

Behavior Intervention Action Project

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EDG 656: Applied Behavior Analysis IV

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Abstract

Avoidant Restrictive Food Intake Disorder (ARFID) is a recent addition to the DSM-5. Criteria for diagnosis include significant weight loss (or failure to achieve expected weight gain or faltering growth in children), significant nutritional deficiency, dependence on enteral feeding or oral nutritional supplements, and marked interference with psychosocial functioning ("National Eating Disorders Association" n.d.). This study was conducted with a four-year-old male categorized as a selective eater. A treatment package of graduated exposure, a compounding schedule of preferred reinforcement, and a behavior skill training program by the primary caregiver were administered during the intervention phases. Results showed a high acquisition of ingesting novel foods for all sessions during the six weeks of treatment.

Background Information: Student and Setting

The participant for this research study was a four-year-old male observed and assessed by a medical doctor for emerging mild characteristics of ASD. "DP" was enrolled in a summer pre-K day program in the Clark County School District in Las Vegas, NV, for neurotypical and neurodivergent children of employees of the school district. "DP" is characterized as a Caucasian male, 41" tall, weighs 36 lbs, is in an English-speaking household, and is 42 months old. "DP" is slightly smaller in weight and height than his peer group. No medications have been prescribed for any conditions. He is an only child and spends little time with peers his age during the typical Fall to Summer school year. His maternal grandmother is a caretaker during those times. He appears to comply with adult requests and is a polite child. His residence includes his mother, father, and himself. His maternal grandparents were stated to live in the same neighborhood as his residence and are easily accessible. His extended family includes one male first cousin in close age relation to "DP". The mother indicated he does socialize with the cousin about once a month for various social events.

The Ages and Stages Questionnaire Third Edition (ASQ-3) indicated that "DP" is developing typically for communication, gross motor, problem-solving, and personal-social categories. In the category of fine motor, the ASQ-3 recommends providing more learning activities and monitoring their progress in this area (appendix a). "DP" engages in self-stimulatory behavior (e.g., self-talk, stimming, humming, role play) and moderate echoic responses. He is communicative and enjoys talking to adults and peers. His verbal repertoire is typically developing for a child in his age range. He is an only child with little exposure to peers in social settings. Attending day school for the summer is the first engagement for intensive socialization for "DP". Though hesitant, he adapts very well to other children his age, and no

other behavioral concerns have been reported. He is compliant, docile, and a respectful child that enjoys hugging adults and expressing “thank you” and “I love you” to recipients of the hugs.

After conducting the Open-Ended Functional Assessment Interview (OFAI), "DP's" mother indicated that his physician had expressed concern about his diet's lack of substantive variety. "DP" exhibits a very limited repertoire of food intake, particularly fruits, vegetables, and meat. His mother stated that "DP" would ingest fruit or vegetable-flavored foods, but not in the size and scope of the original fruit or vegetable. She also indicated his diet is extremely limited and, if offered any new food, would elicit gagging or expulsion if it is not already in his repertoire. The mother also indicated her desire for "DP" to consume oranges, grapes, and strawberries rather than only engaging in gummy bears or worms that encompassed the abovementioned flavors. She also noted that "DP" was only ingested foods that had been cut into extremely small portions.

Selective Eating

Though many children have food sensitivities and are considered "picky" or "finicky" eaters, a medical doctor must diagnose a patient with Avoidant/Restrictive Food Intake Disorder before extreme intervention can be prescribed.

Avoidant/restrictive food intake disorder (ARFID) is characterized by avoiding or restricting the range of foods and/or the overall amount eaten that cannot be explained by weight and shape concerns seen in other eating disorders such as anorexia nervosa. A diagnosis of ARFID requires a clinically significant negative impact on weight, nutrition, and/or psychosocial functioning. Lack of available food, culturally sanctioned practices, and other medical or psychiatric conditions should not adequately account for the eating disturbance. ARFID was added to the DSM-5 2013 as a feeding and eating disorder diagnosis (Dinkler et al., 2022).

Avoidant Restrictive Food Intake Disorder (ARFID) is a recent addition to the DSM-5. Criteria for diagnosis include significant weight loss (or failure to achieve expected weight gain or faltering growth in children), significant nutritional deficiency, dependence on enteral feeding or oral nutritional supplements, and marked interference with psychosocial functioning ("National Eating Disorders Association" n.d.). Currently, "DP" is maintaining medically criterion weight and height for his age but has displayed selective eating behavior. He does not meet other criteria from the DSM-5 for ARFID, as confirmed by his primary care physician. After consulting with a food specialist, his behavior indicates avoidance/escape of novel dietary choices. It was determined a multiple-day account of his eating habits that included amount and type should be observed for all meals and snack times. The Child Eating Behavior Questionnaire (CEBQ) was previously completed by "DP's" mother and contributed to the assessment of what textures and tastes may be preferable for his diet (appendix b).

Additionally, parental consent was obtained and found in Appendix C. Many children can be considered selective eaters or display neophobia, a resistance or reluctance to eat new foods (Torres et al., 2020). Descriptors for this type of behavior used in the research literature may include fussy, picky, choosy, and selective eaters, amongst many others (Taylor et al., 2015). Indirect assessment tools are available to aid in investigating neurotypical and neurodivergent participants. However, no systematic assessment or evaluation construct has been developed or recommended by medical or psychological associations to facilitate the determinants of selective eating. Due to the myriad of variables contributing to eating disorders, a three-day observation of "DP's" dietary schedule was analyzed. Topographical dimensions of edibles describe texture, taste, smell, size, and temperature, among others. Observations were needed to hypothesize if one or more of these dimensions contributed to the problem behavior, selective eating. In

addition to the three-day ingestible observations, the CEBQ was administered to "DP's" attending caregiver.

To gain better descriptions of his preferred textures, tastes, and food groups, a collection of dietary preferences was observed. An investigator-designed instrument, Topographical Food Log (TFL), was used to categorize the three-day observation of ingested foods. All solid edible items were sized into small portions (Cheerios cereal sized). The three-day observations showed that most preferred edibles were low odor, room temperature, and portioned small or edible with a teaspoon. Analysis of the TFL yielded 47 selections of ingested preferred foods/drinks. Results indicate that preferred textures are liquid, crunchy, pureed/smooth, and chewy. Hard, soft, mushy, and lumpy textures were not observed being ingested. Results indicate that preferred tastes are sweet, NA (water), savory, and salty. Sour and bitter foods were not observed being ingested. The categorization of food groups ingested over the three days included processed grains, dairy, fruit, and vegetable. No protein was consumed over the three-day period. The largest "food group" observed was the NA, with 18 selections. The food included in this category was water, Sunny Delight, ring pop candy, and Powerade. Additionally, the profile showed all solid foods were processed except for three boxes of raisins consumed during the three-day observation. None of the foods eaten by "DP" would be considered cooked. All solid foods were prepackaged and did not require refrigeration or a microwave, stovetop, or oven to prepare. Solid foods were not a combination of selections (i.e., multiple components such as a sandwich, hotdog, hamburger, pizza, pasta, etc.). All foods were consumed one variety at a time (i.e., crackers, then raisins, then popcorn). The three-day dietary journal topographical food log can be found in Appendix D. This profile shows low variety in food texture, taste, delivery, and lower nutritional value. After consultation with "DP's" mother, she indicated that meat (protein) was a

goal to be included in the diversification treatment. Depending on the form, meat can be described texturally as chewy or soft. After consulting with a dietary specialist, it was determined using an edible close in texture with an already preferred flavor may show positive results. Additionally, the mother indicated that she would like "DP" to take a gummy multivitamin daily (appendix e). Though the multivitamin gummy would be considered fruit flavored, it shares the "chewy" dimension similar to certain meats. Additionally, raw fruits and vegetables would be preferred in his diet. The Oral Motor Developmental Milestones (OMDM) provides a guideline for observable oral motor skills and eating behaviors typically displayed during early childhood.

Oral motor development refers to the use and function of the lips, tongue, jaw, teeth, and hard and soft palates. The movement and coordination of these structures are very important in speech production, safe swallowing, and consuming various food textures. Normal oral motor development begins prior to birth and continues beyond age three. By age four, most children safely consume solids and liquids without choking (Richmond, 2006).

According to the OMDM, a child that is 36 months to five years of age should display the following eating behaviors: progresses toward chewing and swallowing advanced textures (meats, fried foods, whole fruits, etc.) with close supervision by a caregiver, begins (with close supervision) to use a fork to stab food, drinks from an open mouth cup with no assistance (Richmond, 2006). "DP" has a limited repertoire for various textures, types, and sizes of edibles. Diversifying dietary preferences is socially significant, particularly when a child begins to eat outside of the home environment. Though "DP" is allowed to bring a lunch from home that contains his preferred foods, learning to consume a diversified repertoire of foods would improve the nutritional content in his diet. Additionally, his current prepared diet and preferred foods may not be available in various social settings.

Target Behavior and Function

The current hypothesis is avoidance of chewy textures, savory tastes, and unprocessed solid foods. Due to the limited repertoire of dietary preferences, incremental shaping procedures (graduated exposure) were to be implemented over many weeks before the criterion may be met. Currently, "DP" prefers all foods to be in very small portions and sizes and limited in variety. His mother indicated the size and portion of the foods are not as important as varying his dietary repertoire. His mother indicated she would like "DP" to learn to eat meat (e.g., luncheon meat, chicken, among others). After consulting with a dietary specialist, graduated exposure/shaping approximations to a similar texture may be preferable. Some fruits (e.g., orange, lemon, lime, grapefruit, and grapes) have similar textures to meat with preparations (e.g., drying off, cutting to size). Currently, "DP" would occasion orange-flavored gummy bears if cut into small pieces (8 to 10 cuts) but would not occasion the ingestion of orange slices. For this behavior change program, selective eating can be defined as avoiding consuming novel chewy or savory foods. See Figure 1.

Figure 1

Examples and Non-Examples of Target Behavior

Examples:	Non-Examples:
<ul style="list-style-type: none"> ● Unproductive retching/dry heaving ● Vomiting ● Leaving the immediate eating area ● Spitting out food ● Throwing food ● Avoiding/ignoring food ● Guided/assisted delivery 	<ul style="list-style-type: none"> ● Ingesting the orange-flavored gummy ● Ingesting the prepared orange slice ● Ingesting the prepared chicken breast ● Using utensils or fingers to place the food in the mouth ● Self-delivery and initiation

Behavioral Objective

The behavioral objective during regularly scheduled weekday lunch periods at the Clark County School District Day School, "DP" was to independently consume: Phase 1.) all of an orange flavored multivitamin gummy cut into eight portions before eating his preferred foods; Phase 2.) all of an orange slice (appendix f) cut into eight portions before eating his preferred foods; Phase 3.) all of a portion of a turkey hotdog cut into eight similar sized portions as the gummy and orange slice before eating his preferred foods for a minimum of five consecutive days during each phase.

Antecedent Strategies

Antecedent strategies proposed for implementation during the intervention were developed based on the historical levels of compliance exhibited by the participant and the current schedule of edible reinforcement that may be contributing to the neophobia during lunchtime. The initial strategy to be implemented was the Premack principle. Colloquially referenced as "Grandma's Law," a participant is instructed to "First..., then...." An example of the Premack principle would be: "First eat your vegetables, then you may have dessert." Specific to the scenario with "DP," the mother was asked to use this instruction method during every intervention session with novel foods. Scripted instruction for the mother during sessions was as follows: "DP," first eat the single orange flavored gummy, then you may eat whatever you would like." This strategy is described in more detail with accompanying examples by Sanders (2018).

Had this primary strategy not been effective, two other antecedent strategies may have been imposed. The second is, modeling. "DP" and his mother share a close relationship, and he complies with her. It is possible that if seeing his mother ingest the novice food, he would imitate

the behavior. This required the mother to consume the novel food and positively vocalize the reinforcing taste and texture. Example: Mother consumes orange flavored gummy and exclaims, "Yum! It tasted wonderful! I can eat more of this!" In addition to this statement, it may be possible for the mother to exclaim how enjoyable the taste or texture is and compare it to an already preferred food in "DP's" edible repertoire.

A third antecedent strategy considered but not implemented involved adapting the post-breakfast snack time before lunch. Though deprivation can be aversive, particularly with primary reinforcers, the access "DP" had for breakfast and snacks of preferred reinforcement may have created a state of satiation. The use of this strategy was contingent on the effectiveness of the Premack principle and modeling before being implemented. After conducting food selectivity research trials, Seibt et al. (2006) concluded that "food deprivation renders the immediate valence of food cues more positive and influences the organism towards approaching edible stimuli." (p.15). Though this strategy is not considered a positive behavioral intervention, it is effective for persons diagnosed with Avoidant Restrictive Food Intake Disorder (ARFID). Due to the nature of restricting preferred foods to elicit satiation, it should not be used as a primary antecedent strategy if other alternatives are effective. In the case of "DP," it was not necessary.

All three strategies involve modifications or adjustments to edible-related activities. The Premack principle still allowed access to preferred foods after ingesting a small portion of unpreferred foods. Modeling the novel food by the parent may have motivated "DP" to imitate the preferred caregiver. Lastly, establishing a satiated state before non-preferred foods may have evoked "DP" to approach and engage in ingesting the novel food, but it was not required.

Data Collection and Analysis

The initial phase of partial interval recording consisted of three consecutive weekday lunch periods at the day school, and results indicated 0 occurrences of gagging/expulsion or other avoidance behaviors. All foods in "DP's" lunch tray were preferred. Observations four, five, and six included a prepared (cut and dried) raw orange slice, a prepared orange flavored multivitamin gummy, and a prepared (1 tablespoon cut and dried) portion of turkey hotdog were available in addition to "DP's" normal lunch selections. Baseline observations were made to determine if "DP" would have approached the orange-flavored gummy multivitamin, real orange slices, or turkey hot dog (see appendix e, f, g). Results from this recording resulted in 0 occurrences of gagging/expulsion or other avoidance behaviors, but the experimental edibles were not approached, smelled, touched, or tasted. All six observations were recorded as partial intervals to ascertain any display of the problem or potentially differentiated replacement behavior. Prompting and instruction did not accompany the baseline observations. ABC data collection occurred over two additional lunch sessions and one "typical" dinner at home (video recorded "DP's" mother; appendix k). Additionally, the frequency of approaches, attempts, or ingestion was recorded for all observations that included the novel edibles. Instructions and contingency were not implemented during any observations at the day school or home. The CEBQ, Motivational Assessment Scale (MAS; appendix l), ABC, anecdotal interviews, and direct observations support a hypothesis of edible-related sensory aversion (texture). Results from these assessments indicate that a Conditioned Motivating Operation - Reflexive (CMO-R) (stemming from previous occurrences of gagging and vomiting) may contribute to the aversive behavior with novel food. Previously, a modified sequential oral sensory approach (M-SOS) was implemented by Peterson et al. (2016) for ASD students who displayed textural aversion behavior. This approach is a graduated exposure/shaping treatment that utilizes various

contingencies of reinforcement to provide opportunities for children to occasion successive approximations of novel foods. After observing "DP" with the three novel foods in his presence during lunch, a modified multi-elemental changing criterion treatment design is recommended. Additional results from the ABC observations and interview testimonials indicate that "DP" has little social interaction with peers his age. Additionally, structured meal procedures are not currently in place for home meals. NCR (playing with toys during meal time) and self-stimulatory behavior (humming, singing, rocking, walking around, etc.) are permitted (or ignored), while contingencies of reinforcement and differential reinforcement are not implemented. Another potential behavioral concern arose when at least one observation resulted in very little food being ingested during the planned lunch period. After cross-referencing the typical daily eating schedule provided by the mother, satiation may create an abolishing operation for lunch or dinner.

Positive Reinforcement

The methods used to collect reinforcement included self-report interviews with the participant and primary caregiver (mother). The instrument used with "DP" is labeled the Student Preference Assessment (SPA) and was constructed to survey reinforcements for children PreK through 2nd grade (appendix h). Additionally, the OFAI was conducted with the mother to substantiate results from the SPA (appendix i). The SPA was designed to be age appropriate and includes a wide array of common sensory, social, and activity reinforcements. Additional information for probing the document includes interests, favorite drinks, foods, television shows, movies, characters, toys, and a section for less preferred items. Additionally, the investigator modified the structure of this assessment to include paired assessment between stimuli to deduce the most to least preferred. This stimulus pairing was easy to administer, resulting in a pragmatic

list of reinforcers in less than 10 minutes. After completing the assessment with "DP," the same questionnaire was administered to the participant's caregiver to corroborate findings. Both participants were compliant and answered the questions with little effort. The participant's communication skills are "typically developed," and the questions were compatible with his level of communication and understanding. After completing the assessment with the participant and the parent, a list of most to least reinforcing activities, foods, characters, and toys was delineated. Results are shown in Figure 2.

Figure 2

Reinforcement Preferences of "DP"

<p>Activity Reinforcers: 1. Painting; 2. Swimming and playing in the water; 3. Playing games on an iPad and going for a walk around the neighborhood with his mother equally preferred</p>
<p>Tangible Reinforcers: 1. Mario character (dolls, action figures, toys); 2. Thomas the Train (dolls, action figures, toys) 3. Build-A-Bear dolls and dinosaurs (toys, dolls) are equally preferred</p>
<p>Preferred Items: Drinks (chocolate milk, water), Foods (peanut butter crackers, Oreos), Television Shows (Rosie's Rules, Daniel Tiger), Movies (Mario), Characters (Paw Patrol), Toys (Mario).</p>

Experimental Design

A multi-elemental changing criterion design over three phases was implemented as the experimental design model. After baseline conditions, three different novel foods will be implemented into the daily diet. The graduation amount of portions increased and compounded for each of the three novel foods. The intervention phases are labeled as B1, B2 (gummy), C1, C2 (orange slice), and A1, A2 (turkey hotdog).

Procedures

Phase 1 (B1, B2) consisted of a single orange-flavored multivitamin gummy sliced into eight portions of $\frac{1}{8}$ diameter. The Premack principle of "first, then" was utilized as the contingency and directive. First, "DP" ingested (without expulsion) a single $\frac{1}{8}$ diameter portion of the orange-flavored multivitamin. After meeting the criterion, he could engage in preferred foods and NCR. After three consecutive sessions of mastered criterion (single $\frac{1}{8}$ diameter portion of an orange flavored multivitamin without avoidance/expulsion), the criterion was changed to 2 portions of the $\frac{1}{8}$ diameter gummy. Each subphase required three consecutive weekdays for the criterion to increase until all portions of a whole gummy were ingested. Portions for subsequent subphases were compounded (i.e., 1, 2, 4, 8). Additionally, a combination of either of the changing criterion may be inferred from participant preference, achievement history, and reactivity. Daily reinforcement: praise, automatic reinforcement; Five consecutive weekday criterion reinforcement: small Mario figurine/doll (appendix m); Phase completion reinforcement: preferred tangible (appendix n) or preferred activity supplies (watercolor painting).

Phase 2 (C1, C2) consisted of a single orange slice sliced into eight portions of $\frac{1}{8}$ diameter. Premack principle of "first, then" was utilized as the contingency and directive. First, "DP" ingested a single $\frac{1}{8}$ diameter portion of the orange slice without expulsion. After meeting the criterion, he engaged in his preferred prepared orange multivitamin gummy, then preferred foods and NCR. After three consecutive sessions of mastered criterion (single $\frac{1}{8}$ diameter portion of orange slice without avoidance/expulsion), the criterion was changed to 2 portions of the $\frac{1}{8}$ diameter gummy. Each subphase required three consecutive weekdays for the criterion to increase until all portions of a whole gummy were ingested. Portions for subsequent subphases were increased by compounded portions (i.e., 1, 2, 4, 8). Additionally, a combination of either of

the changing criterion may be inferred from participant preference, achievement history, and reactivity. Daily reinforcement: praise, automatic reinforcement; Five consecutive weekday criterion reinforcement: small Mario figurine/doll; Phase completion reinforcement: Large preferred tangible (participant choice) or preferred activity supplies (watercolor painting).

Phase 3 (A1, A2) consisted of a one-inch piece of turkey hotdog sliced into eight portions of $\frac{1}{8}$ diameter. Premack principle of "first, then" was utilized as the contingency and directive. First, "DP" was ingested without expelling a single $\frac{1}{8}$ diameter portion of the turkey hotdog. After the criterion was met, he was engaged in the orange slice and orange multivitamin gummy before preferred foods and NCR. After three consecutive sessions of mastered criterion (single $\frac{1}{8}$ diameter portion of orange slice without avoidance/expulsion), the criterion was changed to 2 portions of the $\frac{1}{8}$ diameter turkey hotdog portion. Each subphase required three consecutive weekdays for the criterion to increase until all portions of a whole gummy were ingested. Portions for subsequent subphases were increased to compounded portions (i.e., 1, 2, 4, 8). Additionally, a combination of either changing criterion may be inferred from participant preference, achievement history, and reactivity. Daily reinforcement: praise, automatic reinforcement; Five consecutive weekday criterion reinforcement: small Mario figurine/doll; Phase completion reinforcement: Large plush Mario backpack (appendix o). Data were to be scored based on criteria for each treatment phase (see below). Each condition was compounded throughout the phases of treatment. Phases 1 and 2 were to implement the multivitamin gummy, Phases 3 and 4 were to implement the mandarin orange slice, and Phases 5 and 6 were to implement the turkey hot dog. The primary caregiver (mother) administered all delivery of foods and used the language: "first..., then..." before "DP" engaged in preferred foods. NCR was

available at all times. The continuous observation was observed by the primary investigator for all sessions.

Figure 3

Phase conditions of novel food treatment

Phases	Conditions
1	One portion orange flavored multivitamin gummy
2	Four portions orange flavored multivitamin gummy
3	1 portion of mandarin orange + 4 portions of multivitamin gummy
4	4 portions of mandarin orange + 4 portions of multivitamin gummy
5	1 portion of turkey hot dog + 4 portions of mandarin orange + 4 portions of multivitamin gummy
6	4 portion of turkey hot dog + 4 portions of mandarin orange + 4 portions of multivitamin gummy

Instructions and Considerations for Implementation

Due to the social setting and mother present for the weekday intervention lunches, the social setting may provide motivation to engage appropriately due to peer/social reinforcement. Also, preferred reinforcers may be altered if the caregiver recommends more powerful reinforcement or if "DP's" reinforcement preferences change. The tiered reinforcement schedule from least to most powerful over the phases may establish the faster achievement of successive approximations to criterion. If "DP" ingests the entire gummy, orange slice, or 1-inch portion of turkey hotdog faster than the aforementioned hypothetical subphases for three consecutive days,

all contingencies would still apply (e.g., praise, small figurine, and larger preferred tangible or activity) for the week. No contingencies or criteria were required for weekend meals. Data was collected as a percentage of completion per session. For instance, if the criterion is 8 of the $\frac{1}{8}$ diameter orange slice to be ingested and all portions are consumed without expulsion/avoidance, a 100% data point would be recorded for that session. A schedule of reinforcement for all treatment conditions can be found in Appendix P.

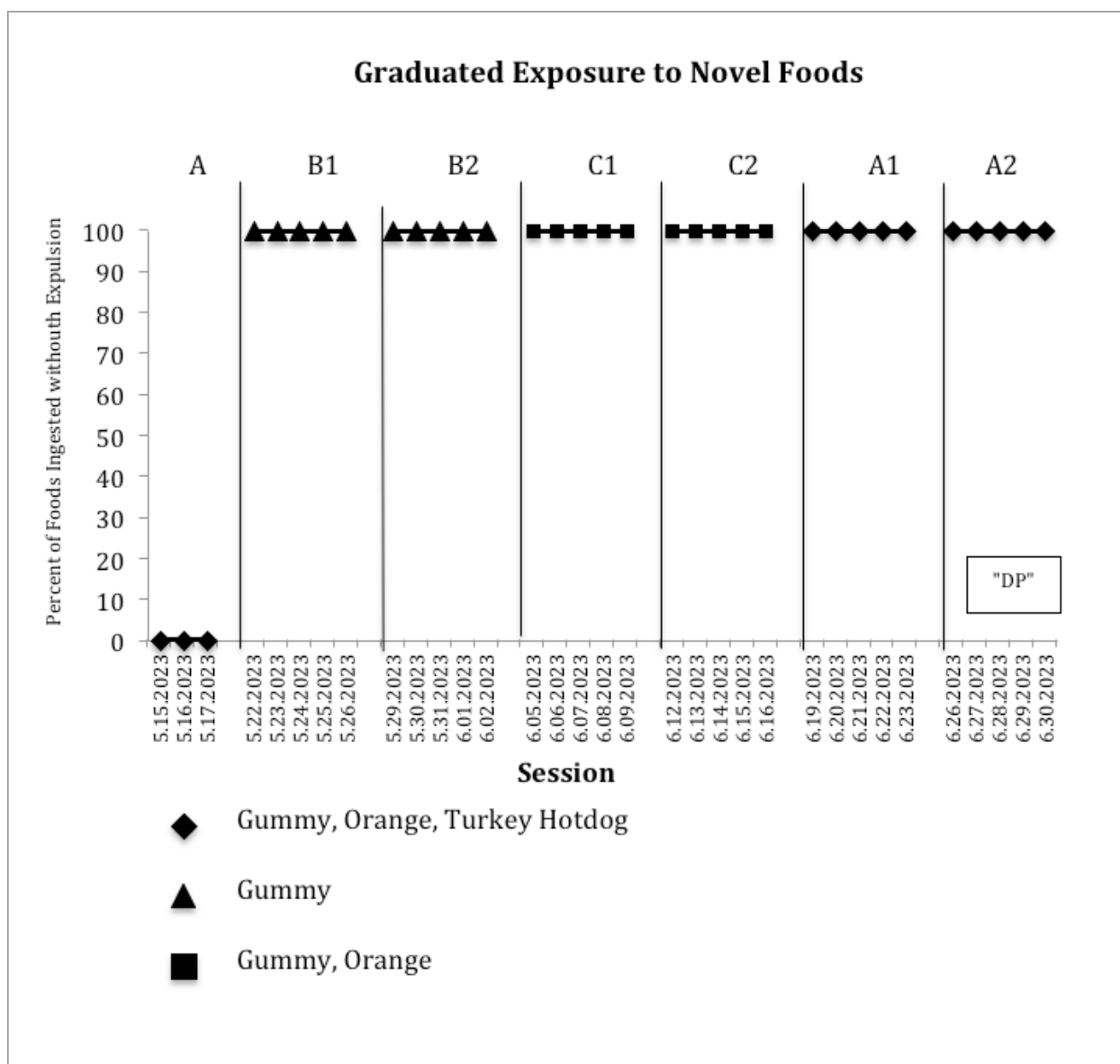
Results and Discussion

This study's dependent variable for treatment was identified specifically as a lack of attenuation to non-preferred foods. More specifically, meat (i.e., turkey hotdog). The independent variables used to approach the target behavior of eating meat began with foods similar to the preferred texture and flavor of items already in his repertoire. Beginning with the gummy, applying preferred reinforcement, and increasing the amount gradually consumed, helped to shape the acceptance rate and amount of novel foods. The textures of the graduated intervention began with a firm (but squishy) gummy, then moved to a less firm orange slice, and resulted in the acceptance of the turkey hot dog portion that was similar in texture to a dried-off piece of an orange slice. Additionally, his learned acceptance to touch all of the novel foods emerged during the second week of acceptance for all three foods. This may indicate to the caregiver that he requires stages of acceptance for any new move food. Additionally, the treatment program was designed, to begin with close approximations of taste, color, texture, and temperature to gradually expose him to the target foods. By taking preference assessments of reinforcement and combining them with a graduated approach, the program may be successful for the caregiver in acquiring novel food acceptance.

Data indicates the treatment package of graduated exposure, modeling, and reinforcers was an effective intervention for acquiring novel food ingestion with the participant. Criterion was achieved at 100% for all 24 treatment sessions ($m = 100$). Baseline (A) conditions recorded showed no approach to the novel foods of the participant's volition (see appendix q). After implementing a schedule of graduated reinforcement of increasing preference (i.e., daily, weekly, and biweekly), expulsion and avoidance were not observed. Modeling by the primary caretaker, utilizing novel edibles that share topographical dimensions of preferred foods in the participant's existing repertoire, and paired tangible reinforcers contributed to the increase in novel food acquisition. Charted data for all trials can be found in Appendix Q.

Figure 4

Line Graph of Baseline, Intervention, and Modified Baseline Data



Discussion

In addition to data points collected during intervention sessions, anecdotal observations were recorded. “DP” exhibited tactile sensitivity toward the novel foods for the first five sessions of each phase. Phase B1 required the caregiver to administer the novel food hand-to-mouth for

all five sessions. During the second week (B2), “DP” touched the novel food and fed himself without physical guidance or prompting from the caregiver. This same procedure occurred during phases C2 and D2. Observations indicate “DP” did not require assistance after the initial exposure to the novel food criterion was met over five sessions and the weekly reinforcement was delivered. A functional relationship between the elements of the treatment package could not be corroborated based on the tandem congruence of delivery. Without isolating one of the three intervention treatments, it would be hard to define the effectiveness of the differentiated strategies. Recorded observations can be seen in Appendix H.

Additional variables that may have contributed to the success of the novel food ingestion treatment package may have included social reinforcement or reactivity. Consuming the foods before his peers may have contributed to encouragement or an establishing effect to meet the criterion. Additionally, the reactivity of being watched by other adults or the investigator may have contributed to the success of "DP's" treatment plan over a six-week intervention period.

Treatment recommendations for ARFID and selective eaters are becoming more prevalent. However, research is still in the early stages of development. A combination of developmental assessment tools, reinforcement assessment, and preferred food history was needed before determining independent variables and intervening procedures were designed. Selective eating has shown to be a time-consuming process for intervention and research models alike. Additionally, training the stakeholders across settings with a BST showed promising results in the treatment conditions. A two-week follow-up discussion with "DP's" mother indicated he was beginning to explore other novel foods. She maintained the reinforcement schedule for lunch periods and began to see "DP" approaching novel foods independently during dinner meals at home. Lastly, she did believe the social setting at the school was a positive

influence overall and may have contributed to establishing a motivating operation for completing the overall criterion.

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Appendix A

Ages and Stages Questionnaire

ASQ-3 Ages & Stages Questionnaires®
 51 months 0 days through 56 months 30 days
54 Month Questionnaire



Please provide the following information. Use black or blue ink only and print legibly when completing this form.

Date ASQ completed: 5.21.2023

Child's information

Child's first name: D. Middle initial: _____ Child's last name: P.

Child's date of birth: 11.20.2018

Child's gender:
 Male Female

Person filling out questionnaire

First name: J. Middle initial: _____ Last name: P.

Street address: _____
 Relationship to child:
 Parent Guardian Teacher Child care provider
 Grandparent or other relative Foster parent Other: _____

City: _____ State/Province: _____ ZIP/Postal code: _____


Country: _____ Home telephone number: _____ Other telephone number: _____

E-mail address: _____

Names of people assisting in questionnaire completion: C. Williams

Program Information

Child ID #: _____
 Program ID #: _____
 Program name: _____



54 Month Questionnaire

51 months 0 days
through 56 months 30 days

On the following pages are questions about activities children may do. Your child may have already done some of the activities described here, and there may be some your child has not begun doing yet. For each item, please fill in the circle that indicates whether your child is doing the activity regularly, sometimes, or not yet.





Important Points to Remember: <input checked="" type="checkbox"/> Try each activity with your child before marking a response. <input checked="" type="checkbox"/> Make completing this questionnaire a game that is fun for you and your child. <input checked="" type="checkbox"/> Make sure your child is rested and fed. <input checked="" type="checkbox"/> Please return this questionnaire by _____	Notes: _____ _____ _____
-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	------------------------------------------

COMMUNICATION

	YES	SOMETIMES	NOT YET	
1. Does your child tell you at least two things about common objects? For example, if you say to your child, "Tell me about your ball," does she say something like, "It's round. I throw it. It's big"?	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	—
2. Does your child use all of the words in a sentence (for example, "a," "the," "am," "is," and "are") to make complete sentences, such as "I am going to the park," "Is there a toy to play with?" or "Are you coming, too"?	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	—
3. Does your child use endings of words, such as "-s," "-ed," and "-ing"? For example, does your child say things like, "I see two cats," "I am playing," or "I kicked the ball"?	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	—
4. Without giving your child help by pointing or repeating directions, does he follow three directions that are unrelated to one another? Give all three directions before your child starts. For example, you may ask your child, "Clap your hands, walk to the door, and sit down," or "Give me the pen, open the book, and stand up."	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	—
5. Does your child use four- and five-word sentences? For example, does your child say, "I want the car"? Please write an example: <div style="border: 1px solid black; height: 30px; width: 100%; margin-top: 5px;"></div>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	—
6. When talking about something that already happened, does your child use words that end in "-ed," such as "walked," "jumped," or "played"? Ask your child questions, such as "How did you get to the store?" ("We walked.") "What did you do at your friend's house?" ("We played.") Please write an example: <div style="border: 1px solid black; height: 30px; width: 100%; margin-top: 5px;"></div>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	—

COMMUNICATION TOTAL 6/7
page 2 of 7

GROSS MOTOR

- | | YES | SOMETIMES | NOT YET | |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------|-------------------------------------|--------------------------|---|
| 1. Does your child hop up and down on either the right foot or the left foot at least one time without losing her balance or falling? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | — |
| 2. While standing, does your child throw a ball overhand in the direction of a person standing at least 6 feet away? To throw overhand, your child must raise his arm to shoulder height and throw the ball forward. (Dropping the ball or throwing the ball underhand should be scored as "not yet.")  | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | — |
| 3. Does your child jump forward a distance of 20 inches from a standing position, starting with her feet together? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | — |
| 4. Does your child catch a large ball with both hands? (You should stand about 5 feet away and give your child two or three tries before you mark the answer.)  | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | — |
| 5. Without holding onto anything, does your child stand on one foot for at least 5 seconds without losing her balance and putting her foot down? (You may give your child two or three tries before you mark the answer.)  | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | — |
| 6. Does your child walk on his tiptoes for 15 feet (about the length of a large car)? (You may show him how to do this.)  | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | — |

GROSS MOTOR TOTAL

~~14~~ 50

FINE MOTOR

- | | YES | SOMETIMES | NOT YET | |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|---|
| 1. Using the shapes below to look at, does your child copy at least three shapes onto a large piece of paper using a pencil, crayon, or pen, without tracing? (Your child's drawings should look similar to the design of the shapes below, but they may be different in size.)

<div style="text-align: center; font-size: 2em;">L + O</div> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | — |
| 2. Does your child unbutton one or more buttons? Your child may use his own clothing or a doll's clothing. | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | — |
| 3. Does your child color mostly within the lines in a coloring book or within the lines of a 2-inch circle that you draw? (Your child should not go more than 1/4 inch outside the lines on most of the picture.) | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | — |

FINE MOTOR (continued)

- | | YES | SOMETIMES | NOT YET | |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------|--------------------------|-------------------------------------|---|
| 4. Ask your child to trace on the line below with a pencil. Does your child trace on the line without going off the line more than two times? (Mark "sometimes" if your child goes off the line three times.) | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | — |
| _____ | | | | |
| 5. Ask your child to draw a picture of a person on a blank sheet of paper. You may ask your child, "Draw a picture of a girl or a boy." If your child draws a person with head, body, arms, and legs, mark "yes." If your child draws a person with only three parts (head, body, arms, or legs), mark "sometimes." If your child draws a person with two or fewer parts (head, body, arms, or legs), mark "not yet." Be sure to include the sheet of paper with your child's drawing with this questionnaire. | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | — |
| 6. Draw a line across a piece of paper. Using child-safe scissors, does your child cut the paper in half on a more or less straight line, making the blades go up and down? (Carefully watch your child's use of scissors for safety reasons.) | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | — |



FINE MOTOR TOTAL

35

PROBLEM SOLVING

- | | YES | SOMETIMES | NOT YET | |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------|--------------------------|--------------------------|---|
| 1. When shown objects and asked, "What color is this?" does your child name five different colors, like red, blue, yellow, orange, black, white, or pink? (Mark "yes" only if your child answers the question correctly using five colors.) | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | — |
| 2. Does your child dress up and "play-act," pretending to be someone or something else? For example, your child may dress up in different clothes and pretend to be a mommy, daddy, brother, sister, or an imaginary animal or figure. | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | — |
| 3. If you place five objects in front of your child, can she count them by saying, "One, two, three, four, five" in order? (Ask this question without providing help by pointing, gesturing, or naming.) | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | — |
| 4. When asked, "Which circle is smallest?" does your child point to the smallest circle? (Ask this question without providing help by pointing, gesturing, or looking at the smallest circle.) | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | — |
| | | | | |
| 5. Does your child count up to 15 without making mistakes? If so, mark "yes." If your child counts to 12 without making mistakes, mark "sometimes." | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | — |

PROBLEM SOLVING (continued)

	YES	SOMETIMES	NOT YET	
6. Does your child know the names of numbers? (Mark "yes" if he identifies the three numbers below. Mark "sometimes" if he identifies two numbers.)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<u>100</u>
3 1 2				
	PROBLEM SOLVING TOTAL			<u> </u>

PERSONAL-SOCIAL

	YES	SOMETIMES	NOT YET	
1. Does your child wash her hands using soap and water and dry off with a towel without help?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<u> </u>
2. Does your child tell you the names of two or more playmates, not including brothers and sisters? (Ask this question without providing help by suggesting names of playmates or friends.)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<u> </u>
3. Does your child brush his teeth by putting toothpaste on the toothbrush and brushing all of his teeth without help? (You may still need to check and rebrush your child's teeth.)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<u> </u>
4. Does your child serve herself, taking food from one container to another, using utensils? (For example, does your child use a large spoon to scoop applesauce from a jar into a bowl?)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<u> </u>
5. Does your child tell you at least four of the following? Please mark the items your child knows.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<u> </u>
<input checked="" type="checkbox"/> a. First name <input checked="" type="checkbox"/> d. Last name				
<input checked="" type="checkbox"/> b. Age <input checked="" type="checkbox"/> e. Boy or girl				
<input checked="" type="checkbox"/> c. City he lives in <input type="checkbox"/> f. Telephone number				
6. Does your child dress and undress herself, including buttoning medium-size buttons and zipping front zippers?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<u> </u>
	PERSONAL-SOCIAL TOTAL			<u>55</u>

OVERALL

Parents and providers may use the space below for additional comments.

1. Do you think your child hears well? if no, explain: YES NO

OVERALL (continued)

2. Do you think your child talks like other children her age? If no, explain:

 YES NO

3. Can you understand most of what your child says? If no, explain:

 YES NO

4. Can other people understand most of what your child says? If no, explain:

 YES NO5. Do you think your child walks, runs, and climbs like other children his age?
If no, explain: YES NO6. Does either parent have a family history of childhood deafness or hearing
impairment? If yes, explain: YES NO

7. Do you have any concerns about your child's vision? If yes, explain:

 YES NO

ASQ-3 **54 Month ASQ-3 Information Summary** 51 months 0 days through 56 months 30 days

Child's name: D.P. Date ASQ completed: 5.27.2023
 Child's ID #: NA Date of birth: 11.20.2023
 Administering program/provider: C. Williams NKU Research

1. **SCORE AND TRANSFER TOTALS TO CHART BELOW:** See ASQ-3 User's Guide for details, including how to adjust scores if item responses are missing. Score each item (YES = 10, SOMETIMES = 5, NOT YET = 0). Add item scores, and record each area total. In the chart below, transfer the total scores, and fill in the circles corresponding with the total scores.

Area	Cutoff	Total Score	0	5	10	15	20	25	30	35	40	45	50	55	60
Communication	31.85	60	●	●	●	●	●	●	●	●	●	●	●	●	●
Gross Motor	35.18	55	●	●	●	●	●	●	●	●	●	●	●	●	●
Fine Motor	17.32	35	●	●	●	●	●	●	●	●	●	●	●	●	●
Problem Solving	28.12	60	●	●	●	●	●	●	●	●	●	●	●	●	●
Personal-Social	32.33	55	●	●	●	●	●	●	●	●	●	●	●	●	●

2. **TRANSFER OVERALL RESPONSES:** Bolded uppercase responses require follow-up. See ASQ-3 User's Guide, Chapter 6.

- | | | | |
|---------------------------------------------------------------------|---------------|------------------------------------------------------------|---------------|
| 1. Hears well?
Comments: YES | Yes NO | 6. Family history of hearing impairment?
Comments: NO | YES NO |
| 2. Talks like other children his age?
Comments: YES | Yes NO | 7. Concerns about vision?
Comments: NO | YES NO |
| 3. Understand most of what your child says?
Comments: YES | Yes NO | 8. Any medical problems?
Comments: NO | YES NO |
| 4. Others understand most of what your child says?
Comments: YES | Yes NO | 9. Concerns about behavior?
Comments: YES | YES NO |
| 5. Walks, runs, and climbs like other children?
Comments: YES | Yes NO | 10. Other concerns?
Comments: YES - Picky eating habits | YES NO |

3. **ASQ SCORE INTERPRETATION AND RECOMMENDATION FOR FOLLOW-UP:** You must consider total area scores, overall responses, and other considerations, such as opportunities to practice skills, to determine appropriate follow-up.

If the child's total score is in the area, it is above the cutoff, and the child's development appears to be on schedule.
 If the child's total score is in the area, it is close to the cutoff. Provide learning activities and monitor.
 If the child's total score is in the area, it is below the cutoff. Further assessment with a professional may be needed.

4. **FOLLOW-UP ACTION TAKEN:** Check all that apply.

- Provide activities and rescreen in ____ months.
- Share results with primary health care provider.
- Refer for (circle all that apply) hearing, vision, and/or behavioral screening.
- Refer to primary health care provider or other community agency (specify reason): _____
- Refer to early intervention/early childhood special education.
- No further action taken at this time
- Other (specify): _____

5. **OPTIONAL:** Transfer item responses (Y = YES, S = SOMETIMES, N = NOT YET, X = response missing).

	1	2	3	4	5	6
Communication						
Gross Motor						
Fine Motor						
Problem Solving						
Personal-Social						

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Child Eating Behavior Questionnaire (CEBQ)

Child Eating Behavior Questionnaire (CEBQ)	
Instructions: Please read the following statements and check (✓) the boxes most appropriate to your child's eating behavior.	
Name of Child:	'DP'
Age of Child:	4
Name/Relation of Person Answering the Questionnaire:	'J.P.' - Mother
Date:	5.21.23

Behavior Description	Seems enjoy
Setting Description	Home - social settings

	QUESTION:	0	1	2	3	4	5	
1.	My child loves food	0	1	2	3	4	5	EF
2.	My child is interested in food	0	1	2	3	4	5	EF
3.	My child looks forward to mealtimes	0	1	2	3	4	5	EF
4.	My child enjoys eating	0	1	2	3	4	5	EF
	EF TOTAL SCORE:	-	-	2	9	-	-	11
5.	My child eats more when worried	0	1	2	3	4	5	ICE

6.	My child eats more when annoyed	0	1	2	3	4	5	EOE	
7.	My child eats more when nervous	0	1	2	3	4	5	EOE	
8.	My child eats more when s/he has nothing else to do	0	1	2	3	4	5	EOE	
EOE TOTAL SCORE:		0	1	-	-	-	-		0
9.	My child has a big appetite	0	1	2	3	4	5	SR	
10.	My child leaves food on his/her plate at the end of a meal	0	1	2	3	4	5	SR	
11.	My child gets full before his/her meal is finished	0	1	2	3	4	5	SR	
12.	My child gets full easily	0	1	2	3	4	5	SR	
13.	My child cannot eat a meal if s/he has had a snack, just before - he can eat even after a snack	0	1	2	3	4	5	SR	
SR TOTAL SCORE:		-	1	2	9	-	-		12
14.	My child finishes his/her meal quickly	0	1	2	3	4	5	SE	
15.	My child eats slowly	0	1	2	3	4	5	SE	
16.	My child takes more than 30 minutes to finish a meal	0	1	2	3	4	5	SE	
17.	My child eats more and more slowly during the course of a meal	0	1	2	3	4	5	SE	
SE TOTAL SCORE:		-	-	-	12	-	-		12
18.	My child is always asking for a drink	0	1	2	3	4	5	DD	

19.	If given the chance, my child would drink continuously throughout the day	0	1	2	3	4	5	DD	
20.	If given the chance, my child would always be having a drink	0	1	2	3	4	5	DD	
DD TOTAL SCORE:		-	-	-	9	-	-		19
21.	My child refuses new foods at first	0	1	2	3	4	5	FF	
22.	My child enjoys tasting new foods	0	1	2	3	4	5	FF*	
23.	My child enjoys a wide variety of foods	0	1	2	3	4	5	FF*	
24.	My child is difficult to please with meals	0	1	2	3	4	5	FF	
25.	My child is interested in tasting new foods	0	1	2	3	4	5	FF*	
26.	My child decides they do not like a food, even without tasting it	0	1	2	3	4	5	FF*	
FF TOTAL SCORE:						30			30
27.	My child eats less when angry	0	1	2	3	4	5	EUE	
28.	My child eats less when s/he is tired	0	1	2	3	4	5	EUE	
29.	My child eats more when s/he is happy	0	1	2	3	4	5	EUE	
30.	My child eats less when upset - will not eat when he is upset	0	1	2	3	4	5	EUE	
EUE TOTAL SCORE:		0	1	-	-	4	-		5

31.	My child is always asking for food	0	1	2	3	4	5	FR	
32.	If allowed to, my child would eat too much	0	1	2	3	4	5	FR	
33.	Given the choice, my child would eat most of the time	0	1	2	3	4	5	FR	
34.	Even if my child is full up s/he finds room to eat his/her favorite food	0	1	2	3	4	5	FR	
35.	If given the chance, my child would always have food in his/her mouth	0	1	2	3	4	5	FR	
FR TOTAL SCORE:		1	3	1	6	1	1		17

	FR	EDE	EF	DD	SR	SE	EUE	FF
Total Score:	9	1	11	9	12	12	5	30

SCORING OF THE CEHQ (Never=1, Rarely=2, Average=3, Usually=4, Always=5)
 Food responsiveness = item mean FR
 Emotional overeating = item mean EDE
 Enjoyment of food = item mean EF
 Desire to drink = item mean DD
 Satiety responsiveness = item mean SR
 Slowness in eating = item mean SE
 Emotional under-eating = item mean EUE
 Food fussiness = item mean FF *Reversed item scoring (1=5, 2=4)

Wardle, J, Guthrie CA, Sanderson, S and Rapoport, L. Development of the Children's Eating Behaviour Questionnaire. *Journal of Child Psychology and Psychiatry*. 42, 2001, 963-970. NB: There is an error in the text of this paper concerning the scoring of the CEHQ which is given as 6-4. In fact responses were scored 1-5 and the means and standard deviations given in the tables reflect this.

Appendix C

Parental Consent Form



PARENT CONSENT

This form must be signed before any recording, observations, assessments, instruction, and/or interventions are conducted.

Instructions for Northern Kentucky University Student: Please complete the top portion of this form and request the parent/guardian to complete the second section.

Student: CANTON L. Winings
Course: ED 614 1050 Semester: FALL 2023
Date: 5.22.23
Signature: [Signature]

Consent required for:
 Observation Assessment Instruction/Intervention Audio/Video Recording

Instructions for Parent/Guardian: Please complete the section below and return to the Northern Kentucky University Student.

I understand that the above-named Northern Kentucky University Student is taking the stated course, for which he/she is required to observe and/or administer assessments, instruction and/or intervention to students. I give my consent for my child to participate in the following checked activities as administered by the above-named Northern Kentucky University Student.

Observation Assessment Instruction/Intervention Audio/Video Recording

I agree that any resulting reports and/or videos (if recording is checked) will be submitted to the course faculty. I also understand that because this student is in training, the results may not be valid or reliable. I further understand that the supervisor of the course faculty may access the reports and/or videos if necessary.

District: C.C.S.D.
School: NA
Student: JULIAN PUGH
Grade: PREK

Parent/Guardian Name: Julie Pugh

Date: 5.22.23

Signature: [Signature]

Appendix D

Diet Journal and Topographical Food Log (TFL)

Topographical Food Log (TFL)	
Instructions: Record types of foods ingested and label appropriate descriptor	
Name of Child: "DP"	
Age of Child: 4	
Observing Recorder and Dates: "JP" (Nathan), C. Williams, May 24, 2023 - May 24, 2023	

Time	Food	Source	Color	Group	Flavoring	Preparation	Texture	Temperature	Site	Activity
7:30 AM	Chocolate Milk, 8 oz.	G	A	E	A	B	NA	C		A
7:40 AM	Fruity Delights, 8 oz.	G	A	NA	A	B	NA	C		A
8:00 AM	Water, 8 oz.	G	NA	NA	B	B	NA	C	NA	A
	Cinnamon Toast Crunch, 1 c	D	A	C	A	B	B	B		A
11:00 AM	Water, 8 oz.	G	NA	NA	B	B	NA	C	NA	A
	Salmon Crackers, 8	D	C	C	A	B	B	B		A
	Cheddar Cheese, Shredded, 2 TB	B	E	E	A	B	B	C		A
12:30 PM	Ring Pop Candy, 1	NA	A	NA	A	B	B	B		A
2:30 PM	Cheese Sods, 12 oz.	G	A	NA	A	B	NA	C		A
	Four Cheese & Onion Chips, 1 c	D	E	B	A	B	B	B		A
3:00 PM	Milk (Strawberry), 8 oz.	G	A	NA	A	B	NA	C		A
	Chocolate Chip Crackers, 2	D	A	C	A	B	B	B		A
7:00 PM	Water, 12 oz.	G	NA	NA	B	B	NA	C	NA	A
	Baby Food, Banana, 1 c	E	A	A	A	B	B	B		A
9:00 PM	Kashi Popsicle, 2 c	D	A	C	A	B	B	B		A
10:00 PM	Milk, 8 oz.	G	A	E	B	B	NA	C		A
	Daily Dreamer: Strawberry	D	A	C	A	B	B	B		A

1:00-7:00	Blue Berries, 12 oz.	G	A	NA	A	B	NA	C		A
	Chips & Queso, 2	D	E	C	A	B	B	B		A
7:00-7:00	Milk, 12 oz.	G	NA	NA	B	B	NA	C	NA	A
	Daily Food, Sweet Potato, 1 c	E	A	B	A	B	B	B		A
	Raisins, small box, 1	H	A	A	D	B	B	B		A
9:00-7:00	Doritos Popcorn, 2 c	D	E	C	A	B	B	B		A
1:00-7:00	Milk, 4 oz.	G	A	E	B	B	NA	C		A
	Daily Decision Discussion	D	A	C	A	B	B	B		A

Dimensions of Three Day Food Observation

Taste

Bland (A)	Salt (B)	Musty (C)	Crispy (D)	Smooth/Pureed (E)	Lumpy (F)	Light (G)	Chewy (H)	NA
0	0	0	12	4	0	22	0	0

Flavor

Sweet (A)	Sour (B)	Salty (C)	Bitter (D)	Savory (E)	Spicy (F)	NA
20	0	2	0	0	0	0

Food Group

Fruit (A)	Vegetable (B)	Grain (C)	Protein (D)	Dairy (E)	NA
0	2	12	0	0	10

Processing

Processed (A)	Unprocessed (B)
32	17 (cream, milk, raisins)

Preparation

Cooked (A)	Uncooked (B)
0	47

	DATE: 6.11.2021								
7:30 AM	Chocolate Milk, 8 oz.	G	A	E	A	B	NA	C	A
7:45 AM	Sunny Delight, 8 oz.	G	A	NA	A	B	NA	C	A
8:00 AM	Milk, 12 oz.	G	NA	NA	B	B	NA	C	NA
	Granison Tiramisu, 1 o	D	A	C	A	B	B	B	A
1:00 PM	Milk, 12 oz.	G	NA	NA	B	B	NA	C	NA
	Granison Applepie, 1 o	E	A	A	A	B	B	B	A
	Chocolate Chip Cookies, 1	D	A	C	A	B	B	B	A
2:30 PM	Sweet Tea, 12 oz.	G	A	NA	A	B	NA	C	A
2:00 PM	Milk, 12 oz.	G	NA	NA	B	B	NA	C	NA
	Twister Chips, 1 o	D	E	C	A	B	B	B	A
3:00 PM	Raisins, 1 small box	H	A	A	B	B	B	B	A
	Ginger, 1 cube	E	A	E	A	B	B	C	A
5:00 PM	Kashi Popcorn, 2 o	D	A	C	A	B	B	B	A
5:00 PM	Milk, 8 oz.	G	A	E	B	B	NA	C	A
	Daily Devotion: Meditation	D	A	C	A	B	B	B	A
	6.14.2021								
7:30 AM	Chocolate Milk, 8 oz.	G	A	E	A	B	NA	C	A
7:45 AM	Sunny Delight, 8 oz.	G	A	NA	A	B	NA	C	A
8:00 AM	Milk, 12 oz.	G	NA	NA	B	B	NA	C	NA
	Granison Tiramisu, 1 o	D	A	C	A	B	B	B	A
1:00 PM	Small box of raisins, 1	H	A	A	B	B	B	B	A
	Milk, 12 oz.	G	NA	NA	B	B	NA	C	NA
	Twister Chips, 1 o	D	E	C	A	B	B	B	A
3:00 PM	Sweet Tea, 12 oz.	G	A	NA	A	B	NA	C	A

Appendix E

Multivitamin Gummy



Appendix F

Mandarin Oranges



Appendix G

Turkey Hot Dog



Appendix H

Student Preference Assessment (SPA)

Student Preference Assessment PreK - 2nd Grade (SPA-P2)						
Instructions: Please read the following questions and circle the most appropriate number that describes your child's eating behavior.						
Name of Child: "DP"						
Age of Child: 4						
Name/Relation of Person Answering the Questionnaire: C. Williams						
Date: 10.13.23						

SENSORY REINFORCERS	REALLY LIKE	LIKE	DO NOT LIKE	PAIR 1	PAIR 2	PAIR 3
Swinging		✓				
Bubbles		✓				
Being Held		✓				
Squeezes		✓				
Jumping		✓				
Blanket Roll		✓				
Spinning		✓				
Back Rubs - <i>SHOULDERS</i>		✓				
Smells		—				
Pressure		—				
Other:		—				
Other:		—				

PREFERENCES	1.	2.	3.

SOCIAL REINFORCERS	REALLY LIKE	LIKE	DO NOT LIKE	PAIR 1	PAIR 2	PAIR 3
Hugs		✓				
Adult Attention		✓				
High-Five		✓				
Verbal Praise		✓				
Thumbs-Up		✓				

Applause		✓				
Eye Contact		—				
Hand Shake		✓				
Alone Time		✓				
Sitting with Adult		✓				
Tickles <i>from Mother</i>		✓				
Other:		—				

PREFERENCES	1.	2.	3.
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ACTIVITY REINFORCERS	REALLY LIKE	LIKE	DO NOT LIKE	PAIR 1	PAIR 2	PAIR 3
Drawing		✓				
Painting	✓			✓	✓	Ⓢ
Books w/ <i>Moose</i>		✓				
Computer	✓			✗		
Ipad	✓			✓		
Puzzles	✓					
Water Play/Swimming	✓			✓	✓	
Sand/Dirt Play		—				
Musical Toys <i>guitar</i>	✓					
Going for a Walk	✓	✗		✓		
Playing "Dress up" <i>Mario</i>	✓					
Other:		—				

PREFERENCES	1. <i>PAINTING</i>	2. <i>WATER/SWIM</i>	3. <i>IPAD/WALKING</i>
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TANGIBLE REINFORCERS	REALLY LIKE	LIKE	DO NOT LIKE	PAIR 1	PAIR 2	PAIR 3
Animals <i>Bear</i>	✓					
Alphabet		✓				
Cars		✓				
Dolls <i>Mario</i>	✓			✓	Ⓢ	
Dinosaurs <i>TWO</i>	✓					

Number1		✓				
Shapes		✓				
Tools		✓				
Trains 'THOMAS'	↓ ✓			↓ ✓		
Tracks		✓				
Other:						
Other:						

PREFERENCES	1. MARIO	2. THOMAS	3. BEAR/DINO
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FAVORITES

Drinks	CHOCOLATE MILK, WATER
Foods	PEANUT-BUTTER CRACKERS, COOKIES (OREOS)
TV Shows	'ROBIN SWANSON', 'DANIEL TIGER'
Movies	MARIO, SUPERMAN, BATMAN
Characters	MARIO, PAW PATROL
Activities	PAINTING
Music	'BEAR NECESSITIES'
Toys	MARIO

DISLIKES

Drinks	"I DON'T KNOW"
Food	"PIZZA"
TV Shows	NA
Movies	NA
Other	NA

NOTES:

DESIGNS CONTINUED BY MOTHER: MARIO + WATER COLOR PAINTING.

Appendix I

Open-ended Functional Assessment Questionnaire

Open-Ended Functional Assessment Interview Developed by Gregory P. Hanley, Ph.D., BCBA-D (Developed August, 2002; Revised: August, 2009)	Date of Interview: 6.7.2023
Child/Client: "DP"	Respondent: "JP"
Respondent's relation to child/client: Mother	Interviewer: C. Williams

RELEVANT BACKGROUND INFORMATION

1. **His/her date of birth and current age:**
11.20.2018; 4yrs, 6 mos; male
2. **Describe his/her language abilities.**
Normal development. Slightly echoic at times.
3. **Describe his/her play skills and preferred toys or leisure activities.**
Preferred toys include monster trucks, cars, dinosaurs, guitar, puzzles, painting, trampoline, soccer ball, slides, petting the cat, hotwheels, drawing, Leggos, Batman, Superman, Indiana Jones, Mario, Mickey Mouse, swimming
4. **What else does he/she prefer?**
Going on walks in the neighborhood with mother.

QUESTIONS TO INFORM THE DESIGN OF A FUNCTIONAL ANALYSIS

To develop objective definitions of observable problem behaviors:

5. **What are the problem behaviors? What do they look like?**
Has a limited on the variety of foods he will eat. Has exhibited gagging and vomiting in the past. Sometimes he requires assistance to feed himself. Sometimes the food must be prepared in extremely small cut up bites. He still eats mostly baby food for staples.

To determine which problem behavior(s) will be targeted in the functional analysis:

6. **What is the single-most concerning problem behavior?**
Lack of variety in foods he will eat.
7. **What are the top 3 most concerning problem behaviors? Are there other behaviors of concern?**
Lack of variety in foods, some assistance required in feeding, and gagging/vomiting.

To determine the precautions required when conducting the functional analysis:

8. **Describe the range of intensities of the problem behaviors and the extent to which he/she or others may be hurt or injured from the problem behavior.**

Typically, he will gag or vomit when he tries any new food. Sometimes he will throw-up alot, sometimes just gagging, other times, he will force it down. He tried icing on a cake and vomited; tried a french fry, chewed for a while, then vomited. He does not like foods combined together. When he eats cereal it cannot have milk in it. His peanut butter and crackers are the only two foods that are combined. If it is a new food, I have to feed it to him. He will not touch it. He is compliant and will try new foods, though. He does not runaway or cry, but will ignore it completely unless I feed it to him.

To assist in identifying precursors to dangerous problem behaviors that may be targeted in the functional analysis instead of more dangerous problem behaviors:

- 9. Do the different types of problem behavior tend to occur in bursts or clusters and/or does any type of problem behavior typically precede another type of problem behavior (e.g., yells preceding hits)?**

This occurs for any new food unless it has a similar texture to what he already eats.

To determine the antecedent conditions that may be incorporated into the functional analysis test conditions:

- 10. Under what conditions or situations are the problem behaviors most likely to occur?**

Any unfamiliar food requires assisted feeding and usually involves gagging and/or vomiting.

- 11. Do the problem behaviors reliably occur during any particular activities?**

I have only attempted new foods for lunch time or dinner time, not during breakfast or snack times.

- 12. What seems to trigger the problem behavior?**

He does not eat cooked, combined, or hot (temperature) foods. It may be texture or flavor related.

- 13. Does problem behavior occur when you break routines or interrupt activities? If so, describe.**

No. It consistently occurs.

- 14. Does the problem behavior occur when it appears that he/she won't get his/her way? If so, describe the things that the child often attempts to control.**

No. It consistently occurs. He is a compliant child.

To determine the test condition(s) that should be conducted and the specific type(s) of consequences that may be incorporated into the test condition(s):

- 15. How do you and others react or respond to the problem behavior?**

We remove the new food from the area and clean the area if necessary. There are no repercussions, he is free to eat more of what he wants or leave the eating area to play.

16. What do you and others do to calm him/her down once he/she engaged in the problem behavior?

We try to provide encouragement and the appearance that it is okay if he does not like or that he vomited.

17. What do you and others do to distract him/her from engaging in the problem behavior?

We have stopped attempting to introduce many new foods that are not similar to what he is already eating. He will not eat meat, fruit, bread, or any fresh foods. We tried imitating eating the foods and how good they are, but that does not work either.

In addition to the above information, to assist in developing a hunch as to why problem behavior is occurring and to assist in determining the test condition(s) to be conducted:

18. What do you think he/she is trying to communicate with his/her problem behavior, if anything?

He does not like certain textures.

19. Do you think this problem behavior is a form of self stimulation? If so, what gives you that impression?

No. The first time he began throwing up was when he was a few months old and I tried a new baby formula. Had to change back to the previous formula.

20. Why do you think he/she is engaging in problem behavior?

He is not afraid to try new foods, so I am not sure if there is a real reason. He avoids touching things he is unfamiliar with and usually needs to be in extremely tiny pieces before he will attempt tasting or smelling the new foods.

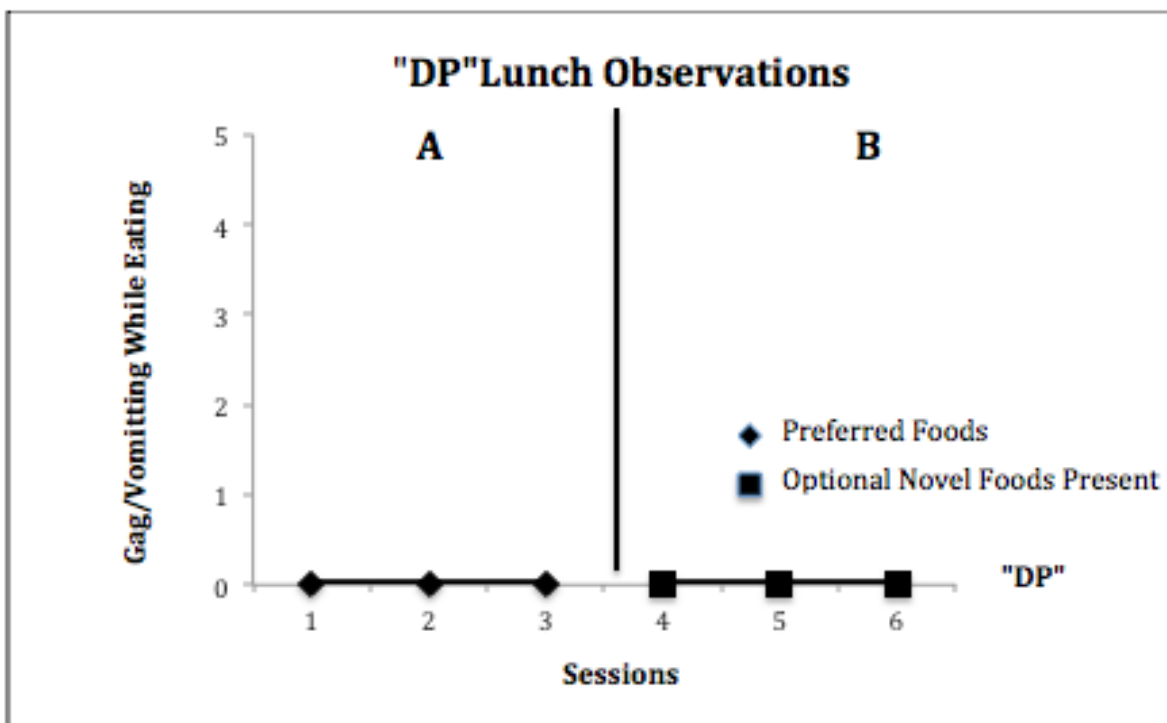
Appendix J

Scatterplot Observation Form and Graph

Scatterplot Observation Form

Student Name: "DP"					Date Started: 5.29.23 - 6.7.23					
Observer: Williams					Coding Key: √= behavior observed					
Target Behavior: gag/vomit reflex while eating					√+ = observed multiple times _ = not observed					
TIME	M	T	W	R	F	M	T	W	R	F
11:00 AM	_	_	_			_	_	_		
11:01 AM	_	_	_			_	_	_		
11:02 AM	_	_	_			_	_	_		
11:03 AM	_	_	_			_	_	_		
11:04 AM	_	_	_			_	_	_		
11:05 AM	_	_	_			_	_	_		
11:06 AM	_	_	_			_	_	_		
11:07 AM	_	_	_			_	_	_		
11:08 AM	_	_	_			_	_	_		
11:09 AM	_	_	_			_	_	_		
11:10 AM	_	_	_			_	_	_		
11:11 AM	_	_	_			_	_	_		
11:12 AM	_	_	_			_	_	_		
11:13 AM	_	_	_			_	_	_		
11:14 AM	_	_	_			_	_	_		
11:15 AM	_	_	_			_	_	_		
11:16 AM	_	_	_			_	_	_		

11:17 AM	_	_	_			_	_	_		
11:18 AM	_	_	_			_	_	_		
11:19 AM	_	_	_			_	_	_		
11:20 AM	_	_	_			_	_	_		
11:21 AM	_	_	_			_	_	_		
11:22 AM	_	_	_			_	_	_		



Appendix K

ABC Observation Forms

A | B | C Observation Form

Student Name: "DP"		Date: 6.12.2023	
Observer: Williams		Time Begin: 11:00 AM Time End: 11:22 AM	
Location/Setting: Lunch/Activities Room		Subject: Lunch	
TIME	ANTECEDENT	BEHAVIOR	CONSEQUENCE
11:02 (AM)	Signal from teacher to go to lunch room	Organizing items (food container, cup with straw, and Leggo box)	Automatic reinforcement (AR)
11:03	Adult: "What are you eating today?"	"DP": "crackers and cheese"	Adult: "Looks really good. Go ahead and eat."
11:04	Previous consequential directive from adult.	Begin eating cracker with fingers, unassisted.	AR
	Adult: "Do you have enough water?"	"DP": "Yes."	Adult: "Good. I will let you eat."
	Previous consequential directive from adult.	Completes eating first cracker, takes a drink of water	AR
11:06	Views noncontingent reinforcement (NCR) - Leggo	Sets down water, picks up Leggo	AR
11:08	Adult: "'DP', make sure you eat your food.	Sets down Leggo, picks up cheese with fingers	"Make sure you eat all of your food."
11:09	Previous consequential directive from adult.	Begin eating, takes drink of water	AR
11:11	Views adult	Stands up, walks to adult, gives bag	Reciprocal bag and instruction from adult
11:13	Previous consequential directive from adult.	Walks over to chair, sits down, takes drink, grabs cracker	AR
11:14	Views cheese	Picks up cheese and eats.	AR
11:15	Views yellow Leggo piece on table	Grabs yellow Leggo and says, "Yellow, yellow, yellow!" as adult walks by.	Adult smiles, continues walking
11:17	Adult walks by, "Time to start finish eating."	Sets down Leggo, picks up cracker	AR
11:18	Views cheese	Picks up fingerful of cheese with hand and eats	AR
	Eating cheese	Picks up water cup, drinks	AR
	Views unfinished cracker	Finishes eating cracker	AR
11:20	Eating cracker	Picks up water cup, drinks	AR
	Views unfinished cracker piece and cheese	Eats both	AR
	Eating cheese and cracker	Picks up water cup, drinks	AR
11:22	Signal to begin putting items away, lunch is ending	Begin to put away container and Leggo in small bag	AR

A | B | C Observation Form

Student Name: "DP"		Date: 6.15.2023	
Observer: Williams		Time Begin: 6:00 PM Time End: 6:19 PM	
Location/Setting: Home Setting at Table		Subject: Dinner, video recording	
TIME	ANTECEDENT	BEHAVIOR	CONSEQUENCE
6:00 PM	Sits at the table, sees plate with food (2TB shredded cheddar cheese, 3 saltine crackers, 1 chocolate chip cookie, water)	Begins eating cheese one strand at a time - 6 total	AR
6:01 PM	Mother: "What are you eating?"	"DP": Cheese and crackers.	Mother: "And you have a cookie on the side."
	Previous comment by mother	"DP": "And a cookie on the side."	Mother: "What kind of cookie?"
	Previous question	"DP": "Chocolate chip."	Mother: "Is that your favorite?"
	Previous question	"DP": "Yes."	Mother: "Mine too."
6:02 PM	Sees cheese on the plate	Eats 5 more strands of cheese, 1 at a time with fingers	AR
6:04 PM	Mother: "Have you been doing puzzles all by yourself today?"	"DP": "Yes."	Mother: "That is wonderful!"
	Sees cheese on the plate	Eats remaining strands of cheese, 1 at a time with fingers	AR
6:06 PM	Sees crackers on the plate	Begins eating one saltine cracker and rocking side to side in chair	AR
	Thirst	Drinks water	AR
6:09 PM	Sees second cracker	Begins eating second cracker and rocking side to side in chair	AR
	Unknown	Stops rocking side to side, begins mumbling to himself	Mother: "Finish eating your crackers, then you can have your cookie."
6:11 PM	Prompt	Picks up third cracker, begins eating	AR
	Sees puzzle	"DP": "Mom, can I play puzzle after cookie?"	Mother: "Yes."
6:14 PM	Prior directive	Finishes third cracker, has a drink of water, picks up cookie	AR
	Unknown	Intermittently begins singing "Old McDonald had a Farm" and eats cookie	AR
6:19 PM	Thirst	Drinks water	AR

A | B | C Observation Form

Student Name: "DP"		Date: 6.13.2023	
Observer: Williams		Time Begin: 11:00 AM Time End: 11:19AM	
Location/Setting: Lunch/Activities Room		Subject: Lunch	
TIME	ANTECEDENT	BEHAVIOR	CONSEQUENCE
11:02 (AM)	Signal from teacher to go to lunch room	Organizing items (food container, cup with straw, and Lego toy)	Automatic reinforcement (AR)
11:03	Adult: "Do you need a napkin?"	"DP": "Yes."	Receives napkin
	Receiving napkin from adult	"DP": "Thank you."	Adult: "You are welcome."
11:04	Sees banana baby food in tray	Grabs spoon, eats 1 spoonful independently	AR
	Thirst	Drinks water from cup	AR
11:05	Sees Lego (NCR)	Plays with Lego	AR
11:08	Sees adult	Walks to adult and hugs	Receives hug from adult and redirection to sit and eat
	Prior consequential directive	Walks to chair, sits down, eats another spoonful of baby food	AR
	Thirst	Drinks water from cup	AR
11:11	Views adult	Stands up, walks around the room to different adult, gives hug	Reciprocal hug and redirection from adult.
11:13	Previous consequential directive from adult.	Walks over to chair, sits down, takes drink, grabs spoon, eats baby food	AR
11:14	Sees Lego toys (NCR)	Plays with Lego	AR
11:16	Views adult	Makes funny faces, smiles, and sticks tongue out at adult.	Adult laughs
	Previous laughter from adult	Laughter	Adult: "Thank you, DP, make sure you finish your food."
11:18	Previous consequential directive from adult	Sets down Lego, eat another spoonful of baby food.	AR
	Eating baby food created thirst	Picks up water cup, drinks	AR
11:19	Unknown (occurs prior to end of lunch promoting)	Begins to put away container and Lego in small bag	AR

Appendix L

Motivation Assessment Scale (MAS)

Motivation Assessment Scale (MAS)	
Instructions: Please read the following statements and circle the most appropriate number that describes your child's behavior.	
Name of Child:	"DP"
Age of Child:	4
Name/Relation of Person Answering the Questionnaire:	"JR", Mother
Date:	6.12.23

Behavior Description	SELECTIVE EATING
Setting Description	HOME - TABLE

Instructions: The Motivation Assessment Scale (MAS) is a questionnaire designed to identify those situations in which an individual is likely to behave in certain ways. From this information, more informed decisions can be made concerning the selection of appropriate reinforcers and treatments. To complete the MAS, select one behavior that is of particular interest. It is important that you identify the behavior very specifically. For example, "aggressive" is not as good a description as "hits his sister". Once you have specified the behavior to be rated, read each question carefully and circle the one number that best describes your observation of this behavior.

Questions	Never	Almost Never	Seldom	Half the Time	Frequently	Almost Always	Always
1. Would the behavior occur continuously, over and over, if left alone for long periods of time (e.g., several hours)?	0	1	2	3	4	5	6
2. Does the behavior occur following a difficult task demand?	0	1	2	3	4	5	6

3. Does the behavior seem to occur in response to you talking to other people in the environment?	0	1	2	3	4	5	6
4. Does this behavior ever occur in response to withholding a tangible or activity?	0	1	2	3	4	5	6
5. Would the behavior occur repeatedly, over and over, if left alone for long periods of time (e.g., over an hour)?	0	1	2	3	4	5	6
6. Does this behavior occur when any request has been made?	0	1	2	3	4	5	6
7. Does this behavior occur when you stop paying attention to this person?	0	1	2	3	4	5	6
8. Does this behavior occur when you take away access to a preferred tangible, edible, or activity?	0	1	2	3	4	5	6
9. Does it appear to you the person is enjoying the behavior (e.g., smiles, tenses, looks enjoyable)?	0	1	2	3	4	5	6
10. Does it appear the person is performing the behavior to annoy or upset you?	0	1	2	3	4	5	6
11. Does it appear the person is performing the behavior to annoy or upset you when you are not attending them (e.g., sitting in a different room with a different person)?	0	1	2	3	4	5	6
12. Does the behavior stop occurring after giving them access to a preferred tangible, edible, or activity?	0	1	2	3	4	5	6
13. When this behavior is occurring does it seem the person is calm and unaware of the environment?	0	1	2	3	4	5	6
14. Does the behavior abate within a short period of time (i.e., 1 to 5 minutes) after you cease requesting or making demands of the person?	0	1	2	3	4	5	6
15. Does this person perform the behavior to make you spend time with them?	0	1	2	3	4	5	6
16. Does this person perform the behavior after they have been told they cannot engage in something they wanted to do?	0	1	2	3	4	5	6

	Sensory	Escape	Attention	Tangible
	1. 0	2. 0	3. 0	4. 0
	5. 0	6. 0	7. 0	8. 0
	9. 0	10. 0	11. 0	12. 0
	13. 0	14. 0	15. 0	16. 0
Total Score:	12	0	0	0
Mean Score:				
Relative Rank:	1	2	-	-

Appendix M

Mario Toy (Mario)



Appendix N

Mario Toy (Luigi)



Appendix O

Mario Plush Backpack



Appendix P

Schedule of Treatment and Reinforcement

Student: “DP”

Target Behavior: Ingestion of novel foods without expulsion or gagging

Treatment Condition 1*: 1 prepared portion of orange-flavored multivitamin gummy (appendix e)

Treatment Condition 2*: 4 prepared portions of orange-flavored multivitamin gummy

Treatment Condition 3*: 1 prepared portion of a mandarin orange slice (appendix f); compounded w/T2

Treatment Condition 4*: 4 prepared portions of mandarin orange slice

Treatment Condition 5*: 1 prepared portion of turkey hot dog (appendix g); compounded w/T2 and T4

Treatment Condition 6*: 4 prepared portions of turkey hot dog

*Portions are defined as approximately the size of a green pea. “DP” is not required to touch the novel foods with fingers to meet the criterion. Each treatment condition consists of 5 consecutive weekdays

Reinforcement schedules: Praise and prompt for meeting criterion levels per session; Only preferred foods for weekend meals for meeting criterion levels for T1, T3, and T5; New Mario action figure for meeting criterion levels for TC2 and TC4 (Appendix D, E); Lifesize Mario plush toy for meeting criterion levels for TC6 (Appendix F); NCR (preferred toys, iPad) available at all times during sessions

Appendix Q

Intervention Data Recording Chart

Date	Time	Treatment Condition	Criteria	Criteria Achieved	Percent	Notes
5.22.2023	11:00 AM	1	1 Portion	1	100	Assisted Delivery of Novel
5.23.2023	“	1	“	1	100	“
5.24.2023	“	1	“	1	100	“
5.25.2023	“	1	“	1	100	“
5.26.2023	“	1	“	1	100	“
5.29.2023	“	2	4 Portions	4	100	Independent Delivery
5.30.2023	“	2	“	4	100	“
5.31.2023	“	2	“	4	100	“
6.01.2023	“	2	“	4	100	“
6.02.2023	“	2	“	4	100	“
6.05.2023	“	3	1 Portion	1	100	Assisted Delivery of Novel
6.06.2023	“	3	“	1	100	“
6.07.2023	“	3	“	1	100	“
6.08.2023	“	3	“	1	100	“
6.09.2023	“	3	“	1	100	“
6.12.2023	“	4	4 Portions	4	100	Independent Delivery
6.13.2023	“	4	“	4	100	“
6.14.2023	“	4	“	4	100	“
6.15.2023	“	4	“	4	100	“
6.16.2023	“	4	“	4	100	“

6.19.2023	“	5	1 Portion	1	100	Assisted Delivery of Novel
6.20.2023	“	5	“	1	100	“
6.21.2023	“	5	“	1	100	“
6.22.2023	“	5	“	1	100	“
6.23.2023	“	5	“	1	100	“
6.26.2023	“	6	4 Portions	4	100	Independent Delivery
6.27.2023	“	6	“	4	100	“
6.28.2023	“	6	“	4	100	“
6.29.2023	“	6	“	4	100	“
6.30.2023	“	6	“	4	100	“
					Total Percentage	
					100	