

FUNCTIONAL BEHAVIOURAL ASSESSMENT (FBA) REPORT, RESULTS & RECOMMENDATIONS

Childs name: Matt Smith
Date of Birth: XX/XX/2000
School: Lewis Comprehensive School
Address: Pengam, CBC.

Chronological Age: 14 years
Year: 10
Gender: Male
Date of Report: 11/19/2014

Purpose

This Functional Behavioural Assessment (FBA) was conducted at the request of British Broadcasting ISD to determine the function of challenging behaviours in the classroom.

Background Information

Matt Smith is a 14-year old, Caucasian male attending Lewis Comprehensive School. He currently qualifies for special education services under the IDEA eligibility criteria of Other Health Impaired (OHI), Attention Deficit---Hyperactivity Disorder (ADHD). Matt currently attends all classes in the general education setting with inclusion support in all core subject areas, including English, Social Studies, Math, and Science.

Challenging Behaviours:

The following behaviours were identified by teacher/administrator reports, observation sessions, and records review as the most challenging to Matt's success both academically and socially:

- Off---Task Behaviour: Defined as engaging in off---task behaviour, such as staring at the wall, ceiling, or floor, playing with his backpack, moving his desk around, and doodling on his papers.
- Lack of work completion: Defined as not turning in his homework or classroom assignments.
- Noise Making: Matt makes inappropriate noises, such as whistling, that are not appropriate to the current demand, and distract others around him.
- Out---of---Seat Behaviour: Matt is out of his seat, roaming around the classroom or school, when he should be engaging in some other task.

Assessment activities focused on out---of---seat behaviour, as this was identified as most significant by teachers and observed to be more frequent than the other three behaviours.

Assessment Activities and Results:

Assessment activities for this FBA report include the following and are discussed below:

- Staff Interviews

- Parent Phone Interview
- IEP Review
- Behavioural Questionnaire
- Observations
- Individual Reinforcement Survey

Staff Interviews

Matt's core subject teachers were briefly interviewed on September 29, 2014. The teachers informally interviewed included Matt's English, G.A.M.E. (math intervention), Social Studies, Math and Science teachers. An inclusion aide is present in all of Matt's core classes as well and they were also informally interviewed in association with the FBA.

Staff interviews provided information on Matt's current and historical behaviour. They also described specific examples of behaviour. Staff described Matt as a pleasant and happy boy. Behaviours were described as happening daily and moderately severe, with out---of---seat behaviour and work completion being the most significant.

Out---of---Seat behaviour was reported to worsen as the week progressed. Staff reported a history of these behaviours from the primary school, although they couldn't provide any specific details. All staff reported that they used redirection and reminders to stay on task strategies with him, but some staff also reported trying to use ignoring strategies. They reported that they try to be as consistent as possible, but stated that they have very busy and full classrooms. All staff reported frustration with Matt's behaviours, as they don't believe to see much improvement.

Parent Phone Interview

Matt's mother was briefly interviewed over the phone on September 29, 2014. The interview lasted for approximately 20 minutes. She shared what she perceives to be Matt's most serious behaviours, previous diagnoses, home behaviour, and medication.

Matt's mother stated that Matt was identified with Attention Deficit---Hyperactivity Disorder (ADHD) when he was 8 years old. His mother stated that she had concerns with his hyperactivity level, messy handwriting, impulsiveness, and difficulty concentrating. She took him to a pediatrician where he was identified with ADHD. She stated that he used to be on medications, but she chose to remove all prescription meds from his medical care two years ago. She believed that he "didn't need the meds" and described him as "a good kid that is a little overly active at times" because "he's just being a boy." She stated that the most serious behaviour exhibited by Matt is his lack of work completion because that affects his grades. When asked about a typical day, Matt's mother stated that he gets up at 6AM, gets to school by 7:30, and goes to an afterschool program until 5:00 in the evening. When he gets home in the evening, he watches television, plays games and relaxes until around 10:00 PM when he usually goes to bed.

Review of Individual Education Plan (IEP)

Matt's current IEP, dated November 19, 2013---November 19, 2014, was reviewed on September 29, 2014 to assess history of behaviour, current accommodations, special education setting placement and the appropriateness of academic objectives. Matt's IEP revealed a history of concerns with off---task behaviour and lack of work completion. His IEP stated that Matt's current special education placement is in all general education classes with inclusion support in all core classes. He receives appropriate accommodations, including reminders to stay on task, assignments broken up into smaller chunks, calculator for use in math, graphic organizer for use when writing, preferential seating, and frequently check for understanding. All academic objectives appeared to be appropriate and adhere to curriculum guidelines. The possibility of adding behavioural objectives might need to be examined after the FBA.

Functional Analysis Screening Tool (FAST)

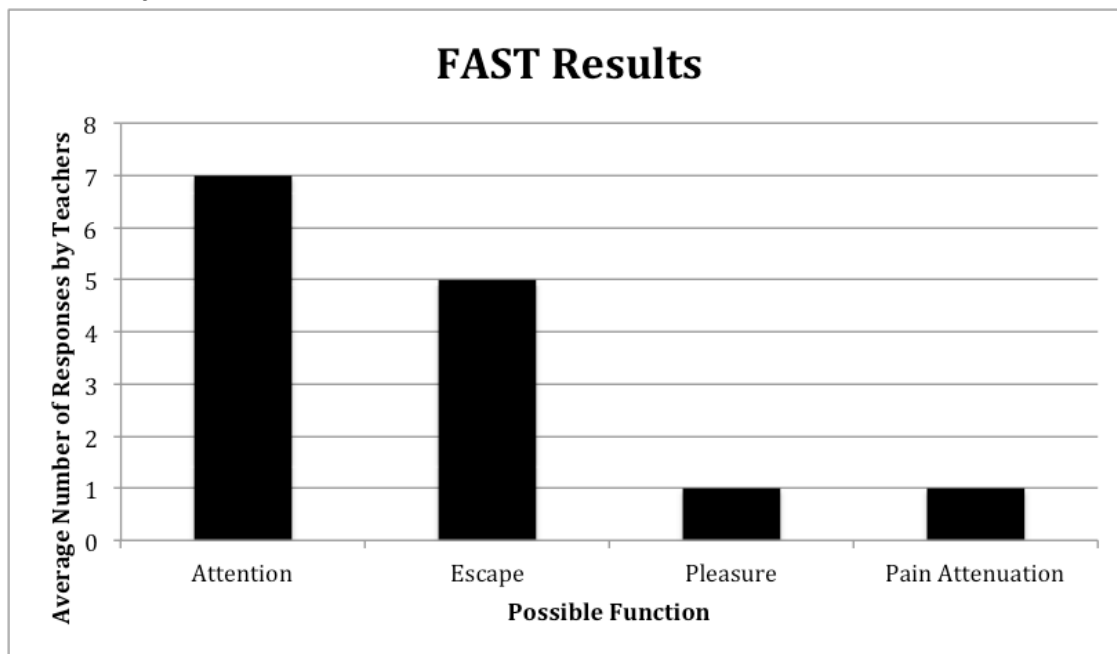
On September 30, 2014, all five of Matt's core subject teachers and one of his elective teachers (Art) were administered the FAST to determine possible functions of behaviour. The FAST is a non---standardized questionnaire where responders answer "Yes" or "No" to various behavioural questions. They then fill out a self---score section that shows what the possible function of behaviour could be based on which questions were answered "Yes."

The following table represents the number of questions answered "Yes" in each function category by each of the teachers that participated in the assessment.

Functional Assessment Screening Tool (FAST) Results							
Possible Function	English Teacher	GAME Teacher	Social Studies Teacher	Math Teacher	Science Teacher	Art Teacher	AVERAGE (nearest whole #)
Social Positive Reinforcement (attention)	6	8	6	7	7	6	7
Social Negative Reinforcement (escape)	4	8	4	7	5	4	5
Automatic Positive (pleasure)	2	2	1	3	0	0	1
Automatic Negative (Pain attenuation)	0	2	0	2	0	0	1

Results from Matt's teachers suggest that they perceive the behaviour to be mostly controlled by Social Positive Reinforcement (attention) as it had a slightly higher frequency of "Yes" answers. Results also suggest that the teachers perceive Social Negative Reinforcement (escape) to be another possible function of Matt's behaviour.

The following graph depicts these FAST results pictorially where the patterns are more easily understood.



Although the results from each teacher were not exactly consistent, all teachers perceived Social Positive and Social Negative reinforcement to be the most likely functions of Matt's behaviour than Automatic Positive or Negative. This is not unexpected given the teacher interviews and behavioural history. Results of these results show Social Positive Reinforcement to be the most likely maintaining variable of behaviour, followed closely by Social Negative Reinforcement or escape.

Anecdotal Recording

Matt was observed on October 1, 2014 from 8:27---9:50 during 1st and 2nd periods. Anecdotal recording is basically a transaction of everything that is said or done to or around the student during the observation time. The full transcript of the observation is included in Appendix B, but the ABC data charts resulting from the observation are included on the next four pages. During the two hours that Matt was observed, all four of the challenging behaviours were observed. Of all the behaviours observed, out---of---seat behaviour appeared to be the most frequent, most distracting to the learning environment, and appeared to impede his learning because he was walking around when he should have been sitting down. Making noises appeared to be the least problematic behaviour, as he most often engaged in this behaviour while he was working and the sounds were quiet and not distracting to those around him. He occasionally made a couple sounds that were distracting, but out---of---seat behaviour occurred most frequently.

Therefore, because out---of---seat behaviour was the most challenging and distracting behaviour observed, the examiner chose to focus on throughout the remainder of this assessment.

Time	Antecedent	Behaviour	Consequence	Result	Function	
8:31 AM	Teacher asks question to class	Puts cereal container in mouth and chews on it	Teacher walks over	Continue (	Escape	ICArtult Att . Tangible
					Obtain	• Peer Atter1. Sensory
	Matt finishes writing on paper	Looks around the classroom	TA walks over and gives redirection	Continue (	Escape	IG.,1..i. Att.:) Tangible
					Obtain	• Peer Atter1. Sensory
8:34 AM	Teacher walks away and Matt drops his pencil	Leans over his desk so far that his head rests on the floor with feet in the air & asks observer a question	Observer answers question	Continue (	Escape	Tangible
					Obtain	• Peer Atter1. Sensory
	Teacher walks away and Matt finishes writing on paper	Walks across room to hand TA his paper	TA asks him to take his seat	Continue (	Escape	IG.-i.,Jt Att.:l. Tangible
					Obtain	t Peer Atten. Sensory
	TA asks him to return to his seat	Walks very slowly across room back to seat	TA follows and redirects	Continue (	Escape	Tangible
					Obtain •	Peer Atter1. Sensory
8:39 AM	TA finishes helping him and walks away	Messes with cereal container again, making crinkling and crunching noises	TA redirection	Continue (	Escape	Tangible
					Obtain	• Peer Atter1. Sensory
8:40 AM	TA talks to neighboring student	Makes sounds	No Response	Stopped	Escape Obtain	Adult Atten. Tangible Peer Atter1. Sensory
	No Response	Continues Making Sounds	TA Redirection	Continue (	Escape	Tangible
					Obtain	• Peer Atter1. Sensory

Time	Antecedent	Behaviour	Consequence	Result	Function	
8:42 AM	TA tells him that the sharpener is not working	Tries to sharpen pencil anyway	TA gives reprimanding look	Continue (	Escape	IG.r1ult Att.:} Tangible
					Obtain	Peer Atten. Sensory
	Teacher addresses class	Tries to stab cereal with pencil	TA shakes her head No	Continue (	Escape	Tangible
					Obtain	Peer Atten. Sensory
	Teacher still addressing whole class	Puts the cereal container on his face	TA asks him to put it away	Continue (	@opped Escape	Tangible
					Obtain	Peer Atten. Sensory
	TA asks him to put cereal container away	Shakes cereal cont. liner, but lifts backpack slowly	TA walks away to help another student	Continue (	Stopped Escape	Adult Atten.. Tangible
					Obtain	Peer Atten. Sensory
	TA walked away to help another student	Lifts and holds backpack above his head	TA redirection	Continue (	Escape	Tangible
					Obtain	t Peer Atten. Sensory
8:44 AM	Teacher asking question to entire class	Holds hand up - after not getting called on, he interrupts teacher	Teacher acknowledgement of statement	Continue (	Escape	Tangible
					Obtain	t Peer Atten. Sensory
8:45 AM	Teacher whole group instruction	Lifts arms in the air and yawns	No response	Stopped	Escape Obtain	Adult Atten.. Tangible Peer Atten. Sensory
	No response	Bangs elbow on desk	TA redirection	Continue (	Escape	Tangible
					Obtain	Peer Atten. Sensory

Time	Antecedent	Behaviour	Consequence	Result	Function	
8:46AM	TA walks away	Puts feet on his seat and sits on feet	No Response	Stopped Continue: >	Escape Obtain	Adult Atten. Tangible Peer Atten. Sensory
	No Response	Throws feet over side of chair and messes with bandage on leg	Class instructions given by teacher	Stopped	Escape Obtain	Adult Atten. Tangible Peer Atten. Sensory
8:47 AM	Class begins moving around as per teacher instruction	Scoots desk back to wall and looks at other students	TA redirection	Continue	Escape Obtain	Adult Atten. Tangible Peer Atten. Sensory
8:49 AM	Teacher direction to class - class begins word game	Stares blankly at the front of the room	Teacher redirection and verbal prompting	Continue	Escape Obtain	Adult Atten. Tangible Peer Atten. Sensory
Switched to Second Period						
9:01 AM	Announcements begin	Continues to sit down and does not take part in the pledge	Teacher direction to participate	Continue	Escape Obtain	Adult Atten. Tangible Peer Atten. Sensory
9:04AM	Instruction to entire class	Begins to tap his calculator and make rhythmic noises	Teacher verbal and physical redirection [touching back; shaking head]	Continue	Escape Obtain	Adult Atten. Tangible Peer Atten. Sensory
	Teacher asks for "good news" and calls on other students to share	Snaps fingers at teacher while holding hand up	No Response	Stopped (	Escape Obtain	Adult Atten. Tangible Peer Atten. Sensory

Time	Antecedent	Behaviour	Consequence	Result	Function	
9:06 AM	No response	Interrupts teacher to share good news	Teacher acknowledges statement	Continue	Escape Obtain	Adult Atten. Tangible Peer Atten. Sensory
	Teacher continues to listen to the good news of peers	Starts making "du, du, du, du" sound and plugs numbers into calculator	TA asks him to stop	Continue	Escape Obtain	Adult Atten. Tangible Peer Atten. Sensory
9:25 AM	Teacher walks around to offer help to other students	Blows air on hand, stares at floor and waves paper in the air	Teacher direction till come to table if he needs help	Continue	Escape Obtain	Adult Atten. Tangible Peer Atten. Sensory
9:29 AM	Russell is walking around to help others and students are talking amongst themselves	Whistles and looks around the room	Teacher redirection	Continue	Escape Obtain	Adult Atten. Tangible Peer Atten. Sensory
9:39 AM	Teacher helps another student	Interrupts Teacher with question	Teacher direction to wait a minute	Continue	Escape Obtain	Adult Atten. Tangible Peer Atten. Sensory
9:44 AM	Class working on math problems	Taps on table and leans both chairs up in the air	Teacher redirection	Continue	Escape Obtain	Adult Atten. Tangible Peer Atten. Sensory
	Students are working and showing their pictures to each other	Benedict and neighbor engage in quiet talk about their people	Teacher redirection	Continue	Escape Obtain	Adult Atten. Tangible Peer Atten. Sensory
9:50 AM	Class working on assignment	Stares into space	Teacher taps table in front of him to prompt him to begin working again	Continue	Escape Obtain	Adult Atten. Tangible Peer Atten. Sensory

Analysis of ABC Data

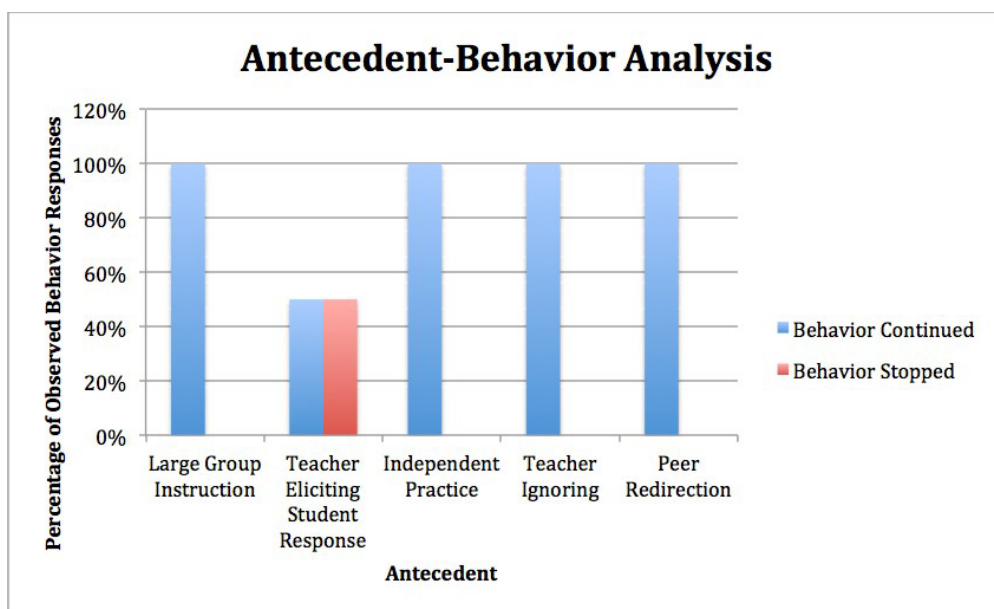
An Antecedent, Behaviour, and Consequence (ABC) chart is an informal data collection system that is used as part of an FBA to provide specific information on instances where challenging behaviour is observed. This chart provides information on what event happened immediately before the target behaviour (Antecedent), a description of the target behaviour (Behaviour), and a description of what happened immediately after the behaviour occurs (Consequence). The ABC chart provides information about the environment in which the behaviour occurs and allows the examiner to identify patterns of behaviour. The FBA examiner, Melissa Morris gathered the ABC data on the target behaviour, out---of---seat behaviour, and the observation lasted over a period of an hour and a half on one day (3rd and 6th periods).

ABC data was analyzed by the frequency of specific antecedents, behaviours, and consequences. The most frequent behaviour observed during the ABC recording session was out---of---seat behaviour, with 12 episodes reported. This behaviour occurred significantly more often than the remaining observed behaviours. The next behaviour observed was “noise---making” behaviour with 2 episodes, followed by “poking peers” and “throwing items” with one episode each. The most frequent antecedent reported as “large group instruction” (7 instances) and “independent practice” (3 instances). The most common consequence was “Teacher redirection,” with 7 instances. This was followed by “ignore” (4 instances) and “peer attention” (3 incidences). The ABC data suggest that teacher attention may be the primary function of the behaviour.

Date: 10/2/2014		Period: 3 rd		Subject: Social Studies		
Time	Antecedent	Behavior	Consequence	Result	Function	
10:45 AM	Teacher asked for Good News	Raised hand and made noise	Teacher continued to call on other students	Stopped Continue	Escape Obtain	Adult Atten. Tangible Peer Atten. Sensory
	Teacher called on other students	Stood up and walked to the front of the room while raising his hand	Teacher asked student to sit down	Stopped Continue	Escape Obtain	Adult Atten. Tangible Peer Atten. Sensory
10:48 AM	Teacher reads next warm-up question	Makes noise and stands up	Teacher ignores student	Stopped Continue	Escape Obtain	Adult Atten. Tangible Peer Atten. Sensory
	Teacher ignores student	Continues to stand up in the front of the room	Teacher asks student to sit down and then calls on him	Stopped Continue	Escape Obtain	Adult Atten. Tangible Peer Atten. Sensory
11:05 AM	Students working on coloring & labeling maps of Middle East	Walks over to sharpen pencil	Peers talk to him	Stopped Continue	Escape Obtain	Adult Atten. Tangible Peer Atten. Sensory
11:10 AM	Students working on maps	Walks around the back of the room and pokes peers	Aide asks him to sit down	Stopped Continue	Escape Obtain	Adult Atten. Tangible Peer Atten. Sensory
11:15 AM	Independent Work Time	Walked to front of the room and started arranging white board markers	Aide asks him to come sit with her to work	Stopped Continue	Escape Obtain	Adult Atten. Tangible Peer Atten. Sensory
				Stopped Continue	Escape Obtain	Adult Atten. Tangible Peer Atten. Sensory

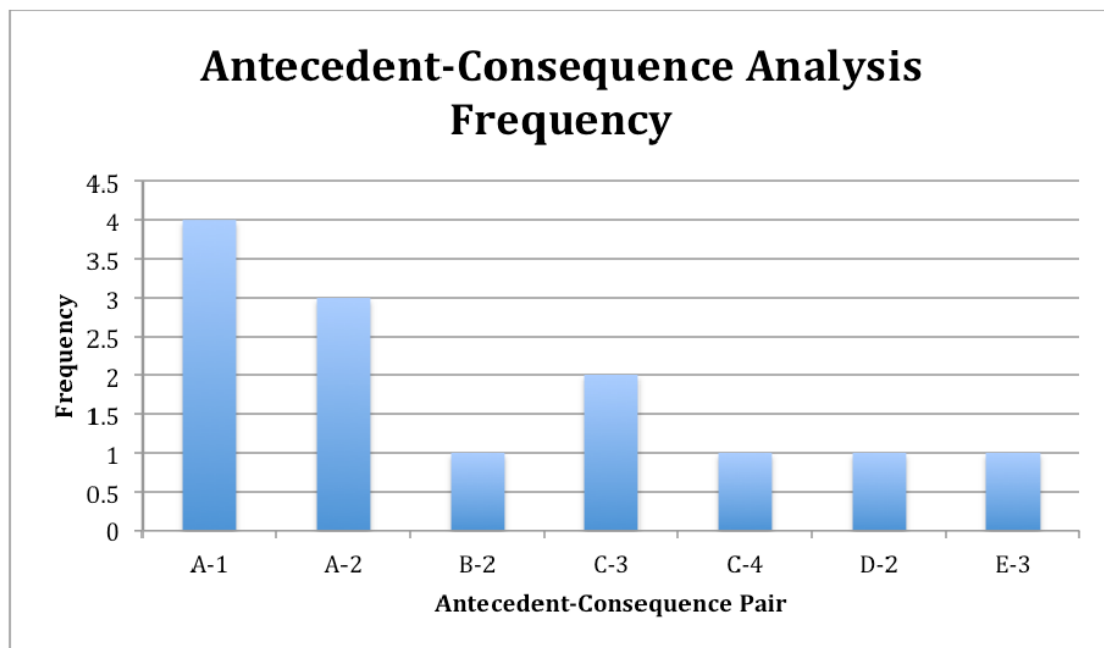
Date: 10/2/2014						
Period: 6 th			Subject: Math			
Time	Antecedent	Behavior	Consequence	Result	Function	
1:40 PM	Bell rings	Passes out everyone's class binder	Students say "thank you" and he says "You're Welcome"	Stopped Continue	Escape Obtain	Adult <u>Atten.</u> Tangible Peer <u>Atten.</u> Sensory
1:43 PM	Teacher informs students to get agenda out of binders	Stands up in the back of the room and throws an eraser up in the air multiple times	Teacher Ignore	Stopped Continue	Escape Obtain	Adult <u>Atten.</u> Tangible Peer <u>Atten.</u> Sensory
	Large Group Directions	Continues to stand up in the back of the room	TA redirection to sit down	Stopped Continue	Escape Obtain	Adult <u>Atten.</u> Tangible Peer <u>Atten.</u> Sensory
1:47 PM	Teacher walks out of the room to talk to another teacher in hallway	Walks to door and stands in doorway, observing teacher	Other students tell him to sit down	Stopped Continue	Escape Obtain	Adult <u>Atten.</u> Tangible Peer <u>Atten.</u> Sensory
	Other students tell him to sit down - teacher in hallway	Stands in doorway to classroom	TA redirection to sit down	Stopped Continue	Escape Obtain	Adult <u>Atten.</u> Tangible Peer <u>Atten.</u> Sensory
2:00 PM	Teacher instructs class to get homework out	Walks over to teacher's chair and sits down	Teacher ignore	Stopped Continue	Escape Obtain	Adult <u>Atten.</u> Tangible Peer <u>Atten.</u> Sensory
	Large group instruction	Continues to sit in teacher's chair	Teacher redirection to sit down	Stopped Continue	Escape Obtain	Adult <u>Atten.</u> Tangible Peer <u>Atten.</u> Sensory
				Stopped Continue	Escape Obtain	Adult <u>Atten.</u> Tangible Peer <u>Atten.</u> Sensory

Further analysis was conducted on the ABC data in order to examine any possible patterns. The following patterns were observed: antecedent---behaviour, behaviour---consequence, and antecedent---consequence. When looking at the antecedent---behaviour analysis, no clear pattern of antecedent was observed relating to a discontinuance of behaviour. It can be concluded that the antecedent does not play a major role in stopping a target behaviour from occurring.

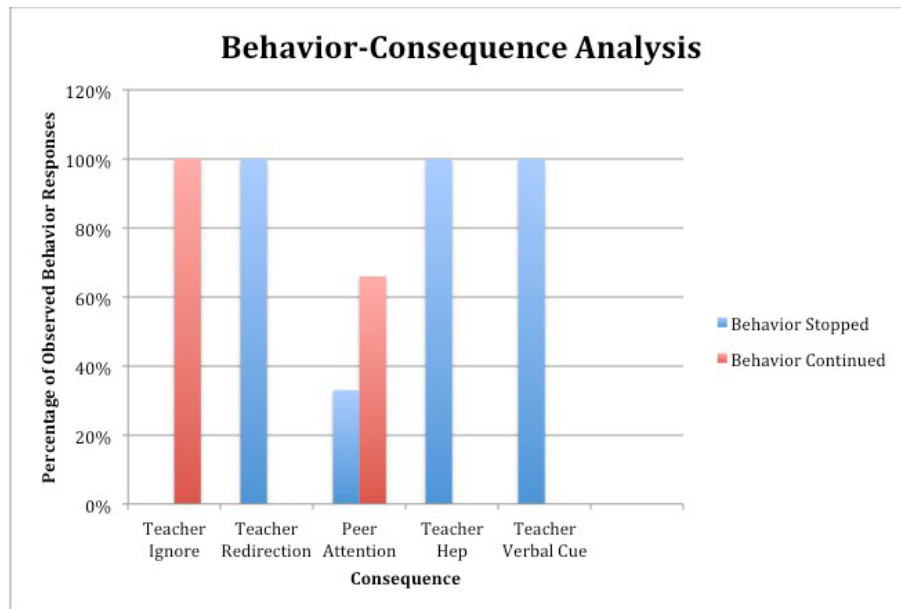


When examining antecedent---consequence patterns, antecedents were paired with consequences to determine if any pair occurred most frequently. Of all the pairings, behaviours occurred most frequently when the large group instruction antecedent was paired with a teacher ignoring. Followed closely was the pairing between large group instruction and teacher redirection. This supports the ABC data analysis that behaviours occurred most frequently during large group instruction.

Antecedent- Consequence Pair	Frequency	Antecedent KEY	Consequence Key
A-1	4	A = Large Group Instruction/Discussion	1 = Teacher Ignore
A-2	3	B = Teacher Ignore	2 = Teacher Redirection
B-2	1	C = Independent Practice	3 = Peer Attention
C-3	2	D = Peer Attention	4 = Teacher Help
C-4	1	E = Transition	
D-2	1		
E-3	1		



When examining behaviour---consequence patterns, the largest percentage of stopping behaviours that occurring after teacher redirection, teacher help, and a verbal cue from the teacher. This pattern is consistent with the ABC data analysis suggesting that teacher attention is possibly the primary function of behaviour. The following graph depicts the behaviour---consequence patterns.



Review of Scatterplot Data

A scatterplot is a chart showing times of a day, broken down into increments. This scatter plot was broken down into twenty---minute increments. The chart then shows whether or not the behaviour occurred during each increment. The goal of a scatterplot assessment is to narrow down the times or parts of day where behaviour occurs most often. A scatterplot pattern can provide insight into the function of behaviour and also identifies activities where the behaviour is most or least likely to occur. Scatterplot data was collected over one week during the same time interval in the morning and afternoon.

From the scatterplot, a pattern can be seen in that out---of---seat behaviours occurred the most frequently in the afternoon. The inclusion aides in Matt's afternoon classes are less attentive to Matt and provide him less directives during the class period. They also occurred the least frequently during G.A.M.E. and Roundup times. These periods had the lowest student---teacher ratio and also provided a lot of teacher attention to Matthew. This further supports previous data suggesting that teacher attention is the primary function of Matt's behaviour.

SCATTERPLOT - PRE-INTERVENTION								
SCORING:		Blank = 0 occurrences		Slash = <3		Solid = ≥ 3		
Time		Day/Date					Activity/ Location	Comments
		Monday 10/13	Tuesday 10/14	Wednesday 10/15	Thursday 10/16	Friday 10/17		
Morning	8:00-8:20						English	Attentive Inclusion Support
	8:20-8:40						English	
	8:40-9:00						English	
	9:00-9:20						GAME	Low Teacher-to Student Ratio
	9:20-9:40						GAME	
	9:40-10:00						GAME	
	10:00-10:20						Roundup	
Afternoon	1:00-1:20						Social Stud.	
	1:20-1:40						Math	Less Attentive Aide
	1:40-2:00						Math	
	2:00-2:20						Math	
	2:20-2:40						Science	Less Attentive Aide
	2:40-3:00						Science	

Results of Functional Behavioural Analysis:

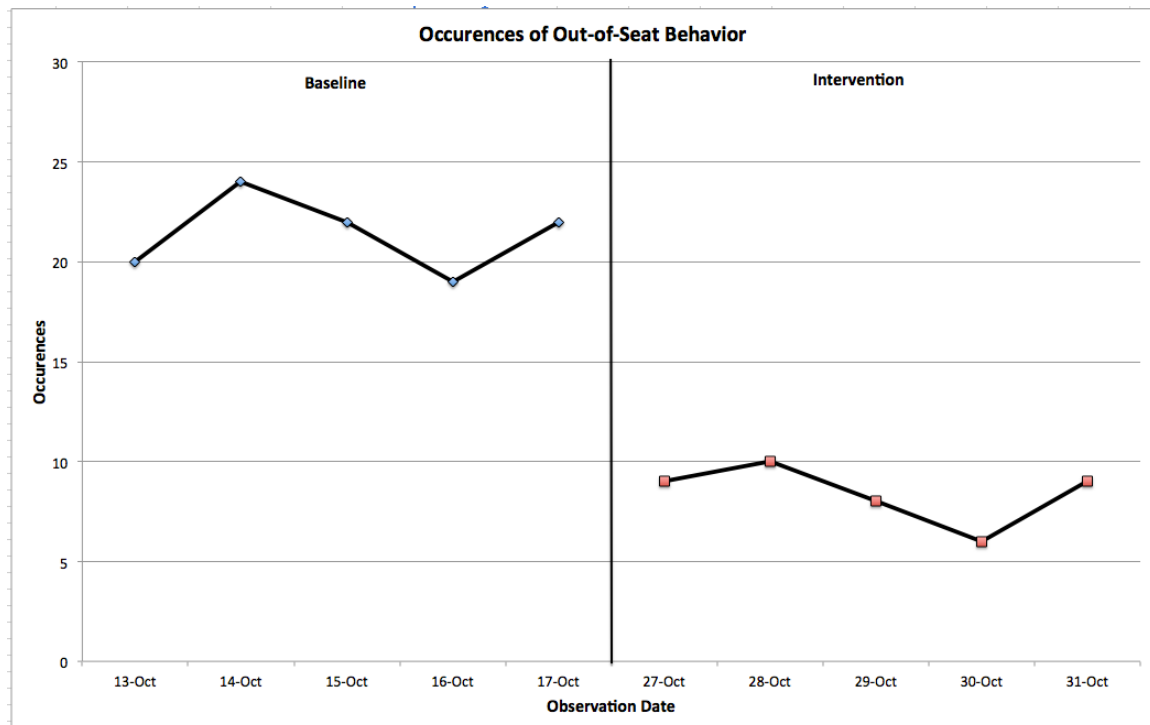
Hypothesized Function

From the results of this FBA, the function of Matt's out---of---seat behaviour appears to be primarily teacher attention. These results are maintained through various data---collection procedures including anecdotal recording and ABC data collection/analysis. When looking at ABC data analysis, out---of---seat behaviour occurred most frequently following large group instruction and stopped most frequently when provided with some sort of teacher redirection. This is further supported by the FAST results, indicating that teachers perceive either attention or escape to be the likely maintaining variable. This conclusion is also proven through review of the scatterplot data, indicating that behaviour occurs less often in classes with inclusion aides that are more attentive to Matt's behaviour.

Intervention

The first intervention that should be implemented in order to decrease the occurrence of Matt's out---of---seat behaviour is an antecedent strategy called Differential Reinforcement of Lower Rates of Behaviour (DRL). Matt needs to be reinforced for remaining in his seat. This will be accomplished through the use of a token economy. A Risk---Benefit Analysis was conducted for both a reinforcement---based procedure (Token Economy) and a punishment---based procedure (Response Cost). It was determined that the reinforcement---based procedure had greater benefit and fewer risks than the punishment---based procedure and will be implemented. The Risk---Benefit Analysis tables are included in Appendix B.

Throughout the day, Matt will be put on a reinforcement schedule where he will be able to be reinforced with tokens for staying in his seat. He will start with a Continuous Reinforcement Schedule (CRF) where he is reinforced for every time he remains in his seat. He will then be faded to a fixed interval schedule where he will be reinforced for staying in his seat for gradually increasing amounts of time. After he has mastered that, Matt will be faded even more and put on a variable interval schedule where he will be reinforced for remaining in his seat after different amounts of time have passed. Matt will be taught the replacement behaviour of raising his hand for teacher attention or help. The teachers will initially reinforce Matt every time he raises his hand by giving him reinforcement tokens and attention. He will then be faded to a gradual time delay between the time when he raises his hand and when the teacher responds. The campus's School Psychologist will be responsible for continued behaviour data recording and fading the reinforcement schedules based on the data collected. The following graph depicts the frequency of Matt's out-of-seat behaviour both before intervention and post-intervention.



The token economy, alternative behaviour and reinforcement schedule was implemented immediately after the data was collected for this FBA. Matt immediately responded positively to the interventions. The following graph depicts the frequency of Matt's out-of-seat behaviour both pre- and post-intervention. The graph shows that Matt was out of his seat between 19 and 24 times per day prior to the intervention being established. After the intervention, the frequency of Matt's out-of-seat behaviour decreased to between 6 and 10 times per day. The graph shows a continued trend of decreases in the frequency behaviour, with the exception of the

spike on the 31st of October. The fact that it was a Friday and that it was also Halloween is possible explanations for this increase in behaviour. Based on these results, the interventions should continue to be implemented and monitored by the school's LSSP (School Psychologist) to monitor progress and success.



Melissa Morris
Graduate Student

12/8/2014

Date

References

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Appendix A

Anecdotal Recording

Student: Matt Smith

Date: October 1, 2014

Period 1: English

Teacher: Jones

TA: Saad

Activity: Memory Outline

Time: 8:27AM

Saad talks to Matt as they walk into the classroom. Matt sits down with a cheerios breakfast cereal, grabs backpack and gets out binder. Matt is sitting on the far left side of the room in a desk that is not attached to a row. Saad walks away to monitor other students in the classroom. Matt gets out materials. Other students talk to Saad and she goes over the task with them. Matt asks Saad to sharpen his pencil and she walks over to sharpen it. When she returns, Matt states that he wants to write about the burn on his leg. Saad states, "If you want to do that one because it's fresh on your mind, do that." Matt writes, "burn on leg" on memory assignment paper. Jones says "When it first started Matt, where were you?" Matt replies, "at a friend's house." Jones repeats, "Tell me where you were, were you in a neighborhood or at a friend's house?" Matt replies, "at a friend's house," and writes that on his paper.

Time: 8:31AM

Jones asks Matt, "What was the first thing that happened?" Matt starts putting cereal container in his mouth and chews on it. He takes it out of his mouth when Jones walks over. Jones looks at his paper and states, "So now...oh you got it already, good." Matt continues to write. When he is done, he looks around the classroom. Saad walks over and states, "you got it?" Saad asks Matt to read what he wrote to her. She then redirects him to the next moment in the memory timeline and asks, "How did this happen?" Matt replies, "I got my leg burned on a hot motorbike exhaust." Jones walks over to put some marbles in a jar marked 1st period. Matt asks Jones, "What is that jar for again, I forgot." Jones replies that when everyone is on task, she puts marbles in the jar for [...]. Jones touches the top of Matt's head and walks away. Matt drops his pencil on his desk. He drops his pencil on the floor. At 8:34, he leans over his desk so far that his head is resting on the floor in order to grab his pencil. Matt turns to observer and asks, "You got the telekeyboard? I want one of those!"

8:35 AM

Jones walks over to Matt and asks, "What happened third? What happened at the end? We are talking about the rising action!" Matt starts writing. Matt says, "Ms. Jones, I don't really got nothing for this one." Jones says, "Okay, let's see. When you were at the hospital, what happened? Did you have to wait a long time?" Matt replies, "No." Jones asks, "Did mom have to fill out a lot of forms?" Matt says yes. Jones says, "You could say that, that mom had to fill out a bunch of forms and then they took you to a room. You know, Matt, you could sit next to [...] if you want." Jones walks away. Matt starts writing on his paper. After a couple minutes, he gets up with his paper and walks all the way across the room to Saad to hand her his paper. Saad asks him to go his seat. Matt walks slowly to his seat and Saad follows. She kneels at his desk and offers help, "what's missing right here?" Matt states, "My mom filled out a form and we had to go to a room." Saad: "What did he do for your leg?" Matt: "The doctors fixed it." Saad: "okay, where would that go? You may want to put that here." Matt writes. Saad: "Okay then, we will add little details to it later." At 8:39 AM, Matt starts messing with his cereal container again and it makes some crinkling and crunching noise. Saad says "Shh," and Matt stops. TA helps a neighboring student. At 8:40 AM, he makes sounds with mouth and receives no response from anyone. He continues making sounds and Saad asks him to be quiet.

8:41 AM

Jones to class: "Okay, turn your paper over." Matt turns paper over. Jones to class: "Think about how it felt." Matt starts writing. At 8:42 AM, Matt gets up from seat and walks in front of the room to the pencil sharpener. Saad: "It's not working." Matt **tries to sharpen pencil anyway**. Saad gives him a reprimanding look. Matt walks back to his seat and sits down. Matt says, "Um, Miss Jones." Jones to class: "What did you learn? Think about something that you walked away with? Maybe Matt walked away with the idea that there are doctors out there that can help you fix something quickly...maybe?" Matt tries to **stab cereal with pencil**. Saad shakes her head *No*, and **he picks up the cereal container to put cereal on his face**. Saad asks him to put it away. Matt **shakes the cereal container, but puts it in his backpack slowly**. Saad walks away to help another student. Matt **lifts the backpack over his head and holds it in the air**. Saad asks him to put it down and if he has a question. Matt replies, "Whhaat?" At 8:44 AM, Matt raises hand and waits for teacher response. Matt says, "I got one." Jones talking to another student: "Okay, now you have..." Matt: **"Ms. Jones, I got one!!"** Jones: "Yes, Matt?" Matt: "Next time you to go to ___, stand on the other side." Jones to Matt: "Now you have the beginnings of your whole essay."

8:45 AM

Jones instructs students to write about what they learned. Matt **puts his arms in the air and yawns**. Matt **bangs elbow on desk** and looks around while Jones is talking about going to the computer lab on the following day. Saad redirects Matt to write about what he learned and walks away. Matt **puts his feet on his seat and is sitting on his feet**. He then **throws his feet over the side of the chair** and starts messing with the bandage on his leg. Jones continues to redirect the class. Jones asks the class if they want to play the word game. At 8:47 AM, the rest of the class starts moving around. Matt **scoots his desk back to the wall. Matt leans against wall and surveys the class**. Saad walks over to Matt and asks him where his reader's writer's notebook is. Matt points across the room. Saad: "Grab it. You need it for your next activity." Matt says "rrrrrr" (frustrated) and goes over to the corner to get his notebook. He sits in the desk by the door. Matt opens his notebook and then sits down. Jones to class: "The letter is E. Go!" Matt says "Oh..." and looks at notebook. He starts writing "e" all the way down his paper and then **stares at the front of the room**.

8:50AM

Jones notices that Matt is staring into blank space, so she points to an e word in the room. She looks at Matt, encouraging him to write down that word. Matt starts writing that word. He continues to look around the room for more words. Jones says stop and starts surveying kids to find out who has the most. Matt turns and talks to Iarussi: "Last time, she got, like, 40." Matt taps his pencil on the desk and says to Iarussi: "I put Education." Matt continues to talk to Iarussi. Iarussi responds to him. Jones: "One more round. We have two minutes." Matt looks up to the front of the room and says "B, oooooohhhh..." He starts writing. Matt looks around the room to find B words. The bell rings. Matt puts notebook away and talks to Iarussi as he is walking back to his seat. Matt touches the binder cubby in the corner and is still holding his book. He talks to class members as they continue to put their notebooks away. He then walks over to his desk, grabs his backpack, puts it on and walks out of the room.

Period 2: G.A.M.E. (Math Intervention)

Teacher: Russell

Activity: Warm---up and Face Math

Time: 9:00 AM

Russell gives Matt a direction and Matt replies, "rrrr." He sits down. Announcements begin at 9:01 AM on the speaker. Russell to class: "stand up and do the pledge." Matt **stays sitting down**. Russell asks him again. Matt stands up, puts his hand over his heart and mockingly mouths pledge. Another student: "Can I have a calculator?" Matt hands over his calculator. Russell: "Thank you Matt and there are more right behind you if you want one." Matt reaches behind his chair to grab one. Matt looks to Russell. Russell: "Good, now plug in your numbers." Matt picks up his calculator to perform a

calculation. At 9:04 AM, Matt starts **tapping on his calculator, making rhythmic noises**. She talks to him and touches his back. Russell shakes her head no and Matt stops.

9:05 AM

Russell asks class for good news. Matt raises hand and waits his turn to tell his good news. Teacher listens to students and offers encouragement. Matt continues to hold hand up and starts **snapping fingers**. At 9:06 AM, Matt **interrupts Russell**: "I got this little kid off of a motorcycle and helped her, but I hurt myself." Russell: "Is that how you got your bandage on your leg?" Matt: "yes." Matt turns around, makes **"du, du, du, du"** sound and continues to use calculator. TA asks him to stop. Matt stops sound and continues on work without redirection. Matt makes quiet sound. Matt is sitting at his own desk by the teacher's desk. Matt: "Ms. Russell, when you do this, it's awesome." Russell nods.

9:10 AM

She gets attention of class and reads problems out loud. Matt raises hand. She looks at him and says, "I know you know the answer, but I'm going to work it out." Matt leans over his desk to see what she has under the overhead camera. Russell works out the problem. Matt leans way over to see. She reads a problem. Russell: "How many 64s can I take out of 384?" Matt inputs the problem in his calculator and offers the answer. Russell: "Exactly!" Matt asks question to Russell quietly. She nods to Matt and returns attention to class. Russell to class: "I need voices off." Matt makes "spssshh, spssshh, spsssh" sounds to himself. She goes over another problem with class. Matt: "What?!? Oh..." Put your calendar page in your booklet and put it to the side. Matt puts his booklet to the side. Russell hands papers to class. Matt takes paper and looks at them. Matt: "What?!?"

9:15AM

Russell: "Here Matt, wanna do me a favor?" Matt: "What?" Russell: "Go give one of these to everyone and bring me back the extras?" Matt hands out a paper to everyone in the class. Matt quietly talks to the last student for a second before handing him the paper. Matt rubs papers on the board as he walks by. He puts the extras on her table, and sits down. Russell to class: "Look at number four." Matt looks at his paper. He starts plugging numbers in to his calculator. Russell: "What would my answer be if I want it to be positive." Matt: "Four." Russell: "Good."

9:20 AM

Matt starts quietly telling her what to do next. Russell continues talking into microphone to class about the problem. Matt: "but I got..." when he calculated a different answer from the rest of the class. Russell continues talking to students. Russell (to a different student): "Do you need to leave because we are talking under our breath a lot today." Matt starts to put things on table next to him. Russell to Matt: "No, keep everything on your own desk. That's why you have your desk." Matt: "uhhh, but moves papers back to desk." Russell asks about the next problem. Matt starts working the problem on his desk. Matt messes with pencil, puts it down and picks up his calculator cover to put in his mouth. Matt continues to work through the problem. Matt: "Wait...Ohhh..." (quietly to himself.) Russell walks around to offer direction to other students.

9:25 AM

Matt **blows air on his hand and stares at floor. Matt waves paper in the air**. Russell to class: "If you're not sure what to do or you have a question, come to the utb (u table) with me." Matt looks at paper and starts working. Matt: "Ms. Russell." She walks over. She redirects student and then returns attention to Matt. Russell: "What does it say?" He asks a clarifying question, she says, "Okay," and starts to walk off. He asks another question. Russell refers to paper and reads problem. Matt says, "Ohh..." She says, "there you go." Matt makes "Shhh, Shhh" sound quietly to himself. Teacher clarifies a problem. Matt drops page, gets up out of desk to grab it, but returns to the u---table for extra help. Matt waits patiently at u---table for help. He asks, "What do these lines mean?" Russell explains absolute value. Matt: "So its 8?" Russell: "Yep, good." Matt draws on the face. Matt looks at neighbors face, "What?" Russell says, "It doesn't matter. I'm not caring about the drawing." Matt continues to work.

Matt looks up at her to ask a question. Russell: "Focus on..." and points to problem. Matt: "10," and Russell replies, "yes." Matt laughs at his drawing and shows it to the student next to him. He then shows his drawing to another student. Other students are also showing their drawings to each other. At 9:29 AM, Matt whistles and looks around the room. Russell shakes her head at him and he returns to his drawing. Matt continues to work on his problems and students continue to show their drawings to each other. Examiner noted that Russell seemed to be okay with students showing drawings to one another as long as they continued to work. Even though Matt and his neighbors were talking frequently, they all appeared to continue to work.

9:30 AM

Ms. Russell returns to the u---table and sits down. Russell addresses class: "Once you get to the back, you're going to need crayons." Matt to Russell: "We will need crayons?" Russell replies, "Yes." Matt continues to work on problems. Russell: "Matt, can you put your name on this please?" Matt writes his name on his paper. Matt leans way back in his chair. Matt: "Look, I did all the problems, I think." Russell: "Good, you get to color now." Matt: "oh, okay." Matt asks for crayons. Russell gives him crayons. Matt gets a calculator and leans way back in his chair. Russell: "Read it." Matt reads the problem, makes quiet "bubbb, bubbb, bubbb" sounds and plugs the problem into his calculator. Russell helps another student with a problem. At 9:39 AM, Matt interrupts and Russell replies with "One second." Matt waits for Russell, but continues to plug more problems into his calculator. Matt: "Ms. Russell." Russell looks over. Matt asks, "Do I..." and Russell replies, "Yes."

9:40 AM

Matt makes sounds ("bup, bup, bup, bup") quietly while looking at paper. Matt reads paper and says that he is just going to make his person a "he/she." Russell acknowledges statement, but continues to help a neighboring student. Matt gets crayons out of box and continues to work. Matt looks at neighbor's drawing and says, "Ohh..." Neighboring student leans over to help Matt. Matt: "Where do I put the name at?" Neighboring student points. Matt looks to Russell and points to non---perforated portion of crayon box and Russell tells him not to worry about it. Matt continues to work while sitting in two chairs at once. Matt to Russell: "It says, your answer is less than negative 100 or your answer is greater than negative 100." Matt points to the wrong answer. Russell: "Negative 9 is greater." Matt: "Why?" Russell: "Because it is closer to zero." Matt: "Ohh." Other student makes noise and Matt turns to look at him and says something. Other student says something back. Matt asks Russell a question. She points to something and Matt continues to work. Matt is sitting at the u---table, says something to Russell and Russell replies "one minute." She responds to the rest of the class and then looks at Matt, reads the problem out loud and says, "What should you do?" Matt reaches over to grab crayons. She redirects him: "What should you do?" At 9:44 AM, Matt responds and Russell acknowledges response. Matt starts to sharpen crayons, tap on table and leans both of his chairs up in the air. Russell asks Matt to put his chair down and he does.

9:45 AM

Matt and a neighboring student talk to each other while they both continue to work. Matt continues to make sounds until Russell looks at him and then he stops. Russell walks around the class, while Matt gets crayons out and talks to a neighboring student. Student says, "Shh, I know!" Matt starts talking to the neighbor on his left and they show their pictures to each other. They engage in quiet talk about the people in their pictures for many minutes. Russell sits down at the u---table and says, "Matt, if you're going to sit here, you're going to work. If you're not going to work, you need to sit over there" and points to his desk. Matt starts working again. At 9:50 AM, Another student comes over and Matt stares into space. Russell taps the table in front of him; he looks down at his paper and continues to color. The class is talking to themselves and Russell redirects class when they get too loud.

Appendix B

Risk---Benefit Analysis

Risk-Benefit Worksheet	
ABA Procedure: Token Economy Reinforcement System	
Description of Procedure: Student receives tokens (reinforcers) after engaging in a target behaviour for a specified amount of time. The student can trade in the tokens for other, pre-identified back-up reinforcers after earning a specified amount.	
Risks	Notes
1. Take time to set up and implement. May be costly to implement.	According to Parsonson (2012), token economies are time-consuming to create and implement. They require quite a bit of thought to identify the target behaviours, type of tokens, come up with backup reinforcers, decide on a reinforcement schedule, and to determine exchange policies. Token economies can be costly to implement depending on the type of background reinforcers that the teacher and/or student choose to use.
2. Students may lose motivation or become bored with back-up reinforcers.	As time progresses, it is important to change up the backup reinforcers used in the economy (Parsonson, 2012). If the same reinforcers are continually used for a long period of time, students will experience a lower motivation to engage in target behaviours.
3. Lack of consistency in managing token economy among implementers can lead to an increase in negative behaviour.	A lack of consistency among implementers can lead to an increase in negative behaviour as the child may become upset that he or she is not receiving reinforcers or the child may become confused about what specific behaviours actually earn reinforcers.
4. Some negative behaviours may be inadvertently reinforced during the system.	If implementers are not consistent in managing the token economy, negative behaviour can inadvertently be reinforced through other methods, such as adult or peer attention or escape. Plans for what to do when the student is engaging in problem behaviours should be identified beforehand and all implementers should receive training in order to ensure consistency.
Benefits	Notes
1. Behaviours can be rewarded immediately after they occur.	Rewarding behaviours immediately after occurring will have a positive effect on the frequency of target behaviours. The student receives immediate, positive feedback on desired behaviours, which will increase
2. Students can self-	Token economies are a "simple and effective" way

monitor their selves and their target behaviours.	to increase target behaviours (Bonieki, 2003, p. 226). By monitoring their progress on their behaviour with a chart, students will be able to self-monitor their behaviour using a visual model and will become increasingly more responsible for their behaviour.
3. Students can give feedback to teachers continuously throughout implementation of the system.	Including children on the selection and use of backup reinforcers will provide them with a way to stay continuously involved with the process. They can provide feedback on their preference for different backup reinforcers if their motivation to work towards the current ones start to diminish. They can also give feedback to teachers about their motivation and progress as they learn to self-monitor.
4. Students may experience an increase in motivation and participation as a result of the program.	According to Bonieki (2003), studies found that students experienced an "increase in student attendance, enthusiasm, and preparation" when token economies are used (p. 226). Students have also made statements that "they enjoy the procedure because it makes class more exciting and interactive" (Bonieki, 2003, p. 226).
5. Students will learn skills related to planning for the future.	By working towards a backup reinforcer, students have the opportunity to learn planning skills. They know how many reinforcers or tokens they have to earn in order to get their backup reinforcer and they can plan accordingly.
Summary of Risks vs. Benefits: According to Bonieki (2003), a "large body of research attests to the effectiveness of token economies" in changing behaviour (p. 226). The benefits of Token Reinforcement Systems outweigh the risks. It is important that all staff that will be working with the student be trained and knowledgeable about the use of the token system because, as mentioned above, they could inadvertently reinforce other problem behaviours. It would be beneficial if the family were able to be included in the token reinforcement system, as consistency across settings will likely have the greatest effect on behaviour. Token systems are a reinforcement-based procedure and, as such, will reward the student for engaging in target behaviours as opposed to focusing on negative or problem behaviours.	

Risk-Benefit Worksheet	
ABA Procedure: Response Cost	
Description of Procedure: In a token economy, a student receives tokens (reinforcers) after engaging in a target behaviour for a specified amount of time. In response cost, the student loses tokens for engaging in negative or problem behaviours.	
Risks	Notes

1. Too much punishment can cause the student to feel hopeless and lose motivation.	If the implementers use more punishment to reinforcement, the students can start to feel hopeless and lose motivation to engage in target behaviours. Allowing punishments to build without providing reinforcement will have a negative effect on the frequency of target behaviours.
2. If the student is unable to control their behaviour, a response cost system would just continually compound punishments.	In many instances, children are "unable or unwilling to suppress" behaviours (Burchard & Barrera, 1972, p. 280). If this is the case, the child will continue to accrue punishments and will not feel that they can redeem themselves.
3. A response cost could have marginal effects on behaviour depending on how much reinforcement the student is losing.	According to Burchard & Barrera (1972), if the "response cost is only minimal, it may have little effect" on the behaviour (p. 280). Students may be willing to endure the response cost if they are highly motivated to engage in the behaviour.
4. A response cost system could stimulate extreme emotional responses.	In some instances, an extreme emotional response can cause the student to engage in the problem behaviour more frequently and thus "the accumulation of the response cost is temporarily reinforcing" (Burchard & Barrera, 1972, p. 280). Individuals may have responses like, "'Go ahead and charge me 1000 tokens, I could care less' while actively engaging in behaviour in an effort to obtain an additional response cost" (Burchard & Barrera, 1972, p. 280).
5. Response cost systems require time to plan and implement, teacher training for consistency, and a low adult-student ratio.	As with any behaviour management system, response cost systems are timely to implement and require detailed teacher training before use (Rapport, Murphy & Bailey, 1982). High ratios of children to adults can make it hard to monitor and implement in a busy classroom (Rapport, Murphy & Bailey, 1982).
Benefits	Notes
1. Response cost allows the child to stay and participate in the educational environment.	Unlike other punishment procedures, response cost does not remove the child from the educational environment and thus, does not hinder academic progress. By staying in the educational environment, the child is still presented with opportunities to exhibit the desirable behaviours (Burchard & Barrera, 1972).
2. This form of punishment does not include the application of an aversive.	This punishment procedure is streamlined and works nicely with a token economy system. Because it does not involve the application of an aversive, the student may not perceive it as negatively as they would other punishment procedures.
3. Students have the	Response cost systems put the accountability back

opportunity to, if they can, learn to control their own behaviour.	on the student. Through self-monitoring, they are responsible for their behaviour and whatever reinforcers they lose as a result of engaging in problem behaviours. A response cost system allows the student "the opportunity to control his own behaviour" (Burchard & Barrera, 1972, p. 280).
4. Response costs are relatively easy to administer.	As mentioned above, response cost systems streamline nicely with a token economy and therefore, are relatively easy to add to the current reinforcement system.
Summary of Risks vs. Benefits: The benefits and risks of a response cost system seem to be fairly evenly matched. However, a response cost system is still a form of punishment. It also takes a great deal of thought and effort to make it truly be effective as it is often associated with emotional responses that may impede progress, needs tight consistency, and may not be feasible for students that can't or are unwilling to control their behaviour. It is important to remember that it is recommended to use "reinforcement rather than punishment whenever possible" (Bailey & Burch, 2011, p. 307). Therefore, in this particular case, the risks outweigh the benefits and reinforcement procedures should be tried first before engaging in punishment procedures.	

Permission for Behavior Change Project

Dear Parent,

Students from Dr. Amanda Boutot's Special Education 5375 at Texas State University (TSU) will be conducting a behavior change project as part of their graduate coursework during the spring semester. The purpose of this project is to teach TSU students in special education and school psychology how to conduct a Functional Behavioral Assessment (FBA), develop a Behavior Intervention Plan (BIP) from that assessment, and how to conduct a behavior change project based on the BIP. As part of this project, TSU students will be collecting data on targeted behaviors, implementing a plan, and analyzing the success of that plan. All information collected as part of this project will be reviewed by Dr. Boutot only, and no names will be included on any of the documents.

Your child's school has been selected as a site for this project. Your child's teacher and the principal have already given consent for TSU students to conduct their projects on this campus. You are being asked to give your consent for a TSU student to conduct an FBA and develop and implement a BIP with your child.

☒ Yes, I give permission for my child to be part of the TSU Behavior Change Project

☐ No, I do not want my child to participate in this project

Parent Signature

Date

If you have any questions, please contact
Amanda Boutot, Ph.D., BCBA, Associate Professor of Special Education and
Autism/ABA Concentration Graduate Coordinator
eb15@txstate.edu or 512/245-2027

Appendix C

- https://melissamorrisportfolio.weebly.com/uploads/4/7/7/3/47737847/functional_behavior_assessment_for_applied_behavior_analysis.pdf