TEACHER PERCEPTIONS, USE, AND KNOWLEDGE OF APPLIED BEHAVIOR ANALYSIS-BASED TECHNIQUES

by

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Abstract

Applied behavior analysis (ABA) is an evidence-based approach to behavior intervention. There are many classroom management techniques based on the principles of behavior analysis. The purpose of this thesis was to investigate the following research questions: Do individual relationships exist between knowledge of ABA, perceptions of ABA, and use of ABA-based techniques? To what extent do teacher knowledge and perceptions explain variance in teacher use of ABA-based techniques? What is the relationship between grades taught and teacher knowledge, perceptions, and use of ABA strategies? What is the relationship between years of experience and each of the three variables? A survey was developed and distributed to kindergarten through 8th grade teachers. The survey assessed perceptions and use using Likert scale ratings. Knowledge was measured by responses to multiple-choice questions and vignettes describing typical classroom behavior problems. The data was collected and analyzed to determine the relationships between the three research questions. Results indicated that perceptions of ABA positively predicted use, while knowledge was not related to perceptions or use of ABA. Grade taught was negatively correlated with the use of ABA strategies. The discussion includes the implications and limitations of this study.

Teacher Perceptions, Use, and Knowledge of Applied Behavior Analysis Based Techniques

Applied behavior analysis (ABA) is a field of study that includes evidence-based behavioral interventions. Most frequently, ABA is used to improve the behavior of individuals with intellectual and developmental disabilities. However, it is an effective tool in numerous settings, including the classroom. There are many classroom management techniques based on the principles of behavior analysis. In recent years, a school-wide behavior management model grounded in ABA principles has been developed. This model is known as Positive Behavioral Interventions and Supports (PBIS).

Positive Behavioral Interventions and Supports is "a framework or approach for assisting school personnel in adopting and organizing evidence-based behavioral interventions into an integrated continuum that enhances academic and social behavior outcomes for all students" (OSEP Technical Assistance Center on Positive Behavioral Interventions and Supports, 2017). This framework has a strong foundation in ABA. According to Horner and Sugai (2015), school-wide PBIS "is an example of applied behavior analysis implemented at a scale of social importance." Most schools are transitioning to using PBIS as a tool for reducing behavior problems on a school-wide basis (Bradshaw, Waasdorp, & Leaf, 2012). Researchers have found that significant decreases in aggressive behavior problems, concentration problems, and office discipline referrals are associated with the use of school-wide PBIS. In addition, students in schools using school-wide PBIS have shown significant increases in emotion regulation and prosocial behavior (Bradshaw et al., 2012). Increasingly, PBIS is becoming the most prominent tool for classroom management. In 2006, just over 5,000 public schools in the United States were using PBIS. As of August 2016, PBIS was being implemented in 23,363 public schools (Sugai, 2016). If schools are

beginning to primarily use PBIS to manage classrooms and reduce problem behaviors, and PBIS has a strong foundation in ABA, it is imperative to examine teacher perceptions, knowledge, and use of ABA-based techniques.

Teacher Perceptions of ABA-Based Techniques

Skinner and Hales (1992) researched pre-service and in-service teacher explanations of behavior as a possible barrier to acceptance and use of ABA techniques in the classroom. Participants were administered a questionnaire containing five statements with explanations of common classroom misbehaviors. Explanations were psychoanalytic, developmental, physiological, or behavioral (two statements) in nature. Prior to taking a course on basic classroom management procedures, the item with the highest participant ratings explained student misbehavior as a temporary developmental stage through which children pass (Skinner & Hales, 1992). Because ABA emphasizes the influence of events within the immediate environment on behavior, the within-student belief that the root of the misbehavior is "just a phase" would likely preclude the acceptance and use of ABA-based techniques in a classroom.

Kaff, Zabel, and Milham (2007) investigated special educators' beliefs about the effectiveness of communication interventions (e.g., establishing group expectations) and behavior management strategies. Strategies rated as most effective included themes such as verbal praise and encouragement for appropriate behavior, prompts and modeling, and regular communication with students. Strategies rated as least effective included more punitive strategies such as response cost procedures, suspension, and calling parents. Also considered least effective were group-contingent reward systems.

In 2011, McCormick examined knowledge of Autism Spectrum Disorders (ASD) and

ABA, attitudes toward ABA and inclusive placement of students with ASD, and whether these variables influence the use of ABA. General and special education teachers rated items on a 5-point Likert scale (from strongly disagree to strongly agree). Five statements targeted participant attitudes toward use of ABA as an intervention for students with ASD. At least 77% of participants agreed with each of the five statements, indicating positive attitudes toward the use of ABA. Participants' use of ABA was measured by ratings of statements on a Likert scale from "never" to "always". The mean score for use of ABA was 3.69, indicating that teachers used ABA in their classrooms most of the time. A small positive correlation (r = .28) between attitudes toward and use of ABA was found (McCormick, 2011).

Knowledge of ABA was measured by asking participants to rate statements on a Likert scale (from strongly disagree to strongly agree). Although participants mostly agreed with items that measured knowledge of ABA principles, it is important to note that actual knowledge was not tested in this study. A moderately strong positive correlation was found between self-reported knowledge of ABA techniques and use of ABA (r = .46, p <.01). While results indicated that teachers in inclusive special education classrooms had statistically significant higher levels of accurate knowledge about ABA than teachers in inclusive general education classrooms, the way in which knowledge was measured makes interpretation difficult (McCormick, 2011).

Knowledge of ABA Techniques

Several studies that have examined teacher knowledge of ABA used a variety of techniques. However, few of these studies have used assessments that directly measure the knowledge construct. Assessments of knowledge include video vignettes (Youngblom & Filter, 2013), self-report, and knowledge tests (Denne, Thomas, Hastings, & Hughes, 2015).

The majority of studies have relied on self-assessments, which assess teacher perceptions of their own knowledge of ABA (Alotaibi, 2015; Randazzo, 2011).

Youngblom and Filter (2013) presented three short video vignettes to 37 pre-service teachers. Teachers were asked to determine the function of the actor's behavior in each of the vignettes as well as the type of reinforcement displayed. The answers were in multiple-choice format. Fifty-six percent of participants correctly identified the function of behavior for all three vignettes. Participants also demonstrated a lower ability in correctly identifying the type of reinforcement, specifically when escape was the function and negative reinforcement was displayed.

One study reported teacher knowledge of 16 ABA techniques (Alotaibi, 2015). Teachers of students with ASD rated themselves as "not knowledgeable," "somewhat knowledgeable," or "knowledgeable" about each technique. Over 50% of teachers felt that they were "knowledgeable" about 12 of the 16 techniques.

Randazzo (2011) researched elementary teacher knowledge of ABA techniques. Fifteen ABA techniques were listed, and participants rated how knowledgeable they were about each technique and how frequently they used each technique in their classroom. The majority of teachers perceived themselves as knowledgeable or very knowledgeable about ABA techniques. A strong positive relationship ($r = .61$, $p < .001$) between knowledge and frequency of use scores was also found (Randazzo, 2011).

Alotaibi (2015) and Randazzo (2011) took a different approach to assessing knowledge of ABA techniques. Each technique was listed alongside its definition and participants rated their knowledge about the technique on a 3- or 5-point scale, respectively. Thus, teachers were provided with some knowledge of the technique in the question. This

could have impacted the results of these studies. It is also possible that self-report of knowledge could have influenced the results of studies that only used self-assessment measures. Denne et al. (2014) found that participants did better on an objective evaluation completed by a supervisor than when they rated themselves in a self-report measure.

Implementation of ABA Techniques

Shin and Koh (2008) studied differences between Korean and American classrooms in terms of rates and types of student behavior problems and types of behavior management strategies used by teachers. They surveyed 116 American and 167 Korean high school teachers using self-report measures and found that American teachers reported most frequently using administrative interventions, parental involvement, and punitive behavior management. Behavior plans and positively reinforced behavior management strategies were used by only 34% of teachers surveyed.

Both Randazzo (2011) and Alotaibi (2015) examined implementation of ABA techniques. Randazzo (2011) used a 5-point rating scale for frequency of use. Terms were listed with a definition, and 203 elementary school teachers rated their use as “never use,” “seldom/rarely use,” “sometimes use,” “often use,” or “very often use.” Randazzo found that previous training in both their jobs and preparation programs influence their frequency of use of ABA techniques and that the most frequently used techniques included social positive reinforcement, modeling, prompting/fading, reinforcement of an incompatible behavior, and preferred activity as positive reinforcement. Randazzo also found a positive relationship between years teaching and frequency of use of ABA strategies ($r = .22$, $p < .05$).

Alotaibi (2015) examined teacher use of techniques including positive reinforcement, shaping, behavior contract, modeling, group contingency, and extinction. The name of the

technique was listed with a definition beside it, and participants rated their frequency of use of the technique as “often,” “occasionally,” or “never.” Prompting and modeling were used most frequently, followed by using a preferred activity as positive reinforcement, extinction, and earning candy or food as a positive reinforcement, which were purportedly used “often” by participants. Behavior contracts and group contingencies were “never used” by a high proportion of participants.

Purpose of the Study

While teacher knowledge, perceptions, and implementation of ABA-based classroom management techniques have been studied, they have not been examined within the same study using measures for knowledge that are not self-report measures. Also, general education teachers have been included as participants in a few related studies but, typically, participants only include special education teachers or teachers of autism classrooms. It is important to include both general and special education teachers as ABA techniques are effective in all types of classrooms and are becoming increasingly relevant for all classrooms with the growing implementation of school-wide PBIS. This study investigated the following research questions:

1. Do individual relationships exist between knowledge of ABA, perceptions of ABA, and use of ABA-based techniques? It was predicted that there would be positive correlations between knowledge and perceptions, knowledge and use, and perceptions and use of ABA-based techniques.
2. To what extent do teacher knowledge and perceptions explain variance in teacher use of ABA-based techniques? It was predicted that the combination of knowledge and perceptions of ABA would explain the majority of variance in teacher use of ABA-

based techniques.

3. What is the relationship between grades taught and teacher knowledge, perceptions, and use of ABA strategies? It was predicted that there would be a negative relationship between grade level taught and use of ABA.
4. What is the relationship between years of experience and each of the three variables? It was predicted that there would be a negative relationship between years of experience and use of ABA strategies.

Method

Participants

A total of 72 elementary and middle school teachers from a rural school district in the Southeastern United States completed this survey. Both special and general education teachers (grades K-8) were asked to participate. 42 percent of participants reported that their coursework involved a class devoted to classroom management. Table 1 contains demographic information for participants. Only teachers who worked with groups of 10 or more students regularly were asked to complete the survey. This criterion was set in order to ensure that participants regularly handled student disciplinary classroom management. This study was approved by the IRB on December 13, 2016.

Procedure

The survey was distributed to participants using online survey software. Participants indicated that they read and agreed to the attached consent form by clicking the link to the survey (a copy of the consent form is located in Appendix A). Participants who chose to include their e-mail address when completing the survey were entered in a drawing for one of several $50 Amazon gift cards. The survey took approximately 30 minutes to complete.

Measures

Data were collected on variables of interest via a researcher-developed survey. In order to develop survey questions, researchers conducted a literature review to examine the methodology used in similar studies. Questions measuring perceptions, knowledge, and use of classroom management techniques based in ABA were developed by modifying instruments used in previous studies (The Incredible Years, 2012; Martin & Baldwin, 1993; Martin, Yin, & Mayall, 2007; McCormick, 2011; Musgrove,1974; Randazzo, 2011). The survey also contained a series of demographic questions. Finally, teachers were asked to report the number of years they had been an educator and the grade levels with which they had experience teaching. A copy of the instrument is in Appendix B.

Questions measuring teacher perceptions of ABA were developed by researchers based upon similar instruments used by others (Martin & Baldwin, 1993; Martin, Yin, & Mayall, 2007; McCormick, 2011; Musgrove,1974; Randazzo, 2011). Participants first rated how much they agreed with statements describing classroom management techniques based upon principles of behavior analysis on a 5-point Likert scale. Questions measuring usefulness and frequency of use of specific classroom management techniques were developed by researchers based upon the *Teacher Classroom Management Strategies Questionnaire* produced by The Incredible Years (2012). Participants first rated how often they use seven ABA-based classroom management techniques on a 5-point scale from “very often” to “never” and then rated how useful they found each technique for managing their classroom on a 5-point scale from “extremely useful” to “not at all useful”.

Knowledge of ABA was assessed using two types of questions. To assess procedural knowledge of ABA, researchers created eight vignettes describing common classroom

behavior problems. Teachers were asked to read each vignette and provide open-ended responses describing disciplinary actions they have used in the past to address each misbehavior. Teachers were also asked to explain why they chose that course of action. Each vignette contained a scenario representative of one of the four common functions of behavior (attention, escape/avoidance, access to materials, and sensory stimulation). Subtle cues indicating the function of behavior were included in each vignette in order to assess participants' ability to correctly identify the function. The eight problem behaviors included: constantly distracting others and telling jokes during class (function: peer attention), rarely following directions and challenging teacher authority (function: teacher attention), whining and complaining when asked to complete classwork until help with individual tasks is given (function: escape), frequently asking to go to the bathroom during time for individual seatwork and turning in incomplete/inaccurate work (function: escape), taking things from the teacher and other students without asking (function: access to materials), playing games on a tablet (function: access to materials), leaving their seat frequently and fidgeting at their desk (function: sensory stimulation), and not paying attention/ getting distracted after completing one or two problems (function: sensory stimulation). Open-ended responses were coded as either correct or incorrect. Responses that described an ABA-based technique which directly addressed the function of the behavior were coded as correct. Responses that did not address the function of the behavior through the use of an ABA-based technique were coded as incorrect. If the response described an ABA-based technique that was inappropriate given the function of the behavior, it was also coded as incorrect. For example, when the function of behavior was peer attention, a correct response involved the removal or redirection of peer attention. Two researchers independently rated each response and conflicting ratings were

discussed and resolved by the research team. Specific examples of correct and incorrect participant responses may be found in Appendix C.

The survey also included a series of multiple-choice questions compiled by researchers to determine if teachers could demonstrate declarative knowledge about basic ABA principles and procedures. Questions were written to assess teacher knowledge of the basic principles of behaviorism such as positive and negative reinforcement, positive and negative punishment, and commonly used ABA vocabulary (e.g., antecedents, consequences, target behaviors). Other questions tested knowledge of ABA procedures including time out, token economy, functional assessment, extinction, and behavior contracts. Multiple-choice questions were scored and participants were given a total knowledge score for the multiple-choice questions and open-ended responses out of 27 possible points.

Analyses

Pearson product moment correlations were calculated to examine the bivariate relationships between grades taught, years teaching, knowledge of ABA, perceptions of ABA, and use of ABA-based techniques. A hierarchical regression was performed in order to analyze the extent to which knowledge and perceptions uniquely explained variance in teacher use of ABA and to analyze the combined contribution of both variables to variance in teacher use of ABA-based techniques. Teacher perceptions and teacher knowledge were entered as predictor variables; teacher use served as the criterion variable.

Results

Zero order correlations and descriptive statistics are presented in Table 2. The correlation analysis revealed a significant positive relationship between perceptions and use ($r = .75$, $p < .01$). A significant negative relationship was found between grade taught and use

of ABA-based strategies (r = -.31, p < .01). Although a weak negative relationship emerged between perceptions and grade taught, it was not significant (r = -.20). No relationships existed between the remaining variables.

Table 3 contains the results of the regression analysis. The largest amount of variance in teacher use was explained by teacher perceptions (β = .75, p < .01). The combination of teacher perceptions and knowledge explained 56.7% of the variance in teacher use. Knowledge (β = -.003, p = .97), however, did not explain variance in the criterion beyond the variance attributable to teacher perceptions (Δ R^2 = .000).

Discussion

The first research question concerned the individual relationships between teacher knowledge of ABA, perceptions of ABA, and use of ABA-based techniques. Consistent with our hypothesis, we found a strong positive relationship between teacher perceptions of ABA and use of ABA classroom management strategies. Participants that reported more positive attitudes toward ABA had higher ratings of ABA use (r = .75). This result is consistent with previous research. In a previous study, a moderately small positive relationship (r = .28, p < .01) was found between attitudes toward and use of ABA techniques (McCormick, 2011).

The hypothesis regarding the relationship between teacher knowledge and teacher perceptions was not supported. The correlation coefficient between these two variables was close to zero (r = -.01). This finding was surprising and contradicts previous research. In 2011, McCormick found a positive relationship between knowledge and perceptions of ABA-based techniques (r = .41, p < .01).

The hypothesis regarding the relationship between teacher knowledge and teacher use was not confirmed. There was no relationship found between these two variables (r = -.01).

Previous studies have found moderate to strong positive relationships between teacher knowledge and frequency of use scores (McCormick, 2011; Randazzo, 2011).

There are multiple potential reasons for why these results were not consistent with previous research. First, knowledge was assessed using measures developed by the researchers. These measures were not tested for validity prior to the study. Thus, it is possible that the construct of knowledge was not being measured by the multiple-choice questions and vignettes. Also, this study assessed knowledge differently than previous studies. Rather than using self-report to assess knowledge, this study used multiple-choice questions to determine declarative knowledge of ABA and responses to vignettes to determine procedural knowledge of ABA. This eliminated potential response bias due to self-report of knowledge. If these measures were a more accurate representation of knowledge than self-report measures used previously, then knowledge may not be related to use of ABA strategies. If attitudes strongly predict the use of ABA-based techniques and knowledge is not related to attitudes or use, we can infer that teacher use of ABA strategies is determined by their perceptions of ABA, regardless of how knowledgeable they are about ABA.

The second research question examined the extent to which teacher knowledge and perceptions predict use of ABA-based techniques. The linear regression was performed to determine the extent to which knowledge and perceptions of ABA together explain use of ABA-based techniques. While attitudes were a significant predictor of use, there was no relationship between knowledge and use. Previous research found that attitudes and knowledge explained 22% of the variance in use together, with knowledge alone accounting for 13.5% of the variance (McCormick, 2011). This could be attributed to the different measures of knowledge used by the two studies. As knowledge was self-reported in the study

conducted by McCormick and used ratings of agreement (strongly disagree to strongly agree), the knowledge ratings from this study may be more closely related to attitudes than actual knowledge. This may explain why knowledge and attitudes were both significant predictors of use of ABA strategies.

The third research question examined the relationship between grade taught and teacher knowledge, perceptions, and use of ABA strategies. We found that grade taught was negatively correlated with use of ABA-based techniques (r = -.31). Teachers of lower grade levels (Pre-K-5) reported using ABA techniques more often than did 6th – 8th grade teachers. Intuitively, this might make sense. It is likely that teachers of lower grades might rely on ABA strategies more often because younger students need explicit behavior expectations and require shaping and reinforcement of appropriate behaviors. As students progress through school, they should be more aware of behavioral expectations, which might mean that classroom management shifts from teaching and reinforcing appropriate behaviors to responding to rule violations because teachers of older students expect students to be familiar with behavior expectations.

The fourth research question concerned the relationship between years teaching and teacher knowledge, perceptions, and use of ABA strategies. We predicted that teaching experience would be negatively related to use of ABA strategies. However, a correlation analysis revealed that the number of years teaching was not related to use of ABA strategies (r = .02). In a previous study conducted by Randazzo (2011), a significant positive relationship between frequency of use of ABA strategies and number of years teaching was found (r = .22). These conflicting results may be due to the recent increase in implementation of PBIS on a school-wide level. Since many schools have adopted this framework and

require all teachers to use it, this may explain why no relationship was found between years of teaching experience and implementation of ABA- based techniques in the current study.

Limitations and Directions for Future Research

There were several limitations to this study. First, the study included a small sample size of 72 participants. Second, the sample was not diverse in terms of race (99% of participants identified as white) or population taught (less than 10% of participants were special education teachers). The lack of racial diversity can be partially attributed to the rural location of this school district. Future researchers should use bigger and more diverse samples to increase the external validity of the study. Third, the survey questions were constructed by the researchers. Thus, the psychometrics of the survey are unknown. The reliability and validity of the multiple-choice questions and vignettes were not examined. Another limitation of this study is that the survey was taken online rather than under supervision of the researchers. Participants could have used resources to correctly answer the multiple-choice section of the survey. Finally, for the open-ended responses, all responses that were not an example of a correctly implemented ABA technique were scored as an incorrect response, even if the response was simply unclear or not enough information was provided. In future studies, declarative and procedural knowledge of ABA should be assessed objectively using a validated measure.

The current study was only one of two studies to compare teacher perceptions of ABA, knowledge of ABA, and use of ABA-based techniques. The results of this study and the previous study are conflicting. Thus, further studies should be conducted in this area in the future.

Summary and Conclusions

Positive Behavioral Interventions and Supports, which is grounded in ABA principles, is becoming the primary behavior intervention framework in schools. Therefore, it is critical to understand teacher perceptions, knowledge, and use of ABA-based techniques. This study found that teacher perceptions of ABA were a positively predicted use of ABA-based strategies. No relationship was found between knowledge and use or knowledge and perceptions of ABA. These results indicate that teacher use of ABA strategies is predicted by their attitudes toward ABA regardless of how knowledgeable they are about ABA and how to correctly implement it. If this is accurate, it may be more beneficial to target teacher perceptions of ABA than their knowledge when attempting to increase implementation.

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Table 1

Participant Demographics

	Gender		Ethnicity		Population Taught		Degree Type	
	Male	Female	White	Other	GE	SE	Bach.	Masters
N	11	61	71	1	65	7	41	31
Percentage	*15.3*	*84.7*	*98.6*	*1.4*	*90.3*	*9.7*	*56.9*	*43.1*

Note. GE= General Education, SE= Special Education, Bach. = Bachelor's Degree

Table 2

Pearson Product-Moment Correlations and Descriptive Statistics for all Variables

Variable	1	2	3	4	5
1. Use	-	-.01	.75*	.02	-.31*
2. Knowledge		-	-.01	.05	-.09
3. Attitude			-	.03	-.20
4. Years teaching				-	-.02
5. Grade taught					-
M	*3.56*	*15.15*	*3.57*	*3.61*	*3.63*
SD	*.52*	*2.65*	*.38*	*1.43*	*1.93*

Note. * Correlation was significant at the .01 level

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Table 3

Teacher Perceptions and Teacher Knowledge as Predictors of Teacher Use of ABA Techniques

Model/ Variable	β	*SE*	R^2	Δ R^2
1. Perceptions	.753*	.107	.567	
2. Perceptions	.753	.108		
Knowledge	-.003	.016	.567	.000

Note. * Significant at the .01 level

Appendix A

Consent Form

Consent to Participate in a Research Study

Title: Teacher Perceptions, Use, and Knowledge of Applied Behavior Analysis Classroom Management Techniques

Purpose of the study: You are invited to participate in a research study about teacher knowledge, use, and attitudes towards classroom management techniques based on the principles of Applied Behavior Analysis.

Procedures: Participants will complete an online survey assessing their knowledge, use, and attitudes towards classroom management techniques based on the principles of Applied Behavior Analysis.

Who can participate? You must be 18 years old to participate in this study.

Description and Explanation of Procedures: If you agree to be part of the research study, you will be asked to complete an anonymous online survey. At any time, for any reason, you may withdraw from the study without penalty.

Risks and Discomforts: There are no identifiable risks associated with participating in this study. Your responses are completely confidential.

Benefits: The information that you provide in this study may enable researchers to improve their understanding of teacher knowledge of classroom management techniques. Every participant who completes the survey will be entered into a "door prize" drawing for an Amazon gift card. The drawing is based on chance and each participant has equal odds of receiving a gift card.

Extent of Confidentiality: The information that you provide in the surveys is anonymous. We will make every effort to prevent anyone who is not on the research team from knowing that you gave us information or what that information is. You will not be identified in any published or presented materials.

Freedom to Withdraw: Participating in this study is completely voluntary. Even if you decide to participate now, you may change your mind and stop at any time. You may choose not to respond to the surveys or continue with the study for any reason.

The ASU Institutional Review has determined that this study is exempt from IRB oversight.

I have read and understand the Informed Consent and conditions of this project. I have had all my questions answered. I hereby acknowledge the above and give my voluntary consent:

Should I have any questions about this research or its conduct, I may contact:

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Faculty Advisor: Jamie Yarbrough, Ph.D., (828) 262-2772, yarbroughjl@appstate.edu
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Appendix B
Survey

1. How many years have you been teaching?

1-3 4-6 7-10 11-14 15+

2. What is your gender?

Male Female

3. What academic degrees have you obtained?

Bachelor's Master's Doctorate Other

4. What grade(s) do you teach?

Pre-K - 2 3 - 5 6 7 8

5. What population do you primarily teach?

General Education Special Education ELL

6. In your undergraduate or graduate education, did you take a course that focused primarily on behavior management?

Yes No

7. Please specify your ethnicity (or race).

White
Hispanic or Latino
Black or African American
Native American or American Indian
Asian/Pacific Islander
Other

8. Please enter your e-mail address if you would like to be entered into the drawing for a door prize.

_____

9. *Please rate how much you agree with each statement below.*

	Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
It is important to collect data on inappropriate behaviors.					
It is important to know the underlying cause of a student's misbehavior to effectively intervene.					
If a student is constantly out of their seat, a good way to get them to stay in their seat is to reinforce them whenever they are sitting down.					
It is inappropriate to provide rewards for good behavior because students should know that they are expected to follow the rules.					
It is best to ignore a student that seems to misbehave because of the attention the student receives.					
Giving students rewards for completing assignments is bad because it decreases their intrinsic motivation to do their work.					
Removing a privilege is a good way to get off-task students to do their work.					

It is too time consuming to develop and dispense rewards for my students' good behavior.					
Reinforcing a student for raising their hand is a good way to decrease the student's "talking out of turn" behavior.					
Giving reinforcement whenever a student is doing anything other than talking out of turn is a good way to decrease the student's "talking out of turn" behavior.					
Punishment is the most effective way to change a behavior.					
Rewarding students who behave appropriately is a good strategy for preventing misbehavior.					
Giving detention is a good way to get off-task students to do their work.					
Praising students that are behaving appropriately is an effective way to encourage them to behave appropriately more often.					

10. *Rate how **often** you use the following techniques.*

	Never	Rarely	Occasionally	Often	Very Often
Reward good behavior with tangible items (e.g., stickers, candy)					
Praise good behavior					

Use time out for disruptive behavior					
Send disruptive students out of the classroom (e.g., to the office, in the hallway)					
Provide class-wide rewards when the class as a whole demonstrates good behavior (e.g., extra recess time, pizza party)					
Give special privileges for good behavior (e.g., special helper, extra computer time)					
Set up individualized reward programs to encourage good behavior in students who repeatedly misbehave					

11. *Rate how **useful** you find each technique for managing your classroom.*

	Not at all useful	Slightly useful	Moderately useful	Very useful	Extremely useful
Reward good behavior with tangible items (e.g., stickers, candy)					
Praise good behavior					
Use time out for disruptive behavior					
Send disruptive students out of the classroom (e.g., to the office, in the hallway)					
Provide class-wide					

rewards when the class as a whole demonstrates good behavior (e.g., extra recess time, pizza party)					
Give special privileges for good behavior (e.g., special helper, extra computer time)					
Set up individualized reward programs to encourage good behavior in students who repeatedly misbehave					

12) Mrs. Tran is a 3rd grade teacher. In her class, she has a chart that has a clothespin for each student. Throughout the day, students move their clothespins to different levels depending upon their behavior. There are consequences associated with each level. Do you use a similar system in your classroom?

Yes No

13) If yes, please briefly describe the system you use.

Please read the following situations and describe what disciplinary action you have used in the past. Then, explain why you chose that course of action. There will be 8 vignettes in this section.

14) Chris is a student in your class that constantly distracts others. He seems to enjoy telling jokes and making his classmates laugh. What disciplinary action have you used in the past with students like Chris?

Explain why you chose that course of action.

15) Whenever you ask Monica to do classwork, she whines and complains until you give her individual help with each problem. What disciplinary action have you used in the past with students like Monica?

Explain why you chose that course of action.

16) Cameron repeatedly gets out of his seat. Even when he is sitting, he's always in motion, doing things such as squirming, tapping his feet, and fidgeting with objects on his desk. What disciplinary action have you used in the past with students like Cameron?

    Explain why you chose that course of action.

17) Anna regularly takes things from you and other students without asking when she thinks no one is paying attention. What disciplinary action have you used in the past with students like Anna?

    Explain why you chose that course of action.

18) Alan frequently asks to go to the bathroom during the time you've allotted for independent seatwork. The work that he turns in is incomplete and/or inaccurate. You suspect that he does not know how to do many of the problems. What disciplinary action have you used in the past with students like Alan?

    Explain why you chose that course of action.

19) Jamie rarely follows directions and challenges your authority. The more you reprimand her, the worse her behavior gets. What disciplinary action have you used in the past with students like Jamie?

    Explain why you chose that course of action.

20) When no one is looking, Sean gets his tablet out of his backpack and plays games on it. What disciplinary action have you used in the past with students like Sean?

    Explain why you chose that course of action.

21) Natalie has a really hard time paying attention in class. Her assignments are rarely complete and you've noticed that she gets distracted after working on a couple of problems. What disciplinary action have you used in the past with students like Natalie?

    Explain why you chose that course of action.

Please read the following items and select the best answer.

22) Behavior modification can only be applied by experts, and not by individuals in everyday life.
   a) True
   b) False

23) Placing a child in a dull, boring place for a brief period of time is an example of:
   a) Physical punishment
   b) Reprimand
   c) Time out
   d) Response Cost

24) You give students stickers for good behavior. Once they have a certain amount of stickers, they can trade them in for prizes or privileges. What is this system called?
   a) Token economy
   b) Shaping
   c) Extinction
   d) Punishment

25) Which of the following factors has the greatest influence on the overall success of your "trade stickers in for prizes/privileges" system?
   a) The quality and availability of the prizes and privileges
   b) The number of people that can give stickers
   c) The number of people that can receive stickers
   d) The quality and availability of the stickers

26) Whenever the Mountaineers score a touchdown, Yosef does cartwheels and the crowd cheers. Which description accurately describes the A-B-C contingency of Yosef's behavior?
   a) A = touchdown, B = cheers from the crowd, C = cartwheels
   b) A = cartwheels, B = touchdown, C = cheers from the crowd
   c) A = cheers from the crowd, B = touchdown, C = cartwheels
   d) A = touchdown, B = cartwheels, C = cheers from the crowd

27) In behavior modification, the stimulus that is present when a behavior occurs is referred to as a(n):
   a) Antecedent
   b) Consequence
   c) Cause

d) Reinforcer

28) Mary takes out the garbage and, as a result, her parents let her watch her favorite television show. Mary is then more likely to take out the garbage when asked. Being able to watch her favorite television show is a _____ for her behavior of taking out the garbage.
   a) Reinforcer
   b) Punishment
   c) Independent Variable
   d) Dependent Variable

29) Which of the following processes strengthens a behavior?
   a) Extinction
   b) Reinforcement
   c) Punishment
   d) Discrimination

30) Timmy swears whenever his mom makes broccoli for dinner. Timmy's mom always sends him to his room without dinner when he swears. As a result, Timmy is more likely to swear when his mom makes broccoli. This is an example of:
   a) Positive reinforcement
   b) Punishment
   c) Negative Reinforcement
   d) Extinction

31) Which of the following is NOT a factor that influences the effectiveness of reinforcement?
   a) Whether or not the student likes the reinforcer
   b) The person who delivers the reinforcer
   c) The size/quality of the reinforcer
   d) How immediately the reinforcer is delivered

32) A consequence can be considered a punisher if the:
   a) Behavior doesn't change
   b) Behavior increases in the future
   c) Behavior decreases in the future
   d) Behavior is extreme

33) Nicole is caught lying to her parents and loses her driving privileges. As a result, Nicole no longer lies to her parents. This is an example of:

a) Positive punishment
b) Negative reinforcement
c) Negative punishment
d) Extinction

34) Zach comes home past his curfew and is yelled at by his parents. If, as a result of being yelled at, Zach never comes home late again it would be an example of _____.
a) Positive punishment
b) Positive reinforcement
c) Negative punishment
d) Negative reinforcement

35) The main purpose of functional assessment is to:
a) Identify the antecedents and consequences of a behavior
b) Decide how to punish the behavior
c) Identify which students are misbehaving
d) All of these

36) A teacher is working with a child who frequently engages in fighting with other children on the playground. The teacher observes and records the events that immediately precede and follow the child's behavior of fighting. Which method of conducting a functional assessment is the teacher using?
a) Functional analysis
b) Direct observation
c) Indirect methods
d) Experimental manipulation

37) _____ occurs when a previously reinforced behavior is no longer reinforced.
a) Punishment
b) Conditioning
c) Extinction
d) Shaping

38) A common misconception people have about extinction is that it:
a) Means ignoring the behavior
b) Increases the behavior
c) Is the same as reinforcement
d) Decreases the behavior

39) Bob's doctor wants him to increase the amount of exercise that he gets. They write an

agreement stating the level of exercise Bob will get each week, and the consequences for meeting and not meeting the goal. Which behavior modification procedure is being used?

a) Token economy
b) Shaping
c) Behavioral skills training
d) Behavioral contract

40) The target behavior in a behavioral contract can include _____ behaviors.

a) Desirable
b) Undesirable
c) Deficit or excess
d) All of these

Appendix C

Sample Participant Responses to Vignettes That Were Considered Correct and Incorrect

Vignette: Cameron repeatedly gets out of his seat. Even when he is sitting, he's always in motion, doing things such as squirming, tapping his feet, and fidgeting with objects on his desk. What disciplinary action have you used in the past with students like Cameron?

Sample correct response: Give him a time to share with friends these great qualities he posses. Remind student of appropriate times to show this behavior and when not to. As he makes good choices he can earn more time to share. I feel it gives me the best result in the end and build relationship with the child. Reinforces the positive behavior with a choice he chooses.

Sample correct response: After trying to put Chris in the hallway and that not working, I have allowed Chris to have a minute to tell the class a joke before we begin our day. I chose this action because after preventing Chris from getting attention, I realized I was making the situation worse. By allowing Chris to gain some attention, I fulfilled his need for attention and did so without damaging our relationship.

Sample incorrect response: Silent lunch or a call home to the parents after having a one on one conversation with Chris- Talking one on one limits any embarrassment and calling home to the parents will sometimes motivate students to behave as expected. Also they hate silent lunch

Sample incorrect response: planned ignoring- He wanted attention, and I wanted to take that attention away from him.