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Using Contingency-Specifying Statements as Discriminative Stimuli in Functional Analyses

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by

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Abstract

This study expanded on current research regarding discriminative stimuli (S^Ds) included in functional analyses (FA) by comparing conditions with pre-session statements that do not specify contingencies in place to conditions that have pre-session statements that specify contingencies in place (e.g., starting a condition with "I need to do some work" versus "I need to do some work, if you yell I will ask you to stop.") A multi-element design consisting of at least four trials of three different conditions with general statements, followed by the same conditions with contingency-specifying statements was used. Three BCBAs with at least 10 years of experience reviewed the assessment results via survey to determine function, as well as the session number at which the function became apparent. Functional determination was agreed upon for four out of five assessments with contingency-specifying statements, whereas in the general statement analyses, function was only agreed upon in one assessment. In the assessment where function was agreed upon in both statement and no statement analyses, it occurred five conditions sooner with statements. Overall, results indicate that using contingency-specifying statements as S^Ds in FA may lead to faster and clearer functional determination.

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Chapter 1: Introduction

Functional analysis (FA) is defined as a pretreatment assessment designed to manipulate variables surrounding a given target behavior to determine the relation between the environment and behavior (Schlinger & Normand, 2013). FA is the gold standard for assessment in applied behavior analysis (ABA) and is the foundation for behavior-analytic interpretation of behavioral function. One of the strengths of conducting an FA is the inherent modifiability: the setting, behavior of interest, antecedent and consequent variables, and other components of the assessment environment can be individualized (Hanley, 2012). Previous research has focused on the impact of such modifications on the discriminability of and differentiation between conditions.

Several recent reviews of published FA have categorized and described the types of modifications made to the procedure described in the seminal article by Iwata, Dorsey, Slifer, Bauman, and Richman (1994). The most common modifications cited include changes in antecedent conditions to evoke problem behavior, the presentation of idiosyncratic consequences hypothesized to reinforce problem behavior, and the use of experimental designs other than a multi-element format (Beavers, Iwata, & Lerman, 2013; Hagopian, Rooker, Jessel, & DeLeon, 2013; Schlichenmeyer, Roscoe, Rooker, Wheeler, & Dube, 2013).

Many modifications focus on shortening or streamlining the assessment process to increase the efficiency of the FA to begin effective treatment as quickly as possible. Northup et al. (1991) suggested the brief FA as a method to reduce both duration and number of sessions. While this investigation demonstrated some success with identifying function, the authors noted that a more standard FA may still be necessary in some cases. Beavers et al. (2013) suggested

that manipulations that enhance discrimination between test conditions or maximize the influence of establishing operations within a condition could increase efficiency of the FA and even minimize risk. Brevity of sessions, in part via the use of S^Ds, is particularly important for increasing efficiency in the use of an FA in applied research.

Introducing salient stimuli to each condition in an FA can increase efficiency if the characteristic stimulus is paired with, and becomes an S^d for, the contingency in effect during that condition. For example, when assessing treatment preferences, Hanley, Piazza, Fisher, Contrucci, and Maglieri (1997) used colored poster board to associate specific contingencies with specific colors. According to Thomason-Sassi, Iwata, Neidert, and Roscoe (2011), other examples of S^Ds include using different therapists, colors of shirts, table cloths, or rooms. In practice some BCBAs use pre-session vocal statements describing the contingency in effect to increase the efficiency in determining the function of behaviors. For example, statements such as, “I’m going to do some work; if you yell, I will ask you to stop,” may be made before starting an attention condition.

Though several studies have included contingency-specifying statements prior to FA sessions, few have directly evaluated the effectiveness of these statements to increase efficiency. Northup, Kodak, Lee, and Coyne (2004) noted that informing a child of the contingencies associated with an analogue assessment condition could increase the efficiency of their FA. Their study specifically compared statements such as “taking a break” and “time out” to determine if responding was influenced by how the contingency was labeled. They found that rates of inappropriate behavior further decreased when using the words “time out” versus “taking a break,” though responding was lower in both statement conditions compared to the control

condition in which no descriptions were given. The authors hypothesized that the term “time out” may have previously been paired with punishment and thus acquired discriminative properties.

In 2000, Conners et al. conducted a study that evaluated differential responding in the presence and absence of S^Ds in FA and found that S^Ds were effective in decreasing time to functional determination. The purpose of the current study was to expand on the Conners et al. (2000) study using contingency-specifying statements as S^Ds. The multi-element design was replicated in the current study with similar conditions except for the addition of the no interaction condition, as described below. In the current study, non-contingency-specifying statements (general-statements; GS) assessments were conducted prior to contingency-specifying statements (specific-statements; SS) assessments to minimize history effects. Unlike the therapist and room changes used by Conners et al., contingency-specifying statements may be more generalizable to the natural environment, as they are not dependent on tangible environment and are readily transferrable to other settings. For example, four different colored shirts may not always be available for FA, but four different statements can easily be added.

Chapter 2: Method

Participants, Setting, and Materials

Five individuals who received services from a Department of Mental Health (DMH) agency in Southwest Missouri participated. All had diagnoses of developmental delays and engaged in socially significant problem behaviors. Assessment target behaviors were chosen based on caregiver interviews and direct observations. No potentially harmful behaviors were targeted or observed during the assessments. Each participant had been referred to the ABA Department for support in decreasing behaviors identified as affecting their quality of life. Informed assent was obtained from each participant, in addition to informed consent from each respective guardian.

Jed was an 8-year-old boy with Down Syndrome and Attention Deficit Hyperactivity Disorder. He had been receiving treatment from the agency for 2 years, and his assigned BCBA requested additional assessment. Vance was a 64-year-old man with Alzheimer's, Unspecified Mood Disorder, Intellectual Disabilities, Obsessive Compulsive Disorder, and Dementia diagnoses who was referred to services due to perseverating on Dr. Pepper©, with verbal and physical aggression following denials of Dr. Pepper©. Sam was a 25-year-old man with Schizophrenia, Autism Spectrum Disorder, Suicidal ideology, Depressive Disorder, Asthma, Crohn's Disease, GERD, and Klinefelter's Syndrome. He was referred due to contractual obligations for ABA after moving to a group home setting. Carl was a 14-year-old boy with Schizophrenia and Autism Spectrum Disorder who was referred due to intense physical aggression directed at his mother. Lynn was a 20-year-old female with Angelman's Syndrome

who had been receiving ABA services for many years, and was initially referred due to caregiver concerns about her quality of life.

Jed, Vance, and Lynn's assessments occurred in a room designed for the purpose of assessment located within the main office of the agency. The room measured approximately 2 x 3.5 m with an observation window for discrete data collection measuring 0.75 x 1 m. For Jed's initial assessment, worksheets on a clipboard, an iPad©, and a timer were present. For Jed's follow up assessment, the iPad© was replaced with Legos©. For Vance's assessment, a table with two chairs were present for all conditions. A Dr. Pepper© bottle filled with a combination of prune juice and water was present for tangible and escape conditions, and green and red cookie cutters were present for the escape condition. For Lynn's assessment, cookie cutters of two different colors, a chair, and laptop were present.

Sam's assessment occurred in a 3-m x 3-m room designed for the purpose of assessment in a satellite office. The room had a one-way observation window and a baby monitor set up to monitor sounds from the assessment room. A table with four chairs and a baby doll were present for all conditions of his assessment. In the attention condition, a laptop was present, and in the tangible condition a bag of M&Ms© was present. In the alone condition in the initial two assessments, only the doll was present, and an iPad was added in the follow up assessment.

Carl's assessment occurred in his bedroom measuring approximately 4 m x 3 m, due to his mother being unable to transport him to the agency's office. His bed, dressers, a TV, and a nightstand were present in the room, along with assorted toys and games. Carl sat on the floor and did not interact with these items during his assessment. The therapist also brought a laptop and worksheets for the purpose of the escape and control conditions of the assessment.

Dependent Variables

For Jed, a target behavior of yelling was chosen based on the request of his assigned BCBA. Yelling was defined as emitting sounds louder than a conversational volume. Vance's target behavior was vocally saying "Dr. Pepper©" in his FA. Sam was referred to a group home within the agency due to severe but infrequent physical aggression. Due to the intensity of Sam's physical aggression and state of Missouri DMH safety regulations, the arbitrary behavior of doll pinching was chosen as the target behavior for his FA, as it was topographically similar to his physical aggression. Doll pinching was defined as two fingers making a pincher grasp anywhere on the doll's body. Because Carl did not demonstrate the physical aggression (for which he was initially referred) during the therapist's first four visits, and his mother reported he never engaged in target behaviors with novel individuals, it was hypothesized that he would not engage in the problem behavior during FA sessions. Therefore, the target behavior of talking about potentially harmful behaviors was chosen. Potentially harmful behaviors were defined as those that may result in redness, bleeding, bruising, or other bodily harm to self or others. Finally, for Lynn, the target behavior of nose touching was chosen. Nose touching was defined as any of participant's fingers or finger nails touching or inserted into her nostril.

Procedure

Each condition in every FA was implemented by the experimenter, a graduate student in ABA with over 1,000 hours of field experience. Per the BACB's and the state of Missouri's licensing standards, the BCBA responsible for each clients' behavior analytic services was present during all FA sessions to provide supervision and feedback as necessary. The same

implementer was used across all conditions and assessments to limit potentially confounding effects of S^Ds.

All FA were conducted using a standard multi-element design based on the procedures described by Iwata et al. (1994), with the modifications outlined here. Each FA had three conditions, including attention, control, and either escape or tangible, as determined by the supervising BCBA based on pre-assessment observations and assessments (see Table 1). Conditions lasted 5 minutes each, based on findings by Hammond, Iwata, Roker, Fritz, and Bloom (2013). The first assessment for each participant was a 60-min assessment using general pre-condition statements only (i.e., the GS assessment). The 60-min time frame was chosen to get multiple data points while minimizing effects of fatigue. The second assessment for each participant was a 60-min session in which each condition was preceded by contingency-specifying statements (i.e., the SS assessment). Following the review of initial data, additional 60-min sessions were conducted with Jed and Sam; these sessions consisted of several GS conditions, followed by several SS conditions. All other behaviors were ignored during assessments.

Attention condition. In the attention condition of the GS assessment, the implementer made a general statement such as, “I have some work to do,” then began working by pretending to check emails on her tablet or laptop. Contingent on target behavior, the implementer immediately paused working and delivered approximately 10 s of attention to the participant in the form of a reprimand (e.g., “I need you to be quiet”). No other attention was provided to the participant. In the SS assessment, the implementer made the statement, “I have some work to do.

If you (target behavior), I will ask you to stop." All other elements of the condition remained the same.

Escape condition. In the GS escape condition, the implementer made the statement, "You have work to do," and placed items required to complete the task in front of the participant. Task demands were chosen by the BCBA overseeing each individual's case. If the participant did not begin task within 10 seconds, the implementer used a prompt hierarchy of vocal, gestural, and model prompts until compliance or target behavior occurred. Physical prompts were not needed in the assessments. Contingent on the occurrence of the target behavior, the implementer removed the task and turned from the participant for 30 s, after which the implementer presented the task again. No other instruction or vocal response was provided to the participant. If the participant immediately began working on task without exhibiting the target behavior and did not stop, no programmed consequences occurred. In the SS escape condition, the implementer made a statement such as, "Time to (task), if you (target behavior), we will take a break." All other elements of the condition remained the same.

Tangible condition. In the GS tangible condition, the implementer made a statement such as "I have (item)." Items were chosen by BCBAs assigned to each client, based on previous preference assessments and environmental observations. The implementer then looked away from the participant. Contingent on the occurrence of the target behavior, the implementer delivered the tangible. For example, if Sam pinched the doll, the implementer delivered a pre-specified amount of his identified reinforcer. No vocal attention outside of the pre-assessment statement was provided to the participant. In the SS tangible condition, the implementer made a

statement such as, “I have (tangible). If you (target behavior) I will give you some.” All other elements of the condition remained the same.

Control condition. In the GS assessment, the implementer made a statement such as “Time to have fun.” In Vance and Sam’s assessments, the participants were alone to evaluate the possibility of an automatically reinforcing function. In Carl and Jed’s assessments, the implementer provided vocal attention at least once every 30 s and avoided making demands. Any requests made were honored when possible. No differential consequences occurred. In Lynn’s no-interaction condition (the control condition was modified due to company policy regarding attempted elopement), the implementer was present, but pressed her face to the door and did not interact with Lynn. In the SS assessment, the implementer made a statement such as, “Time to have fun, if you (target behavior) nothing will change.” All other elements of the condition remained the same.

Data Collection, Analysis, and Interobserver Agreement

All data were collected using a clipboard, pen, and printed data sheet. Jed, Vance, and Sam’s responding were measured using a frequency count. A partial-interval data collection method was used for Carl and Lynn because their vocal-verbal responses were more amenable to duration measures (Bowers et al., 2000).

The supervising on-site BCBA collected data during all sessions, with a secondary BCBA or practicum student collecting interobserver agreement data during 30% of total assessments. Exact agreement IOA calculations were 98.48% for Carl and 99.4% for Lynn during GS conditions. Total count IOA was calculated as 93.86% for Sam during SS conditions.

Due to scheduling conflicts, a second data set was not collected for Vance or Jed, the statement conditions for Lynn and Carl, or for the no-statement condition for Sam.

BCBA Evaluations

Following completion of four assessments, graphs were emailed to three BCBAs with over ten years of experience who reviewed them to determine the function, as well as the condition number at which the function was able to be determined. Function was considered identified when at least two out of three experienced BCBAs agreed on a determination based on visual inspection (see Appendix for surveys). A second survey was administered with the fifth participant's data, as well as five repeat graphs form the original survey. The repeat graphs were included to examine test-retest reliability. One BCBA did not return the retest; however, for the two BCBAs who responded, the same answers were given on 80% of the retested graphs.

Chapter 3: Results

Figure 1 shows the results for Jed. Responding occurred in all SS and GS conditions, with a decreasing trend in GS conditions. An automatic function was recorded for SS assessments by two out of three experienced BCBAs (see Table 2). Figure 2 depicts results for Vance. Vance had responding in the tangible condition in both assessments; however, the trends were indicative of a tangible function only in the SS assessment according to all three analyzing BCBAs. Figure 3 represents Sam's data. Sam's FA showed responding primarily in tangible conditions during both assessments; however, function was only agreed upon by required number of experienced BCBAs in SS conditions. Figure 4 consists of Carl's data. Carl's FA results showed varying responding in attention and control conditions, and none of the three experienced BCBAs identified a function based on the data from either of his assessments. Lynn's data are represented in Figure 5. Lynn had responding across all conditions, and BCBAs agreed on the automatic function in both types of assessment. However, she began engaging in the target behavior five conditions sooner in the SS assessment.

At least two experienced BCBAs agreed on the function in four out of five SS assessments, with three of those functions not apparent in corresponding GS assessments. For Lynn, where function was agreed upon in both types of assessments, the BCBAs reported that the function could be identified five sessions sooner in the SS assessment than in the GS assessment. In all assessments, the BCBAs reported that it took them all sessions to make a functional determination. These results extend those by Conners et al. (2000), suggesting that contingency-specifying S^Ds can improve efficiency and discriminability of FA.

Chapter 4: Discussion

This study expanded on current research regarding programmed S^Ds used in FA by examining the utility of contingency specifying statements as S^Ds in FA. This study expanded on the generality of S^Ds findings by including participants with various diagnoses, ages, and target behaviors. Children, adults, and individuals with five distinct diagnoses were evaluated in this study. Additionally, a different behavior was targeted in each assessment, including behaviors that required different types of measurement.

In addition to its extension of Conners et al. (2000) and its contribution to the literature on FA efficiency, social validity was a strength of this study. Though social validity was not directly assessed, the BCBAs in charge of Jed's and Lynn's cases reported that successful treatment was developed based on the assessment findings. These anecdotal reports suggest that the functional determinations of the current study were valid, signifying that participants and their families received valuable information for improving client and caregiver quality of life. Lynn's mother thanked the experimenter for spending extra time assessing her adult child at an event following Lynn's assessment. Additionally, several BCBAs who reviewed the methods and results reported that contingency-specifying statements were more agreeable to them than other options for S^Ds. There was also social validity in finding that contingency-specifying statements as S^Ds may lead to getting effective treatment more quickly.

An additional strength of this study was the inclusion of S^Ds that can be used in any setting at no cost (i.e., vocal-verbal statements), as opposed to stimuli that are dependent on tangible elements of the environment. For example, not all agencies have multiple rooms available for assessment as Conners et al. (2000) did. Some agencies also do not have the

resources to purchase assorted scarves, shirts, or other such tangibles often used in assessment and have policies prohibiting staff from bringing these types of items from home. Additionally, it can increase the stress of BCBAs and opportunity for error if they are required to remember to bring tangible S^Ds for assessments. Finally, if an assessment needs to be adjusted mid-assessment due to a lack of responding, statements can be added immediately.

One limitation with this study was the level of responding in control conditions during the SS assessment. Responding occurred in the control condition in three of the five SS assessments, compared with only one of the five GS statements. Elevated levels of responding in the control condition may lead to Type II (i.e., false-negative) errors if the increased responding in control masks functional control by one or more test conditions. However, as additional sessions continued and no environmental changes were provided contingent on target behavior, responding in the control condition decreased. It is possible that contingency-specifying statements may initially evoke problem behavior; however, it is also possible that materials for control conditions were not chosen well. For example, responding in the control condition for Sam consisted of him dancing with the doll while holding it in pincer grasp, which technically met the definition of pinching. When another item (an iPad) was included in the room for follow-up control conditions, no responding occurred in the condition. Clarifying operational definitions could have minimized this limitation. It is also possible that being in the same room for all conditions evoked responding (e.g., fatigue from being in the same room for an extended period of time). Future research should examine the potential for evoking responding in non-functional conditions when contingency-specified statements are included, as well as methods to minimize these evocative effects.

Another limitation of this study was that the conditions were conducted in the same order each time, which may have led to sequence effects if, for example, the client begins to respond the same way to every third condition regardless of S^Ds. However, previous research by Silliman (2010) found that a fixed order of FA conditions led to clearer functional determination in one participant. In the future, condition order can be randomized to evaluate if different responding occurs.

Experienced BCBAs evaluated the data after the assessment, rather than running each assessment until a function was agreed upon as in the Conners et al. (2000) study, leading to another limitation of the current study. There were several reasons to conduct the assessment in this manner. First, scheduling of BCBAs at the agency did not allow for them to be present during all FA sessions, so in-situ evaluations were not possible. Second, having the same number of conditions allowed for consistency across assessments and participants. Finally, all GS conditions were run prior to all SS conditions to minimize history effects, which was less of a concern in the Conners et al. study (because the S^ds were not verbal and thus did not function as rules). In the future, sessions could be conducted in reverse order to minimize carryover effects, as in the study by Conners et al (2000).

One potential flaw in using S^Ds during assessments, as noted by Conners et al. (2000), is that they may only be helpful for some individuals, and it may be difficult to determine who would benefit from such a procedure. Individuals may also respond differently based on their histories of reinforcement or punishment, or different abolishing and establishing operations that are in effect on multiple assessment days. However, it was also noted that there is no potential for harm in using S^Ds.

Rooker, Iwana, Harper, Fahmie, and Camp (2001) found that tangible conditions are prone to false-positive (Type I) errors, which is notable because tangible was determined to be the function in two of the assessments for this study. However, in the current study, the tangible condition was only included when observations in natural environments showed the participant sometimes received tangibles contingent on target behavior. Additionally, treatments based on these functions were not implemented, making it possible that these results were false positives.

Several research articles, including one by Shimoff, Matthews, and Catania (1986), suggest that simply stating contingencies is not sufficient to evoke responding and that direct sampling of contingencies needs to occur. Future research should evaluate the inclusion of a sampling period for each condition prior to assessment to ensure the participant contacts each programmed contingency, or conduct a component analysis to determine which component is more effective, or if components are necessary together.

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Appendix A: Tables

Table 1

Conditions Used in Functional Analysis

Condition	Participants				
	Jed	Vance	Lynn	Sam	Carl
Attention	x	x	x	x	x
Control	x				x
Escape (worksheet)	x				x
Escape (sorting)			x		
Tangible		x		x	
Alone		x		x	
No Interaction			x		

Table 2

Functional Determination According to Experienced BCBAs

	General Statements			Specific Statements		
FA	BCBA 1	BCBA 2	BCBA 3	BCBA 1	BCBA 2	BCBA 3
Jed	None*	None	None**	Automatic	Automatic	None
Vance	None*	Tangible	None**	Tangible*	Tangible	Tangible*
Sam	None*	None	None*	Tangible*	Tangible	Tangible*
Carl	None	None	None	None	None	None
Lynn	Automatic	No Response	Automatic	Automatic	No Response	Automatic

Notes: * = retest agreement ** = retest disagreement

Appendix B: Figures

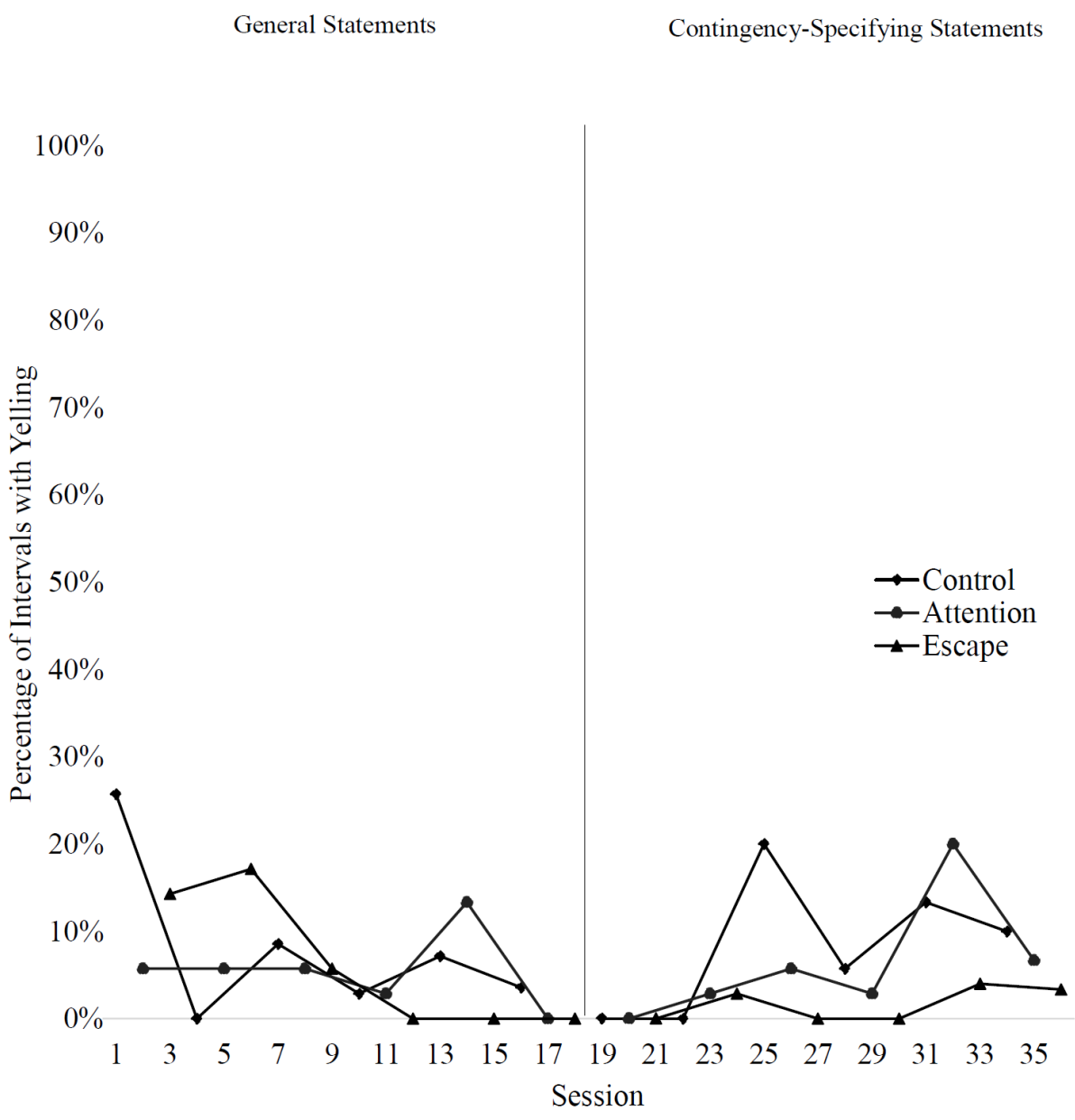


Figure 1. Results of Jed's functional analysis.

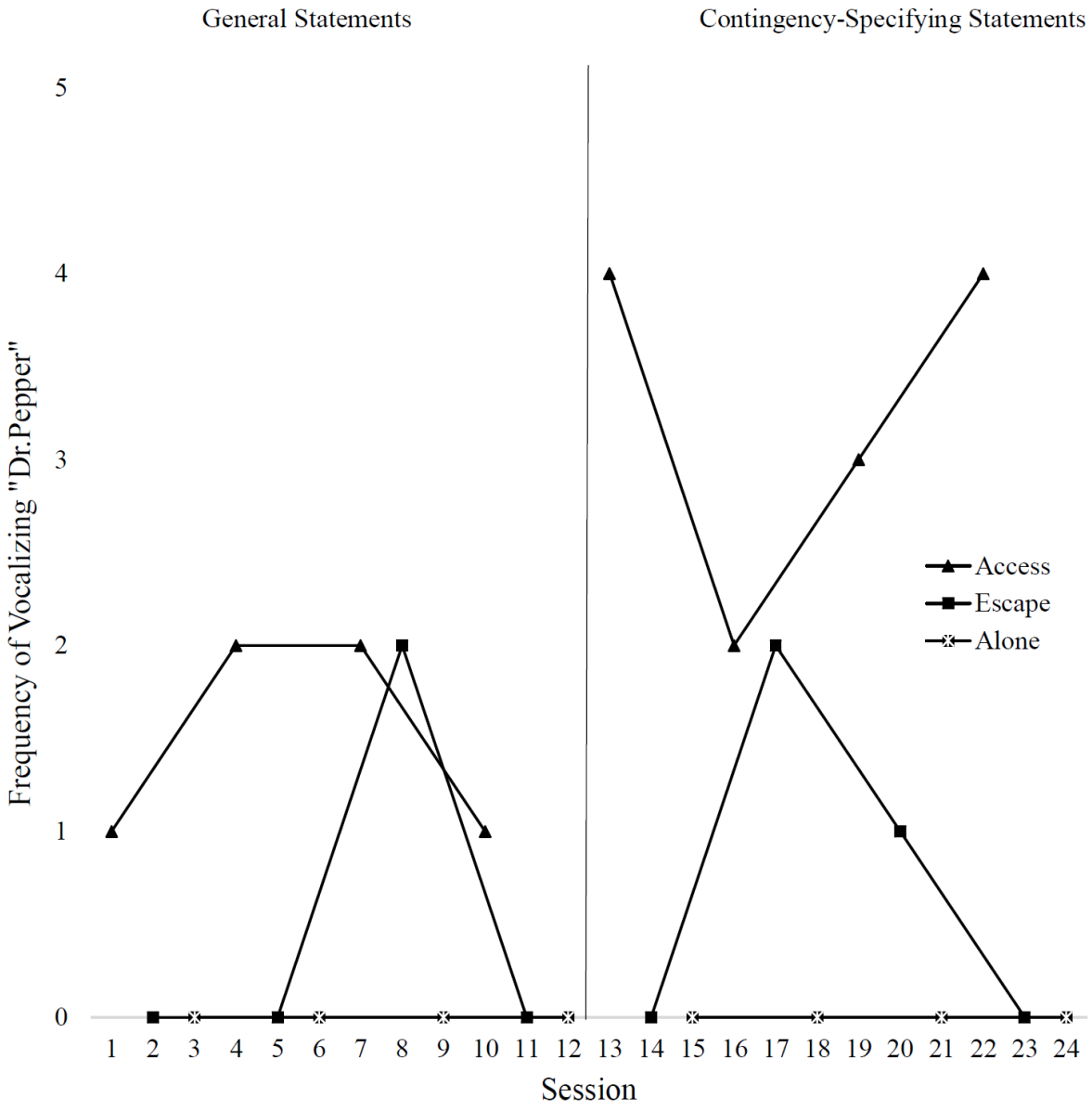


Figure 2. Results of Vance's functional analysis.

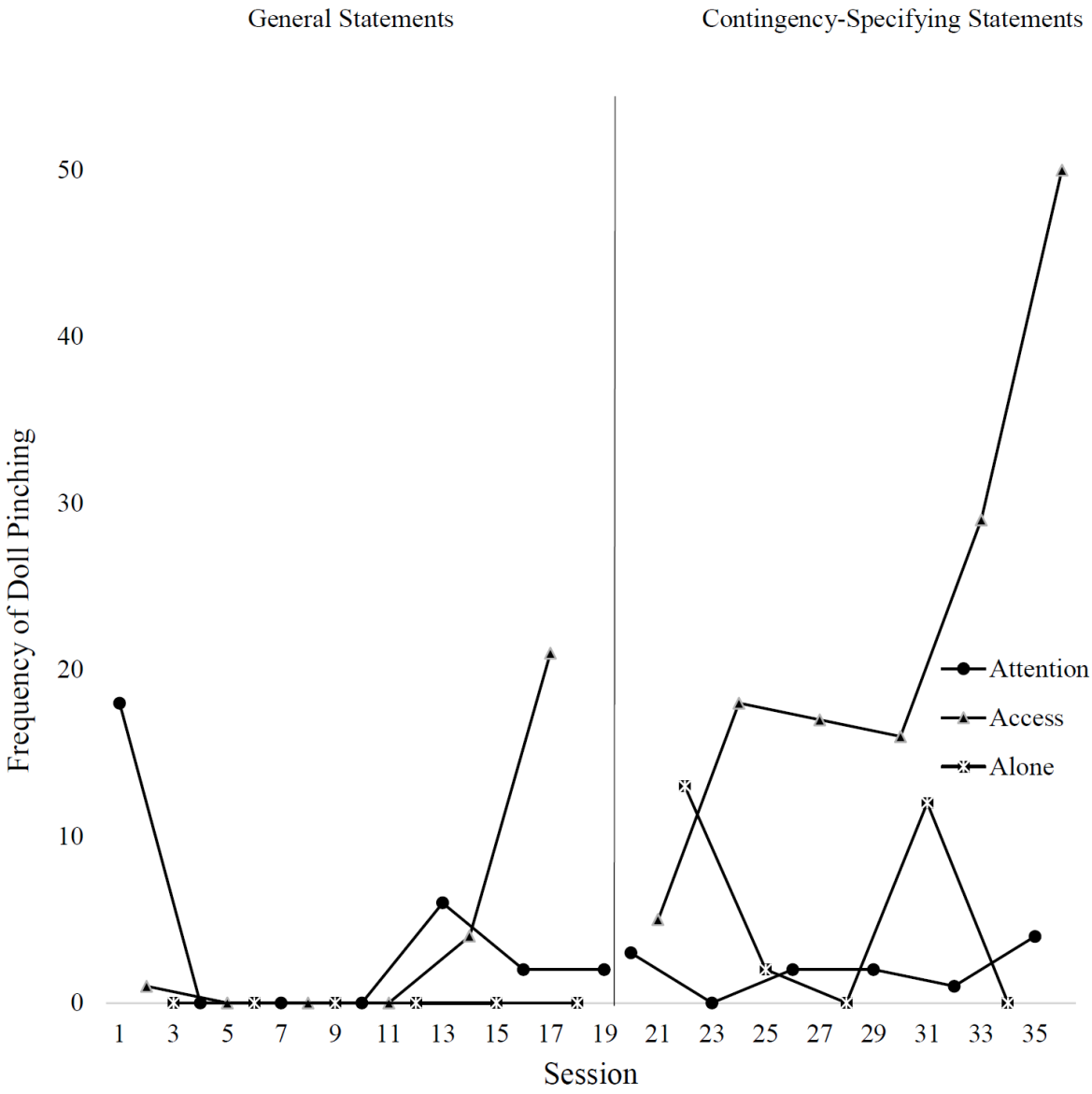


Figure 3. Results of Sam's functional analysis.

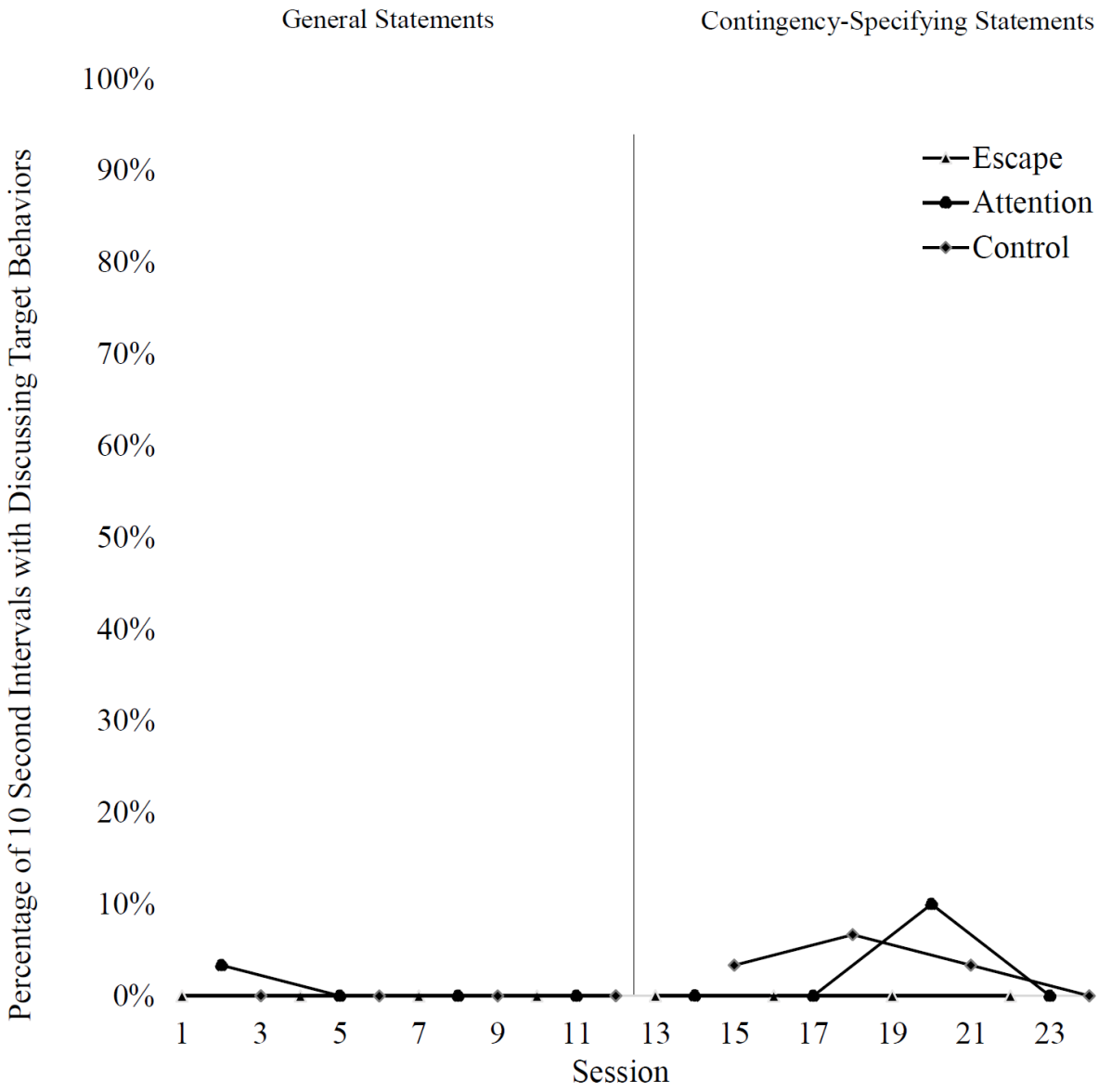


Figure 4. Results of Carl's functional analysis.

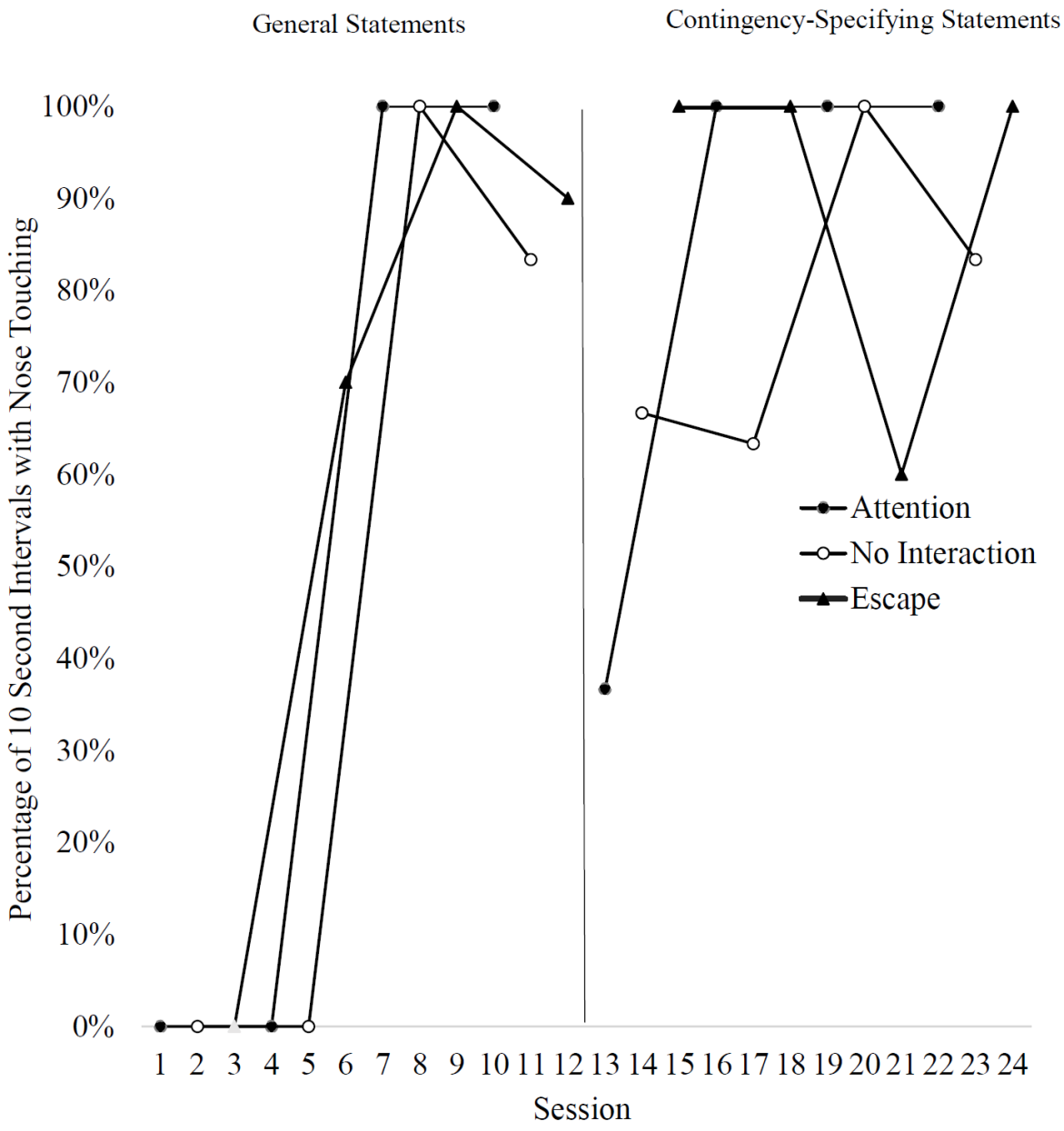
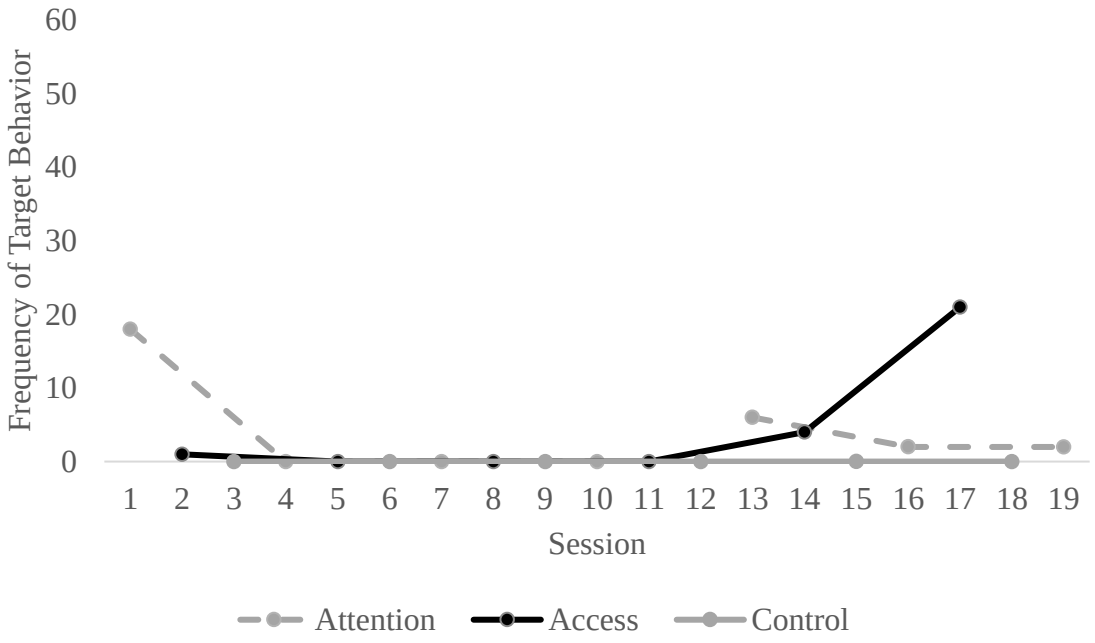


Figure 5. Results of Lynn's functional analysis.

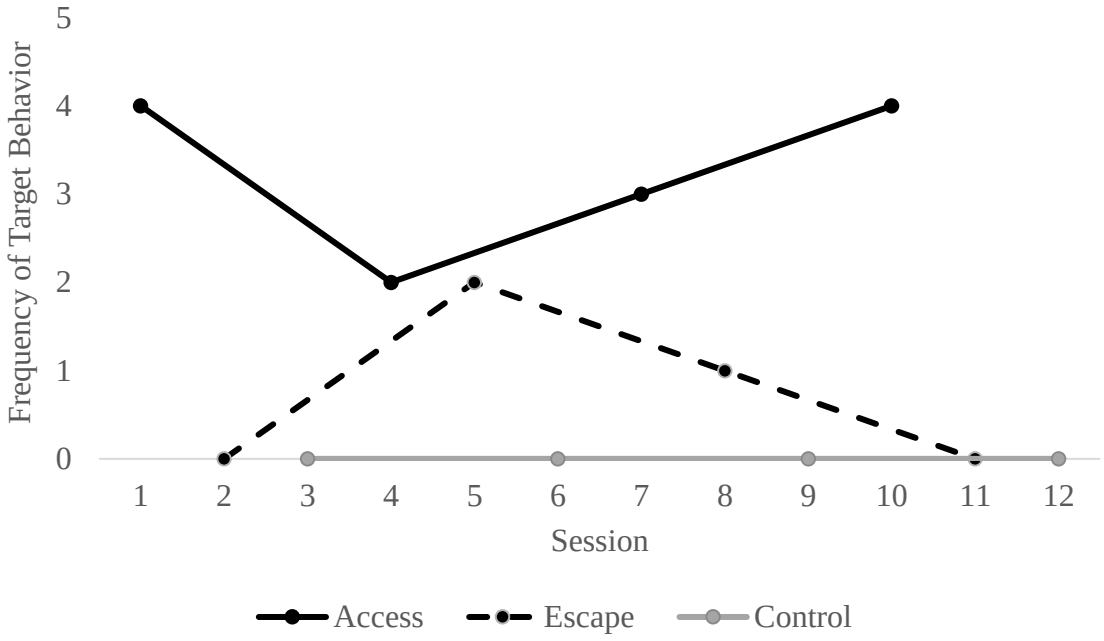
Appendix C: BCBA Survey One

For each graph please record your answer to the following questions:

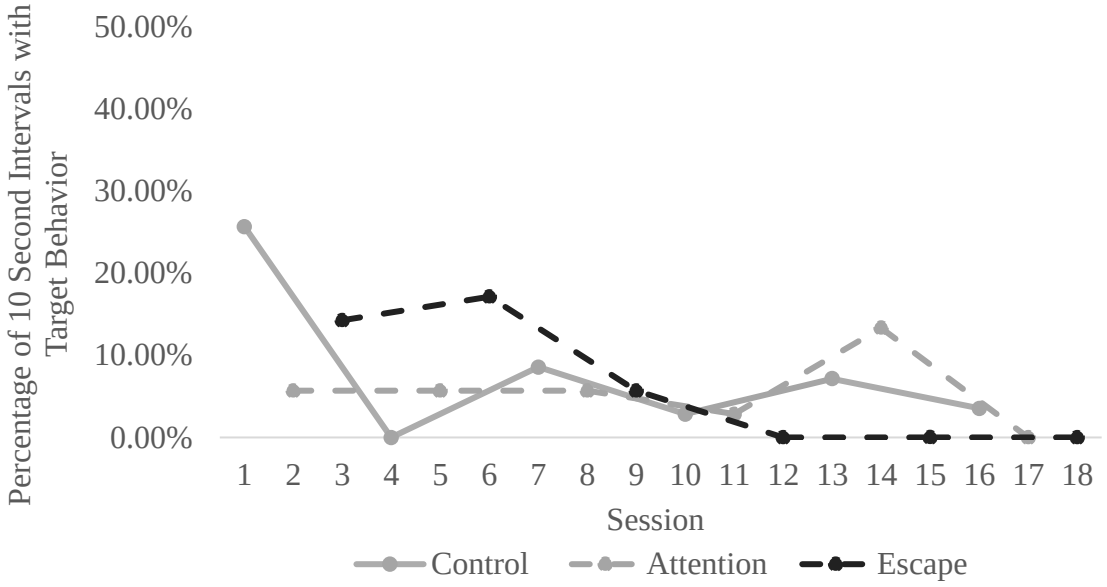
1. Can you determine a function from these data? If so, what was it?
2. At which sessions did you feel comfortable making this determination?



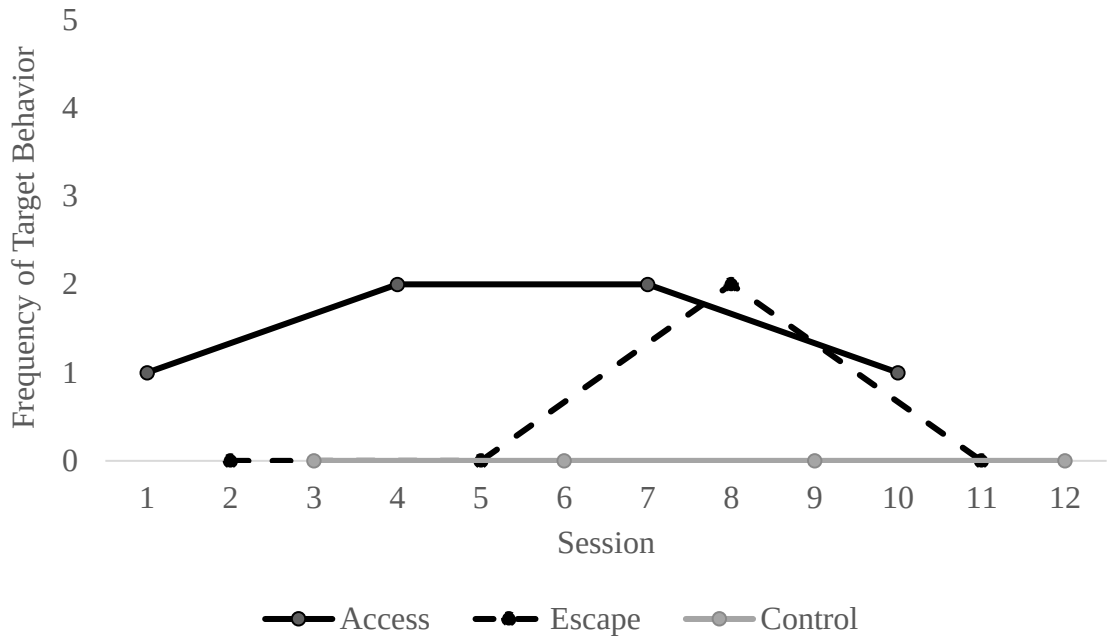
1.
2.


Frequency of Target Behavior
5
4
3
2
1
0
1 2 3 4 5 6 7 8 9 10 11 12
Session
Access
Escape
Control

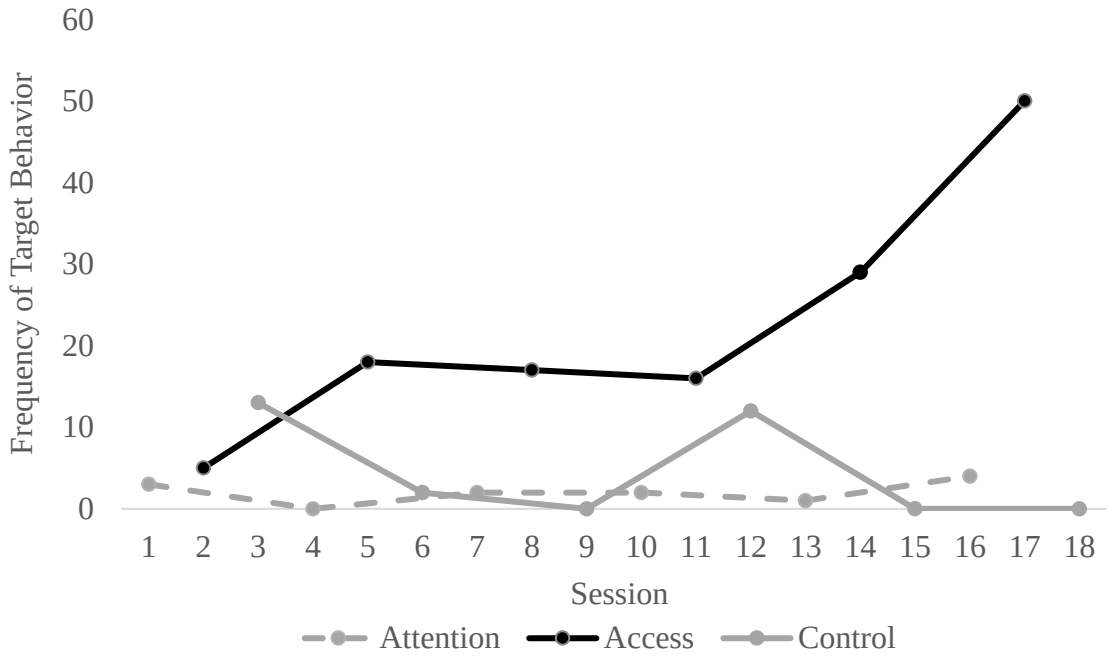
1.
2.


Percentage of 10 Second Intervals with Target Behavior
50.00%
40.00%
30.00%
20.00%
10.00%
0.00%
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18
Session
Control
Attention
Escape

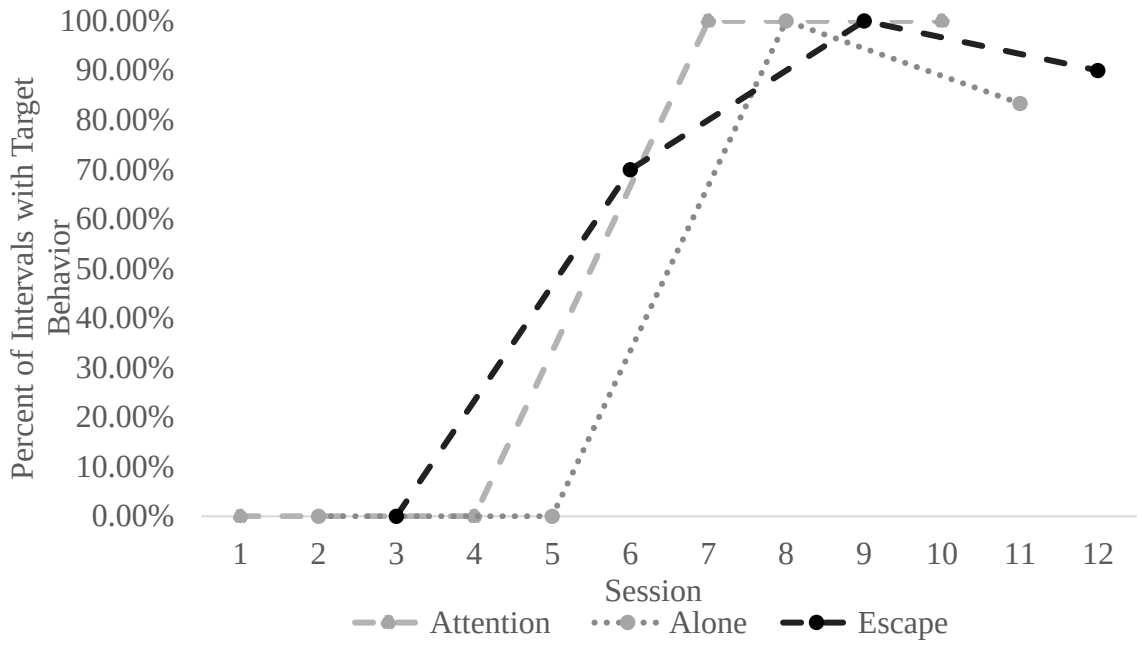
1.
2.


Frequency of Target Behavior
5
4
3
2
1
0
1 2 3 4 5 6 7 8 9 10 11 12
Session
Access
Escape
Control

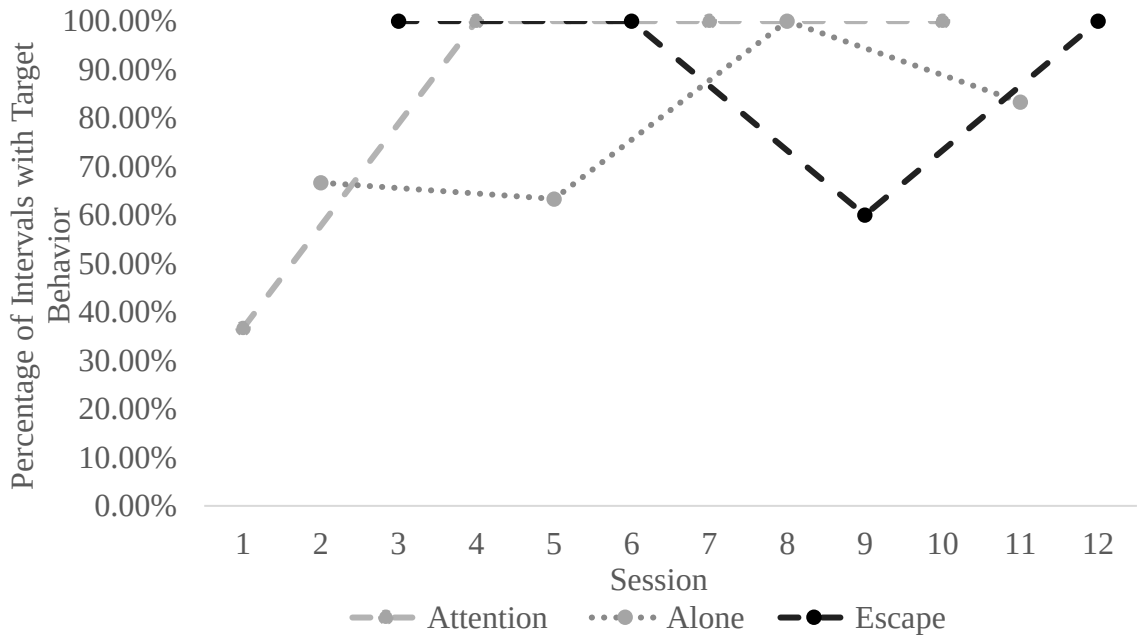
1.
2.


Frequency of Target Behavior
60
50
40
30
20
10
0
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18
Session
Attention
Access
Control

1.
2.


100.00%
90.00%
80.00%
70.00%
60.00%
50.00%
40.00%
30.00%
20.00%
10.00%
0.00%
Percent of Intervals with Target Behavior
1 2 3 4 5 6 7 8 9 10 11 12
Session
Attention
Alone
Escape

1.
2.

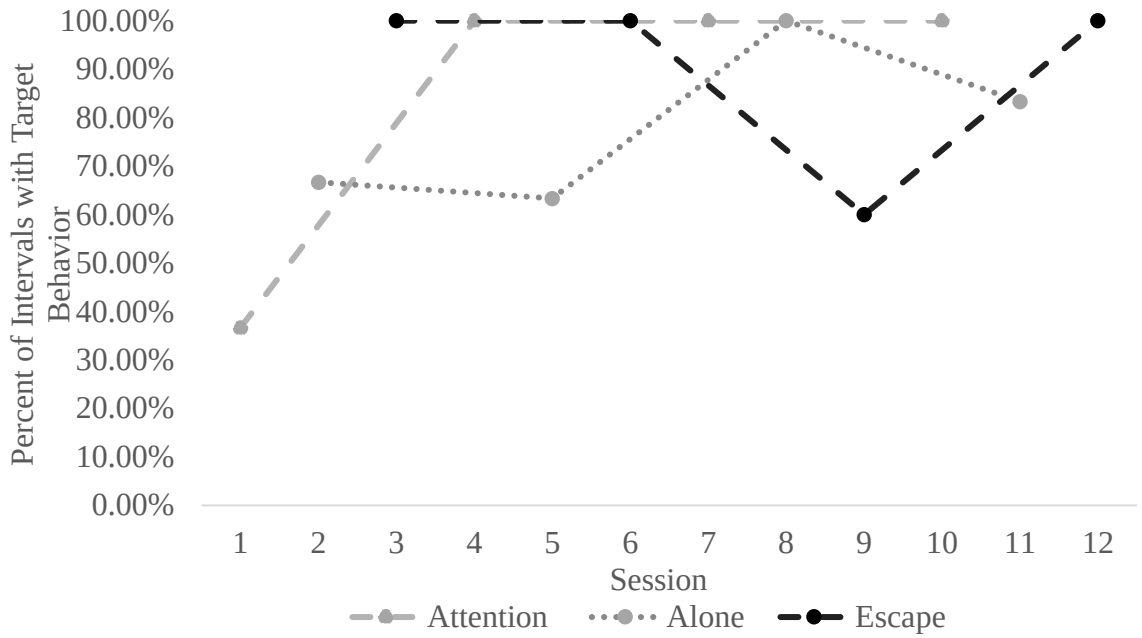

100.00%
90.00%
80.00%
70.00%
60.00%
50.00%
40.00%
30.00%
20.00%
10.00%
0.00%
Percentage of Intervals with Target Behavior
1 2 3 4 5 6 7 8 9 10 11 12
Session
Attention
Alone
Escape

1.
2.

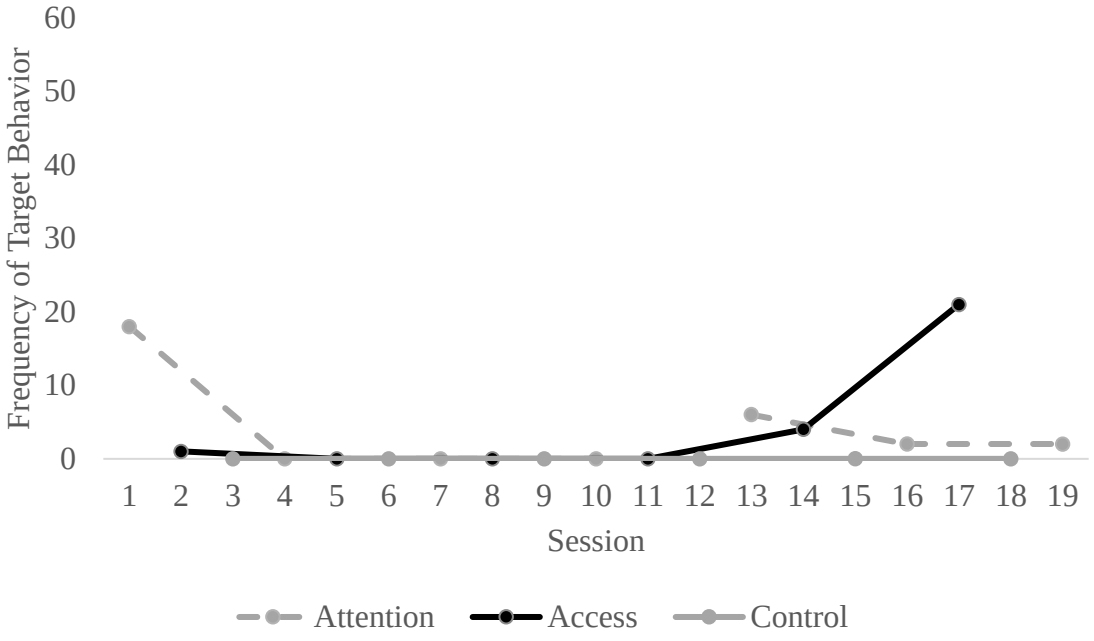
Appendix D: BCBA Survey Two

For each graph please record your answer to the following questions:

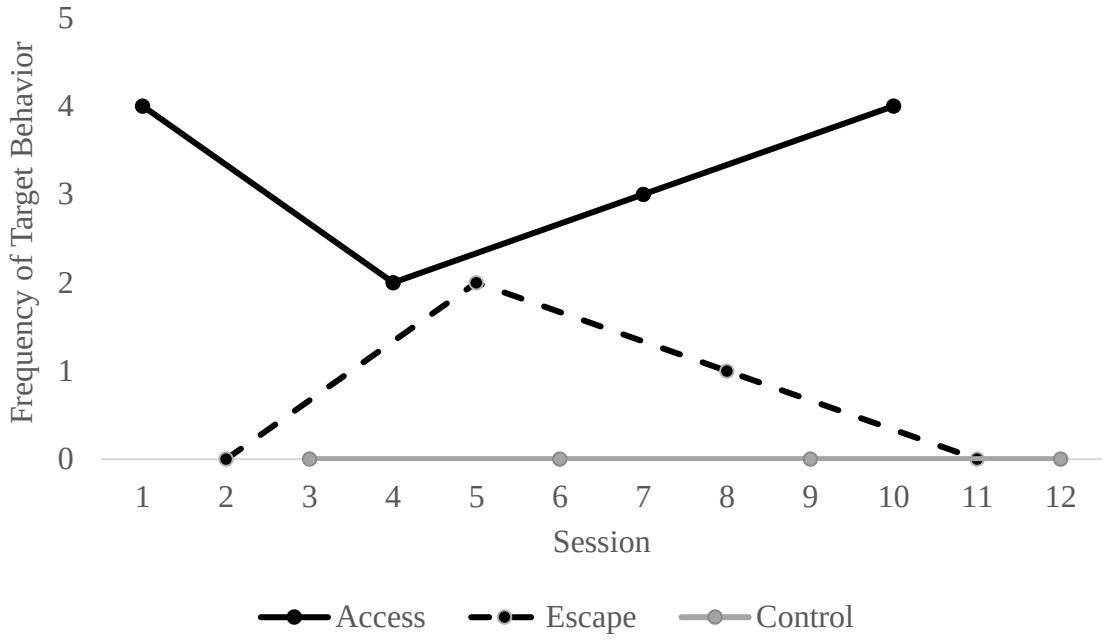
1. Can you determine a function from these data? If so, what was it?
2. At which sessions did you feel comfortable making this determination?



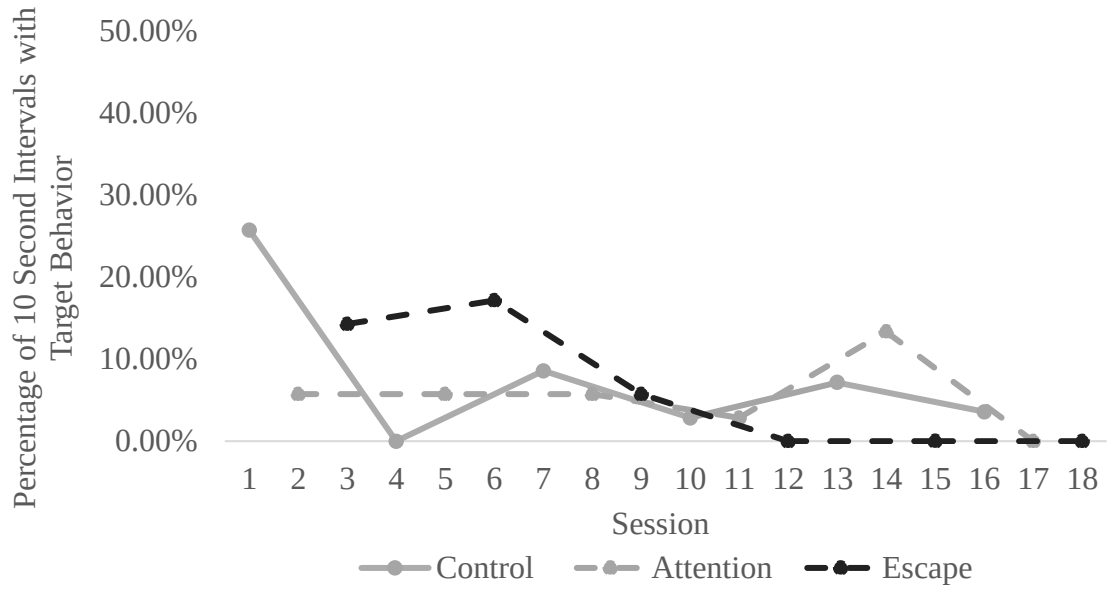
1.
2.


60
50
40
30
20
10
0
Frequency of Target Behavior
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19
Session
Attention
Access
Control

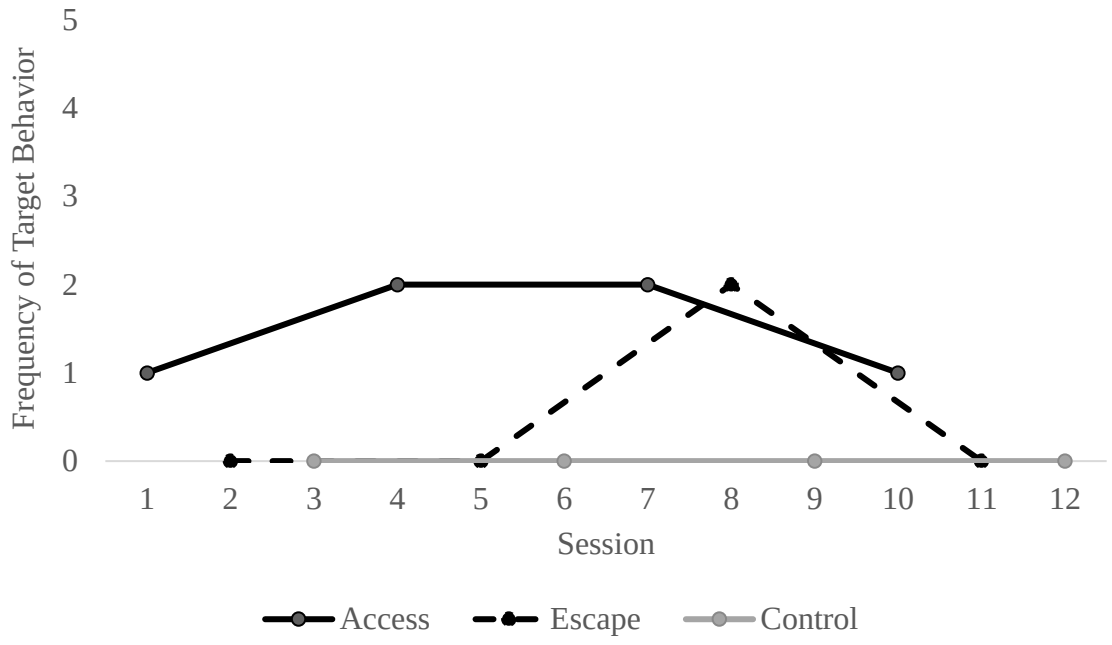
1.
2.


5
4
3
2
1
0
Frequency of Target Behavior
1 2 3 4 5 6 7 8 9 10 11 12
Session
Access
Escape
Control

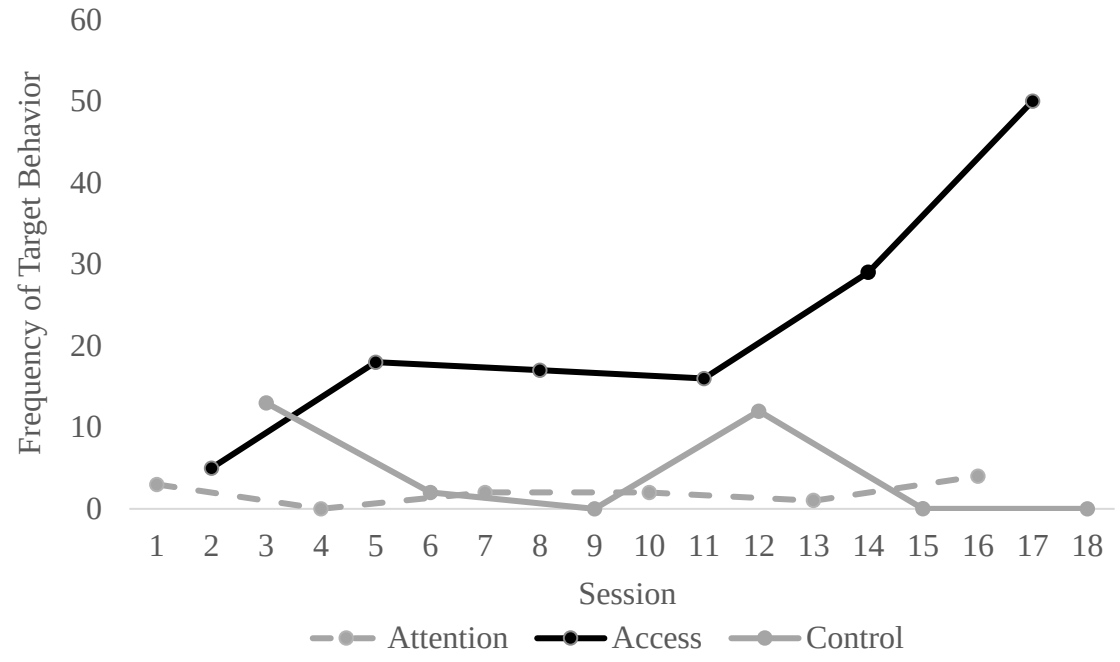
1.
2.


Percentage of 10 Second Intervals with Target Behavior
50.00%
40.00%
30.00%
20.00%
10.00%
0.00%
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18
Session
Control
Attention
Escape

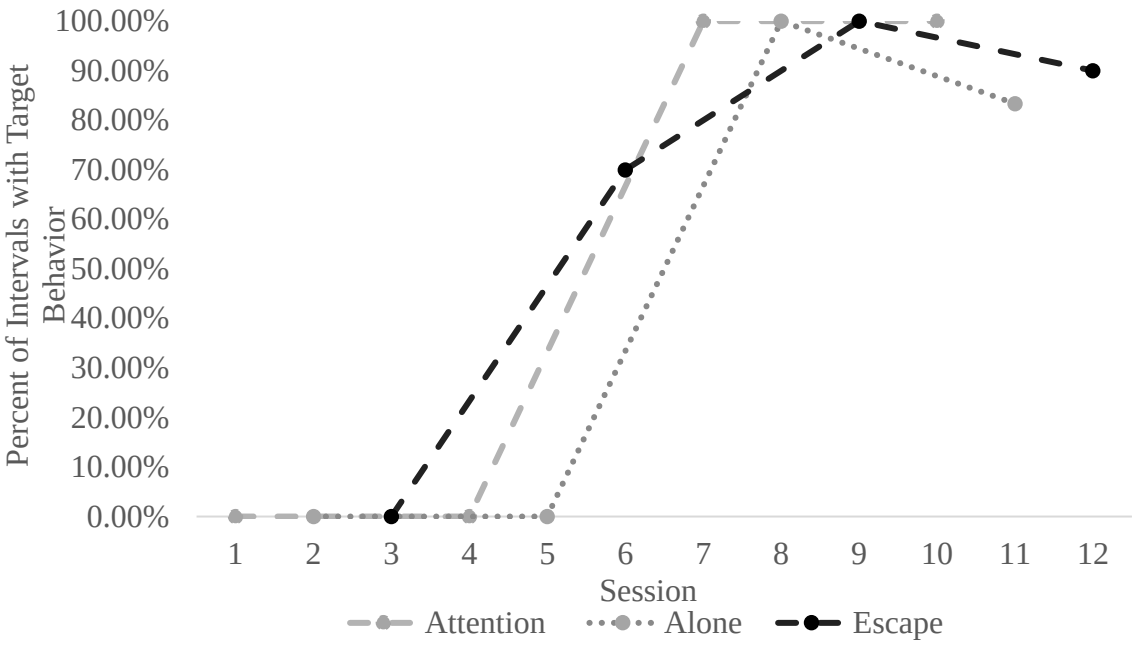
1.
2.


Frequency of Target Behavior
5
4
3
2
1
0
1 2 3 4 5 6 7 8 9 10 11 12
Session
Access
Escape
Control

1.
2.


60
50
40
30
20
10
0
Frequency of Target Behavior
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18
Session
Attention
Access
Control

1.
2.


100.00%
90.00%
80.00%
70.00%
60.00%
50.00%
40.00%
30.00%
20.00%
10.00%
0.00%
Percent of Intervals with Target Behavior
1 2 3 4 5 6 7 8 9 10 11 12
Session
Attention
Alone
Escape

1.
2.

Appendix E: IRB Approval

ST. CLOUD STATE UNIVERSITY
EDUCATION FOR LIFE.

Institutional Review Board (IRB)

720 4th Avenue South AS 210, St. Cloud, MN 56301-4498

Name: Erin Wylie

Email: ewylie@thearcoftheozarks.org

IRB PROTOCOL DETERMINATION: Expedited Review-2

Project Title: Using Contingency Specifying Statements in Functional Analyses

Advisor Michele Traub

The Institutional Review Board has reviewed your protocol to conduct research involving human subjects. Your project has been: **APPROVED**

Revision to include minor age participant approved.

Please note the following important information concerning IRB projects:

- The principal investigator assumes the responsibilities for the protection of participants in this project. Any adverse events must be reported to the IRB as soon as possible (ex. research related injuries, harmful outcomes, significant withdrawal of subject population, etc.).

- For expedited or full board review, the principal investigator must submit a Continuing Review/Final Report form in advance of the expiration date indicated on this letter to report conclusion of the research or request an extension.

-Exempt review only requires the submission of a Continuing Review/Final Report form in advance of the expiration date indicated in this letter if an extension of time is needed.

- Approved consent forms display the official IRB stamp which documents approval and expiration dates. If a renewal is requested and approved, new consent forms will be officially stamped and reflect the new approval and expiration dates.

- The principal investigator must seek approval for any changes to the study (ex. research design, consent process, survey/interview instruments, funding source, etc.). The IRB reserves the right to review the research at any time.

If we can be of further assistance, feel free to contact the IRB at 320-308-4932 or email ResearchNow@stcloudstate.edu and please reference the SCSU IRB number when corresponding.

IRB Chair:

Dr. Benjamin Witts
Associate Professor- Applied Behavior Analysis
Department of Community Psychology,Counseling, and Family Therapy

IRB Institutional Official:

Dr. Latha Ramakrishnan
Interim Associate Provost for Research
Dean of Graduate Studies

OFFICE USE ONLY

SCSU IRB# 1768 - 2244	**Type:** Expedited Review-2	**Today's Date:** 3/21/2018
1st Year Approval Date: 3/21/2018	**2nd Year Approval Date:**	**3rd Year Approval Date:**
1st Year Expiration Date: 2/8/2019	**2nd Year Expiration Date:**	**3rd Year Expiration Date:**