

Using Perseverative Interests of Individuals with Autism to Unlock their Hidden Potential.

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1 My Goal for this Presentation



- Attendees will have a deeper understanding of perseverative interests (also referred to as special interests).
- Attendees will understand that special interests are more than just an interest or hobby to individuals with ASD.
- Attendees will learn that you can use special interests to teach new skills by tapping into the world of the individual with ASD, rather than expecting them to always tap into our world.
- Attendees will understand that special interests don't have to be viewed as something negative and that we should never try and squash their interest.
- Special interests can often unlock hidden potential!

What Are Perseverative Interests (Special Interests) and Ritualistic Behaviors?

- Highly restricted, fixated interests that are abnormal in intensity or focus; (such as strong attachment to or preoccupation with unusual objects, excessively circumscribed or perseverative interests (American Psychiatric Association. (2013). *DSM 5*. American Psychiatric Association.)
- The individual is typically very passionate about his/her special interest and may be an expert on the topic.

Perseverative Interest and Ritualistic Behavior Examples

- Scripting and/or acting out movie scenes
- Fixated interest with characters
- Hyper-focus on the same objects, topics or activities
- Preoccupations (time tables, historic events)
- Attachment to unusual inanimate objects (rubber band, paper clips)



Common Misconceptions with Perseverative Interests

“Incorporating perseverative interests into activities will make the obsession worse”

“Educators should design interventions to extinguish the engagement with perseverative interests”

“Perseverative Interests are just not good for the individual”

Use the Perseverative Interest to Set the Behavior Trap

Behavior Trapping: Occurs when powerful reinforcers are contingent on a low effort response already in the individual's behavior repertoire. Once inside the "trap" naturally existing contingencies of reinforcement (socially mediated) may shape and maintain the desired behavior targeted for trapping due to its resistance to satiation. (Cooper, Heron, & Heward, 2007).

Early Research (1980's-1990's): “How it all Started”

- Researchers used stereotypical and repetitive self stimulatory behaviors (i.e. waving hands in front of eyes, hand flapping, rocking, etc) as reinforcers to increase desired behaviors and/or decrease undesirable behaviors. These procedures did not increase the individual's engagement with repetitive behaviors outside of the intervention setting (Charlop, Kurtz & Casey, 1990; Sugai & White, 1986; Wolery, Kirk & Gast, 1985;).

Early Research Continued: 1990's

- Obsessions were found to be the reinforcer that reduced undesired behaviors more than typical reinforcers that were highly motivating for the individuals (typical reinforcers were selected from preference assessments). Charlop-Christy, M.H, & Haymes, 1996)
- Obsessions were used as tokens within token economies and was compared to typical tokens. The tokens that were objects of obsessions increased desired behaviors and had a concomitant decrease with undesired behaviors.
(Charlop-Christy et. al. 1998)
- Both studies reported the individuals did not increase their engagement with the obsessions when the obsessions were used as a component of the interventions.

Current Research: Late 1990's - Present

- These studies used these perseverative interests as antecedent-based interventions (incorporate the special interest into the activity to increase responding) rather than consequence-based interventions (reinforcers).
- **Examples:** The Power Card Strategy, Visual Schedules, Board Games, etc.

Real Classroom Examples: Incorporating Perseverative Interests into Activities and Interventions

The following slides consist of incorporating special interests into:

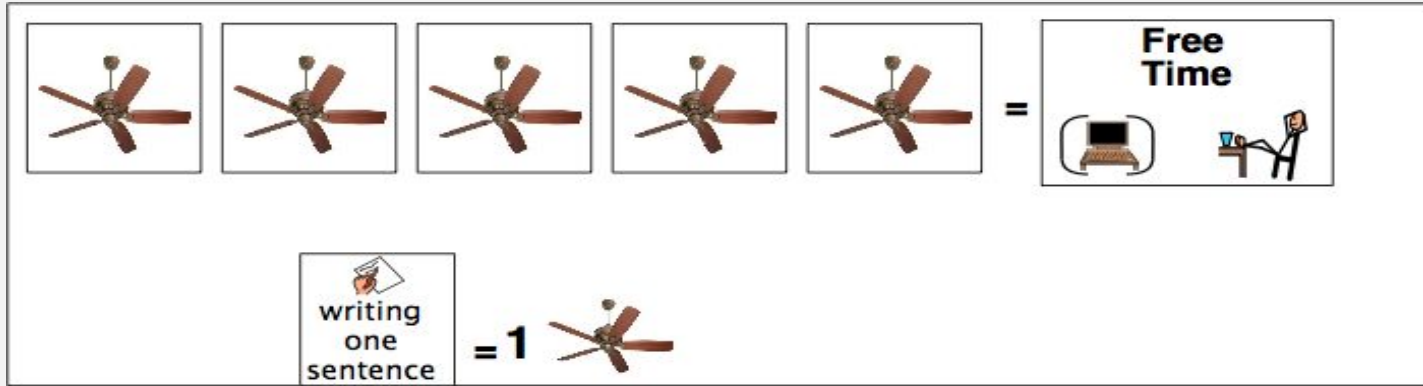
- Token Economies
- Visual Activity Schedules
- Correspondence Training (say-do-report)
- Task Analysis
- Behavior Mapping
- Academics: Math and Language Arts activities

Behavior Support: Token Economies with Perseverative Interests

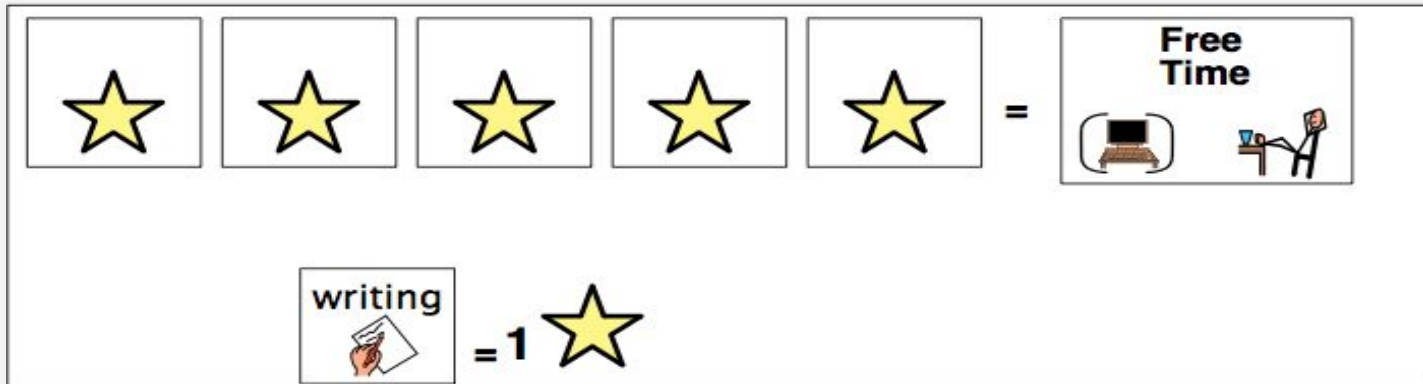
- Charlop-Christy (1998) found that using obsessions as tokens created higher levels of responding with normal tokens.
- Maximizes reinforcement by increasing the reinforcing value of each token.
- Tokens may serve as primary reinforcers rather than secondary reinforcers.
- Earning each token may be just as reinforcing as the final reward.

Token Economy with and without Perseverative Interests

This student would often prefer playing with the token board of putting the fans on and off instead of engaging in a highly preferred free time activity (computer, ipad)



VS.





Behavior Support: Correspondence Training

Correspondence Training (Say-Do-Report):

1. The individual forecasts the desired behavior(s)
2. The individual is given the task
3. The individual must accurately report back that he/she exhibited the given forecasted behaviors
4. **Reinforcement** is contingent on the individual “doing what he/she said” (matching behavior to the verbal forecast).

Behavior Support: Correspondence Training with Embedded Special Interests into Visual Schedules (Huffman, Sainato & Curiel, 2016)

Say-Do-Report w/Special Interests: The student forecasts to the special interest character and then reports back to the given character on his/her performance.











Do-Report w/ Special Interests: The student is given the task and then reports to the special interest character on his/her performance (no prior forecast).

Behavior Support: The Power Card Strategy (Keeling, Myles, Gagnon & Simpson, 2003)

The **Power Card Strategy** consists of two components: **Social Narrative** and **The Power Card**.

- **Social Narrative:** *1st Paragraph:* The hero (SI) relates to the student for the given problem and offers a solution. *2nd Paragraph:* The hero encourages the new behavior that is broken down into 3-5 Steps)
- **Power Card:** 3 x 5 index card with visual of the hero and the 3-5 steps of the new behavior given by the hero.

Modified Power Card Strategy: Narrative & Visual Schedule with Correspondence

	Jobs	I did it
1	Walk to your locker 	 velcro
2	Get your Notebook 	 velcro
3	Take notebook to your desk 	 velcro
4	Do Daily Writing 	 velcro
5	Raise Hand When Done 	 velcro

Dear _____,

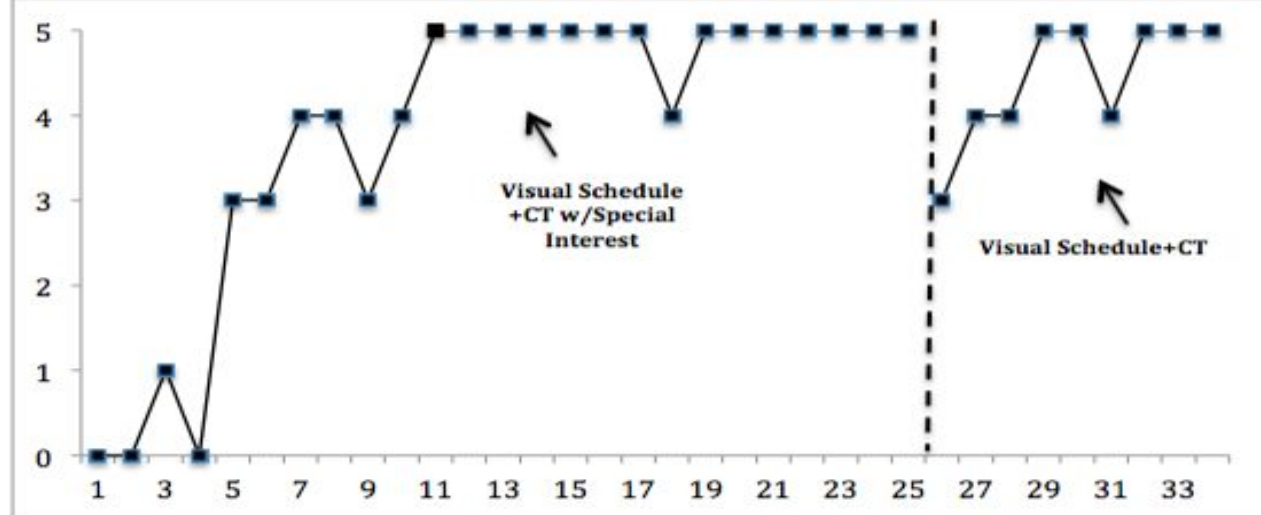
When Icarly was in 3rd grade, she always did her morning schedule. Icarly always made her teachers so happy when she would get out her schedule and do all the jobs.

Icarly wants you to remember the 5 jobs on your schedule:

1. Walk to your locker
2. Get your notebook
3. Take notebook to your desk
4. Do daily Writing
5. Raise your hand when your done

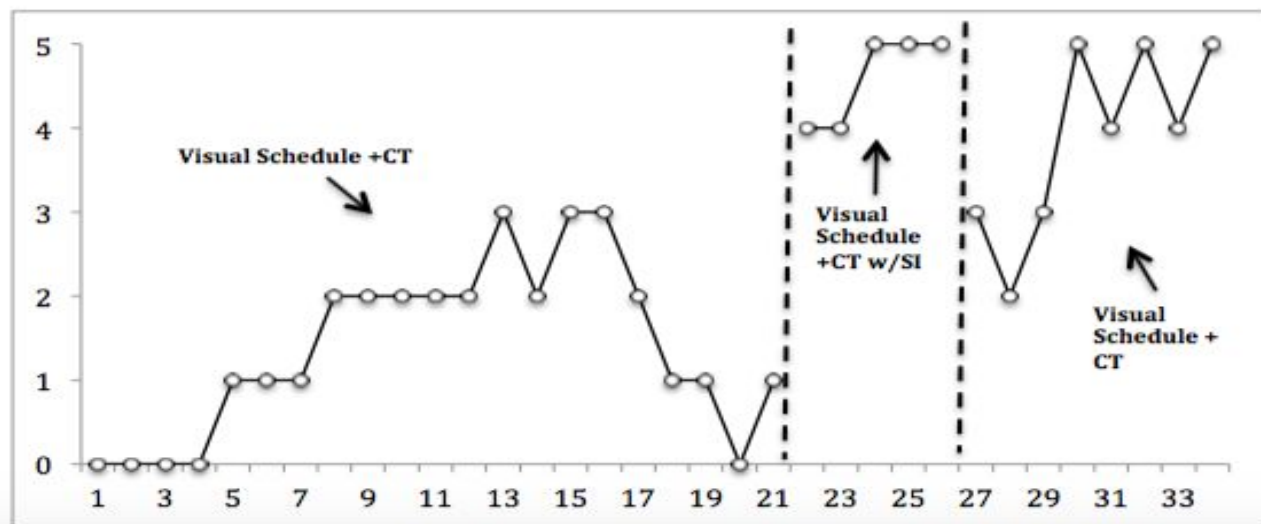
When you are done with each job, tell Icarly you did it! Now go do your schedule like Icarly.

Independently Completed Steps From
A.M Routine.



AM

Independently Completed Steps
From P.M Routine.



PM

Modified Power Card Strategy: Narrative & Visual Schedule with Correspondence

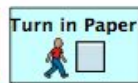


When LeBron James was in school, he always did his morning work. He would sit down right away and do his morning work so he could get it done. LeBron James still does his "morning work" everyday that is now basketball.

Lebron wants you to do your morning work so you can be like him.





















Lebron wants you to do the following before each morning work activity:

1. Promise Lebron You Will

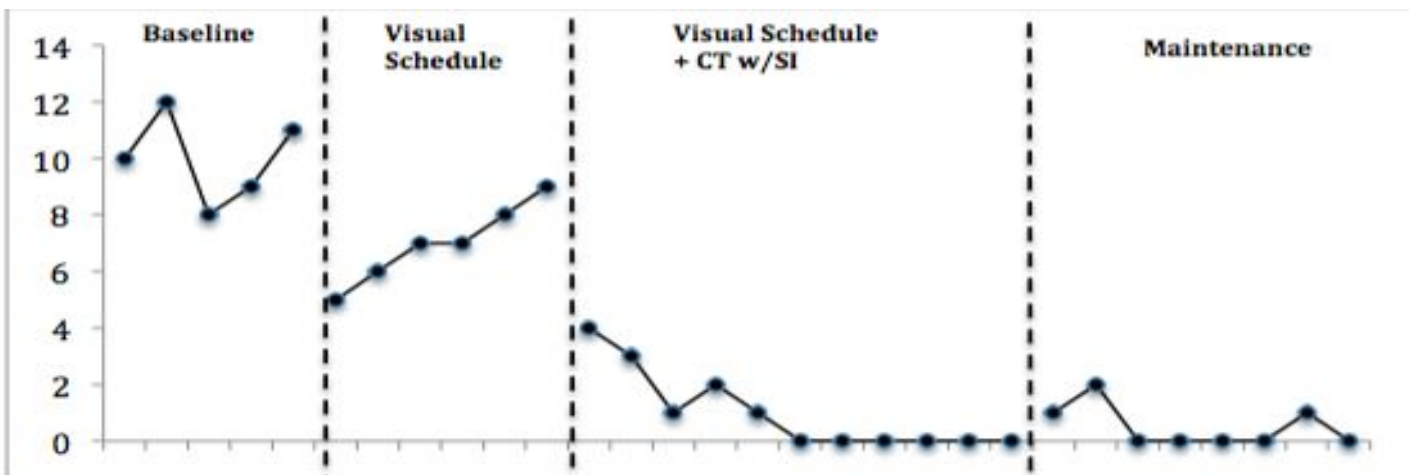


2. Go do all 4.

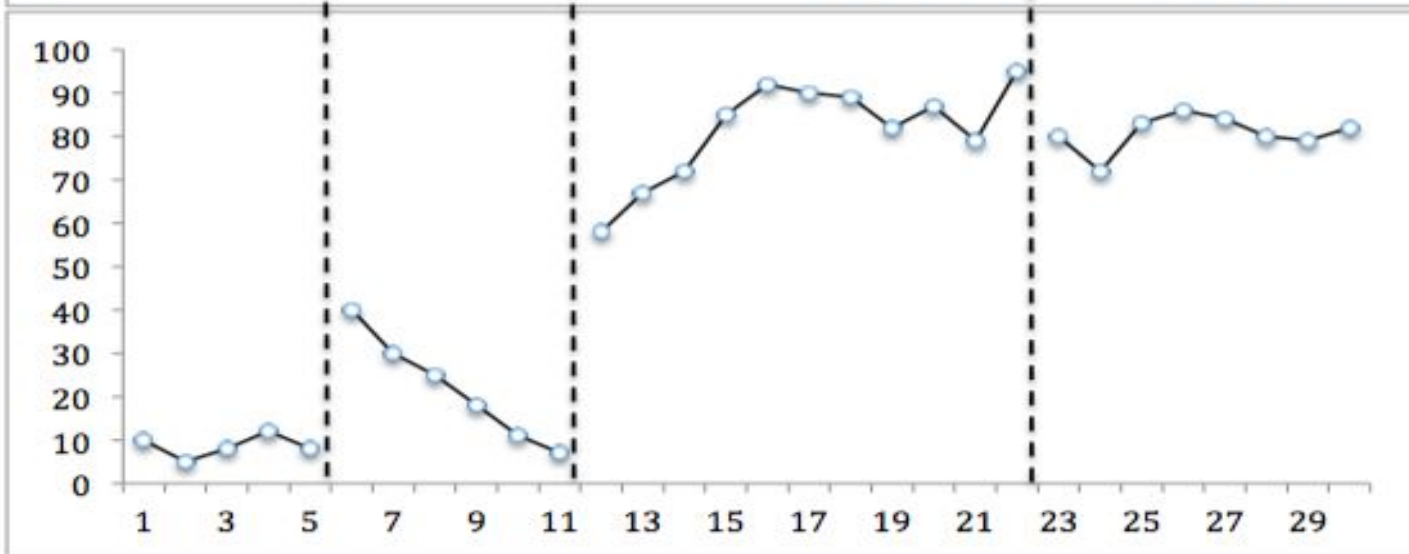
3. Then come back and tell Lebron you did all 4.

	Yes	No
1 Write Your Name  	 <input type="checkbox"/> <input type="checkbox"/>	 <input type="checkbox"/> <input type="checkbox"/>
2 Do Red  	 <input type="checkbox"/> <input type="checkbox"/>	 <input type="checkbox"/> <input type="checkbox"/>
3 Do Blue  	 <input type="checkbox"/> <input type="checkbox"/>	 <input type="checkbox"/> <input type="checkbox"/>
4 Do Orange  	 <input type="checkbox"/> <input type="checkbox"/>	 <input type="checkbox"/> <input type="checkbox"/>
5 Turn in Paper  	 <input type="checkbox"/> <input type="checkbox"/>	 <input type="checkbox"/> <input type="checkbox"/>





Elopement Occurrences
Per Session



Percentage of 10-s Intervals of
On-Task Behavior Per Session



(Huffman, Sainato, & Curiel 2016)

		YES	NO
1	<div>Insert Photo of Transition Behavior</div> 	<div>Insert Photo of Special Interest Character</div> <div>Velcro</div>	<div>Insert Photo of Special Interest Character</div> <div>Velcro</div>
2	<div>Insert Photo of Transition Behavior</div> 	<div>Insert Photo of Special Interest Character</div> <div>Velcro</div>	<div>Insert Photo of Special Interest Character</div> <div>Velcro</div>
3	<div>Insert Photo of Transition Behavior</div> 	<div>Insert Photo of Special Interest Character</div> <div>Velcro</div>	<div>Insert Photo of Special Interest Character</div> <div>Velcro</div>
4	<div>Insert Photo of Transition Behavior</div> 	<div>Insert Photo of Special Interest Character</div> <div>Velcro</div>	<div>Insert Photo of Special Interest Character</div> <div>Velcro</div>

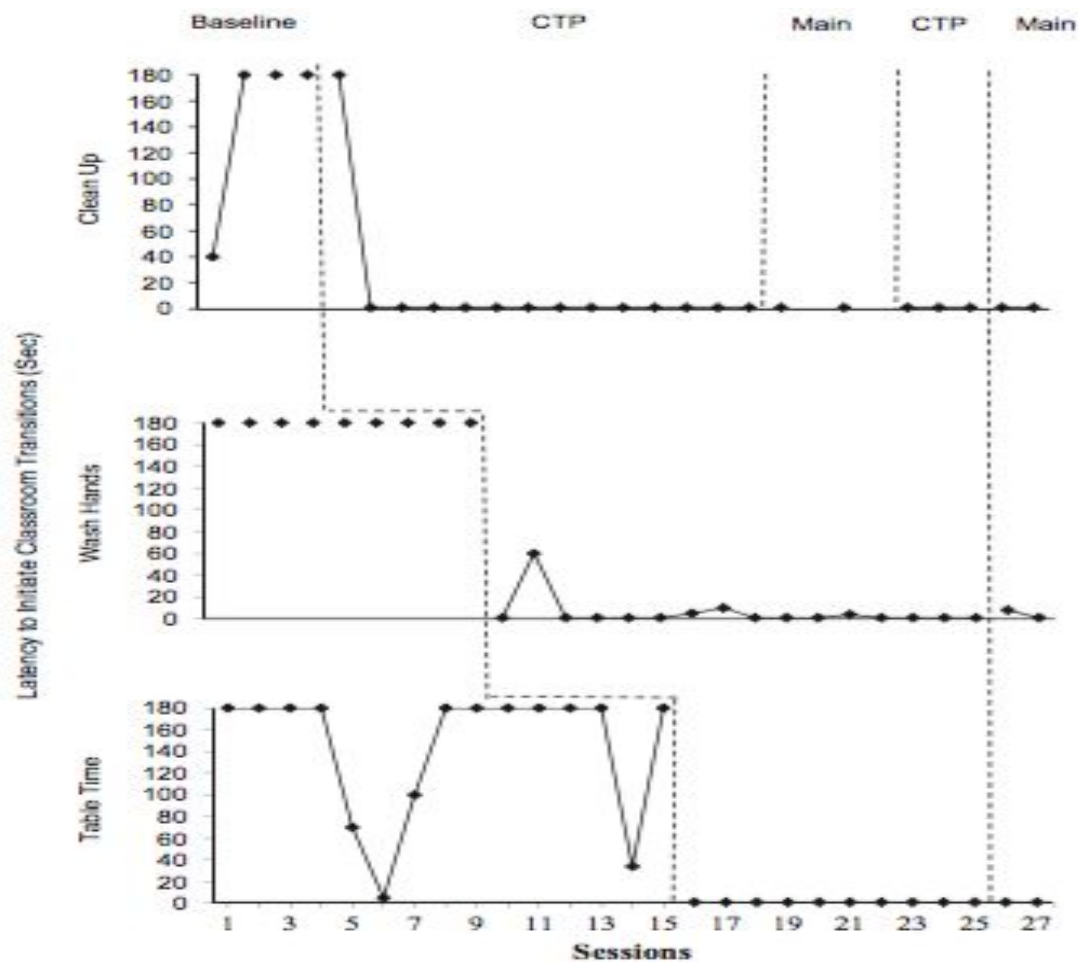


Fig. 3 Matt's latency data to initiate classroom transitions

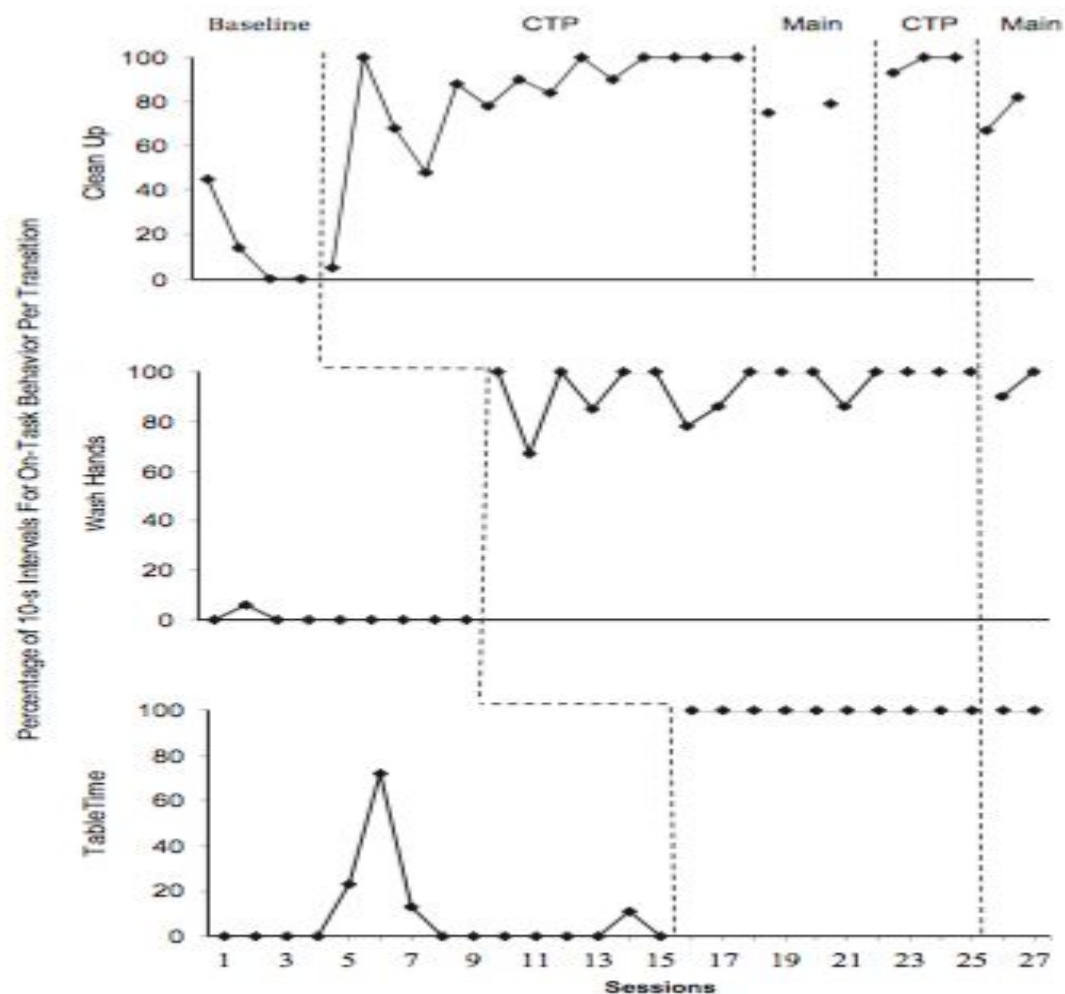


Fig. 2 Matt's on-task behavior for each setting

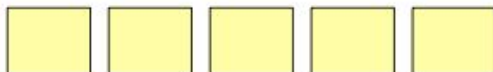
Pick 3 Princesses for the Game



Disney

Dinner Game

Give each princess a food group



1 Treat From The Castle



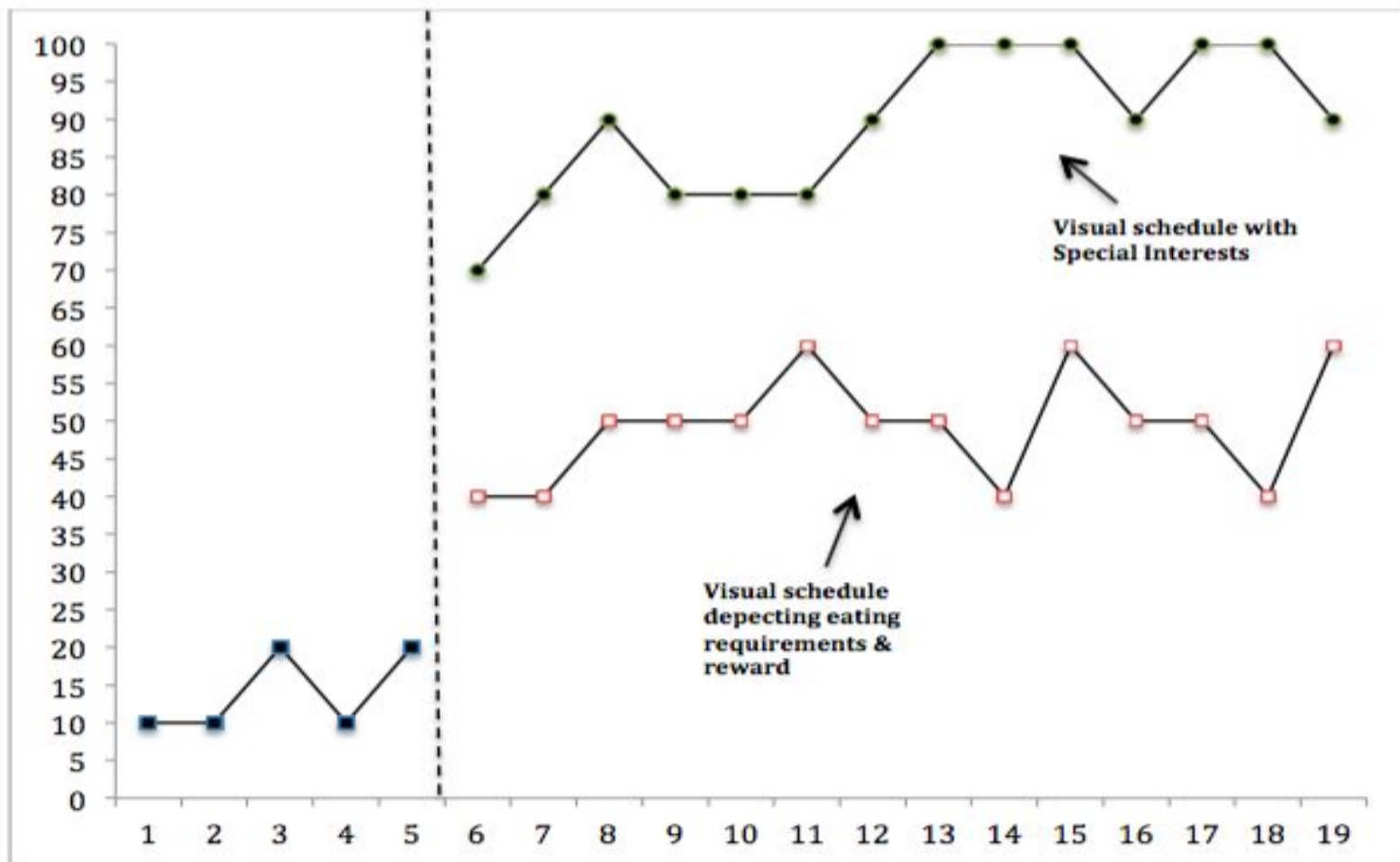
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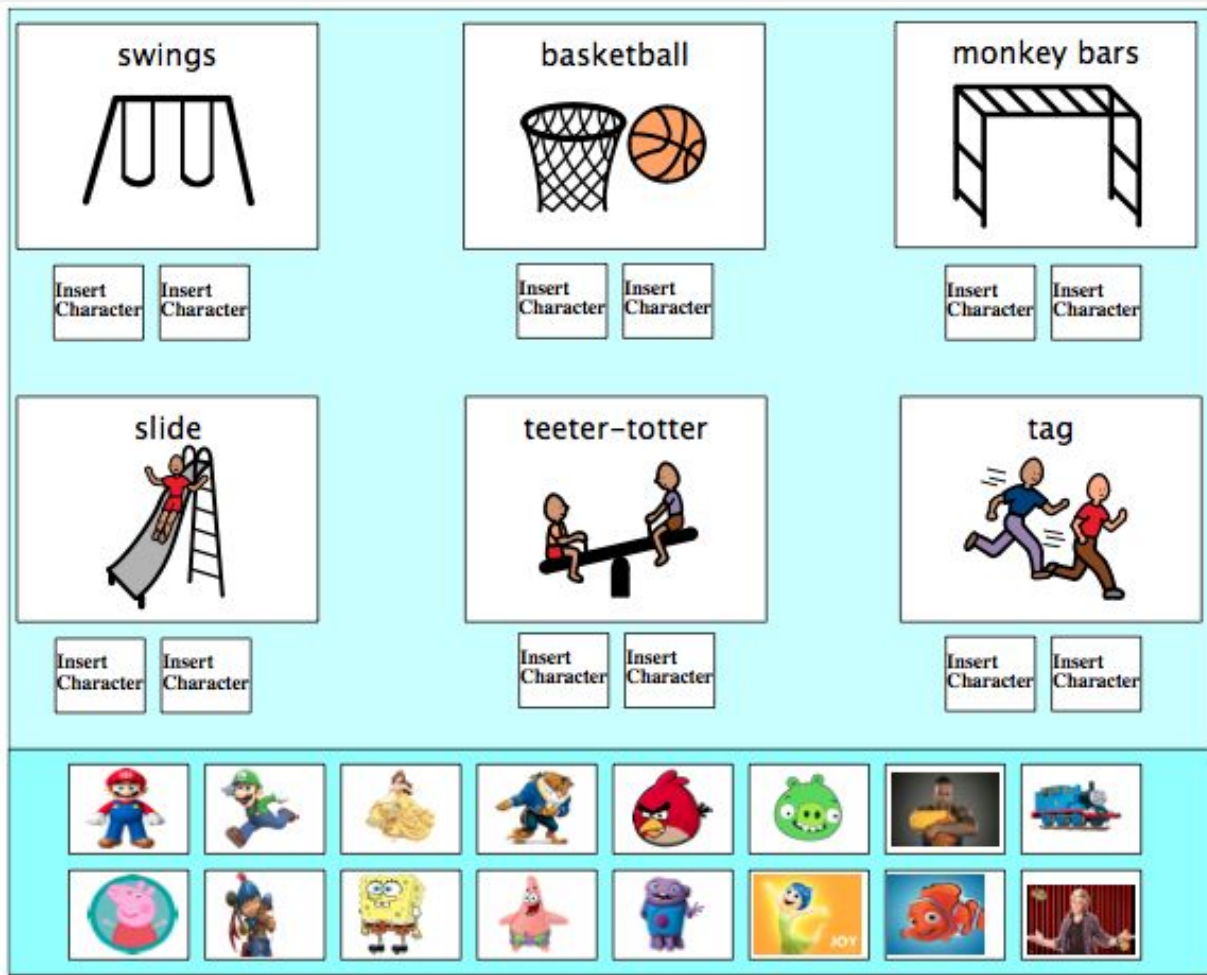
Percentage of 10-s Intervals of Compliance to Directions
with Dinner Time

Baseline

Alternating Treatment of Visual Schedules



Recess Intervention with Peers to Increase Engagement and Socializations (Used with Pre-K - 3rd Grade)



1. Survey peers and target student(s) to find common interests (characters and recess activities).

2. Use velcro to attach items to the visual.

3. To play, the peer and student each pick a character, then they both agree to pick a recess activity.

4. The teacher should prompt the students to engage in pretend play of being the character while they play to support engagement.

5. Repeat as necessary.

Visual Task Analysis with Special Interest



Wash Your Hands Like Peppa Pig



Turn on water



Soap on hands



Wash Hands



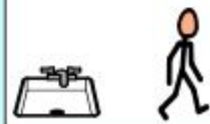
Turn off water



Dry Hands

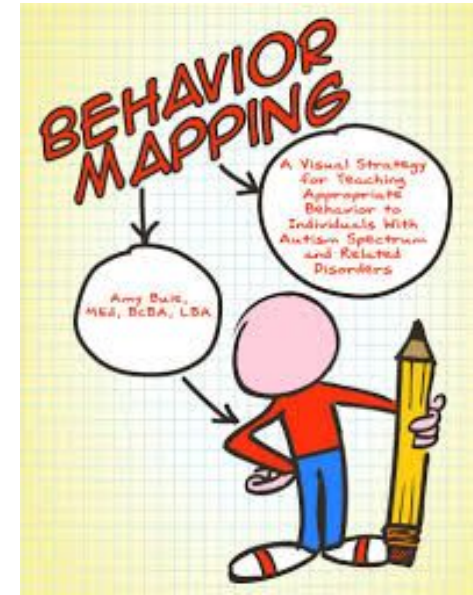
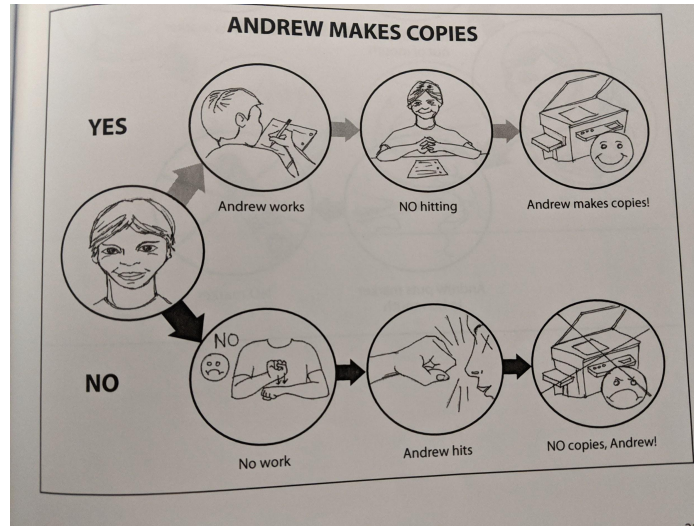


Leave



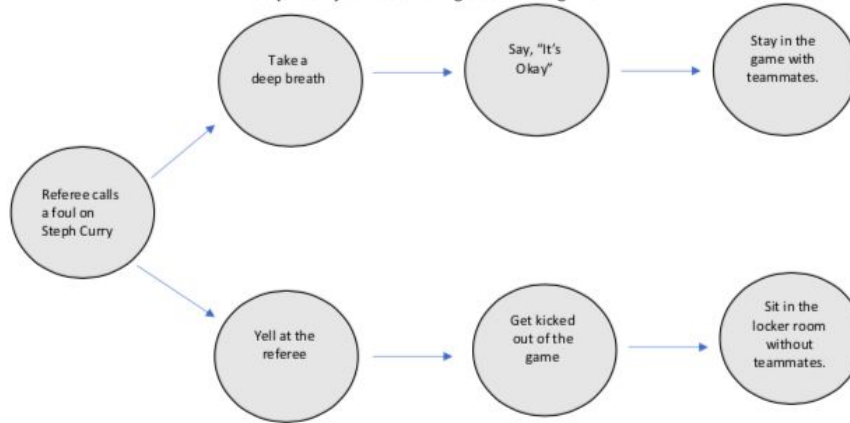
Behavior Support: Behavior Mapping (Contingency Mapping)

- **Behavior Maps** are visuals that depicts the consequences that will occur contingent on desired and undesired behaviors.

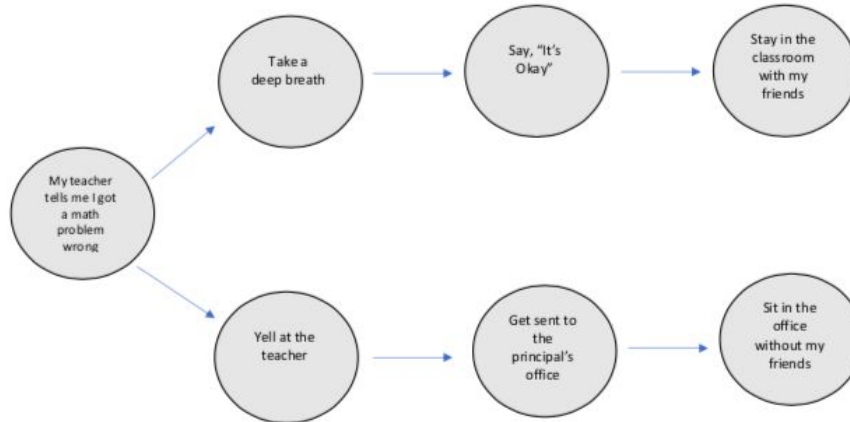


Behavior Map with Special Interests
6th grade Student with High Functioning ASD

Steph Curry's choices during a basketball game



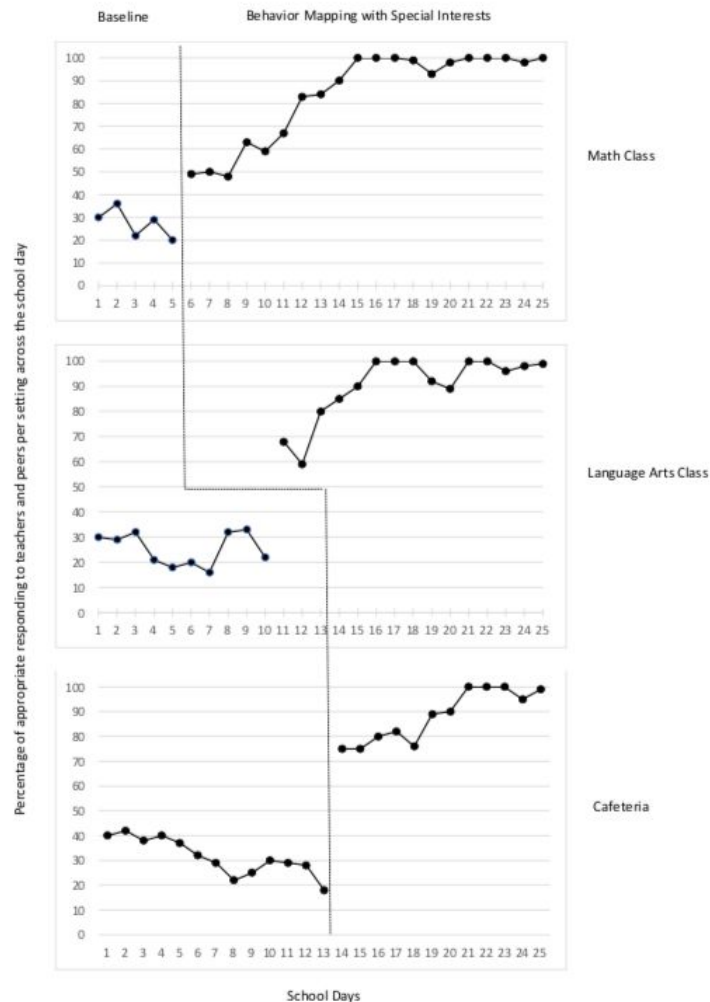
JOSH'S Behavior Map (choices) during Math Class



Behavior Map with Special Interests used to first introduce the map

Josh's Behavior Map

**Results from
using a behavior
map with
embedded special
interests.**



**Data collected on
appropriate responses to
making mistakes and/or
receiving corrective
feedback across three
settings with a middle
school student with ASD.**

More Behavior Support Strategies Incorporating Special Interests

- Design lunch or after school clubs themed after the perseverative interest(s) of individuals with autism (i.e. Movie Trivia Club). (Koegel, 2014).
- Modify games with special interest: (i.e. “Guess Who” with characters from a perseverative theme or “Disney Bingo” (Baker, 2000; Jung & Sainato 2015).
- **Video Modeling:** Incorporate heroes or individuals that match a perseverative interests as the model in the videos (Jung et. al, 2015; Ohtake, 2015).

Mathematics: Using Perseverative Interests to Increase Attending Behaviors Necessary for Correct Responding

- **Story Problems:** Use characters from a perseverative interest and make the “problem” relative to the given interest (i.e. The train conductor that needs to add up how many hours his trip will be).
- **Themed Flash Cards:** Incorporate pictures of the perseverative interest next to the numbers so the card may read “7 ceiling fans + 8 ceiling fans”
- **Subitizing:** The student can spot a set of objects that match the given perseverative interest rather than dots. You can also start with these special interest objects and then fade in the matching number.



Need Your Help




Red bird has 5 eggs.




Chuck bird has 4 eggs

How many eggs do they
have in all?

Special Interest Instructional Guide




Read the Problem




Write the numbers you see in the story and draw them.

Numbers	Draw
<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>




Read the last sentence again and underline it.



Circle below if we need to (+) or (-) the numbers.

☐ + or ☐ -



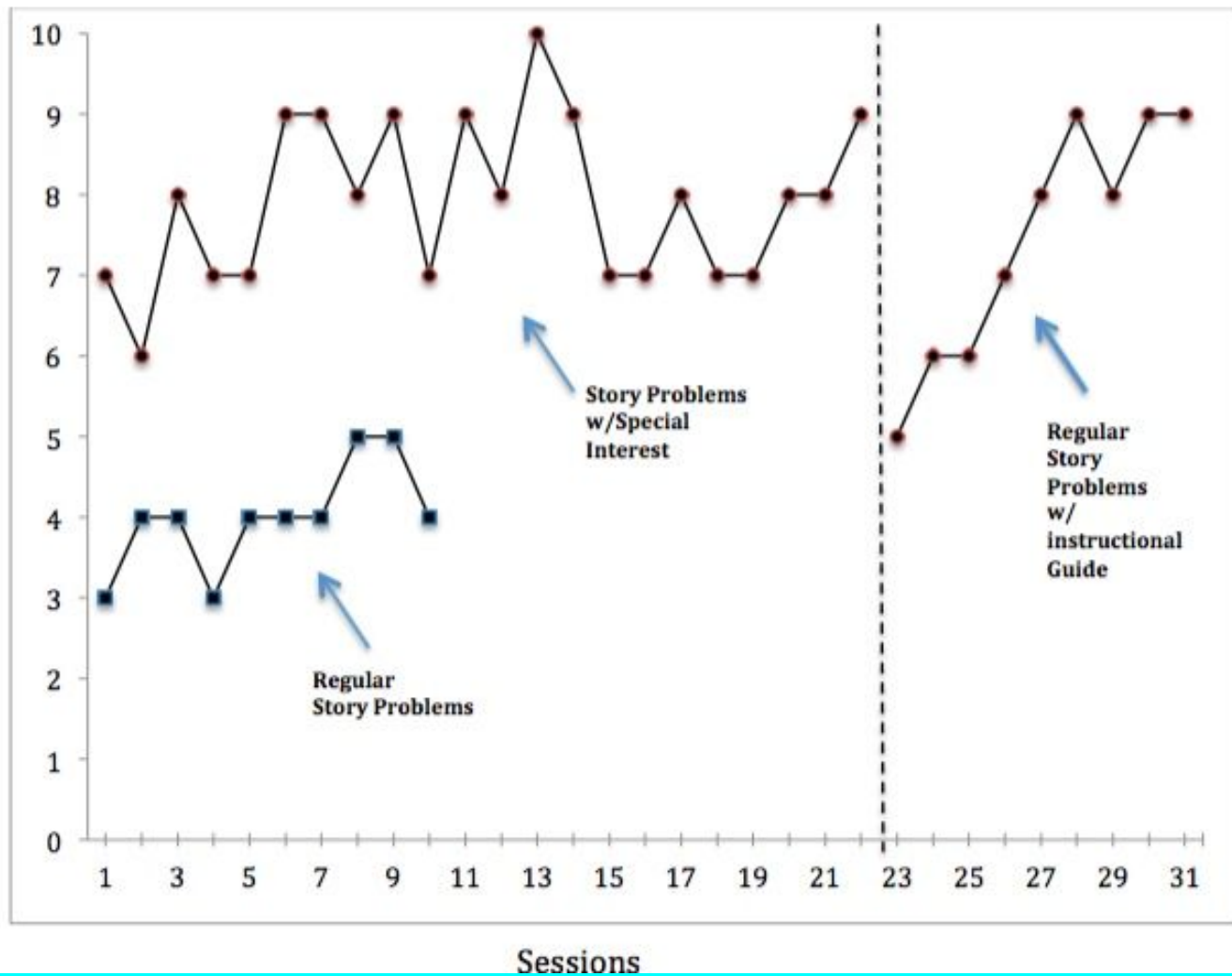
Write in your numbers and do the problem

	<input type="text"/>
$\begin{array}{r} + \\ - \end{array}$	<input type="text"/>

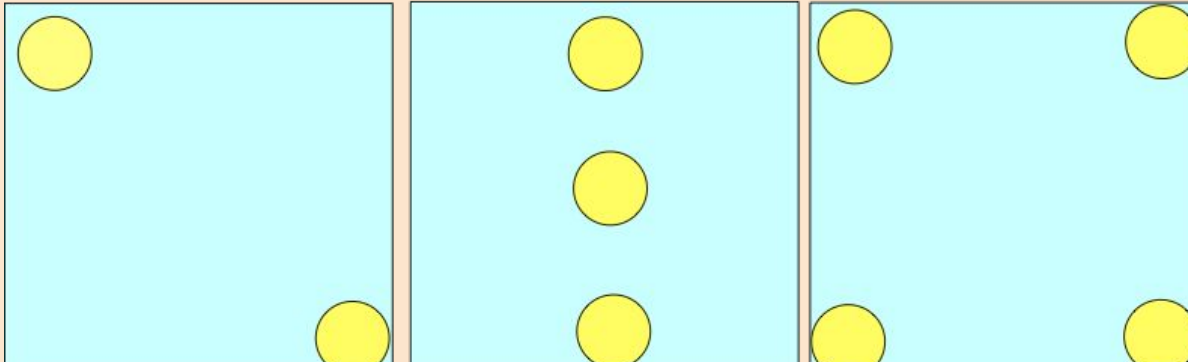
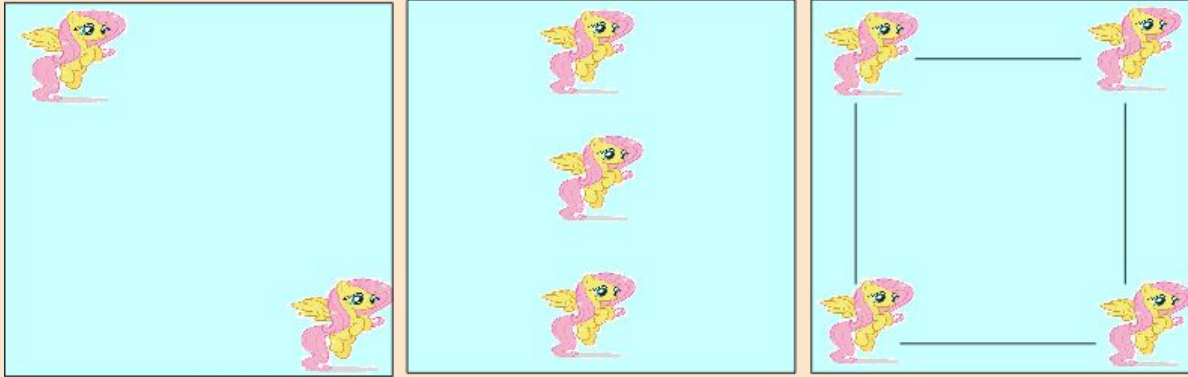


Write your Answer Below! Great Job!

Correct Number of Story Problems Per Session



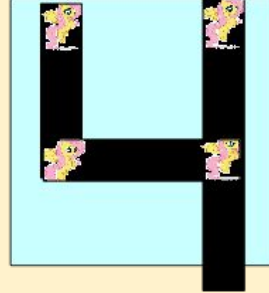
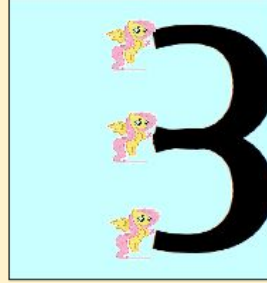
Subitizing (recognizing a set of objects without counting them): With and Without Special Interests



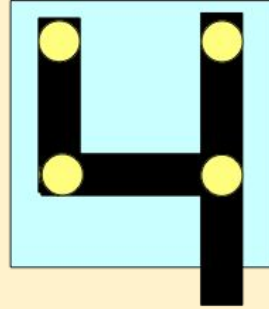
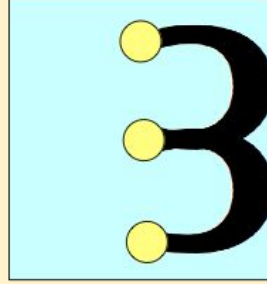
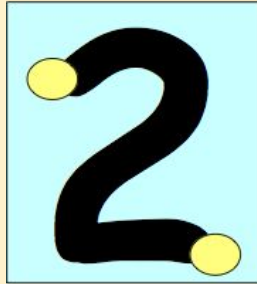
← Incorporating special interests into subitizing activities can support individuals who struggle with attending to relevant stimuli (the necessary skill to subitize)

Number Identification: Fading in numbers that match the placement of the subitized objects. Eventually, the special interests characters are faded out.

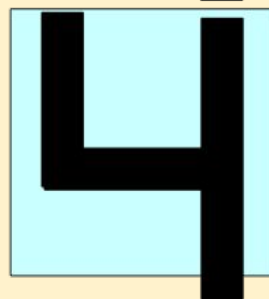
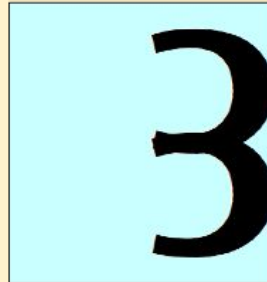
Step 1



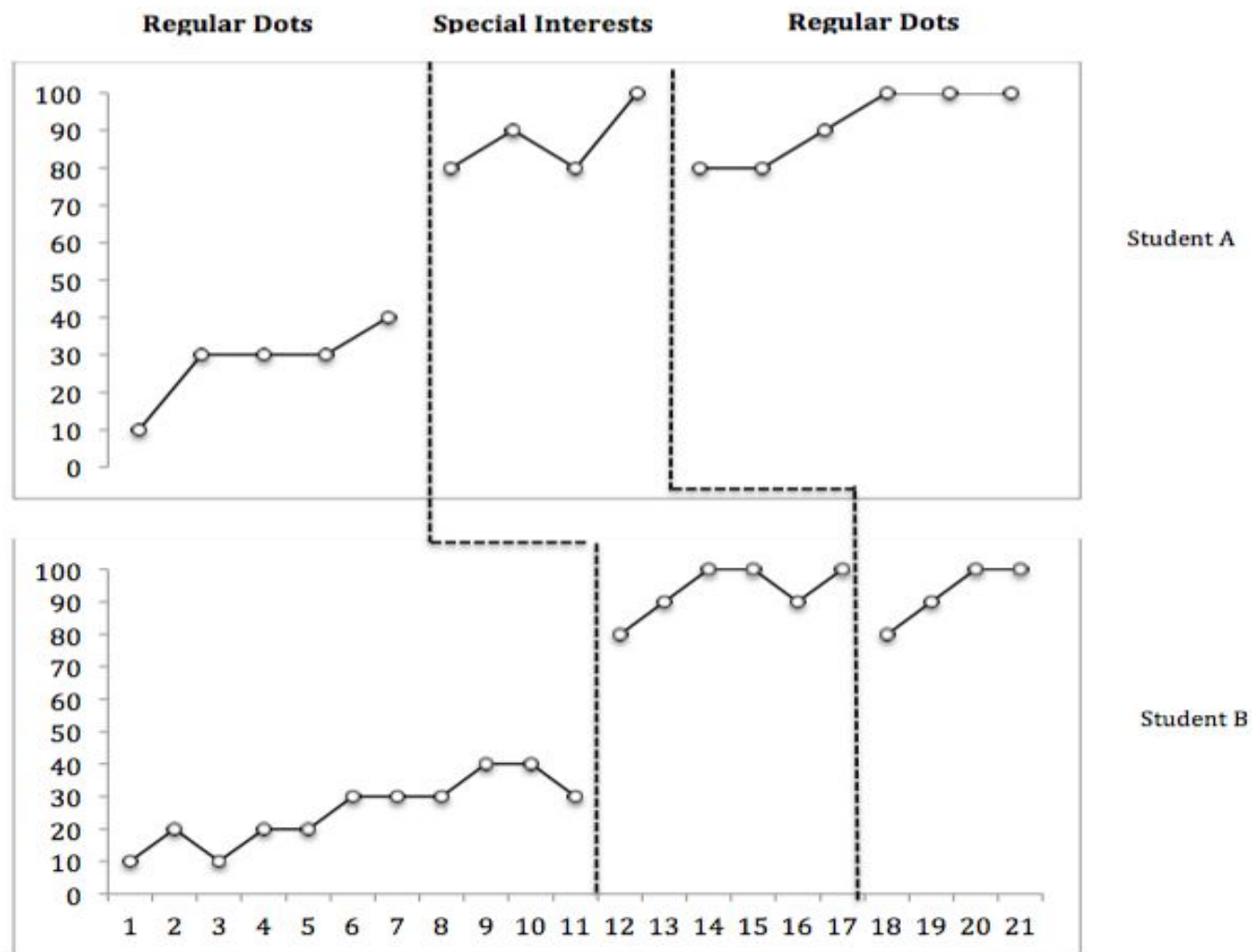
Step 2



Step 3



Percentage of Correct Subitizing Responses Per Assessment





Self Evaluation-Monitoring Card



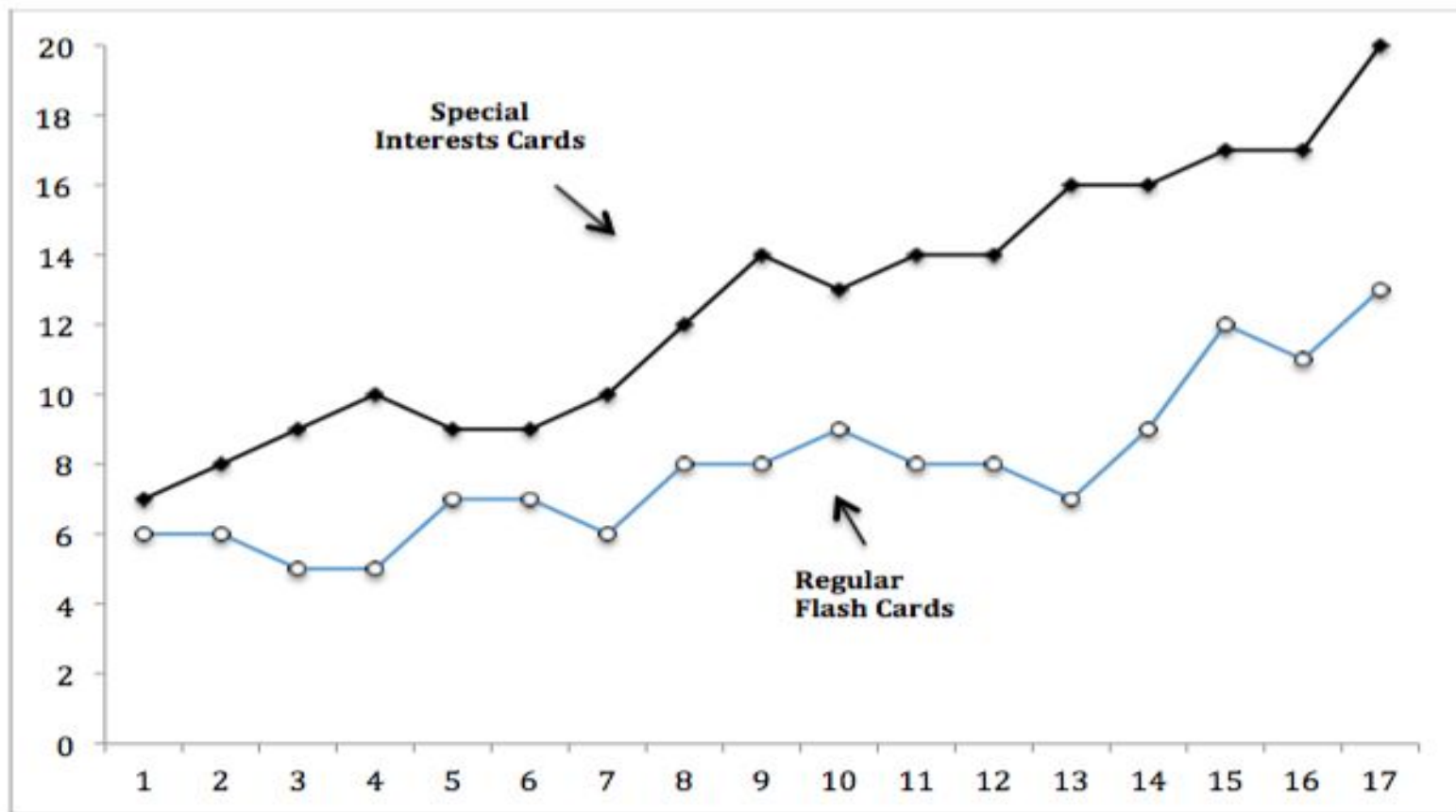
Keep Track of how many math facts you get correct after each test. I always have to keep track of my work on the train, so you do the same!

Modified Flash Cards

$$\begin{array}{r} 7 \\ + 6 \\ \hline \end{array}$$


$$\begin{array}{r} 7 \\ - 6 \\ \hline \end{array}$$


Total Number Correct Per 2-Minute Assessment



2-Minute Assessments

LANGUAGE ARTS EXAMPLES:

- Zein (2014) substituted characters from a text with characters that matched a perseverative interests to increase reading fluency and comprehension responding.
- Allow students to research their perseverative interest if the objectives are the research process.
- Incorporate special interests into various writing genres (persuasive, informational, opinion, etc).

Implications for Instruction

1. Select 1-2 behaviors to increase or modify
2. Identify the special interests through interviews or rating scales with the student (student ranks special interests against each other).
3. Create the intervention and identify the setting.
4. Introduce the intervention to the student prior to implementing it in the designated setting.
5. Implement the intervention with most to least prompting
6. Allow the student to be part of the process of when to fade out the intervention
7. Use a mediating statement once you withdraw the intervention, “Lebron has shown you how to work. Now go do your work just like he has taught you”

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