcher: Weeramol Locharoenrat, School of Special Education
Phone Number: [redacted] E-mail: loch2257@bears.unco.edu
Research Advisor: Lewis Jackson, Ed.D., School of Special Education
Phone: [redacted] E-mail: lewis.jackson@unco.edu

In a classroom setting, some students may demonstrate challenging behaviors. Some of these behaviors may include talking without permission, yelling out, or not following instructions. To effectively deal with this problem, teachers must be prepared. To help prepare these teachers to better be able to work with problem behaviors, I plan to train them using procedures developed in the United States. A major focus of the training will be on how to understand why the student is doing the behavior that he/she does. The process teachers use to do this is called a "functional behavior assessment (FBA) process." This process relies on teachers' interviews and observations. This process does not change your child's routines of learning.

Your child has been identified by his/her teacher as having some behaviors that affect his/her learning and we wish to understand this behavior so that we can help your child. This training will provide your child's teacher with ways to better understand why your child sometimes does behaviors that interfere his/her learning. If you grant permission, your child will continue to be included in his/her regular classroom and will be treated as he/she has always been treated in the past.

In order to understand the effect of the training, this study involves assigning some teachers to a group that will receive the training and other teachers to a group that will not receive the training. Your child may become a member of either group. In all cases it is the teachers that are treated differently. Your child's education process will remain the same.

If your child is assigned to be in an intervention group, your child will be fully assessed by using a FBA process by his/her special education teacher and the principal investigator, who is myself. During the FBA process, there will be two data collection processes that will involve your child. The data collection processes will just be his/her special education teacher and the principal investigator observing and interviewing your child about his/her behavior and his/her needs. This observation may take approximately 30 to 50 minutes and the interview will last approximately 20 minutes. In addition, your child's teacher will be asked questions about the value and efficiency of these procedures for teachers in the school and in other Thailand schools.

If your child is assigned to be in a control group, your child will not experience any assessment procedures. However, his/her special education teachers will be asked questions about your child's behavior and learning.

I foresee no risks to your child beyond those that normally occur in a regular classroom. The observations during these data collection processes are fairly typical for what teachers do to better understand any student. During the study, your child will continue to do activities that he/she always does. Every effort will be made to ensure your child's comfort, and the results of the observations will be explained to the child.

Please know that your child's name and any other identifying information will not be used in any report on this research. Please feel free to phone me if you have any questions or concerns about this research. You may also talk to your child's teacher and to the director of the center. Please retain one copy of this letter for your record.

Thank you for assisting me with my research.

Sincerely,

_____

Participation is voluntary. You may decide not to allow your child to participate in this study and if he/she begins participation you may still decide to stop and withdraw at time. Your decision will be respected and will not result in loss of benefits to which you are otherwise entitled. Having read the above and having had an opportunity to ask any questions, please sign below if you would like to allow your child to participate in this research. A copy of this form will be given to you to retain for future reference. If you have any concerns about your selection or treatment as a research participant, please contact the IRB Administrator, Office of Sponsored Programs, Kepner Hall, University of Northern Colorado Greeley, CO 80639: (1) 970-351-1910.

_____	_____
Child's Full Name (please print)	Child's Birth Date (day/month/year)
_____	_____
Parent/Guardian's Signature	Date
_____	_____
Researcher's Signature	Date

APPENDIX E

STUDENT ASSENT FORM

UNIVERSITY OF
NORTHERN COLORADO

แบบฟอร์มการยินยอมเข้าร่วมในงานวิจัย
มหาวิทยาลัยนอร์ทเทิร์นโคโลราโด

สวัสดีค่ะ

อาจารย์ชื่อวีรมลล์ โล้เจริญรัตน์นะคะ ตอนนี้อาจารย์เป็นนักศึกษาปริญญาเอกอยู่ที่มหาวิทยาลัยนอร์ทเทิร์นโคโลราโด อาจารย์กำลังทำงานวิจัยเพื่อทำความเข้าใจเกี่ยวกับพฤติกรรมของมนุษย์โดยเฉพาะอย่างยิ่งพฤติกรรมของนักเรียน นั่นหมายความว่าอาจารย์กำลังศึกษาเกี่ยวกับพฤติกรรมนักเรียนทั้งในและนอกห้องเรียน อาจารย์พยายามทำความเข้าใจพฤติกรรมนักเรียนเพื่อที่จะช่วยให้นักเรียนสามารถเรียนได้ดีขึ้นและเพื่อที่จะช่วยให้นักเรียนสร้างปฏิสัมพันธ์กับเพื่อนและอาจารย์ได้ดีขึ้น ในการทำความเข้าใจพฤติกรรมดังกล่าวอาจารย์จะต้องเข้าไปสังเกตพฤติกรรมนักเรียนหลายคนในโรงเรียนเพื่อที่จะดูว่าทุกคนปฏิบัติตัวอย่างไรเมื่ออยู่ในโรงเรียน ถ้าคุณอยากจะช่วยอาจารย์ทำงานวิจัยครั้งนี้คุณจะเป็นนักเรียนที่อาจารย์จะเข้ามาสังเกตพฤติกรรม

ถ้าคุณอนุญาตให้อาจารย์มาเข้ามาสังเกตพฤติกรรมของคุณ อาจารย์อาจจะเข้ามาสังเกตในขณะที่คุณเรียนอยู่ในห้อง ขณะที่คุณพักกลางวัน หรือขณะที่คุณเล่นอยู่กับเพื่อน คุณสามารถทำกิจกรรมได้ตามปกติ อาจารย์จะไม่บอกนักเรียนคนอื่นว่าอาจารย์เข้ามาทำอะไรหรือเข้ามาสังเกตพฤติกรรมใคร แต่อาจารย์จะคุยกับอาจารย์ที่สอนคุณและวางแผนว่าอาจารย์จะสามารถเข้ามาสังเกตพฤติกรรมของคุณได้เมื่อไหร่เพื่อที่จะไม่เป็นการรบกวนการเรียนของคุณ

การสังเกตพฤติกรรมครั้งนี้จะไม่มีอันตรายต่อคุณแต่อย่างใด ผู้ปกครองของคุณได้อนุญาตให้อาจารย์เข้ามาสังเกตพฤติกรรมของคุณแล้ว แต่ถ้าคุณไม่เห็นด้วยคุณจะไม่เข้าร่วมงานวิจัยครั้งนี้ก็ได้ การเข้าร่วมการวิจัยครั้งนี้ขึ้นอยู่กับความสมัครใจของคุณ ถ้าคุณตอบตกลงแต่คุณจะขอเปลี่ยนใจตอนหลังคุณสามารถบอกอาจารย์ให้หยุดการสังเกตได้ทันที คุณมีคำถามอะไรจะถามอาจารย์อีกหรือไม่

(ลงนามนักเรียน)

ถ้าคุณอยากจะเข้าร่วมงานวิจัยครั้งนี้และอนุญาตให้อาจารย์เข้ามาสังเกตพฤติกรรมของคุณ ให้คุณเขียนชื่อของคุณที่ช่องว่างข้างล่าง และเขียนวันที่วันนี้ให้เรียบร้อย ขอบคุณนะคะ

[redacted] ๓๑ ก.ค. ๖๑

ชื่อนักเรียน วันที่

วิมลลี่ โล้เศรษฐพันธ์ 31 ก.ค. 61.

ชื่อผู้วิจัย วันที่

UNIVERSITY OF NORTHERN COLORADO

ASSENT FORM FOR HUMAN PARTICIPANTS IN RESEARCH
UNIVERSITY OF NORTHERN COLORADO

Hi!
My name is Weeramol Locharoenrat. I am a doctoral student at University of Northern Colorado. I am doing research on understanding human's behavior especially students' behavior. That means I study the way students act in and outside of the classroom. I am trying to understand and learn about student behavior to help students learn better in classrooms and to help students build relationships with others. For understanding the students' behavior, I would like to observe several students in your school to see how they are doing in and outside of classrooms. If you want to help me in this research, you can be one of the students I observe.

If it is OK with you, I will plan to observe you in different places such as in the classroom, the cafeteria, and the playground. During these observations you can do anything that you regularly do. I will not tell the other students why I am in the room or even who I am observing, but I will talk to your teachers. I will also plan with your teachers when I can come to observe so that you will not be interrupted.

Being observed by me will not hurt you. Your parent has said that it is okay for me to observe you, but you do not have to. It is up to you. Also, if you say yes but later you change your mind you can stop any time you want to. Do you have any questions for me about this research?

If you want to be in my research and allow me to observe you, sign your name below and write today's date next to it. Thank you.

_____

Student Date

_____

Researcher Date

APPENDIX F

FUNCTIONAL BEHAVIOR ASSESSMENT KNOWLEDGE ASSESSMENT (ENGLISH VERSION)

FBA Knowledge Assessment

Name or other identification:

_____

1. **What are the steps in the Functional Behavioral Assessment (FBA) process?**

2. **When completing an FBA, behaviors must be defined in such a way as they are…**

   a.) Discrete and functional.

   b.) Observable and measurable.

   c.) Functional and observable.

3. Hailey is three years old and hits other children during snack. Mrs. Gillespie wants Hailey to share, wait her turn, and eat slowly during snack. Mrs. Gillespie keeps telling Hailey to "be nice." Hailey smiles at Mrs. Gillespie, but keeps on hitting others and grabbing food.

   What are the behaviors that Mrs. Gillespie wants from Hailey?

4. **In the boxes below:**

   A) Label the 4 terms that are included in a "Summary of Behavior" or hypothesis statement developed from an FBA?

   B) Briefly define each of the 4 terms.

5. **Briefly compare and contrast a "Practical FBA" and a "Comprehensive FBA".**

6. **Read the following scenario and answer the questions regarding Barry.**

Barry walks into the room – Joe and Mary begin giggling and pointing at him. Barry shouts "shut up butt holes!" Joe and Mary immediately turn around. As Barry approaches his desk, Sarah is sitting in his seat talking to a neighbor. Barry threatens "get out of my seat now or I'll jam this pencil in your ear!" Sarah immediately leaves the seat and moves away. This is more likely to occur when Barry has stayed at his grandparent's house for the weekend.

A. **Define Barry's problem behavior.**

_____

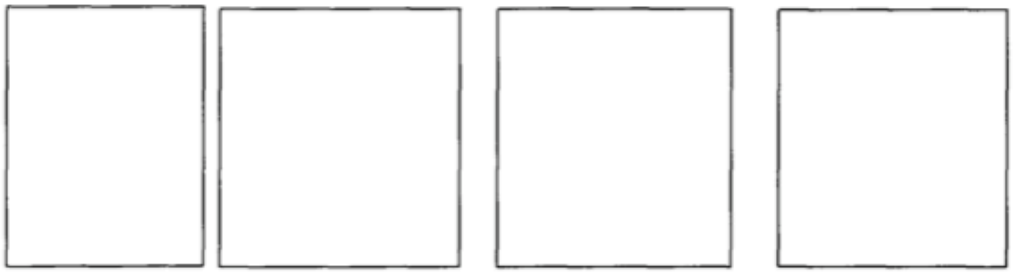
B. **Identify an antecedent for Barry's behavior**

C. **Describe the typical consequence of Barry's behavior**

D. **Based on the scenario above: What do you "hypothesize" is the function of Barry's behavior?**

_____

E. **Complete a behavioral summary/hypothesis statement of Barry's behavioral function**



7. Marilyn is nine years old and has a long history of whining. Whining is most likely to occur when Marilyn is asked to do difficult tasks, and appears to be maintained by escape from those difficult tasks. The overall likelihood of whining increases if Marilyn is fatigued or has had a poor night's sleep. Given this description with "whining" as the behavior of concern, identify the following behavioral elements:

   A. Define Marilyn's behavior (in such a way that others can record her behavior):

   B. Identify the function of her behavior:

   C. Identify the setting events for her behavior:

8. **Use the example form below to determine: What is the targeted routine in which Jason's problem behaviors occur?**

Functional Assessment Checklist for Teachers and Staff (FACTS-Part A)

Student: Jason Grade 3 Date: _____

Staff Interviewed: _____ Interviewer: _____

Student Strengths: Identify at least three strengths or contributions the student brings to school

Academic strengths - Excellent Language and Math Skills

Social/Recreational - Wants to have friends

ROUTINES ANALYSIS: Where, When and With Whom Problem Behaviors are Most Likely.

BEHAVIOR(s): Rank order the top priority problem behaviors occurring in the targeted routine above

Time	Activity & Staff Involved	Likelihood of Problem Behavior	Specific Problem Behavior	Current Intervention for the Problem Behavior
	Morning Check in/ Ms. Jones	Low (1) 2 3 4 5 6 High	Sometimes talking to peers	Redirection
	Reading/ Ms. Jones	(1) 2 3 4 5 6		
	Transition/ Mr. Abram	1 2 (3) 4 5 6	Swears, teases other students	Given detention
	Gym/or Art/ Ms. Williams	1 (2) 3 4 5 6		
	Lunch/ Lunch supervisors	1 2 3 4 5 (6)	Swears, teases students	Given warning, lunch detention
	Recess/ Recess Supervisors	1 2 3 4 5 (6)	Swears, teases students	Detention, call home
	Math/ Ms. Jones	(1) 2 3 4 5 6		
	Social Studies/ Ms. Jones	(1) 2 3 4 5 6		
	Mixed Lang Arts/ Mr. Abram	1 (2) 3 4 5 6		
	Recess/ Recess Supervisors	1 2 3 4 5 (6)	Swears, teases students	Detention, call home
		1 2 3 4 5 6		

9. Complete the Summary of Behavior Statement (in the dashed box) within the form below:

Functional Assessment Checklist for Teachers & Staff (FACTS-Part B)

Identify the Target Routine: Select *ONE* of the prioritized routines from FACTS-Part A for assessment.

Routine/Activities/Context	Problem Behavior(s) – make description observable
Math & Science with Mr. Burns	Verbal Outbursts- loudly swearing

ANTECEDENT(s): ***Rank Order*** **the strongest triggers/predictors of problem behavior in the routine above. Then ask corresponding follow-up question(s) to get a *detailed* understanding of triggers ranked #1 & 2.**

Environmental Features (*Rank order strongest 3*)		Follow Up Questions – *Get as Specific as possible*
__1__ a. task too hard	__g. large group instruction	If a,b,c,d or e - describe task/demand in detail: Problems that require him to do multiple steps or repetitive tasks, long assignments
___ b. task too easy	__h. small group work	If f - describe purpose of correction, voice tone, volume etc.
_3__ c. bored w/ task	__i. independent work	
___ d. task too long	__j. unstructured time	If g, h, I, j or k - describe setting/activity/context in detail
___ e. physical demand	__k. transitions	
___ f. correction/reprimand	_l. with peers	If l – what peers?
___ Other _____	_m. isolated/ no attn	If m – describe -
describe		

CONSEQUENCE(s): ***Rank Order*** **the strongest pay-off for student that appears most likely to maintain the problem behavior in the routine above. The ask follow-up questions to detail consequences ranked #1 & 2.**

Consequences/Function	As applicable – Follow Up Questions – *Get as Specific as possible*
a. get adult attention ___ b. get peer attention ___ c. get preferred activity ___ d. get object things/money ___ e. get sensation ___ f. get other, describe _____ _____	If a or b – Whose attention is obtained? How is the (positive or negative) attention provided?
___ g. avoid adult attention ___ h. avoid peer attention _1__ i. avoid undesired activity/task ___ j. avoid sensation ___ k. avoid/escape other, describe _____	If c,d, e, or f – What specific items, activities, or sensations are obtained? If g or h – Who is avoided? _____ Why avoiding this person? If i, j, or k- Describe specific task/activity/sensation avoided? Long tasks Be specific, DO NOT simply list subject area, but specifically describe type of work within the subject area? **Tasks with multiple steps, application questions that requires problem solving** Can the student perform the task independently? (Y) N Is academic assessment needed to ID specific skill deficits? Y (N)

SETTING EVENT(s): ***Rank*** **Order any events that happen outside of the immediate routine (at home or earlier in day) that commonly make problem behavior more likely or worse in the routine above.**

__ hunger __ conflict at home __ conflict at school __ missed medication __ illness __ failure in previous class
__ lack of sleep __ change in routine __ homework not done _X_ not sure __ Other_____

SUMMARY OF BEHAVIOR

Fill in boxes below using top ranked responses and follow-up responses from corresponding categories above.

ANTECEDENT(s) / Triggers	Problem Behavior(s)	CONSEQUENCE(s)/ Function
SETTING EVENTS		

How likely is it that this Summary of Behavior accurately explains the identified behavior occurring?

Not real sure 1 2 3 4 5 100% Sure/No Doubt 6

APPENDIX G

CONTROL GROUP INTERVIEW QUESTIONNAIRE
(ENGLISH VERSION)

Control Group Interview Questionnaire

1. Select one student with disabilities who you are working with and describe his/her problem behaviors

2. What do you think causes the student to demonstrate these behaviors?

3. What types of strategies would you use for dealing with these problem behaviors?

4. Can you make summarize causes of these behaviors by using the following sentence structure?

   During _____, when _____ student will _____ _____ because _____. Therefore, the function is to _____.

APPENDIX H

FUNCTIONAL ASSESSMENT CHECKLIST (FACTS)
(ENGLISH VERSION)

Functional Assessment Checklist (FACTS)

For Teachers/Staff: Functional Assessment Checklist for Teachers and Staff (FACTS – Part A)

Student: _____. Grade _____ Date: _____
Staff Interviewed: _____ Interviewer: _____

Student Strengths: Identify at least three strengths or contributions the student brings to school.
Academic strengths - _____
Social/Recreational - _____
Other - _____

ROUTINES ANALYSIS: Where, When, and With Whom Problem Behaviors are Most Likely.

Time	**Activity & Staff Involved**	**Likelihood of Problem Behavior**	**Specific Problem Behavior**	**Current Intervention for the Problem Behavior**
		Low High 1 2 3 4 5 6		
		1 2 3 4 5 6		
		1 2 3 4 5 6		
		1 2 3 4 5 6		
		1 2 3 4 5 6		
		1 2 3 4 5 6		
		1 2 3 4 5 6		
		1 2 3 4 5 6		
		1 2 3 4 5 6		
		1 2 3 4 5 6		
		1 2 3 4 5 6		

Adapted by Loman (2009) from C. Borgmeier (2005): March, Horner, Lewis-Palmer, Brown, Crone & Todd (1999)

List the Routines in order to Priority for Behavior Support: **Select routines with rating of 5 or 6. Only combine routines when there is significant (a) similarity of activities (conditions) and (b) similarity of problem behavior(s). Complete the FACTS – Parts B for each of the prioritized routine (s) identified.**

	Routines/ Activities/ Context	**Problem Behavior(s)**
Routine #1		
Routine #2		
If problem behaviors occur in more than 2 routines, refer case to behavior specialist		

BEHAVIOR(s): Rank order the top priority problem behaviors occurring in the targeted routine above:

___ Tardy	___ Fight/physical Aggression	___ Disruptive	___ Theft
___ Unresponsive	___ Inappropriate Language	___ Insubordination	___ Vandalism
___ Self-injury	___ Verbal Harassment	___ Work not done	___ Other _____
Describe prioritized problem behavior(s) in observable terms: _____ _____			

What is the frequency of the Problem Behavior in the targeted routine (#x's/day or hour)?	
What is the duration of the Problem Behavior in the targeted routine in seconds or min)?	
Is Behavior Immediate Danger to self/others?	**Y N** **If Yes, refer case to behavior specialist**

Adapted by Loman (2009) from C. Borgmeier (2005): March, Horner, Lewis-Palmer, Brown, Crone & Todd (1999)

Functional Assessment Checklist for Teachers & Staff (FACTS – Part B)

Identify the Target Routine: Select *ONE* of the prioritized routines from FACTS – Part A for assessment.

Routine/Activities/Context	**Problem Behavior(s) – make description observable**

ANTECEDENT(s): ***Rank Order*** **the strongest trigger/predictors of problem behavior in the routine above. Then ask corresponding follow-up question(s) to get a** ***detailed*** **understanding of triggers rank #1&2.**

Environmental Features (Rank order strongest 3)		**Follow Up Questions – Get as Specific as possible**
__ a. task too hard	__ g. large group instruction	**If a,b,c,d, or e** – describe task/demand in detail
__ b. task too easy	__ h. small group work	_____
__ c. bored w/task	__ i. independent work	**If f** – describe purpose of correction, voice tone,
__ d. task too long	__ j. unstructured time	volume etc. _____
__ e. physical demand	__ k. transitions	**If g,h,I, j or k** – describe setting/activity/content
__ f. correction/reprimand	__ l. with peers	in detail _____
__ Other _____	__ m. isolated/no attn.	**If l** – what peers? _____
described		**If m** – described _____

CONSEQUENCE(s): ***Rank Order*** **the strongest pay-off for student that appears most likely to maintain the problem behavior in the routine above. The ask follow-up questions to detail consequences rank #1&2**

Consequences/function	**As applicable – Follow Up Questions –** ***Get as Specific as possible***
__ a. get adult attention/to talk to me	**If a or b** – Whose attention is obtained? _____
__ b. get peer attention/get peers to	_____
look/talk/laugh at me	How is the attention provided? _____
__ c. get preferred activity/	_____
something I like to do	_____
__ d. get money/things	**If c or d** – What specific items or activities are obtained?
__ e. get other. Describe _____	_____
_____	**If f, g, or h** – Describe specific task/activity avoided? _____
__ f. avoid work that's too hard	_____
__ g. avoid activities I don't like	Be specific, DO NOT simply list subject area, but specifically describe type of work within the subject area (be precise)? _____
__ h. avoid boring or easy work	_____
__ i. avoid peers I don't like	_____
__ j. avoid adults I don't want to talk to	_____ Can the student perform the task independently? Y N
__ k. avoid adults telling me what to do	Is academic assessment needed to ID specific skill deficits? Y N
__ l. avoid other, describe _____	**If I, j, or k** – Who is avoided? _____
_____	Why avoiding this person? _____

Adapted by S. Loman (2009) from C. Borgmeier (2005); March, Horner, Lewis -Palmer, Brown, Crone & Todd (1999)

SETTING EVENT(s): ***Rank Order*** **any events that happen outside of the immediate routine (at home or earlier in day) that commonly make problem behavior more likely or worse in the routine above.**

__ hunger __ conflict at home __ conflict at school __ missed medication __ illness
__ failure in previous class __ lack of sleep __change in routine __homework not done __not sure
__ Other _____

SUMMARY OF BEHAVIOR

Fill in boxes below using top ranked responses and follow-up responses from corresponding categories above.

ANTECEDENT(s)/Triggers	**Problem behavior(s)**	**CONSEQUENCE(s)/ Function**
SETTINE EVENTS		

Adapted by S. Loman (2009) from C. Borgmeier (2005); March, Horner, Lewis -Palmer, Brown, Crone & Todd (1999)

APPENDIX I

ANTECEDENT BEHAVIOR CONSEQUENCE RECORDING FORM (ENGLISH VERSION)

Antecedent Behavior Consequence Recording Form

ABC Recording Form

Observer: _____ **Student: _____**

Setting (e.g., class#, gym, playground): _____ **Date: _____**

#	Time	Activity/Task	Antecedent	Behavior	Outcome/Consequence
1		□ Large group instruction □ Small group work □ Independent work □ Unstructured time Specific:	□ Given instruction □ Given correction □ Alone (no attention/no activities) □ With Peers □ Engaged in preferred activity □ Preferred activity removed □ Transition: Change in activity Other/Notes:		□ Adult Attention Provided □ Peer Attention Provided □ Got Preferred Activity/Item □ Got Sensation _____ □ Adult Attention Avoided □ Peer Attention Avoided □ Task/Activity Avoided □ Sensation Avoided ____ Other/Notes:
2		□ Large group instruction □ Small group work □ Independent work □ Unstructured time Specific:	□ Given instruction □ Given correction □ Alone (no attention/no activities) □ With Peers □ Engaged in preferred activity □ Preferred activity removed □ Transition: Change in activity Other/Notes:		□ Adult Attention Provided □ Peer Attention Provided □ Got Preferred Activity/Item □ Got Sensation _____ □ Adult Attention Avoided □ Peer Attention Avoided □ Task/Activity Avoided □ Sensation Avoided ____ Other/Notes:

Modified by S. Loman from R. Van Norman (2007).

#	Time	Activity/Task	Antecedent	Behavior	Outcome/Consequence
3		□ Large group instruction □ Small group work □ Independent work □ Unstructured time Specific:	□ Given instruction □ Given correction □ Alone (no attention/no activities) □ With Peers □ Engaged in preferred activity □ Preferred activity removed □ Transition: Change in activity Other/Notes:		□ Adult Attention Provided □ Peer Attention Provided □ Got Preferred Activity/Item □ Got Sensation _____ □ Adult Attention Avoided □ Peer Attention Avoided □ Task/Activity Avoided □ Sensation Avoided ____ Other/Notes:
4		□ Large group instruction □ Small group work □ Independent work □ Unstructured time Specific:	□ Given instruction □ Given correction □ Alone (no attention/no activities) □ With Peers □ Engaged in preferred activity □ Preferred activity removed □ Transition: Change in activity Other/Notes:		□ Adult Attention Provided □ Peer Attention Provided □ Got Preferred Activity/Item □ Got Sensation _____ □ Adult Attention Avoided □ Peer Attention Avoided □ Task/Activity Avoided □ Sensation Avoided ____ Other/Notes:

Modified by S. Loman from R. Van Norman (2007).

#	Time	Activity/Task	Antecedent	Behavior	Outcome/Consequence
5		□ Large group instruction □ Small group work □ Independent work □ Unstructured time Specific:	□ Given instruction □ Given correction □ Alone (no attention/no activities) □ With Peers □ Engaged in preferred activity □ Preferred activity removed □ Transition: Change in activity Other/Notes:		□ Adult Attention Provided □ Peer Attention Provided □ Got Preferred Activity/Item □ Got Sensation _____ □ Adult Attention Avoided □ Peer Attention Avoided □ Task/Activity Avoided □ Sensation Avoided ____ Other/Notes:
6		□ Large group instruction □ Small group work □ Independent work □ Unstructured time Specific:	□ Given instruction □ Given correction □ Alone (no attention/no activities) □ With Peers □ Engaged in preferred activity □ Preferred activity removed □ Transition: Change in activity Other/Notes:		□ Adult Attention Provided □ Peer Attention Provided □ Got Preferred Activity/Item □ Got Sensation _____ □ Adult Attention Avoided □ Peer Attention Avoided □ Task/Activity Avoided □ Sensation Avoided ____ Other/Notes:
7		□ Large group instruction □ Small group work □ Independent work □ Unstructured time Specific:	□ Given instruction □ Given correction □ Alone (no attention/no activities) □ With Peers □ Engaged in preferred activity □ Preferred activity removed □ Transition: Change in activity Other/Notes:		□ Adult Attention Provided □ Peer Attention Provided □ Got Preferred Activity/Item □ Got Sensation _____ □ Adult Attention Avoided □ Peer Attention Avoided □ Task/Activity Avoided □ Sensation Avoided ____ Other/Notes:

Modified by S. Loman from R. Van Norman (2007).

#	Time	Activity/Task	Antecedent	Behavior	Outcome/Consequence
8		□ Large group instruction □ Small group work □ Independent work □ Unstructured time Specific:	□ Given instruction □ Given correction □ Alone (no attention/no activities) □ With Peers □ Engaged in preferred activity □ Preferred activity removed □ Transition: Change in activity Other/Notes:		□ Adult Attention Provided □ Peer Attention Provided □ Got Preferred Activity/Item □ Got Sensation _____ □ Adult Attention Avoided □ Peer Attention Avoided □ Task/Activity Avoided □ Sensation Avoided ____ Other/Notes:
9		□ Large group instruction □ Small group work □ Independent work □ Unstructured time Specific:	□ Given instruction □ Given correction □ Alone (no attention/no activities) □ With Peers □ Engaged in preferred activity □ Preferred activity removed □ Transition: Change in activity Other/Notes:		□ Adult Attention Provided □ Peer Attention Provided □ Got Preferred Activity/Item □ Got Sensation _____ □ Adult Attention Avoided □ Peer Attention Avoided □ Task/Activity Avoided □ Sensation Avoided ____ Other/Notes:
10		□ Large group instruction □ Small group work □ Independent work □ Unstructured time Specific:	□ Given instruction □ Given correction □ Alone (no attention/no activities) □ With Peers □ Engaged in preferred activity □ Preferred activity removed □ Transition: Change in activity Other/Notes:		□ Adult Attention Provided □ Peer Attention Provided □ Got Preferred Activity/Item □ Got Sensation _____ □ Adult Attention Avoided □ Peer Attention Avoided □ Task/Activity Avoided □ Sensation Avoided ____ Other/Notes:

Modified by S. Loman from R. Van Norman (2007).

#	Time	Activity/Task	Antecedent	Behavior	Outcome/Consequence
11		□ Large group instruction □ Small group work □ Independent work □ Unstructured time Specific:	□ Given instruction □ Given correction □ Alone (no attention/no activities) □ With Peers □ Engaged in preferred activity □ Preferred activity removed □ Transition: Change in activity Other/Notes:		□ Adult Attention Provided □ Peer Attention Provided □ Got Preferred Activity/Item □ Got Sensation _____ □ Adult Attention Avoided □ Peer Attention Avoided □ Task/Activity Avoided □ Sensation Avoided ____ Other/Notes:

Summary Statement	During:	When:	Student will:	Because: Therefore the function is to access/escape (circle one):
How likely is it that this Summary of Behavior accurately explains the identified behavior occurring?				
Not real sure				100% Sure/ No Doubt
1	2	3	4	5 6

Modified by S. Loman from R. Van Norman (2007).

APPENDIX J

FUNCTIONAL BEHAVIOR ASSESSMENT PROCEDURAL ADEQUACY CHECKLIST (ENGLISH VERSION)

FBA procedural Adequacy Checklist

Participant #: _____

1. FACTS parts A & B completed with a staff member who works with the student during routines where problem behavior occurs? Yes OR No

2. Problem behavior was defined in observable and measurable terms? Yes OR No

   Operational definition of the problem behavior?

   _____

3. Was a routine prioritized for direct observations? Yes OR NO

   Routine where observations conducted? _____

4. An antecedent event was defined as triggering the problem behavior? Yes OR No

   Antecedent event identified: _____

5. Only ONE prioritized maintaining function of the problem behavior was identified? Yes Or No

   Maintaining function of the problem behavior identified:

APPENDIX K

FUNCTIONAL BEHAVIOR ASSESSMENT TASK
TIME LOG (ENGLISH VERSION)

FBA Task Time Log

Task	Date(s)	Start Time(s)	End Time(s)	Total Time
Scheduling FACTS with teacher(s)				
Conducting FACTS with teacher(s)				
Conducting student-guided FACTS				
Observing Student Behavior using ABC form(s)				
Completing Summary Statements				
Other related tasks: _____				

APPENDIX L

ACCEPTABILITY RATING QUESTIONNAIRE (MODIFIED) (ENGLISH VERSION)

Acceptability Rating Questionnaire (Modified)

Acceptability Rating Questionnaire

Please circle the number which best describes your agreement or disagreement with each statement.

	Strongly disagree	Disagree	Slightly Disagree	Slightly Agree	Agree	Strongly Agree
1. The "Practical FBA" training you received equipped you for conducting an FBA in your school.	1	2	3	4	5	6
2. I will use these FBA procedures again with another student for whom an FBA would be appropriate.	1	2	3	4	5	6
3. I would suggest this training to other school professionals needing to learn to conduct FBA	1	2	3	4	5	6
4. The tools used within this FBA process were relatively easy to use.	1	2	3	4	5	6
5. I will use the FACTS interview with teachers when conducting my next FBA.	1	2	3	4	5	6
6. I will use the student-guided FACTS with students when conducting my next FBA.	1	2	3	4	5	6
7. I will use the ABC observation form when conducting my next FBA.	1	2	3	4	5	6
8. I feel confident that I can conduct an FBA that will inform interventions for a student.	1	2	3	4	5	6