

Using Intensive Teaching Card Sort to Increase Verbal Behavior Milestones - A District Case Study

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Objectives

- o Participants will get an overview of one district's path to using intensive Teaching (IT) Card Sort to increase verbal behaviors
- o Participants will gain knowledge of one district's implementation and growth of implementation IT Card Sort across the district from early childhood through the transition program
- o Participants will gain knowledge on the use and implementation of the Card Sort System to increase student Verbal Behaviors including: the ABC-R relationship to increase Verbal Behaviors, system setup, system sessions and skill maintenance
- o Participants will gain knowledge on how the Verbal Behaviors and Milestones Placement Program (VBMAPP) results can be used for student program planning
- o Participants will gain knowledge of real student data to reflect the impact of IT Card Sort on student VBMAPP scores

Outline

1. Introduction
2. Our district's path to Intensive Teaching Card Sort
3. Brief overview of Verbal Behavior Operants
4. Brief overview of Intensive Teaching Card Sort
5. Share of case studies
6. Sharing of resources and additional information
7. Questions



About Us

Shannon Follis

- 9th year teaching
- Resource, self contained, elementary, high school, transition, case managed outside placements
- Primarily students with Autism and other developmental disabilities, Emotional Disturbance, Language Impairment
- Educational background
 - ◆ B.S. in Special Education - Loyola Chicago
 - ◆ M.S. in Special Education: Autism from KU
 - ◆ Ed.S. in School Administration - UCM - CPPP - in progress
- Teaching using IT - Card Sort for 5 years

Jessica Hodges

- 6th year teaching High School level
- Self-Contained: life skills and Autism
- Primarily work with student with Autism/behavior concerns
- Educational background-
 - ◆ B.S. in Special Education and Elementary Education- Avila University
 - ◆ M.S. in Special Education- University of Kansas
 - ◆ M.S in Curriculum and Instruction (Applied Behavior Analysis)- Arizona State University
- Teaching with IT card Sort-4 year
 - ◆ Summer 2018- Implementer in clinic utilizing card sort system

About Our District - Center 58

- Small urban school district in South Kansas City, MO
- Total 2017 enrollment 2,630 Pre K - 12
- 73.9% free and reduced lunch
- 13.5% school age K-12 IEP
- Two self contained programs CASTLE and FUTURES
 - ◆ Communication, Academic achievement, Social Skills/Interaction, Transition Planning, Learning Independence, Education - primarily students with Autism and other developmental disabilities whose educational needs require more intensive and specialized programming
 - ◆ FUTURES - primarily for students with intellectual disabilities and other disabilities which significantly impact their adaptive and independent functioning



Why Are We Here?

- IT - Card Sort has been a tool we have found to be very beneficial in our work with our students.
- As teachers, it has helped us address deficits we were doing our best in addressing before but always felt like we could do better.
- We have seen great growth in our students.
- It is a program we have been able implement from ECC through high school. Big impact, one program. Continuity across grades and skills.
- As teachers, it is nice to have a tool/program/curriculum that works and helps us meet our student's needs.
- We wanted to share from the classroom perspective on something that we think works.

Our Path Leading to Intensive Teaching (IT)

- Had been using the Assessment of Basic Language and Learning Skills (ABLLS) - alternative district assessment and classroom assessment
 - ◆ Struggled to complete in timely manner
 - ◆ Still reference to it for task analyses or further break down of skills
 - ◆ Didn't have good follow up for identified skills gaps

- Lead Autism Special Education Teacher found out about Verbal Behavior and Milestones Placement Program (VBMAPP)

- ◆ 2 staff trained initially 2010-2011
- ◆ Further staff trained informally by trained staff
- ◆ VBMAPP replaced ABLLS as alternative district wide assessment and classroom assessment
- ◆ Didn't have good follow up for identified skills gaps - each teacher doing their best but looking for additional resources - no continuity



MARK L. SUNDBERG, Ph.D., BCBA

We had this. Now what?
How do we use this to help the student?

Our Path Leading to Intensive Teaching (IT) Cont.

- District Autism and Behavior Programming Coordinator found training on Intensive Teaching (IT) Card Sort as a way to target the identified skill gaps in the VBMAPP and set up training for staff

- ◆ IT - ABA based - Errorless Teaching
 - Provided staff with resources to understand how behavior is as a communication tool
- ◆ 6 operants: echoics, mands, tacts, imitation, listener response, intraverbals
- ◆ Goal: To build up the milestones of verbal behavior to increase student ability to engage in academic settings
- ◆ Trainings continued over years to increase staff and replace trained staff who left
- ◆ District invested in hiring Stacy Martin, BCBA, as private consultant
- ◆ Yearly orders for materials
- ◆ Monthly meetings to check in and problem solve
- ◆ **"We were very lucky to have very supportive special education administration."**

Timeline of Implementation

- 2014-2015 First Training
 - ◆ Ordering of and organization of IT materials
 - ◆ Beginning of implementation in district CASTLE program
- 2015-2016 Growing the Impact and 2 Additional Bootcamps
 - ◆ Materials ordered and distributes
 - ◆ Additional training of teachers and paraprofessionals
- 2016-2017 Growing the Impact and Additional Bootcamp
 - ◆ MAND training
- 2017-2018
 - ◆ Maintaining competency
 - ◆ Support through Summit Behavioral Services
- 2018-2019
 - ◆ Projected to do the Establishing Early Skills Training
- 2019-2020
 - ◆ Projected to do the Advanced Training

Overall Buy In

- Total Staff Trained 2017-2018 School Year
 - ◆ Early Childhood Teachers: 2
 - ◆ Elementary School Teachers: 5
 - ◆ Middle School Teachers : 2
 - ◆ High School Teachers: 2
 - ◆ Paraprofessionals: 15
 - ◆ Speech and Language Pathologist: 3
- Trainings Provided
 - ◆ 3 day IT - Card Sort Bootcamp
 - ◆ MAND
 - ◆ Ongoing Consultation Hours \$95 - 17-18 - 27 hours
- Investment
 - ◆ Over 30k in trainings, supplies and support hours

What is IT Card Sort?



It is a form of discrete trial instruction where color coded cards and picture cards are used to teach different verbal operants and then build fluency and generalization

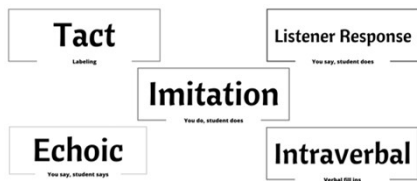
<https://www.youtube.com/watch?v=0JAxNitos3A> start at 1:48

Quick Overview of Verbal Behavior Operants



Prompt - Transfer - Distract - Check

Errorless Teaching



Antecedent - Behavior - Consequence

Mand

Student initiates request to get something they want

Examples: Student says cookies and gets cookie

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Listener Response



Receptive language skills -
you say it, student does it

Examples: You say "clap" -
student claps

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Tacting



Naming objects, people,
actions, etc.

Example: Student sees or
hears a bird and says "bird"

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Imitation



You do it, student does it

Examples: You say "Do
this" then clap - student
claps

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Echoic

.....

Vocal imitation - you say it,
student says it

Examples: You say "ball"
then student says "ball"

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Intraverbal

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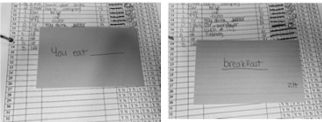
Prompt - verbal input only
- think fill in the blank

Examples: You say "1,2,..."
then student says "3"

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Errorless Teaching Procedure

- ★ Prompt
 - Echoic/Imitation- Say/Do what student is expected to do
 - Mand- Object/Item student is motivated by
 - Listener Responding
 - Picture- Point to it
 - "Action"- Do it paired with direction
 - Intraverbal- Show picture and fill in the blank
 - Tact
 - Picture-Show and give answer
 - Body part- Be specific in prompting
- ★ Transfer
 - Present again IMMEDIATELY without the prompt
- ★ Distract
 - Use a known item ONLY
- ★ Check
 - Return to initial teaching item



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Error Correction Procedure

- ★ END
- ★ Prompt
 - Echoic/Imitation- Say/Do what student is expected to do
 - Mand- Object/item student is motivated by
 - Listener Responding
 - Picture- Point to it
 - "Action"- Do it paired with direction
 - Intraverbal- Show picture and fill in the blank
 - Tact
 - Picture-Show and give answer
 - Body part- Be specific in prompting
- ★ Transfer
 - Present again IMMEDIATELY without the prompt
- ★ Distract
 - Use a known item ONLY
- ★ Check
 - Return to initial teaching item

Quick Overview of Intensive Teaching - Card Sort

What do you need?

- Scored VBMAPP
- Supplements
- IT book broken into sections by operant with supplements, tracking sheets and graphs
- Bins to store cards
- Color 3x5s
- Picture cards
- Color dots

Set up

- Stack labeled for initials - an knows
- Cards divided and shuffled into knowns and future targets
- Target 3x5s and target picture cards
- Student VR
- Reinforcers
- Space to work at
- Objects Bin



Initial Setup



Ready for a Session



Schedule of Daily Implementation

- All students cold probed as early as possible in schedule
- Depending on student, average of 4 IT Card Sort Sessions per day
 - Cold probed everyday before any teaching sessions
 - Teaching sessions are interspersed throughout the day
 - Length depends on the student (VR rate)
 - Built in generalization/maintenance and fluency of skills
- MANY adaptations and specializations due to environment and student
 - Some students use signed exact english for tacts
 - Use of AAC for intraverbals
 - Incorporation of academics and life skills
 - Individual sessions, diad sessions
 - Incorporate service providers into sessions (SLP/OT/PT)
 - Use peer models to implement skills





Bonuses

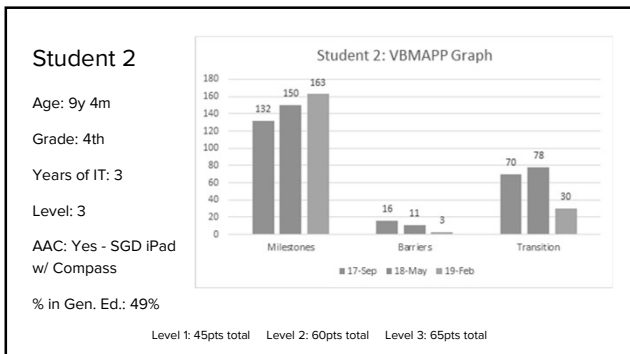
- Staff calling dibs on getting to do sessions
- Kids very willing to go to "work"
- Kids pulling and setting up their own sessions
- Greater appreciation and understanding of staff of student skills
- Greater understanding for staff of student verbal behaviors and impact in all areas
 - Especially in general education and social skills
- Built in reinforcement for staff - seeing student growth
- Provides good quality and easily updated present level information and IEP goal development

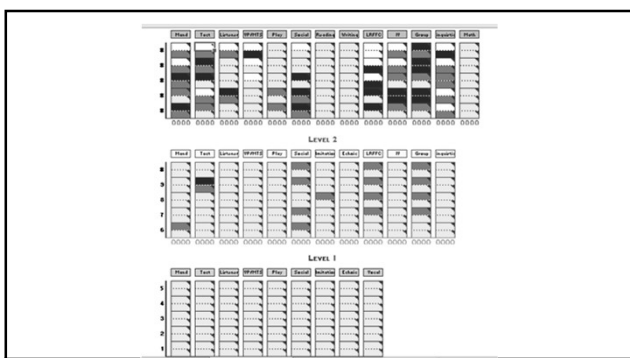


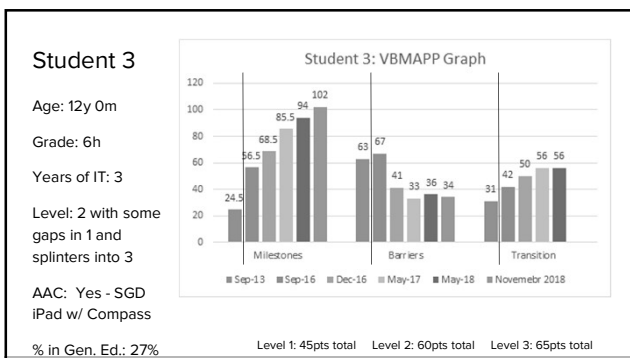
Impact on Our Students

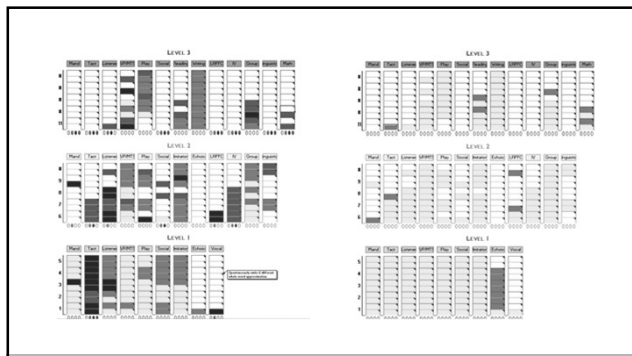
Looking at VBMAPP Scores

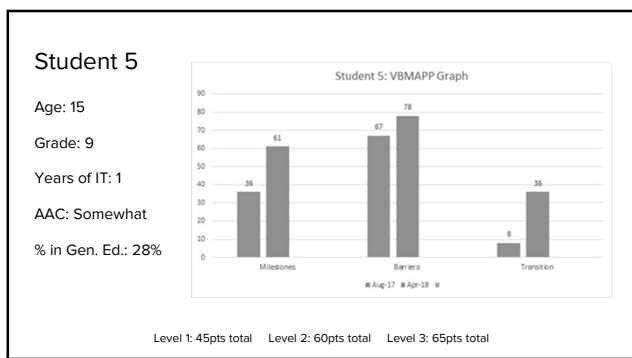
- Milestones to go up
- Barriers to go down
- Transition scores to go up

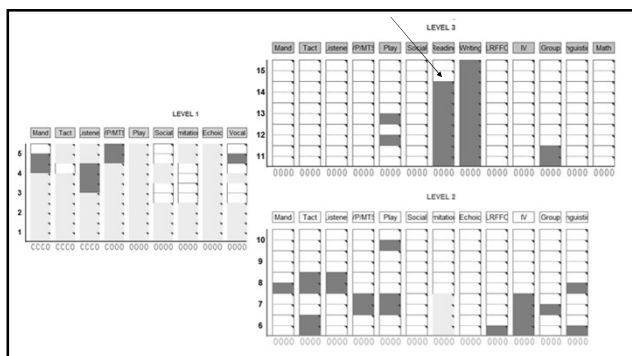


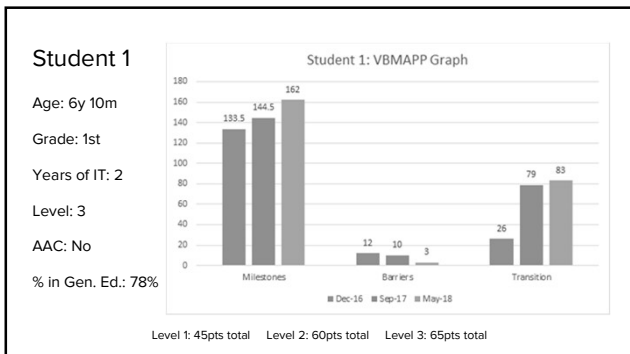


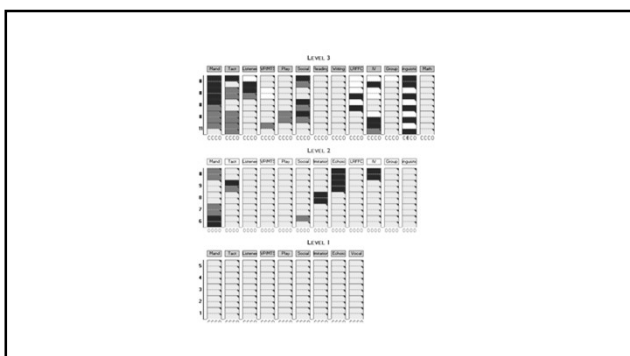


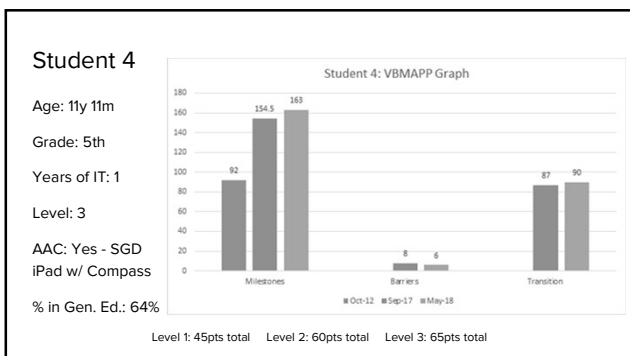












The image shows three data tables labeled 'Level 2', 'Level 3', and 'Level 4'. Each table is a grid with columns for 'Skill' and 'Date' and rows for 'Student'. The tables are used for tracking student progress on various skills over time.

Additional Info and Variations

Quirks and Bumps and Growth

- We didn't follow the schedule as we shown in the training
 - Too much to maintain with our various rates of inclusion
- Each teacher setups how it works for them EXCEPT data books, card bins, labeling
 - OCD v get it done: card orientation
 - 3 drawer cart per kid v. shared space
 - Not all operants implemented
- Getting everyone on a similar enough setup and page for smoother continuity between ECC through transition
- Digital scoring of VBMAPP
- All sections of VBMAPP scored v. just milestones

- Growing into higher level skills: fact actions with noun verbs
 - higher level intraverbals
- Transition of materials across schools
- Figuring out incorporation of signed exact english and AAC
- Getting fidelity to errorless teaching
- Highlighters v. color pencils
- Remembering VR and checking for motivation
- Growth into use for social skills and manding

The image shows a piece of paper with handwritten notes. The notes are organized into columns and rows, with some words and phrases written in different colors (highlighters and color pencils). The notes appear to be related to the 'Quirks and Bumps and Growth' section.

IEPs and Card Sort

Yes, yes we do...

- It is not uniform but we do include VBMAPP and Card Sort information into student IEPs
 - VBMAPP scores in present levels
 - IEP services for goals written to address IT operants
 - IEP goals
 - Progress reports
 - Eval reports

Examples in Present Level

Verbal Behaviors: As of October 2018 scoring, student is level 3 (30-48 months) on the Verbal Behavior and Milestones Placement Program (VBMAPP). Student's overall milestones have increased from 149.5 to 163 points since the previous IEP.

Areas of strength are mand, play, social, reading, writing, group and math skills.

Areas for growth include tact, listener response, visual perception match to sample, listener response by feature/function/class, intraverbals and linguistics.

-Social Interaction: He is able to say HI when prompted but does not imitate on his own. He is able to use eye contact to MAND (request) preferred items but does not use eye contact when engaged with others. He is able to orient to hearing his own name 5 times during a 1 hour timed observation. He is able to look at, or point to a reinforcer when presented in an array of 2 for two items. He is able to manipulate and explore objects for 1 minutes and shows variation in play by independently interaction with 5 different times during a timed 30 minute observation. He is unable to use listener responding skills to find desired items in an array of 4 picture cards, generalize 6 mands across 2 people, settings, and examples; he is unable to emit 5 MANDS in 1 hour even with items present. He is able to TACT (label) 59 pictures when presented flash card style.

Examples of Services

Specialized Instruction: Verbal Behavior	10/05/2018	10/03/2019	4-20 minutes	per week	Special Education
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Examples of Goals

By the annual IEP review, Student will increase his verbal behavior skills by acquiring at least 25 tacts noun-verb or verb-noun tacts (label) with 100% for each target on 3 consecutive data sessions, as measured by teacher data collection.

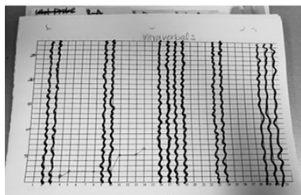
By the annual IEP review, Student will increase his verbal behaviors by gaining 4 new listener response actions per goal quarter for a total of 16 new listener response actions, having 100% accuracy for 3 consecutive data days per target as measured by teacher data.

By the annual IEP review, when instructed to perform a motor action (e.g. stand up, wave, etc) STUDENT will increase his functional life skills/verbal behavior skills by immediately following the instruction by correctly executing the action for at least 36 total actions over 3 consecutive cold probes per target as measured by teacher data collection.

Examples of Progress Reports



Daily Data



Item	Target	Actual	Notes
1	100%	100%	
2	100%	100%	
3	100%	100%	
4	100%	100%	
5	100%	100%	
6	100%	100%	
7	100%	100%	
8	100%	100%	
9	100%	100%	
10	100%	100%	
11	100%	100%	
12	100%	100%	
13	100%	100%	
14	100%	100%	
15	100%	100%	
16	100%	100%	
17	100%	100%	
18	100%	100%	
19	100%	100%	
20	100%	100%	
21	100%	100%	
22	100%	100%	
23	100%	100%	
24	100%	100%	
25	100%	100%	
26	100%	100%	
27	100%	100%	
28	100%	100%	
29	100%	100%	
30	100%	100%	

Daily Data Continued

Item	Target	Actual	Notes
1	100%	100%	
2	100%	100%	
3	100%	100%	
4	100%	100%	
5	100%	100%	
6	100%	100%	
7	100%	100%	
8	100%	100%	
9	100%	100%	
10	100%	100%	
11	100%	100%	
12	100%	100%	
13	100%	100%	
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29	100%	100%	
30	100%	100%	

Item	Target	Actual	Notes
1	100%	100%	
2	100%	100%	
3	100%	100%	
4	100%	100%	
5	100%	100%	
6	100%	100%	
7	100%	100%	
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26	100%	100%	
27	100%	100%	
28	100%	100%	
29	100%	100%	
30	100%	100%	

How Can I use this on Monday?



1. Use errorless teaching process (prompt, transfer, distract, check) during familiar routines
 - a. Calendar, circle, whole group instruction, small group instruction, social skills instruction
2. Start taking inventory of the skills your students already have!
 - a. VB-MAPP supplemental assessment
3. Open discussions with your administrators about getting trained and getting the materials

The Stages of Card Sort and IT

1. Woohoo this is amazing, let's do it right now!
2. My brain is melting from this intensive 3 day training...
3. Materials ✓ VBMAPP done ✓ uhh... yea...
4. Ok... I'm getting this... 2 operants in.... 3 operants in...
5. Woah look at this growth!
6. Can I card sort my children/husband into laundry and changing the toilet paper roll?
7. Where did all the (insert color) card go?!?! Send mass email to whole school...
8. Level 3 intraverbals... cue the song "A Whole New World" then panic
9. BONUS STAGE: Intriguing, a student has developed a case of the IT Pox

Contact Information

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Questions?

References

MARK L. SUNDBERG, Ph.D., BCBA MarkSundberg.com. (n.d.). Retrieved from <http://www.marksundberg.com/vb-mapp.htm>
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Image Sources

Images

- <https://www.wpspublish.com/store/p/2638/ablls-r-assessment-of-basic-language-and-learning-skills-revised>
- <http://www.marksundberg.com/vb-mapp.htm>

Resources from Pattan

Beginning Guide to the Intensive Teaching Process of the Verbal Operants

VBMAPP Scoring Supplement

<https://slpemad.files.wordpress.com/2015/09/vbaaaaaaa.pdf>



Videos from Pattan

Intensive Teaching Guide

Teaching a Verbal Mand

Tact of Actions

https://docs.google.com/document/d/1ICByMDc_1Vg3-sDirkNhcfcFLSjvBlhXspoPAoyu8m0/edit?usp=sharing

http://www.pattan.net/Videos/Browse/Single/?code_name=tacts_of_action_-_part_2



Skill Tracking Sheet

Student Name: _____

Skill: Tact Parts and Features of Common Functional Items

Target		Date introduced	Date Mastered	
Pencil:	Eraser			
	Point			
Car:	Wheels			
	Wipers			
	Headlights			
	Door			
	Seatbelt			
	Seat			
	Window			
	Trunk			
	Bumper			
	Steering wheel			
	Bus:	Yellow		
		Wheels		
Door				
Windows				
Stop sign				
Headlights				
Wipers				
Seat				
Steps				
Steering wheel				
Shirt:	Sleeves			
	Collar			
	Buttons			
	Tag			
Pants:	Legs			
	Zipper			
	Snap			
	Button			
	Pockets			
	Tag			
Dog:	Paws			
	Fur			
	Tail			
	Whiskers			
Cat:	Paws			
	Fur			
	Tail			
	Whiskers			

Skill Tracking Sheet

Student Name: _____

Skill: Tact Parts and Features of Common Functional Items

Target		Date introduced	Date Mastered
Scissors:	Handle		
	Blades		
Book:	Spine		
	Pages		
	Words		
	Cover		
	Title		
Chair:	Seat		
	Back		
	Legs		
	Arms		
Table:	Legs		
	Top		
Jacket:	Sleeves		
	Zipper		
	Pockets		
	Hood		
	Tag		
Backpack:	Straps		
	Pockets		
	Zipper		
Rabbit	Tail		
	Fur		
	Paws		
	Whiskers		
Computer:	Mouse		
	Monitor		
	Keyboard		
TV:	Screen		
	Buttons		
	Remote		
DVD Player	Screen		
	Buttons		
	Remote		
House:	Door		
	Windows		
	Roof		
	Chimney		
Marker:	Tip		
	Cap		

Skill Tracking Sheet

Student Name: _____

Skill: Tact Parts and Features of Common Functional Items

Target		Date introduced	Date Mastered
Bike:	Wheels		
	Handlebars		
	Seat		
	Pedals		
	Spindles		
Tree:	Leaves		
	Branches		
	Trunk		
	Roots		
Kite:	String		
	Tail		
Flower:	Stem		
	Petals		
	Leaves		
	Roots		
Teapot:	Spout		
	Handle		
Hat:	Brim		
Stove Top:	Burners		
	Dials		
Oven:	Timer		
	Door		
	Rack		
	Temperature Setting		
Washing Machine:	Water setting		
	Door		
	Agitator		
	Cycle Setting		
	Fabric Type		
	Fabric Softener Holder		
	Bleach Holder		
	Start		
Dryer:	Door		
	Time Setting		
	Lint Trap		
	Start button		

Skill Tracking Sheet

Student Name: _____

Skill: Tact Parts and Features of Common Functional Items

Target	Date introduced	Date Mastered
Microwave: Door		
Turn plate		
Turn plate wheel		
Start button		
Cancel button		
Time Cook		
Timer		
Bathroom: Sink		
Water Handles		
Mirror		
Toilet		
Sink: Spout		
Bowl		
Handle (s)		
Toilet: Flusher		
Lid		
Tank		
Toilet Paper		
Bed: Comforter/Cover		
Flat sheet		
Fitted Sheet		
Bed frame		
Pillow (s)		
Mattress		
Couch: Back cushion		
Seat cushion (s)		
Legs		
Dresser: Drawer(s)		
Drawer pull/handle		
Kitchen: Oven/Stove		
Microwave		
Refrigerator		
Freezer		
Dishwasher		
Sink		
Cabinet (s)		
Drawer (s)		