

KNOWLEDGE AND PERCEPTION OF FUNCTIONAL BEHAVIORAL  
ASSESSMENT AMONG PRESCHOOL TEACHERS AND EARLY  
INTERVENTIONISTS

by

Kendra B. Martin

A Thesis Submitted in Partial Fulfillment  
of the Requirement for the Degree of  
Masters of Arts in Psychology

Middle Tennessee State University

December 2016

Thesis Committee:

Kimberly Ujcich Ward, Ph.D., Chair

Mary Ellen Fromuth, Ph.D.

## ACKNOWLEDGEMENTS

To all my professors at East Tennessee State University and Middle Tennessee State University, thank you for teaching me and pushing me to be the best student and, in turn, professional, that I can be. Thank you for making me proud to join the psychology profession.

To Dr. Ujcich Ward, thank you for your guidance and dedication in helping me complete this thesis.

To my family and friends, thank you for all your support and encouragement during grad school. Thank you for believing in me when I was struggling to believe in myself.

## ABSTRACT

This study examined the knowledge, perceptions, and self-efficacy of preschool teachers and early interventionists regarding functional behavioral assessments (FBAs). Twenty preschool teachers and 11 early interventionists from middle Tennessee completed an online or hard copy survey. Results found that both preschool teachers and early interventionists accurately responded to only about half of the items assessing knowledge of FBAs, with no significant differences between the two groups for knowledge, perception of FBA effectiveness, or self-efficacy for the FBA process. Results also indicated no significant relationship between knowledge of FBAs and self-efficacy of conducting FBAs. Results, however, did indicate a significant positive relationship between perceptions of FBAs and self-efficacy of conducting FBAs. These findings suggest that both preschool teachers and early interventionists may benefit from additional training in the FBA process due to their limited knowledge of FBAs and the lack of connection to their perceptions and self-efficacy of the FBA process.

## TABLE OF CONTENTS

LIST OF TABLES.....	v
LIST OF APPENDICES.....	vi
CHAPTER I: INTRODUCTION.....	1
Knowledge of FBA.....	2
Perceptions of FBA.....	7
Knowledge and Perceptions.....	11
Summary and Purpose of the Current Study.....	12
CHAPTER II: METHOD .....	14
Participants.....	14
Measures.....	14
Demographics.....	14
Knowledge of FBA.....	16
Perceptions of FBA.....	16
Perceptions of Self-Efficacy.....	17
Procedure.....	17
CHAPTER III: RESULTS.....	19
CHAPTER IV: DISCUSSION.....	23
Limitations and Future Directions.....	25
REFERENCES.....	28
APPENDICES.....	31

LIST OF TABLES

Table 1. Demographic Data for Preschool Teachers and Early Interventionists.....15

Table 2. Descriptive Statistics for Dependent Variables for Early Interventionists and  
Preschool Teachers.....20

Table 3. Pearson Correlations Among Knowledge Scores, Self-Efficacy Scores, and  
Perception Scores.....22

LIST OF APPENDICES

Appendix A: Survey of the FBA Process.....32

Appendix B: Middle Tennessee State University Institutional Review Board Approval  
Letter.....47

Appendix C: Informed Consent Letter.....49

## CHAPTER I

### INTRODUCTION

A functional behavior assessment (FBA) is a process of evaluating problem behaviors to determine what makes the behavior more likely to occur and what variables are maintaining the behavior (Anderson, Rodriguez, & Campbell, 2015; McIntosh & Av-Gay, 2007; Sugai et al., 2000). This information is then used to create behavior change plans to decrease or eliminate problem behaviors and increase desired behaviors (McIntosh & Av-Gay, 2007). FBAs are required by the Individuals with Disabilities Education Improvement Act (IDEIA) for students with disabilities who exhibit problem behaviors that interfere with their learning or that of others, and it is also needed for proper evaluation regarding their placement and intervention needs (Anderson, et al., 2015; McIntosh & Av-Gay, 2007; Sugai et al., 2000). This law applies to children receiving public education services between the ages of 3 and 21 years old; therefore, it is likely that FBAs may be used for identifying and creating behavior change plans for problem behaviors for children in preschool classrooms. Although not required by law for children receiving early intervention services (i.e., children ages birth to 3 years old who have delays or disabilities), FBAs may be helpful for these children due to the occurrence of challenging behavior and lack of some developmental skills. Research regarding teachers' knowledge and preparedness to implement FBAs has focused primarily on elementary and middle school teachers, and not on preschool teachers. It is, therefore, unclear how prepared these teachers may be for the FBA process, and if their

preparedness differs from that of early interventionists, both of whom may be in the position to use FBAs. Early interventionists are those who work with children 3 years old and younger who have documentation of delayed development or a diagnosis of a medical or mental condition that has a high probability of developmental delay (Scarborough, Hebbeler, Simeonsson, & Spiker, 2007). The following literature reviews the current research on knowledge of the FBA process, perceptions of FBAs, the relationship between knowledge and perceptions, and teachers' use of FBAs. The review focuses on all level of teachers (i.e., preschool, elementary, middle, high school) because there are limited data for preschool teachers.

#### *Knowledge of FBA*

Hesney (2011) studied teachers' knowledge of functional behavior assessment (FBA). He assessed 108 general and special education teachers from northern New Jersey school districts across preschool, elementary, middle, and high school education levels. Teachers were asked to provide the number of years of experience teaching they had, how many FBAs they had completed in the last year, their training in behavior response techniques, and their student discipline training. A web-based survey created from past surveys and tests (i.e., Mortenson, Rush, Webster, & Beck, 2008; Myers & Holland, 2000; Tobin & Crone, 2003) was used to assess knowledge of FBA. The highest possible score for the teachers' knowledge of FBA was 12 points; the average score was 7.37 points ( $SD = 1.64$ ). Hesney (2011) hypothesized that special education teachers would have more knowledge than general education teachers of FBAs, but the

difference between special and general education teachers' knowledge was not significant. He also hypothesized that teachers who completed an FBA in the last year would have more knowledge of FBA compared to teachers who had not completed any in the past year. Knowledge between teachers who had and who had not completed an FBA in the past year was not significantly different. Even though there were teachers from preschool, elementary, middle, and high school levels, only 7% of participants taught at the preschool level and the majority (44%) taught at the elementary level. The population of the study was relatively small from one area of New Jersey, and this could limit the generalizability of the findings. There also was a high number of participants who accessed the survey, but did not complete it (72 out of 180). Hesney did a thorough job of investigating teachers' background and experience in education and also dissected the teachers' responses to the knowledge questions to identify strengths and weaknesses across all teachers' knowledge of FBA.

In a similar study, Kircher (2009) explored the knowledge of the FBA process in general and special education teachers from a southeastern Pennsylvania public school district. Eighty-seven teachers from elementary and middle school levels participated; the majority were from the elementary level ( $n = 78$ ). An online survey was used to assess knowledge of the FBA process and included eight questions related to knowledge. An interview also was done with six participants in order to allow participants to clarify and expand on survey results. For all eight questions, the majority of participants responded incorrectly. None of the participants answered every question correctly, and

10 participants answered all eight questions incorrectly. This suggests that the participants did not have a good understanding of the FBA process. Some methodological concerns for this study included a small number of questions regarding knowledge of the FBA process and the use of a survey with no reported psychometrics. The majority of participants were from the elementary level, which leaves the middle school level underrepresented and there were no participants from the preschool or high school levels. Survey results among different education levels (i.e., elementary, middle, or high school) were not compared, and neither were survey results between regular and special education teachers. Regular and special education teachers were well represented, however, as well as some support teachers and principals. The interview was a good way for researchers to collect more information on teachers' knowledge, but very few were randomly selected to participate and selecting more may have allowed for greater usefulness of the interviews.

Investigating the impact of direct training, Stewart (2009) studied the effect of training and feedback about FBAs on teachers' knowledge and accuracy of the FBA process. Sixty-three teachers who attended the Summer Institute of the South in Columbus or Hattiesburg, MS or were in the Hazlehurst School District in Hazlehurst, MS participated in the study. Participants included general and special education teachers. A survey modified from one created by Watson (2006) that included rote memory questions and applied questions was used to assess knowledge before and after the training on FBA. The FBA training was done in 3 hours in one day for all

participants and included information from the Individuals with Disabilities Education Improvement Act (IDEIA) 2004, the three-tier Response to Intervention (RtI) model, formal definitions of FBA procedures, information on identifying environmental events, development of operational definitions for target and replacement behaviors, and use of case studies as examples. The average score for the pretraining administration of the knowledge survey was 18.78, and the average score for the second administration was 21.97, which shows a statistically significant improvement in scores. In addition to a significant improvement in scores, the percentage of participants who passed the test increased from 72% to 87.9% following the training. The cut off that determined a passing score was not given in this study. These results show that direct training in the FBA process can increase knowledge in FBA. Some methodological concerns in this study include no psychometrics reports for the survey, and no information about the level of students with whom the teachers worked (e.g., preschool, elementary). The training implemented in the study, however, was well described and included various aspects of the FBA process.

In a more involved FBA training study, Renshaw, Christensen, Marchant, and Anderson (2008) studied the effect of training on function-based support (FBS) processes. FBS included the use of FBA and the creation and implementation of a behavior support plan (BSP). Four general education teachers from an elementary school in Utah participated in the study. The training included four 1-hour group training sessions over 10 weeks, 10 independent readings, and applied activities (one done each

week), and two individual consultations to review teacher performance on the applied activities and to answer questions. The FBS Knowledge Test was created by the researchers to assess knowledge of the FBS process. The FBS Knowledge Test was administered by the researchers for the weeks that group trainings were given, and it was self-administered by the teachers for the other weeks. The test assessed three sections of the FBS process: conducting an FBA, developing a BSP, and implementing and monitoring the BSP. At baseline, participants were correct on an average of 63% of the questions about conducting an FBA, 64% of the questions about developing a BSP, and 64% of the questions about implementing and monitoring the BSP. After training in the specified area, an average of 94% of questions about conducting an FBA, 85% of questions about developing a BSP, and 83% of questions about implementing and monitoring the BSP were answered correctly. The average composite score at baseline was 61% and after all training was completed, it was 89%. These results show that the training was effective in having substantial and consistent gains in improving knowledge of the FBS process, including conducting an FBA and implementing a BSP.

Methodological concerns include the use of a knowledge test created by the researchers without psychometrics reports and a very small sample size. The researchers did retest the participants weekly to get a measure of their knowledge as the study progressed instead of just a pre- and post-test assessment. This was particularly important for this study because it was training and implementation over time as opposed to a one-time training.

### *Perceptions of FBA*

Assessing perceptions and acceptability of a method, such as FBAs, is important because it can contribute to whether someone will actually use the method in the natural environment. If teachers do not believe a method is likely to be useful or effective, they may not use it often or at all. If they are required to use the method and perceive it to be ineffective, they may not implement the method as it should be implemented, which could affect the effectiveness. If teachers believe a method to be helpful and effective, however, then they may be more likely to use it more often and stick more closely to how it should be implemented.

Hesney (2011) assessed perceptions of FBA of preschool through high school teachers using questions modified from instruments employed by Myers and Holland (2000) and Mortenson et al. (2008), as well as some additional questions. Questions consisted of 4-point Likert-type scale questions and *yes* or *no* response questions to vignettes. He reported a Cronbach's alpha of .74, suggesting good internal consistency. Perception scores could range from 0 to 124, with scores 62 or less indicating positive perceptions and scores above 62 indicating negative perceptions. The mean score for perceptions was 48.63 ( $SD = 8.33$ ), indicating that teachers had positive perceptions of FBAs. He hypothesized that teachers early in their careers would report more positive perceptions of FBAs than teachers later in their careers would, but the group differences were not statistically significant.

Finding similar perceptions of the FBA process, Kircher (2009) assessed perceptions of FBA using a survey that was created by asking behavior analysts with experience in public education to rate the appropriateness of the content of various items. The perceptions survey had items that were related to assessment and intervention of behavior problems, but only a few that directly related to FBAs. She found that participants moderately believed FBAs to be helpful and should be linked to behavior plans, and 91% of participants wanted more training in how to teach children with behavior problems. Many teachers, however, did not consider themselves as behavior analysts, did not think FBAs were their responsibility, and noted that children with behavior problems should not be in their classrooms.

Engstrom (2013) found more positive perceptions of FBAs in her study assessing regular and special education teachers. Twenty-three percent of respondents reported the FBA process to be very to extremely effective, 69% reported it to be somewhat to moderately effective, and 8% said the FBA process was not effective in relation to reducing challenging behaviors. Sixteen percent reported the FBA process was very to extremely effective, 74% somewhat to moderately effective, and 10% not effective in increasing positive replacement behaviors and improving learning/academic achievement. She found a significant difference in the classroom type and perceived effectiveness of FBAs; those in self-contained classrooms perceived them more effective than those in collaborative, inclusion, or resource classrooms.

Stewart (2009) assessed teachers' FBA perceptions using the Functional Behavioral Assessment Evaluation Scale that was modified from the Intervention Rating Profile (IRP-15). Using a scale from 0 to 124, teachers' average FBA Evaluation Scale score was 47.51 on the first administration prior to direct training in the FBA process and 54.76 following training. This shows that perceptions of the acceptability of FBAs had statistically significant improvement following the brief training.

Including kindergarten and preschool teachers specifically, Poole (2011) studied the effects of brief functional analysis (BFA), differential reinforcement of other behavior (DRO), and differential reinforcement of alternative behavior (DRA) on disruptive behavior in two kindergarten classrooms and one Head Start classroom. Poole (2011) used a modified version of the Assessment Rating Profile-Revised (ARP-R) to assess acceptability of brief functional analysis procedures, and she used the IRP-15 following the use of FBAs and linked behavioral interventions in the classroom. The ARP-R has 12 items and a scale of 12 to 72. The IRP-15 has 15 items and a scale of 0 to 90. The first classroom teacher's ARP-R score was 53, and IRP-15 score was 75. The second classroom had two teachers; the ARP-R score for both teachers was 62, and IRP-15 score was 82 for the primary teacher and 73 for the assistant teacher. The third classroom's teacher's ARP-R score was 63, and IRP-15 score was 68. Scores greater than 42 on the ARP-R are considered acceptable, indicating that all classroom teachers' ARP-R scores were acceptable. Scores greater than 52.5 on the IRP-15 are considered acceptable, indicating that all classroom teachers' IRP-15 scores were acceptable. In a second

similar study, Poole, Dufrene, Sterling, Tingstrom, and Hardy (2012) studied the effect of Head Start preschool teachers conducting functional analyses and interventions. This study included two classrooms each with about six students exhibiting behavior problems. The FAIR-T P was used in individual teacher interviews to create an operational definition for the target behaviors, antecedents, and consequences. A 20-minute direct observation was done during direct instruction after these interviews. Researchers then trained the teachers to implement functional analysis conditions (control, attention, tangible, escape). These training sessions lasted about 40 minutes and included modeling, prompting, rehearsal of two randomized conditions, and feedback after each session. They used the ARP-R and the IRP-15 to assess acceptability of the FBA and behavioral intervention procedure with preschool teachers. Teachers' ARP-R score were 63 and 72, and IRP-15 scores were 79 and 82. These findings indicate that in a situation in which the preschool teachers used the FBA process, their perceptions were that it was moderately acceptable and that interventions based on the FBA also were acceptable. Scores greater than 42 on the ARP-R are considered acceptable, and scores greater than 52.5 on the IRP-15 are considered acceptable. This shows that all classroom teachers' ARP-R and IRP-15 scores were acceptable.

Flynn and Lo (2015) assessed the effects of training teachers to implement trial-based functional analysis (TBFA). Participants were three middle school special education teachers with limited or no experience in conducting functional analyses. They assessed the training and implementation of trial-based functional analysis using an

adapted version of the Teacher Post-Intervention Acceptability and Importance of Effects Survey. Teachers responded favorably to the ease of learning and using trial-based functional analysis. They had inconsistent responses regarding the impact of the intervention; two teachers responded favorably and one unfavorably.

### *Knowledge and Perceptions*

The relationship between knowledge of the FBA process and perceptions of its utility by teachers has been investigated with inconsistent findings. Hesney (2011), in his study with general and special education teachers from preschool to high school, found no significant correlation between knowledge of the FBA process and perceptions of FBAs. Similarly, Kircher (2009) also reported no significant correlation between regular education teachers' knowledge of FBAs and their perspectives of FBAs. On the other hand, Stewart (2009) examined how training in FBA procedures would impact acceptability of FBAs. She did this by administering the Functional Behavioral Assessment Evaluation Scale before and after the training was completed. Acceptability of FBAs showed a statistically significant increase from a mean score of 47.51 at the first administration to 54.76 at the second administration on a scale from 10 to 60. This suggests that, in this study, an increase of knowledge of FBAs via training resulted in an increase in the teachers' acceptance of them.

*Summary and Purpose of the Current Study*

Hesney (2011) and Kircher (2009) studied general and special education teachers' knowledge of FBAs and found that neither group had much knowledge regarding them. Stewart (2009) and Renshaw et al. (2008) studied the effects of training on knowledge of FBAs in teachers and found that training teachers regarding the FBA process increased their knowledge of it. Overall, however, teachers' perceptions of FBAs were not very positive (e.g., Engstrom, 2013; Hesney, 2011; Kircher, 2009; Stewart, 2009). In some studies, those who were trained to complete FBA procedures had more positive perceptions of the procedures following training (e.g., Flynn & Lo, 2015; Poole, 2011; Poole et al., 2012; Stewart, 2009). Hesney (2011) and Kircher (2009) did not find significant correlations between knowledge and perceptions of FBAs. The current literature is inconsistent regarding findings about the relationship between knowledge and skills involved in the FBA process and teachers' perceptions of the FBA process. Various methods of measuring these constructs may have contributed to the inconsistencies, as might the varied samples. More specifically, most of the samples of teachers included in the reviewed studies were elementary, middle, and high school teachers, with only a few studies including preschool teachers (e.g., Hesney, 2011; Poole, 2011; Poole et al., 2012). No studies reviewed included early interventionists.

Although educational law requires that FBAs be implemented in certain circumstances for children ages 3 to 21 years old receiving services under IDEIA, it is unclear how prepared preschool teachers and early interventionists are to conduct FBAs

and what their perceptions of the value of the FBA process are. Therefore, the purpose of the current study was to assess knowledge and perceptions of the FBA process among preschool teachers and early interventionists (EIs) and to evaluate the participants' self-efficacy regarding implementation of FBAs. Early interventionists were included because they often are working with young children (ages birth to 3 years old) who may be exhibiting challenging behaviors that could benefit from the FBA process. These interventionists are not required by law to utilize FBAs, as are preschool teachers. Specifically, it was predicted that knowledge regarding FBAs would be low for both groups (EIs and Preschool teachers), but EIs would have more knowledge regarding FBAs than preschool teachers. Because they are working with children with delays and disabilities who are more likely to exhibit challenging behaviors, EIs were predicted to view FBAs as more useful than general education preschool teachers view FBAs. Both EIs and preschool teachers were predicted to have low self-efficacy regarding FBA process. Regardless of teacher group, it was predicted that the more knowledge about FBAs a participant has, the more prepared he or she would feel to administer them.

## CHAPTER II

### METHOD

#### *Participants*

Thirty-eight preschool teachers and EIs participated in the study; of these, 31 were included in the analyses for study due to incomplete surveys. Four participants did not answer any questions after agreeing to participate in the study, and three participants answered no more than the demographic questions (two preschool teachers and one EI). Of the 31, 20 were preschool teachers and 11 were EIs. Participants were recruited from Tennessee Early Intervention System (TEIS), Middle Tennessee State University (MTSU) Home and Community Based Early Intervention program, Head Start, and local preschools. Both male and female participants were eligible, but only one male participated. As seen in Table 1, the majority of participants were female, had a Bachelor's degree or less, and their years of professional experience varied.

#### *Measures*

*Demographics.* Demographic information was collected including: age, gender, degree (level and content area), and years teaching and/or intervening (for EI). The items are part of a survey that was created by Hesney (2011; See Appendix A). There are 10 demographic and training-based questions in the survey (i.e., items 1 to 10).

Demographic questions were used to describe the sample.

Table 1

*Demographic Data for Preschool Teachers and Early Interventionists*

<i>Variable</i>	<i>Preschool Teachers</i>		<i>Early Interventionists</i>	
	<i>N</i>	<i>%</i>	<i>N</i>	<i>%</i>
<b>Gender</b>				
Female	18	90	11	100
Male	1	5	0	0
Chose not to respond	1	5	0	0
<b>Education</b>				
High School/GED	6	30	1	9
Associate's degree	2	10	1	9
Some college	7	35	1	9
Bachelor's degree	5	25	6	55
Master's degree	0	0	2	18
<b>Years Teaching/ Working as EI</b>				
Less than 1 year	1	5	2	18
1-3 years	6	30	3	27
4-6 years	2	10	2	18
7-9 years	1	5	0	0
10 or more years	8	40	4	36
Chose not to respond	2	10	0	0

*Knowledge of FBA.* Accuracy of the knowledge of FBA procedures were assessed using items from a survey created by Hesney (2011). Hesney created his survey from other surveys and tests used by Tobin and Crone (2003), Myers and Holland (2000), and Mortenson et al. (2008). Hesney (2011) piloted the survey questions with 20 teachers who worked in the same school as the researcher. They were given 1 week to review the questionnaire to give suggestions concerning format and clarity. On the final survey, there are 13 total knowledge questions (i.e., items 11 to 23) that are multiple choice or *yes/no* format. Ten of these questions involve reinforcement, punishment, rules, and procedures of FBAs. The other three knowledge questions are vignettes. The questions from Hesney's (2011) survey were altered to fit local rules and to better fit with preschool teacher and EI populations. The knowledge score reflects the total number of the 13 knowledge items that were answered correctly. For the Knowledge of FBAs Score, the possible range of scores was 0 to 13 with lower scores reflecting less knowledge of FBAs. The Cronbach's alpha coefficient for this scale was .15.

*Perceptions of FBA.* Perceptions of how well FBAs work and how feasible the FBAs are to complete in their respective settings were assessed using the survey created by Hesney (2011). Hesney added items regarding perceptions of FBA methodology to the questions obtained from Tobin and Crone (2003), Myers and Holland (2000), and Mortenson et al. (2008). There are 25 questions regarding perceptions of helpfulness and efficacy of FBAs. Thirteen of the questions (i.e., items 24 to 26, 28 to 29, 31 to 38) use a Likert-type rating scale (1 = *do not agree* to 4 = *completely agree*), and 12 items (i.e., 46

to 48; 4 for each of three vignettes) use a *yes/no* format to assess perceptions of FBA pertaining to three vignettes. A total score was calculated by adding scores for the Likert items (higher scores = more positive perceptions) and the vignettes items, with “yes” responses receiving 1 point so that higher scores equal more positive perceptions of FBA process. For the Perception of FBAs Score, the possible range of scores was 13 to 64, with a lower scores reflecting more negative perceptions of the FBA process. The Cronbach’s alpha coefficient for this scale was .76.

*Perceptions of Self-Efficacy.* How well prepared preschool teachers and EIs felt to properly conduct FBAs also was assessed using six items from Hesney’s (2011) survey. These items assess teachers’ perceptions of their self-efficacy in participating in the FBA process. There are six Likert-type questions using a 4-point scale (i.e., items 27, 30, and the four items from 45). Questions address one’s perceptions of his or her own abilities regarding FBA process. Scoring for the self-efficacy perception questions was similar to the scoring of the perception Likert-type questions, with higher scores reflecting more positive self-efficacy regarding FBA skills. For the Self-Efficacy of FBAs Score, the possible range of scores was 6 to 24, with lower scores reflecting poor self-efficacy (i.e., less confidence) in conducting FBAs. The Cronbach’s alpha coefficient for this scale was .70.

### *Procedure*

Following approval of the MTSU Institutional Review Board (see Appendix B), agencies were contacted to obtain agreement to recruit participants. Once agreement

from the director was obtained, the survey was distributed online by sending potential participants a link to the survey. The first page was the informed consent letter (see Appendix C), followed by the Hesney (2011) survey items. Due to limited responses from the online survey, hard copy surveys were disseminated to several preschools and early intervention sites. The hard copy was identical to the online survey and was completed anonymously by the participants. Completed surveys were collected in an envelope in the office at each agency. A total of 17 surveys were completed online; 21 (11 EIs and 10 preschool teachers) hard copies were completed.

## CHAPTER III

## RESULTS

Table 2 presents the descriptive statistics for the dependent variables by participant group.

It was hypothesized that knowledge regarding FBAs would be low for both groups (EIs and Preschool teachers), but that EIs would have more knowledge regarding FBAs than preschool teachers. An independent sample *t*-test was conducted to test this hypothesis, indicating no significant differences between knowledge scores for preschool teachers ( $M = 7.6, SD = 1.32$ ) and EIs ( $M = 7.0, SD = 2.28$ ),  $t(29) = 0.94, p = .36$ . The average total number correct was 7.6 out of 13 questions for preschool teachers and 7 out of 13 for EIs, which is 58.5% and 53.8%, respectively.

Regarding perceptions of FBAs, it was hypothesized that EIs would view FBAs as more useful than general education preschool teachers would because they are working with children with delays and disabilities on a daily basis whereas preschool teachers may not have such frequent contact with these children. An independent sample *t*-test was conducted to test this hypothesis, indicating no significant differences between perception scores for preschool teachers ( $M = 44.22, SD = 8.08$ ) and EIs ( $M = 48.2, SD = 23.52$ ),  $t(26) = -1.47, p = .15$ .

Additionally, it was predicted that self-efficacy regarding the FBA process, neither EIs nor preschool teachers would feel prepared to administer FBAs; that is, both groups would have consistently low self-efficacy regarding the FBA process. An

Table 2

*Descriptive Statistics for Dependent Variables for Early Interventionists and  
Preschool Teachers*

<i>Variable</i>	<i>Preschool Teachers</i>		<i>Early Interventionists</i>	
	<i>N</i>	<i>Mean (SD)</i>	<i>N</i>	<i>Mean (SD)</i>
Knowledge of FBAs Score	20	7.6 (1.31)	11	7.00 (2.28)
Perception of FBAs Score	18	44.22 (8.08)	10	48.2 (3.52)
Self-Efficacy of FBAs Score	20	16.75 (2.45)	11	18.18 (3.22)

independent sample *t*-test was conducted to test this hypothesis, indicating no significant differences between self-efficacy scores for preschool teachers ( $M = 16.75$ ,  $SD = 2.45$ ) and EIs ( $M = 18.18$ ,  $SD = 3.22$ ),  $t(29) = -1.39$ ,  $p = .17$ .

Finally, it was hypothesized that regardless of teacher group, the more knowledge about FBAs a participant indicated, the more prepared he or she would feel to administer them. A Pearson product moment correlation was conducted to test this hypothesis (see Table 3), indicating there was no significant relationship between knowledge of FBAs and self-efficacy about conducting FBAs,  $r(31) = .28$ ,  $p = .13$ . An additional Pearson product moment correlations was conducted to examine the relationship between perceptions of FBAs and self-efficacy of conducting FBAs, which were significantly positively related,  $r(28) = .38$ ,  $p = .05$ .

Table 3

*Pearson Correlations Among Knowledge Scores, Self-Efficacy Scores, and Perception Scores*

<i>Variable</i>	Knowledge Score	Self-Efficacy Score	Perception Score
Knowledge Score	1	.28	.10
Self-Efficacy Score		1	.38*
Perception Score			1

*Note.*  $N = 28-31$ .

\* $p < .05$ .

## CHAPTER IV

### DISCUSSION

Studies involving teachers' knowledge of FBAs have suggested that teachers in general and special education have limited knowledge of FBAs (Hesney, 2011; Kircher, 2009), but that teachers' knowledge of FBAs can increase with training (Renshaw et al., 2008; Stewart, 2009). Studies related to teachers' knowledge of FBAs showed mostly positive perceptions of the effectiveness of FBAs (Engstrom, 2013; Hesney, 2011; Kircher, 2009; Poole, 2011; Poole et al., 2012; Stewart, 2009). Although teachers reported they had positive perceptions of FBAs effectiveness, some studies showed that teachers had negative perceptions regarding having to implement FBAs (Engstrom, 2013; Kircher, 2009). The main purpose of the current study was to examine preschool teachers' and early interventionists' knowledge and perceptions of FBAs.

First, it was hypothesized that knowledge regarding FBAs will be low for both groups (EIs and Preschool teachers), but EIs would have more knowledge regarding FBAs than preschool teachers. This hypothesis was partially supported. Knowledge regarding FBAs was low for both groups, with both groups accurately answering about half of the items. There was not a significant difference, however, between knowledge of FBAs for preschool teachers and knowledge of FBAs for EIs. Low knowledge scores for both preschool teachers and EIs are likely due to limited training and exposure to the use of FBAs. These scores are consistent with the limited knowledge of FBAs for general and special education teachers reported by both Hesney (2011) and Kircher (2009).

Second, it was hypothesized that EIs would view FBAs as more useful than general education preschool teachers would. It was believed that EIs were more likely to work with those with disabilities and developmental delays, thus would find FBAs more useful. This hypothesis, however, was not supported. There was no significant difference in perceptions of FBAs between EIs and preschool teachers, with both groups indicating moderately positive views of the FBA process (i.e., scores in the mid 40s out of possible 64). Perceptions of FBAs for preschool teachers and EIs also were consistent with perceptions of FBAs from previous research (Engstrom, 2013; Hesney, 2011; Kircher, 2009; Poole, 2011; Poole et al., 2012; Stewart, 2009), indicating that overall they have positive and similar perceptions of FBAs.

Third, it was hypothesized that neither EIs nor preschool teachers would feel prepared to administer FBAs. The average self-efficacy score was 18.18 for EIs and 16.75 for preschool teachers, with possible scores of 6 to 24. Self-efficacy scores from both EIs and preschool teachers indicate feeling moderately prepared to administer FBAs; there was no significant group difference. Taking into account that knowledge scores were low for both groups, it is somewhat surprising that both groups felt as capable to administer FBAs as they reported.

Finally, it was hypothesized that regardless of teacher group, the more knowledge about FBAs a participant had, the more prepared he or she would feel to administer them. This hypothesis, however, was not supported. Results indicated that there was no significant relationship between knowledge of FBAs and self-efficacy in administering

FBA. This finding is of concern, as it suggests that one's knowledge about the activities and concepts involved in the FBA process is not related to how prepared one feels to conduct an FBA. Furthermore, although no specific hypotheses were proposed, results did indicate a significant positive relationship between perceptions of FBAs and self-efficacy in administering FBAs. This finding suggests that the more positively these professionals perceive the FBA process, the more prepared they feel to conduct an FBA. Collectively, these results suggest these professionals' perceptions of the FBA process potentially are more influential in their feeling prepared to be involved in the process than their knowledge of how to conduct an FBA.

#### *Limitations and Future Directions*

This study is not without limitations. First, the sample size was small. A smaller sample size makes it more difficult to find statistically significant results, and makes it more difficult to generalize the results. Second, many of the results had a large variability. This also makes it more difficult to find statistically significant differences. Additionally, although the survey was used in previous research (Hesney, 2011), the psychometric properties of the survey have not been evaluated. Therefore, we have little empirical evidence that this tool is consistently measuring the constructs, and that the items conceptually labelled as "knowledge," "perceptions," and "self-efficacy" are actually measuring these specific constructs, as well. Future studies could evaluate the reliability and validity of this tool.

Another limitation of this study was that it was delivered in an anonymous survey format. Despite this being an effective method of collecting information from many participants simultaneously while maintaining their confidentiality, it cannot be determined with certainty who actually filled out the survey. It is possible that someone other than a preschool teacher or EI could have potentially taken the survey and answered as if he/she were a preschool teacher or EI. Also, there is no way to determine whether the conditions in which the participants took the surveys were the same. For example, they may have completed them individually, in small groups, or discussed them with others before or during completion. In addition, the delivery method of the survey used had to be modified. Originally, the survey was in an online format, but after discovering that very few participants were taking the survey online, it was decided that the survey should be offered in hard-copy format as well. Changing the survey delivery method in order to attempt to gather more participants may have affected the results.

There is currently little research that explicitly evaluates preschool teachers' and early interventionists' knowledge and perceptions of the FBA process. Due to the fact that FBAs are required by law for those ages 3 to 21 years old with disabilities who exhibit behavior problems that affect their learning, the preparedness of professionals working with the younger age range of this population appears to be an important area of study. Children in preschool classrooms and children in early intervention settings could have behavior problems that affect their learning, and it is possible they could benefit from the use of FBAs, whether or not they have disabilities. It is imperative that we

appropriately prepare these professionals to work with these children in compliance with public laws; research evaluating how to best prepare them is a necessary next step in this process.

## REFERENCES

- Anderson, C. M., Rodriguez, B. J., & Campbell, A. (2015). Functional behavior assessment in schools: Current status and future directions. *Journal of Behavioral Education, 24*, 338-371. doi: 10.1007/s10864-015-9226-z
- Engstrom, J. N. (2013). *Special education teachers' perspectives on the implementation of functional behavior assessment in school* (Doctoral dissertation). Retrieved from ProQuest Dissertations and Theses Global. (Order No. 3610808)
- Flynn, S. D., & Lo, Y. (2015). Teacher implementation of trial-based functional analysis and function-based interventions for students with challenging behavior. *Journal of Behavioral Education, 73*, 1-31. doi: 10.1007/s10864-015-9231-2.
- Hesney, J. (2011). *Teacher knowledge and perceptions of the school-based functional behavioral assessment* (Doctoral dissertation). Retrieved from ProQuest Dissertations and Theses Global. (Order No. 3500910)
- Kircher, K. L. S. (2009). *Functional behavioral assessment in schools: Teacher knowledge, perspectives, and discipline referral practices* (Doctoral Dissertation). Retrieved from ProQuest Dissertations and Theses Global. (Order No. 3354430)
- McIntosh, K., & Av-Gay, H. (2007). Implications of current research on the use of functional behavior assessment and behavior support planning in school systems. *International Journal of Behavioral Consultation and Therapy, 3*, 38-52. doi: 10.1037/h0100176

- Mortenson, B. P., Rush, K. S., Webster, J., & Beck, T. (2008). Early career teachers accuracy in predicting behavioral functioning: A pilot study of teacher skills. *International Journal of Behavioral Consultation and Therapy, 4*, 311-318. doi: 10.1037/h0100861
- Myers, C. L., & Holland, K. L. (2000). Classroom behavioral interventions: Do teachers consider the function of behavior? *Psychology in the Schools, 37*, 271-280. doi: 10.1002/(SICI)1520-6807(200005)37:3<271::AID-PITS7>3.0.CO;2-8
- Poole, V. Y. (2011). *Classwide functional analysis and comparison of function-based interventions with preschoolers* (Doctoral dissertation). Retrieved from ProQuest Dissertations & Theses Global. (Order No. 3491841)
- Poole, V. Y., Dufrene, B. A., Sterling, H. E., Tingstrom, D. H., & Hardy, C. M. (2012). Classwide functional analysis and treatment of preschoolers' disruptive behavior. *Journal of Applied School Psychology, 28*, 155-174. doi: 10.1080/15377903.2012.669744
- Renshaw, T. L., Christensen, L., Marchant, M., & Anderson, T. (2008). Training elementary school general educators to implement function-based support. *Education & Treatment of Children, 31*, 495-521. doi: 10.1353/etc.0.0037
- Scarborough, A. A., Hebbeler, K. M., Simeonsson, R. J., & Spiker, D. A. (2007). Caregiver descriptions of the developmental skills of infants and toddlers entering early intervention services. *Journal of Early Intervention, 29*, 207-227. doi: 10.1177/105381510702900302

- Stewart, L. W. (2009). *The effects of functional behavior assessment teacher training and performance feedback: Knowledge, accuracy, and acceptability and their ability to accurately complete FBA procedures* (Doctoral dissertation). Retrieved from ProQuest Dissertations and Theses Global. (Order No. 3386349)
- Sugai, G., Horner, R. H., Dunlap, G., Hieneman, M., Lewis, T. J., Nelson, C. M., . . . Rief, M. (2000). Applying positive behavior support and functional behavioral assessment in schools. *Journal of Positive Behavior Interventions*, 2(3), 131-143. Retrieved from <http://pbi.sagepub.com/>
- Tobin, T. J., & Crone, D. A. (2003). *Reliability of a functional assessment knowledge test*. Unpublished manuscript, University of Oregon, Eugene.
- Watson, L. W. (2006). *Pilot study: Functional behavior assessment with teacher support teams*. Unpublished manuscript, Mississippi State University, Starkville.

APPENDICES

## APPENDIX A

## Survey of the FBA Process

Please answer the following questions to the best of your ability. Some questions are multiple choice, some fill in the blank, and some Likert-scale type questions. You are able to save the questions and return to the survey later if needed. Feel free to contact me at [kbm3e@mtmail.mtsu.edu](mailto:kbm3e@mtmail.mtsu.edu) with any questions.

Note: You may have to disable ad-blockers for some questions to show up correctly.

Thank you for participating in my survey!

Kendra Martin, B.S.

Middle Tennessee State University

**Demographics**

Q1 Gender

Male

Female

Q2 In what area are you currently working?

Special Education

General Education

Both General and Special Education

Early Intervention

Q3 How many years have you been teaching and/or working as an Early Interventionist?

Q4 What is your highest level of education?

Q5 What is your average class or group size?

Q6 How many function behavioral assessments (FBAs) have been implemented for children in your class(es) or work this past year?

0

1-5

6-10

More than 10

Q7 In a typical year, how many children that you work with exhibit the following behaviors to the extent you consider it a problem? (i.e., an intervention is needed to resolve the problem behavior). A single child can be in multiple categories, if they exhibit multiple types of behavior problems.

	Enter Number of Children for Each Behavior
	# of Children (1)
<b>Destructive</b> (i.e., breaking, ripping, or tearing objects; throwing objects; banging on walls or objects; and swiping objects off surfaces) (1)	
<b>Aggressive</b> (i.e., hitting, kicking, punching, and hair pulling) (2)	
<b>Non-compliant</b> (i.e., either verbally or nonverbally refuses to complete a task, lack of communication in response to a demand, or verbally challenging in response to demands) (3)	
<b>Disruptive/Off Task</b> (i.e., verbally or nonverbally distracts others by being: talkative, easily distracted, having poor attention or being overly active.) (4)	

Q8 For this question, choose yes or no for whether you were trained in the discipline method, then rate how helpful the training was for each method you were trained in. For any methods you were not trained in, choose not applicable. What discipline method(s) were you trained in and how helpful was this training?

	Choose One		Not At All <-----> Very Helpful					
	Yes	No	Not Applicable	1	2	3	4	5
Time-out	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Praise/Rewards	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Loss of Privileges	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Verbal Reprimand	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Assertive Discipline	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Functional Assessment	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other (Please specify)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q9 What kind of training have you had, if any, in dealing with behavior problems in your work environment (check all that apply).

- College/ University Class
- Workshop/ In-Service
- Peer Training/ Modeling
- Consultation Services
- No Training
- Other (Please Specify)

Q10 How many total hours do you estimate you spent being trained in dealing with behavior problems?

**Knowledge**

Q11 An example of reinforcement is:

A child is praised by the teacher after giving a correct answer

A child sent to the office for talking out in class

A child sent to the office for talking out in class and the child talks out more often

A child is given 5 minutes of extra recess time

Q12 An example of punishment is:

A child is given detention for not completing homework and continues to not complete homework

A child is given a reprimand for talking out in class

A child is praised by the teacher

A child loses class points after talking out in class and then talks out less often

Q13 What is the first step taken once a functional behavioral assessment has been chosen as an intervention?

Indirect Observation

Define the Problem Behavior

Direct Observation

Functional Analysis

Q14 A direct observation is a systematic observation of behavior and utilizes a running narrative of antecedents, behaviors, and consequences to determine the cause of behavior.

Yes

No

Q15 Which of the following methods is not used during an indirect observation of a child?

Functional Assessment Interviews

Antecedent Behavior and Consequence Report Form

Historical Records

Behavior Rating Scales

Q16 Is the functional analysis a type of method used during FBA?

Yes

No

Q17 Is the FBA a resource that must be used in response to any child having a behavior problem in the classroom?

Yes

No

Q18 The Individuals with Disabilities Education Act (IDEA) states that an FBA must be implemented for a special education child whose behavior impedes on their ability to learn?

Yes

No

Q19 Is an FBA required by IDEA to change the placement of a special education student whose behavior severely impedes upon their ability to learn?

Yes

No

Q20 Is the State of Tennessee responsible for addressing the in-service needs of education personnel in the area of development and implementation of positive intervention strategies?

Yes

No

**Knowledge Vignettes**

Q21 Manny is a fourth grade student in Mrs. Rush's class. Every time Mrs. Rush turns to write on the board, Manny throws his books on the floor. Consequently, Manny's peers laugh and Mrs. Rush scolds him for acting like a clown. This behavior has increased over the last two weeks. Based on this limited information, which of the following best describes the function of Manny's behavior?

Manny wants to disrupt the classroom for teacher attention

Manny wants to disrupt the classroom for peer attention

Manny wants to avoid tasks by acting out

All of the above

Q22 Carol is a seventh grade student in Mrs. Horn's Language Arts class. During reading, Carol will often make fun of some of her peers during oral reading times. Mrs. Horn generally sends Carol to the assistant principal when this behavior occurs. This is puzzling to Mrs. Horn since Carol is struggling with reading as well. Based on this limited information, which of the following best describes the function of Carol's behavior?

Carol wants to disrupt the classroom for teacher attention

Carol wants to disrupt the classroom for peer attention

Carol wants to avoid tasks by acting out

All of the above

Q23 Hannah is a tenth grade student in Mr. Advent's class. Hannah is an average math student; however, she constantly raises her hand for assistance from the teacher. She says that she cannot do the assignment. When Mr. Advent watches her do the work, Hannah arrives at the correct answers. When Mr. Advent prompts Hannah to work independently, she complies but soon after raises her hand and states that she cannot do the assignment unassisted. Based on this limited information, which of the following best describes the function of Hannah's behavior?

Hannah wants to disrupt the classroom for teacher attention

Hannah wants to disrupt the classroom for peer attention

Hannah wants to avoid tasks by acting out

All of the above

## Perceptions

Q24 Please answer the following using a scale from 1-4. (1 = do not agree, 2 = unsure, 3 = partially agree, 4 = completely agree). Do you feel it is appropriate to be interviewed by a behaviorist or school psychologist concerning a child's problem behavior?

- 1
- 2
- 3
- 4

Q25 Please answer the following using a scale from 1-4. (1 = do not agree, 2 = unsure, 3 = partially agree, 4 = completely agree). Do you feel that it is helpful to specifically define a child's problem behavior?

- 1
- 2
- 3
- 4

Q26 Please answer the following using a scale from 1-4. (1 = do not agree, 2 = unsure, 3 = partially agree, 4 = completely agree). Do you feel that behavior-rating scales help you to identify a child's problem behavior?

- 1
- 2
- 3
- 4

Q27 Please answer the following using a scale from 1-4. (1 = do not agree, 2 = unsure, 3 = partially agree, 4 = completely agree). Do you feel you have the skills to collect anecdotal observable information about a child's problem behavior?

- 1
- 2
- 3
- 4

28 Please answer the following using a scale from 1-4. (1 = do not agree, 2 = unsure, 3 = partially agree, 4 = completely agree). Do you feel that you have the time to collect anecdotal observable information about a child's problem behavior?

- 1
- 2
- 3
- 4

Q29 Please answer the following using a scale from 1-4. (1 = do not agree, 2 = unsure, 3 = partially agree, 4 = completely agree). Do you feel that collecting anecdotal observable information about a child's problem behavior is helpful to changing the behavior?

- 1
- 2
- 3
- 4

Q30 Please answer the following using a scale from 1-4. (1 = do not agree, 2 = unsure, 3 = partially agree, 4 = completely agree). Do you feel that you have the skills to collect observed antecedent, behavior, and consequence information in determining the cause of a child's problem behavior?

- 1
- 2
- 3
- 4

Q31 Please answer the following using a scale from 1-4. (1 = do not agree, 2 = unsure, 3 = partially agree, 4 = completely agree). Do you feel that you have the time to collect antecedent, behavior, and consequence information?

- 1
- 2
- 3
- 4

Q32 Please answer the following using a scale from 1-4. (1 = do not agree, 2 = unsure, 3 = partially agree, 4 = completely agree). Do you feel that collecting observed antecedent, behavior, and consequence information is helpful in determining the cause of a child's problem behavior?

- 1
- 2
- 3
- 4

Q33 Please answer the following using a scale from 1-4. (1 = do not agree, 2 = unsure, 3 = partially agree, 4 = completely agree). Do you find that a classroom observation completed by behaviorist or school psychologist would be helpful in determining the cause of a child's problem behavior?

- 1
- 2
- 3
- 4

Q34 Please answer the following using a scale from 1-4. (1 = do not agree, 2 = unsure, 3 = partially agree, 4 = completely agree). Do you feel that the FBA process helps to create an appropriate behavior plan for children?

- 1
- 2
- 3
- 4

Q35 Please answer the following using a scale from 1-4. (1 = do not agree, 2 = unsure, 3 = partially agree, 4 = completely agree). Do you feel that behavior plans are effective in modifying a child's problematic behavior?

- 1
- 2
- 3
- 4

Q36 Please answer the following using a scale from 1-4. (1 = do not agree, 2 = unsure, 3 = partially agree, 4 = completely agree). Do you feel that it is appropriate to alter your classroom environment (i.e., moving furniture, grouping children differently, changing the class schedule) to help one child?

- 1
- 2
- 3
- 4

Q37 Please answer the following using a scale from 1-4. (1 = do not agree, 2 = unsure, 3 = partially agree, 4 = completely agree). Do you find it is effective to alter your environment (i.e., moving furniture, grouping children differently, changing the class schedule) to help one child?

- 1
- 2
- 3
- 4

Q38 Please answer the following using a scale from 1-4. (1 = do not agree, 2 = unsure, 3 = partially agree, 4 = completely agree). Do you feel that additional support from a School Psychologist during the FBA process is helpful?

- 1
- 2
- 3
- 4

Q39 Please answer the following using a scale from 1-4. (1 = do not agree, 2 = unsure, 3 = partially agree, 4 = completely agree). Do you feel that additional support from a Behaviorist during the FBA process is helpful?

- 1
- 2
- 3
- 4

Q40 Please answer the following using a scale from 1-4. (1 = do not agree, 2 = unsure, 3 = partially agree, 4 = completely agree). Do you feel that additional support from a School Principal or Early Interventionist Supervisor during the FBA process is helpful?

- 1
- 2
- 3
- 4

Q41 Please answer the following using a scale from 1-4. (1 = do not agree, 2 = unsure, 3 = partially agree, 4 = completely agree). Do you feel that additional support from a Social Worker during the FBA process is helpful?

- 1
- 2
- 3
- 4

Q42 Please answer the following using a scale from 1-4. (1 = do not agree, 2 = unsure, 3 = partially agree, 4 = completely agree). Do you feel that additional support from another Teacher or Early Interventionist during the FBA process is helpful?

- 1
- 2
- 3
- 4

Q43 Do you receive additional support throughout the FBA process?

- Yes
- No

Q44 If yes to the previous question, who is assisting you in the process? Rank each professional based on the amount of support they give. Ranking a 1 would indicate they give you the most support.

- \_\_\_\_\_ School Psychologist  
 \_\_\_\_\_ Behavioral Consultant  
 \_\_\_\_\_ School Principal/ Early Interventionist Supervisor  
 \_\_\_\_\_ Social Worker  
 \_\_\_\_\_ Other Teachers/ Early Interventionists  
 \_\_\_\_\_ Not Applicable/ Answered No to Question 43

Q45 How would you rate your skills in resolving each of the following behavior problems?

	Choose One Rating Per Behavior			
	1 = Poor	2 = Somewhat Limited	3 = Fairly Well	4 = Excellent
<b>Destructive</b> (i.e., breaking, ripping, or tearing objects; throwing objects; banging on walls or objects; and swiping objects off surfaces) (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<b>Aggressive</b> (i.e., hitting, kicking, punching, and hair pulling) (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<b>Non-compliant</b> (i.e., either verbally or nonverbally refuses to complete a task, lack of communication in response to a demand, or verbally challenging in response to demands) (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

<b>Disruptive/off task</b> (i.e., verbally or nonverbally distracts others by being: talkative, easily distracted, having poor attention or being overly active.) (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
---	-----------------------	-----------------------	-----------------------	-----------------------

### Perception Vignettes

Q46 Mrs. Jones is a third grade math teacher who has observed Mary's problematic behaviors (crying, tearing up her math work) occur at the beginning of the independent seat-work period. As a consequence, Mrs. Jones sends Mary to the time-out chair until she is quiet. Mary remains in time-out until the math lesson is over. Based on the information given about the student, please answer the following questions:

	Choose One For Each Question	
	Yes	No
1) Would you be willing to use an FBA for this type of problem?	<input type="radio"/>	<input type="radio"/>
2) Do you feel an FBA would be difficult to implement with this type of problem?	<input type="radio"/>	<input type="radio"/>
3) Do you feel an FBA is an effective tool to use for this type of problem?	<input type="radio"/>	<input type="radio"/>
4) Is using an FBA practical in terms of time for treating this type of problem?	<input type="radio"/>	<input type="radio"/>

Q47 Paul is a preschool student who engages in challenging behavior (i.e., acts aggressively toward peers). As a result, his teacher's instructional strategies have changed considerably since Paul became a member of the class. When assigning play groups to classroom staff, Paul is always assigned to her group, and this group purposefully has less children so that she can provide Paul with a great deal of one on one attention. When the playgroup rotates from center to center within the classroom, the teacher spends most of her time interacting with Paul. Based on the information given about the student, please answer the following questions:

	Choose One For Each Question	
	Yes	No
1) Would you be willing to use an FBA for this type of problem?	<input type="radio"/>	<input type="radio"/>
2) Do you feel an FBA would be difficult to implement with this type of problem?	<input type="radio"/>	<input type="radio"/>
3) Do you feel an FBA is an effective tool to use for this type of problem?	<input type="radio"/>	<input type="radio"/>
4) Is using an FBA practical in terms of time for treating this type of problem?	<input type="radio"/>	<input type="radio"/>

Q48 Allison is a young girl known throughout the school for her temper-tantrums. For example, she often begins to tantrum during art if she is not able to open the glue container or use her scissors correctly. As a result, Allison's teacher has Allison engage in activities that she can complete with 100% accuracy. Therefore, while the rest of the class is making decorative holiday projects that entail use of glue, scissors, and a variety of other craft materials, the teacher requests that Allison engage in a coloring activity, requiring only the use of crayons and paper. It is clear that Allison's teacher is modifying instructional activities in order to decrease the likelihood that Allison will engage in challenging behaviors. Based on the information given about the student, please answer the following questions:

	Choose One For Each Question	
	Yes	No
1) Would you be willing to use an FBA for this type of problem?	<input type="radio"/>	<input type="radio"/>
2) Do you feel an FBA would be difficult to implement with this type of problem?	<input type="radio"/>	<input type="radio"/>
3) Do you feel an FBA is an effective tool to use for this type of problem?	<input type="radio"/>	<input type="radio"/>
4) Is using an FBA practical in terms of time for treating this type of problem?	<input type="radio"/>	<input type="radio"/>

## APPENDIX B

Middle Tennessee State University Institutional Review Board Approval Letter

**IRB** INSTITUTIONAL REVIEW BOARD Office of Research Compliance, 010A Sam Ingram Building, 2269 Middle Tennessee Blvd Murfreesboro, TN 37129

IRBN007 Version 1.2 Revision Date 03.08.2016

### IRBN007 – EXEMPTION DETERMINATION NOTICE

Monday, July 18, 2016

Investigator(s): Kendra Martin (PI), Dr. Kimberly Ujcich Ward (FA)

Investigator(s) Email(s): kbm3e@mtmail.mtsu.edu

Department: Psychology

Study Title: Knowledge and Perceptions of Functional Behavior Assessments among Preschool Teachers and Early Interventionists

Protocol ID: **16-1309**

Dear Investigator(s),

The above identified research proposal has been reviewed by the MTSU Institutional Review Board (IRB) through the **EXEMPT** review mechanism under 45 CFR 46.101(b)(2) within the research category (2) *Educational Tests* A summary of the IRB action and other particulars in regard to this protocol application is tabulated as shown below:

IRB Action	EXEMPT from further IRB review***	
Date of expiration	<b>NOT APPLICABLE</b>	
Participant Size	60	
Participant Pool	<b>Adults</b>	
Mandatory Restrictions	A consent form should be filled by participants.	
Additional Restrictions	<b>Participants are recruited from 5 agencies (MTSU Home &amp; Community Based Early Intervention, Victory Day Care, Tot's Landing Learning Center, Smyrna Christian School, and Ms. Nichole's, Inc).</b>	
Comments	N/A	
Amendments	<b>Date</b> N/A	<b>Post-Approval Amendments</b> N/A

\*\*\*This exemption determination only allows above defined protocol from further IRB review such as continuing review. However, the following post-approval requirements still apply:

- Addition/removal of subject population should not be implemented without IRB approval

- Change in investigators must be notified and approved
- Modifications to procedures must be clearly articulated in an addendum request and the proposed changes must not be incorporated without an approval
- Be advised that the proposed change must comply within the requirements for exemption
- Changes to the research location must be approved – appropriate permission letter(s) from external institutions must accompany the addendum request form
- Changes to funding source must be notified via email (irb\_submissions@mtsu.edu)
- The exemption does not expire as long as the protocol is in good standing
- Project completion must be reported via email (irb\_submissions@mtsu.edu)
- Research-related injuries to the participants and other events must be reported within 48 hours of such events to compliance@mtsu.edu

The current MTSU IRB policies allow the investigators to make the following types of changes to this protocol without the need to report to the Office of Compliance, as long as the proposed changes do not result in the cancellation of the protocols eligibility for exemption:

- Editorial and minor administrative revisions to the consent form or other study documents
- Increasing/decreasing the participant size

The investigator(s) indicated in this notification should read and abide by all applicable post-approval conditions imposed with this approval. Refer to the post-approval guidelines posted in the MTSU IRB's website. Any unanticipated harms to participants or adverse events must be reported to the Office of Compliance at (615) 494-8918 within 48 hours of the incident.

All of the research-related records, which include signed consent forms, current & past investigator information, training certificates, survey instruments and other documents related to the study, must be retained by the PI or the faculty advisor (if the PI is a student) at the secure location mentioned in the protocol application. The data storage must be maintained for at least three (3) years after study completion. Subsequently, the researcher may destroy the data in a manner that maintains confidentiality and anonymity. IRB reserves the right to modify, change or cancel the terms of this letter without prior notice. Be advised that IRB also reserves the right to inspect or audit your records if needed.

Sincerely,  
Institutional Review Board  
Middle Tennessee State University

## APPENDIX C

## Informed Consent Letter

**Informed Consent****Middle Tennessee State University**

*Project Title:* Knowledge and Perceptions of Functional Behavior Assessments among Preschool Teachers and Early Interventionists

**Purpose of the Project:** You are being asked to participate in this study so we can evaluate what early interventionists and preschool teachers know and think about functional behavior assessments and to discover any possible difference between the two groups' knowledge and perceptions of them.

**Procedures:** First, you will be asked to fill out demographic information. You will then be asked to read and answer questions related to functional behavior assessments, including multiple choice questions and ranking questions. It will take approximately 10-15 minutes to complete the survey.

**Risks/Benefits:** There are no foreseeable risks, discomforts, or inconvenience of this study beyond the time it takes to complete the online survey. There are no costs or compensation for participating in this study, however, your participation is greatly appreciated and you may learn something about functional behavior assessments. If you choose to withdraw your participation from this study, there will be no negative consequences to you.

**Confidentiality:** All information for this study will be completed anonymously (that is, no names or identifying information will be included in the survey and computer IP addresses will not be tracked by the survey website).

**Principal Investigator/ Contact Information:** If you should have questions about this research study or possible injury, please contact **Kendra Martin** at [kbm3e@mtmail.mtsu.edu](mailto:kbm3e@mtmail.mtsu.edu) or my Faculty Advisor, **Dr. Ujcich-Ward** at [Kimberly.Ward@mtsu.edu](mailto:Kimberly.Ward@mtsu.edu).

Your participation in this research is voluntary, and refusal to participate or withdrawing from participation at any time during the project will involve no penalty or loss of benefits to which you might otherwise be entitled. All efforts, within reason, will be made to keep the personal information in your research record private but total privacy

cannot be promised, for example, your information may be shared with the MTSU Institutional Review Board. In the event of questions or difficulties of any kind during or following participation, you may contact the Principal Investigator, Kendra Martin, or Faculty Advisor, Dr. Ujcich-Ward. For additional information about giving consent or your rights as a participant in this study, please feel free to contact the MTSU Office of Compliance at (615)494-8918.

**By continuing onto the next page, I am indicating that I have read this informed consent document. I understand each part of the document, all my questions have been answered (by contacting the investigators above), and I freely and voluntarily choose to participate in this study.**