

Strategies for Increasing Problem Solving in Adolescents with Autism Spectrum Disorder

April N. Kisamore, Ph.D., BCBA-D, LBA (NY)

Ever ran into these types of situations?



What do I
wear today?



How many windows
are in my house?





Where
Should I put
this?



Where did I put these?



How do I do
this?

What Causes Hiccups?





How do I get
back to work?

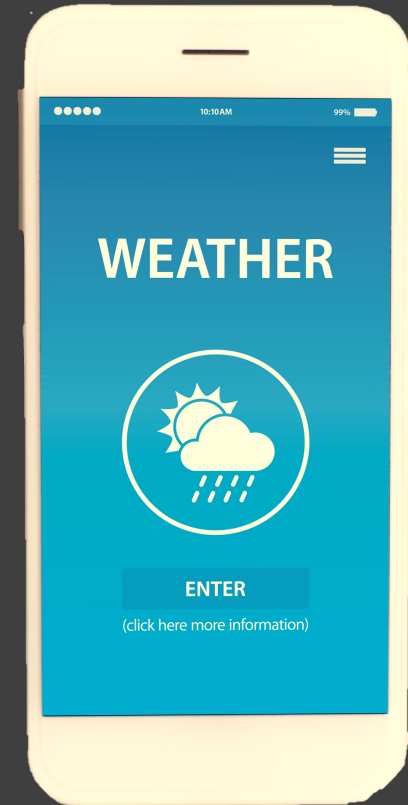
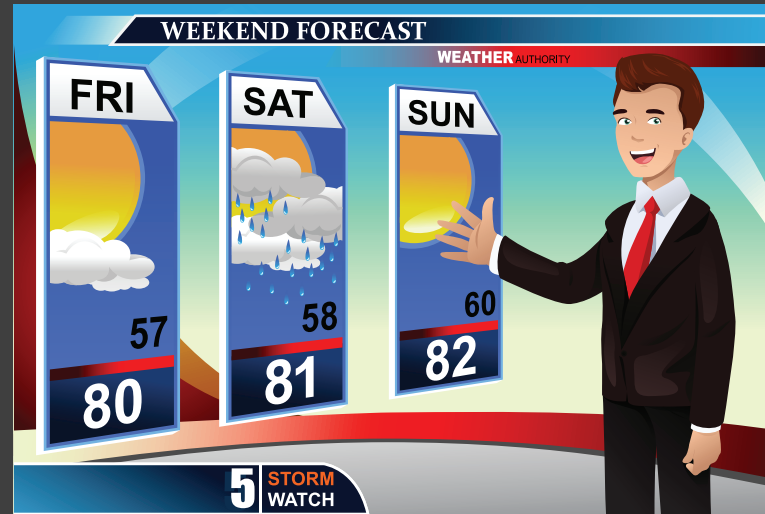
A problem

- Anytime you are presented with a situation in which you have no response immediately available to satisfy a motivating operation (Skinner, 1957)

Problem solve

Thinking and talking to ourselves (Skinner, 1957)

Engage in a series of mediating responses that make the solution more likely (Palmer, 1991)



You might check the weather



You might imagine your house



You might draw out your space



You might search your home



You might Youtube it

What Causes Hiccups?



You might Google it

You might have
to choose among
different options

Bus Timetable	
Look for details on each station, including the address and local transit connections, below on the page.	
Mondays to Saturdays except public holidays	Sundays public holidays
0754 0845 0945 1045 1145 1245 1345 1445 1545 1645	1055 1355 1455 1545 1655
0750 0850 0950 1050 1150 1250 1345 1450 1550 1650	1055 1355 1255 1845 1855
0755 0855 0955 1055 1155 1255 1345 1455 1555 1655	1050 1150 1250 1350 1450
0854 0945 1045 1145 1245 1345 1445 1545 1645 1745	1345 1445 1545 1645 1745
0850 0950 1050 1150 1250 1350 1450 1550 1650 1750	1350 1450 1550 1650 1750
0911 1011 1111 1211 1311 1411 1511 1611 1711 1811	1411 1511 1611 1711 1811
▼ 0850 ▼ 1050 ▼ 1255 ▼ 1450 ▼ 1650	1345 1445 1545 1645 1745
0750 ▼ 0950 ▼ 1150 ▼ 1345 ▼ 1550	▼ ▼ ▼
▼ 0855 ▼ 1055 ▼ 1255 ▼ 1455 ▼ 1655	1611 1711 1811
0755 ▼ 0955 ▼ 1155 ▼ 1345 ▼ 1555	1455 1555 1655
0750 0850 0950 1050 1150 1250 1345 1450 1550	1455 1555 1655



lyft

How do we know to do these things?

How do we teach others to
problem solve?

CTLE Keynote 1: **BOOK**



Identify

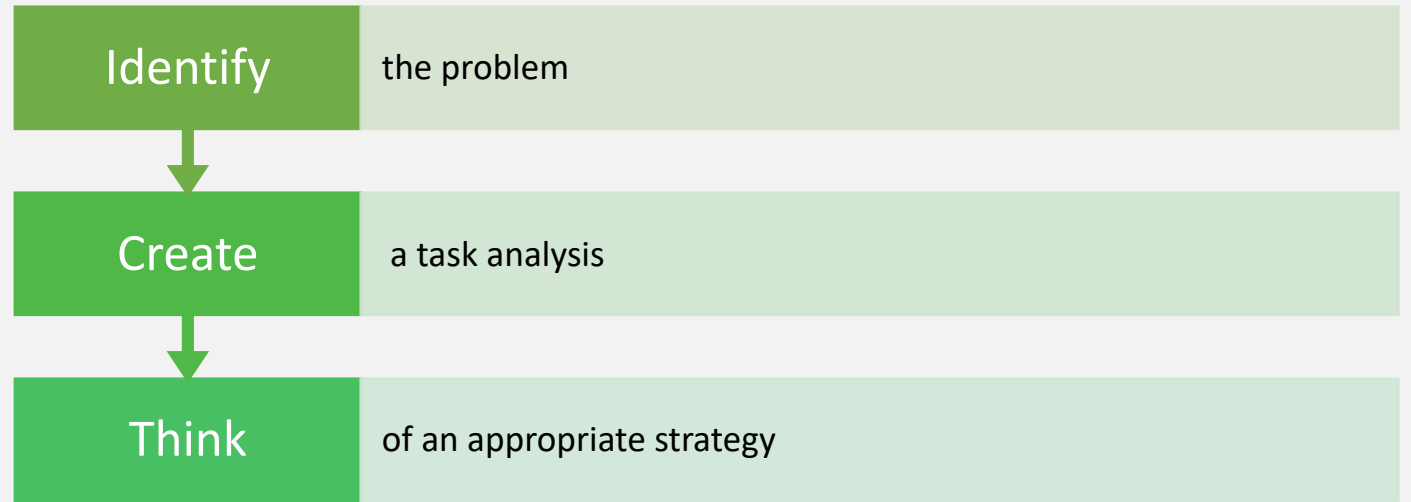
the problem

How do we
teach others
to problem
solve?

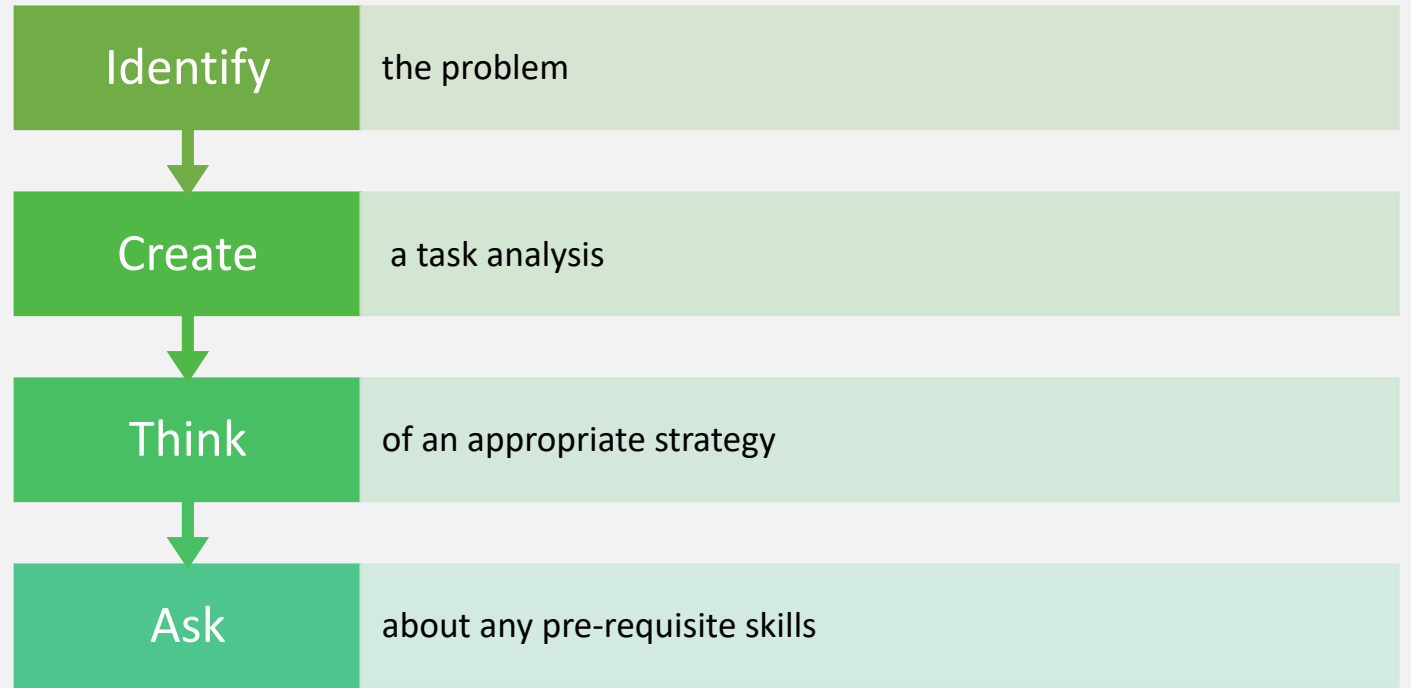
How do we
teach others
to problem
solve?



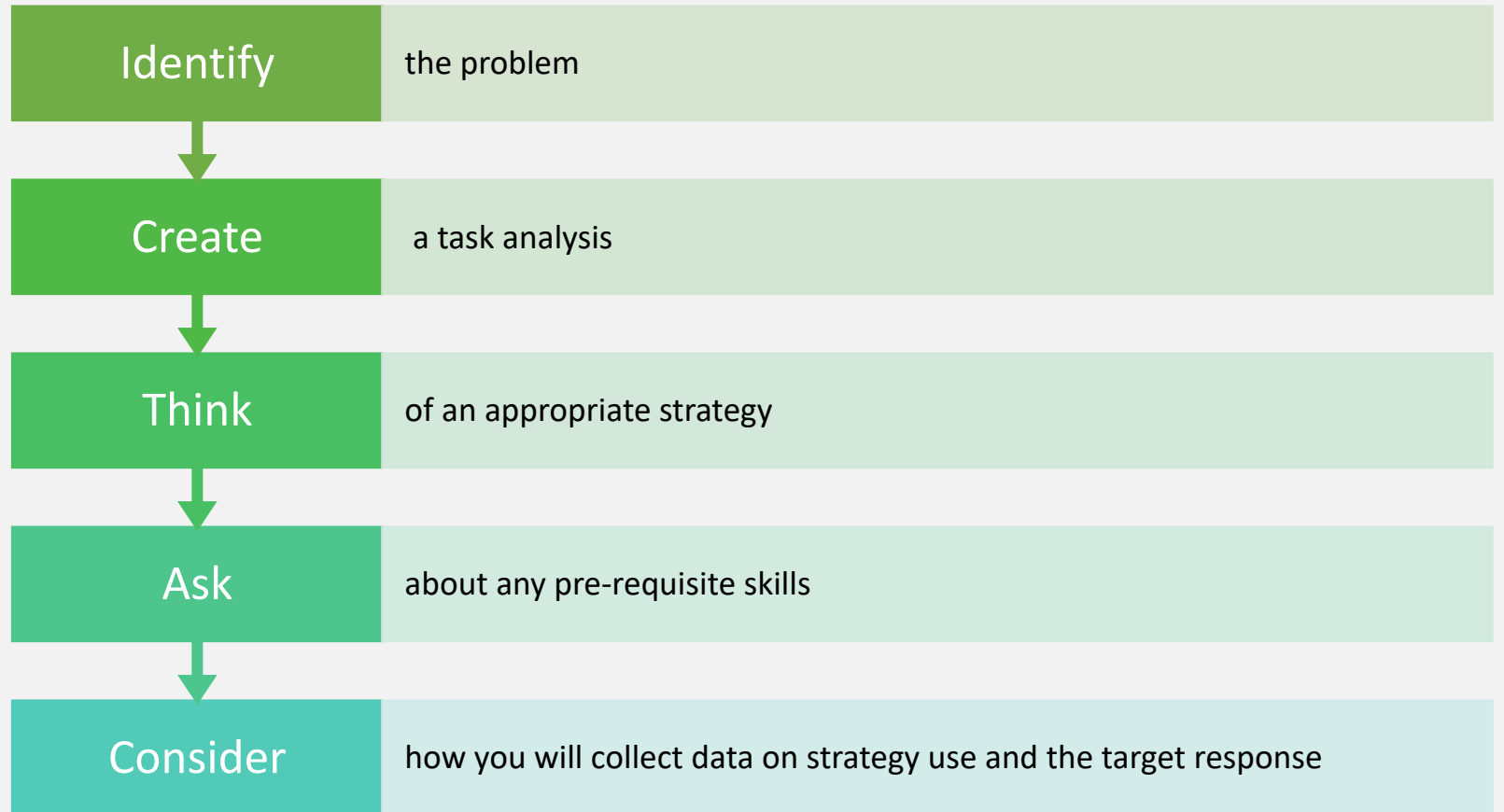
How do we
teach others
to problem
solve?



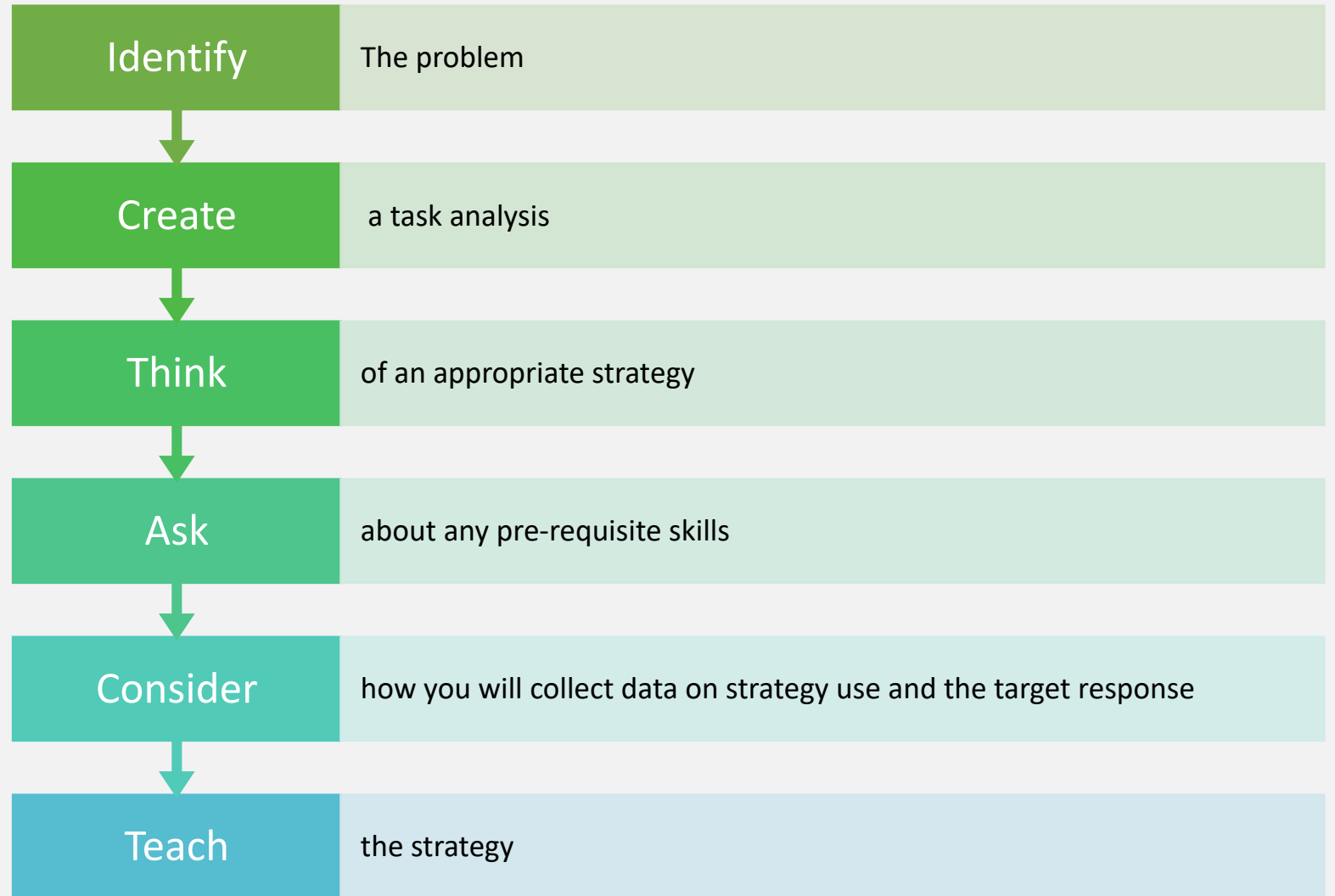
How do we
teach others
to problem
solve?



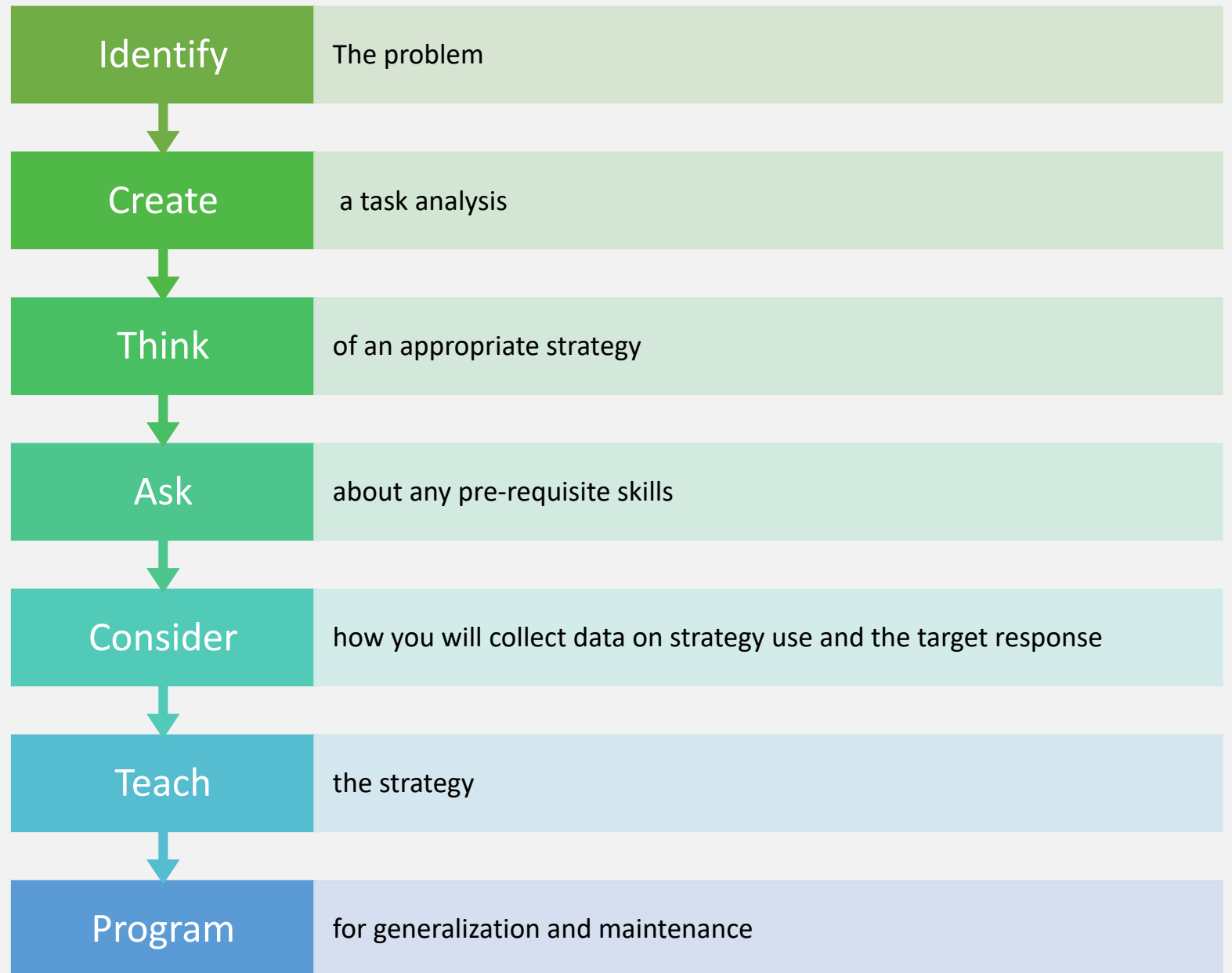
How do we
teach others
to problem
solve?



How do we
teach others
to problem
solve?



How do we
teach others
to problem
solve?



Vocational Tasks

Benefits of Employment (Hendricks, 2010; Lee & Carter, 2012)

- Financial autonomy

Benefits of Employment

- Financial autonomy

Financial Autonomy

Preferred residence



Financial Autonomy

Personal Interests and Activities



Benefits of Employment

- Reduced reliance on government funds
- Greater contribution to society
- Decreased reliance on day programs and community supports
- Employers often value trustworthiness, reliability, and low absenteeism
- Employees with ASD often demonstrate attention to detail and increased work output

Employment Outcomes

It is estimated that between 50-75% of adults with ASD are unemployed

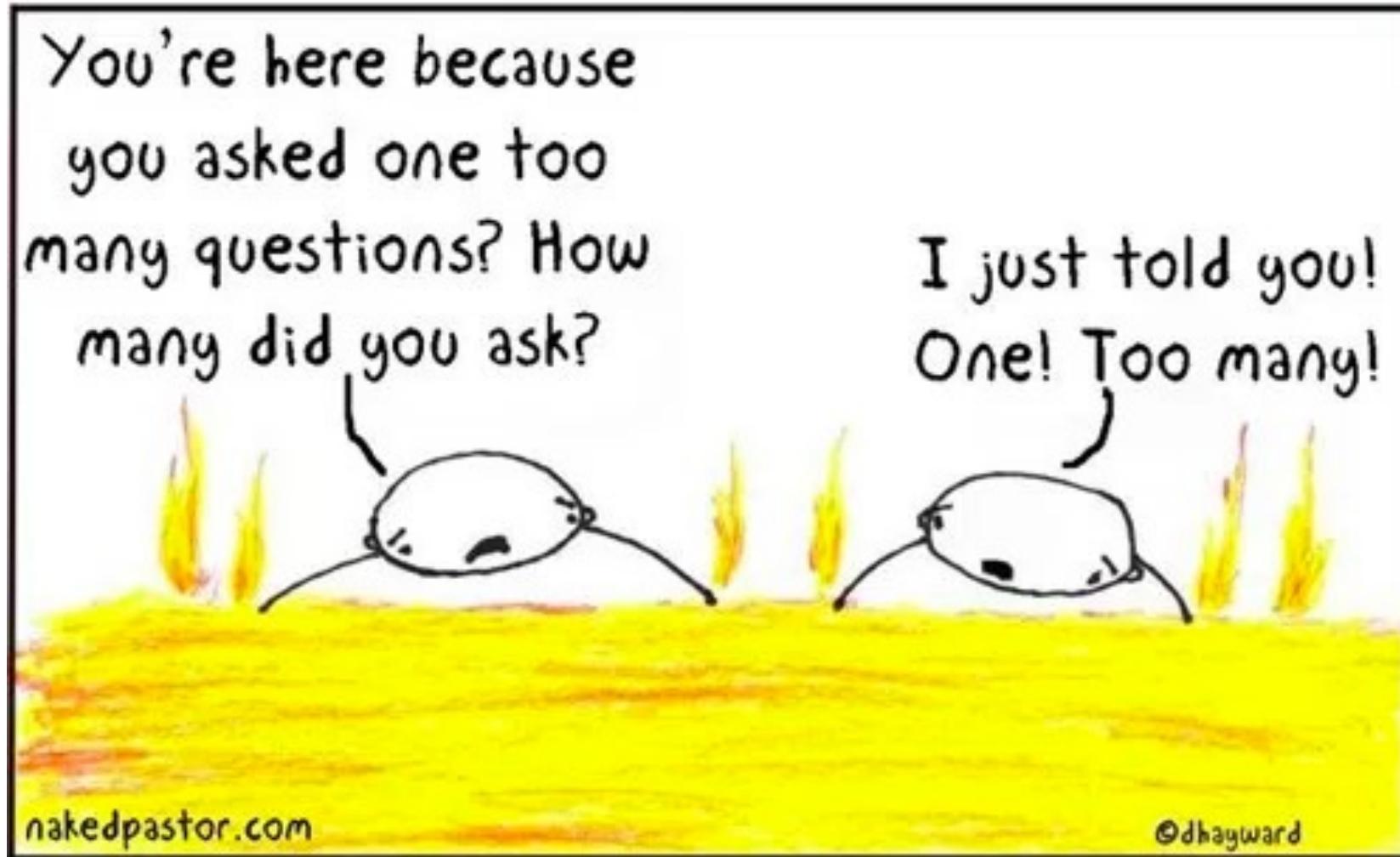
Tend to make less money and have less satisfying jobs

Possible Challenges

Social and communication difficulties

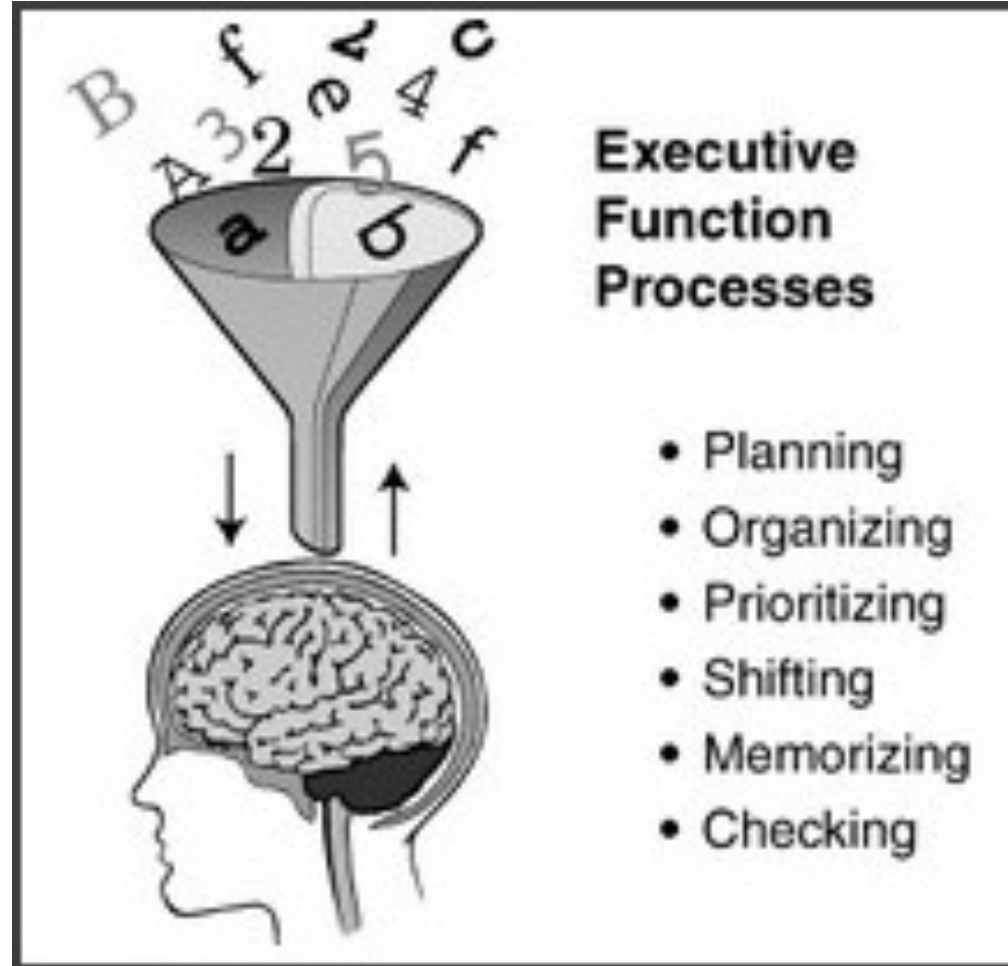
Possible challenges

Social and communication difficulties



Possible Challenges

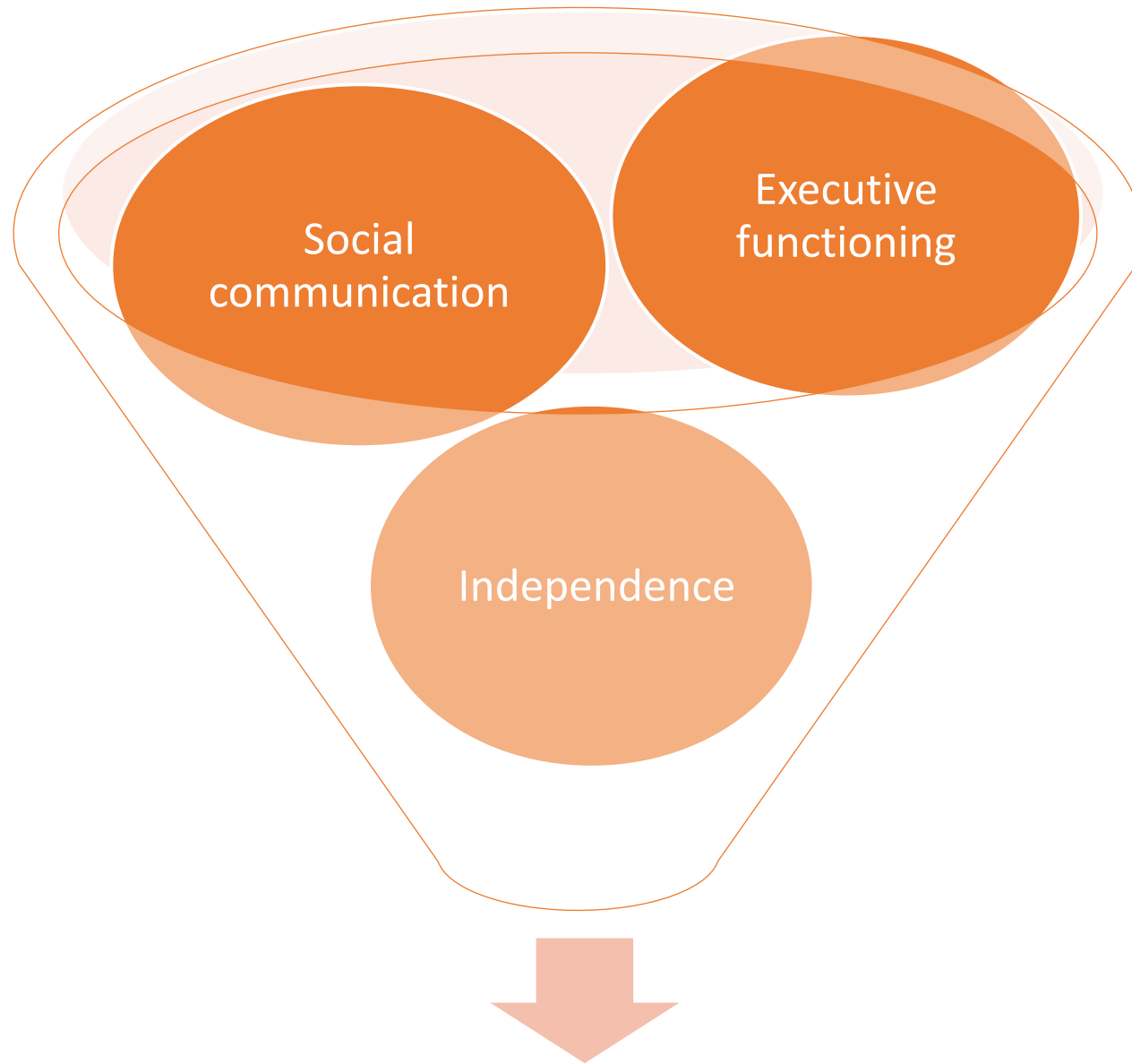
Poor executive functioning skills



Areas of Possible Skill Deficits

Lack of independent performance





Low Rates of Employment

CTLE Keynote 1: **MOON**



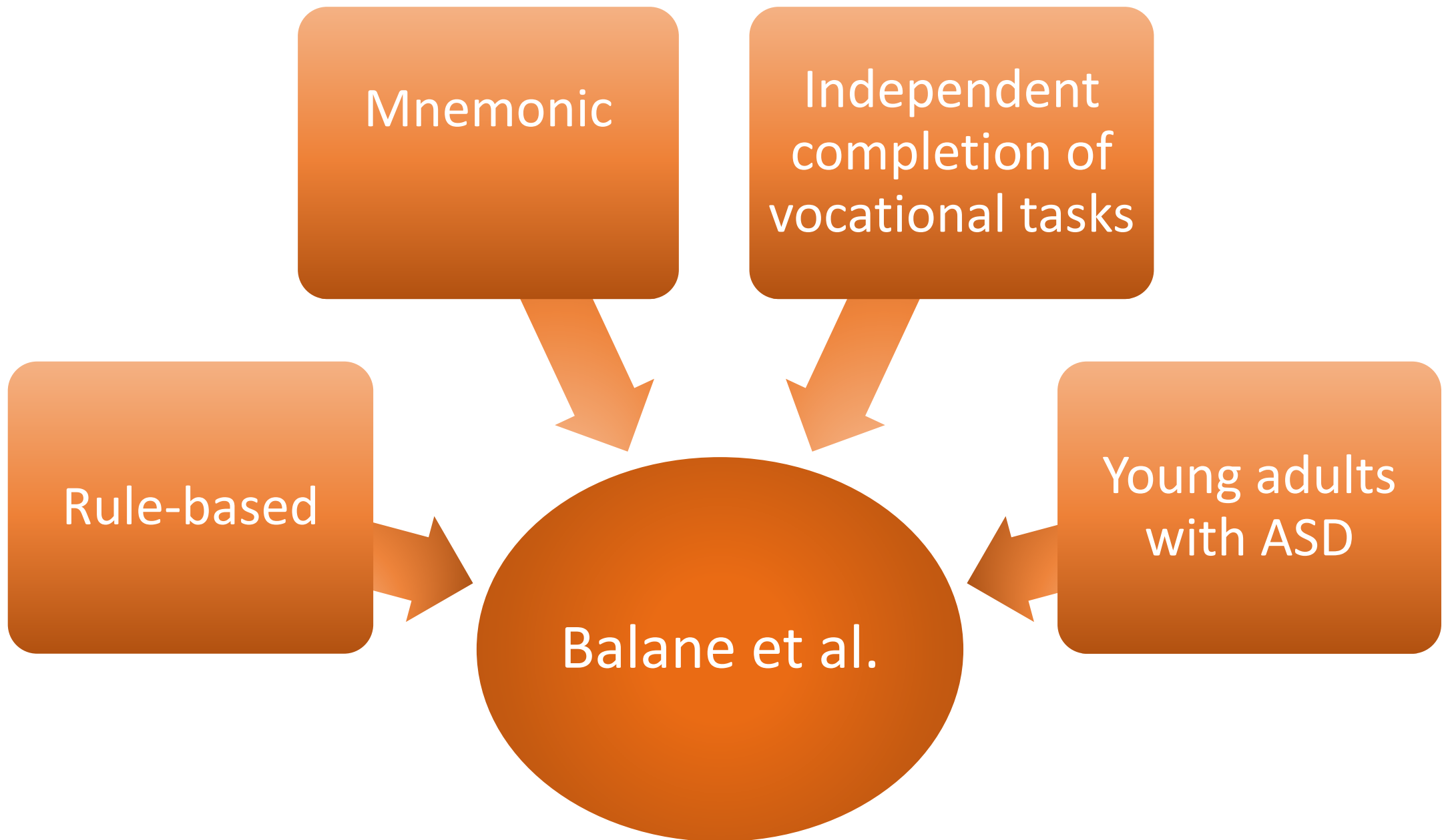
Effects of a Problem-Solving Strategy on the Independent Completion of Vocational Tasks by Level 1/Level 2 Learners with Autism Spectrum Disorder

Bernadette C. Balane¹, April N. Kisamore²,
Tina M. Sidener¹, and James E. Carr³

Caldwell University¹

Hunter College, City University of New York²

BACB³



Participants

- Andy: male, 29
- Leslie: female, 26
- Mark: male, 29
- Characteristics:
 - Physical ability to perform various vocational tasks (e.g., staple papers)
 - Learn and follow simple rules (e.g., when someone sneezes, say, “bless you”)
 - Lack of independent problem-solving skills while completing tasks

Participants

- Andy: male, 29
- Leslie: female, 26
- Mark: male, 29
- Characteristics:
 - Physical ability to perform various vocational tasks (e.g., staple papers)
 - Learn and follow simple rules (e.g., when someone sneezes, say, “bless you”)
 - Lack of independent problem-solving skills while completing tasks

Setting and Materials

- Habilitation program sites
- Sessions were conducted in a multi-purpose room
- File folders that contained task items
 - Name of the task
 - Picture of the task

Task	Typical scenario	Problem scenario		
		Missing	Depleted	Dysfunctional
Stamp envelopes	Stamps present	Stamps missing	Insufficient stamps	
Staple papers	Stapler present, sufficient staples in stapler, stapler intact	Stapler missing	Insufficient staples	Stapler broken
Highlight signature lines	Highlighter present, sufficient ink in highlighter, highlighter intact	Highlighter missing	Insufficient ink	
Stuff envelopes	Envelopes present, sufficient envelopes, correct sized envelopes	Envelopes missing	Insufficient envelopes	Incorrect sized envelopes
Rubber band pamphlets	Rubber bands intact, sufficient rubber bands	Rubber bands missing	Insufficient rubber bands	
Paperclip packets	Paperclips present, sufficient paper clips	Paperclips missing	Insufficient paperclips	
Cut papers	Scissors intact	Scissors missing		Scissors broken
Make copies	Paper present, copier plugged in	No paper		Copier unplugged
Hole punch packets	Hole puncher intact	Hole puncher missing		Hole puncher broken
Sharpen pencils	Sharpener present, sharpener unplugged	Sharpener missing		Sharpener unplugged
File sheets in binder	Sufficient sheet protectors, sheet protectors intact		Insufficient sheet protectors	Sheet protectors broken
Tape papers	Tape dispenser present, sufficient tape in dispenser	Tape dispenser present	Insufficient tape in dispenser	

Task	Typical scenario	Problem scenario		
		Missing	Depleted	Dysfunctional
Stamp envelopes	Stamps present	Stamps missing	Insufficient stamps	
Staple papers	Stapler present, sufficient staples in stapler, stapler intact	Stapler missing	Insufficient staples	Stapler broken
Highlight signature lines	Highlighter present, sufficient ink in highlighter, highlighter intact	Highlighter missing	Insufficient ink	
Stuff envelopes	Envelopes present, sufficient envelopes, correct sized envelopes	Envelopes missing	Insufficient envelopes	Incorrect sized envelopes
Rubber band pamphlets	Rubber bands intact, sufficient rubber bands	Rubber bands missing	Insufficient rubber bands	
Paperclip packets	Paperclips present, sufficient paper clips	Paperclips missing	Insufficient paperclips	
Cut papers	Scissors intact	Scissors missing		Scissors broken
Make copies	Paper present, copier plugged in	No paper		Copier unplugged
Hole punch packets	Hole puncher intact	Hole puncher missing		Hole puncher broken
Sharpen pencils	Sharpener present, sharpener unplugged	Sharpener missing		Sharpener unplugged
File sheets in binder	Sufficient sheet protectors, sheet protectors intact		Insufficient sheet protectors	Sheet protectors broken
Tape papers	Tape dispenser present, sufficient tape in dispenser	Tape dispenser present	Insufficient tape in dispenser	

Task	Typical scenario	Problem scenario		
		Missing	Depleted	Dysfunctional
Stamp envelopes	Stamps present	Stamps missing	Insufficient stamps	
Staple papers	Stapler present, sufficient staples in stapler, stapler intact	Stapler missing	Insufficient staples	Stapler broken
Highlight signature lines	Highlighter present, sufficient ink in highlighter, highlighter intact	Highlighter missing	Insufficient ink	
Stuff envelopes	Envelopes present, sufficient envelopes, correct sized envelopes	Envelopes missing	Insufficient envelopes	Incorrect sized envelopes
Rubber band pamphlets	Rubber bands intact, sufficient rubber bands	Rubber bands missing	Insufficient rubber bands	
Paperclip packets	Paperclips present, sufficient paper clips	Paperclips missing	Insufficient paperclips	
Cut papers	Scissors intact	Scissors missing		Scissors broken
Make copies	Paper present, copier plugged in	No paper		Copier unplugged
Hole punch packets	Hole puncher intact	Hole puncher missing		Hole puncher broken
Sharpen pencils	Sharpener present, sharpener unplugged	Sharpener missing		Sharpener unplugged
File sheets in binder	Sufficient sheet protectors, sheet protectors intact		Insufficient sheet protectors	Sheet protectors broken
Tape papers	Tape dispenser present, sufficient tape in dispenser	Tape dispenser present	Insufficient tape in dispenser	

Task	Typical scenario	Problem scenario		
		Missing	Depleted	Dysfunctional
Stamp envelopes	Stamps present	Stamps missing	Insufficient stamps	
Staple papers	Stapler present, sufficient staples in stapler, stapler intact	Stapler missing	Insufficient staples	Stapler broken
Highlight signature lines	Highlighter present, sufficient ink in highlighter, highlighter intact	Highlighter missing	Insufficient ink	
Stuff envelopes	Envelopes present, sufficient envelopes, correct sized envelopes	Envelopes missing	Insufficient envelopes	Incorrect sized envelopes
Rubber band pamphlets	Rubber bands intact, sufficient rubber bands	Rubber bands missing	Insufficient rubber bands	
Paperclip packets	Paperclips present, sufficient paper clips	Paperclips missing	Insufficient paperclips	
Cut papers	Scissors intact	Scissors missing		Scissors broken
Make copies	Paper present, copier plugged in	No paper		Copier unplugged
Hole punch packets	Hole puncher intact	Hole puncher missing		Hole puncher broken
Sharpen pencils	Sharpener present, sharpener unplugged	Sharpener missing		Sharpener unplugged
File sheets in binder	Sufficient sheet protectors, sheet protectors intact		Insufficient sheet protectors	Sheet protectors broken
Tape papers	Tape dispenser present, sufficient tape in dispenser	Tape dispenser present	Insufficient tape in dispenser	

Task	Typical scenario	Problem scenario		
		Missing	Depleted	Dysfunctional
Stamp envelopes	Stamps present	Stamps missing	Insufficient stamps	
Staple papers	Stapler present, sufficient staples in stapler, stapler intact	Stapler missing	Insufficient staples	Stapler broken
Highlight signature lines	Highlighter present, sufficient ink in highlighter, highlighter intact	Highlighter missing	Insufficient ink	
Stuff envelopes	Envelopes present, sufficient envelopes, correct sized envelopes	Envelopes missing	Insufficient envelopes	Incorrect sized envelopes
Rubber band pamphlets	Rubber bands intact, sufficient rubber bands	Rubber bands missing	Insufficient rubber bands	
Paperclip packets	Paperclips present, sufficient paper clips	Paperclips missing	Insufficient paperclips	
Cut papers	Scissors intact	Scissors missing		Scissors broken
Make copies	Paper present, copier plugged in	No paper		Copier unplugged
Hole punch packets	Hole puncher intact	Hole puncher missing		Hole puncher broken
Sharpen pencils	Sharpener present, sharpener unplugged	Sharpener missing		Sharpener unplugged
File sheets in binder	Sufficient sheet protectors, sheet protectors intact		Insufficient sheet protectors	Sheet protectors broken
Tape papers	Tape dispenser present, sufficient tape in dispenser	Tape dispenser present	Insufficient tape in dispenser	

Behaviors of Interest (Dependent Variables)

- Percentage of steps completed correctly
 - Obtain task folder
 - Obtain basic task materials
 - Obtain missing, depleted, or functional materials; or plugs in unplugged item
 - Complete the task
 - Place completed task in “finished” bin
- Frequency of experimenter prompts

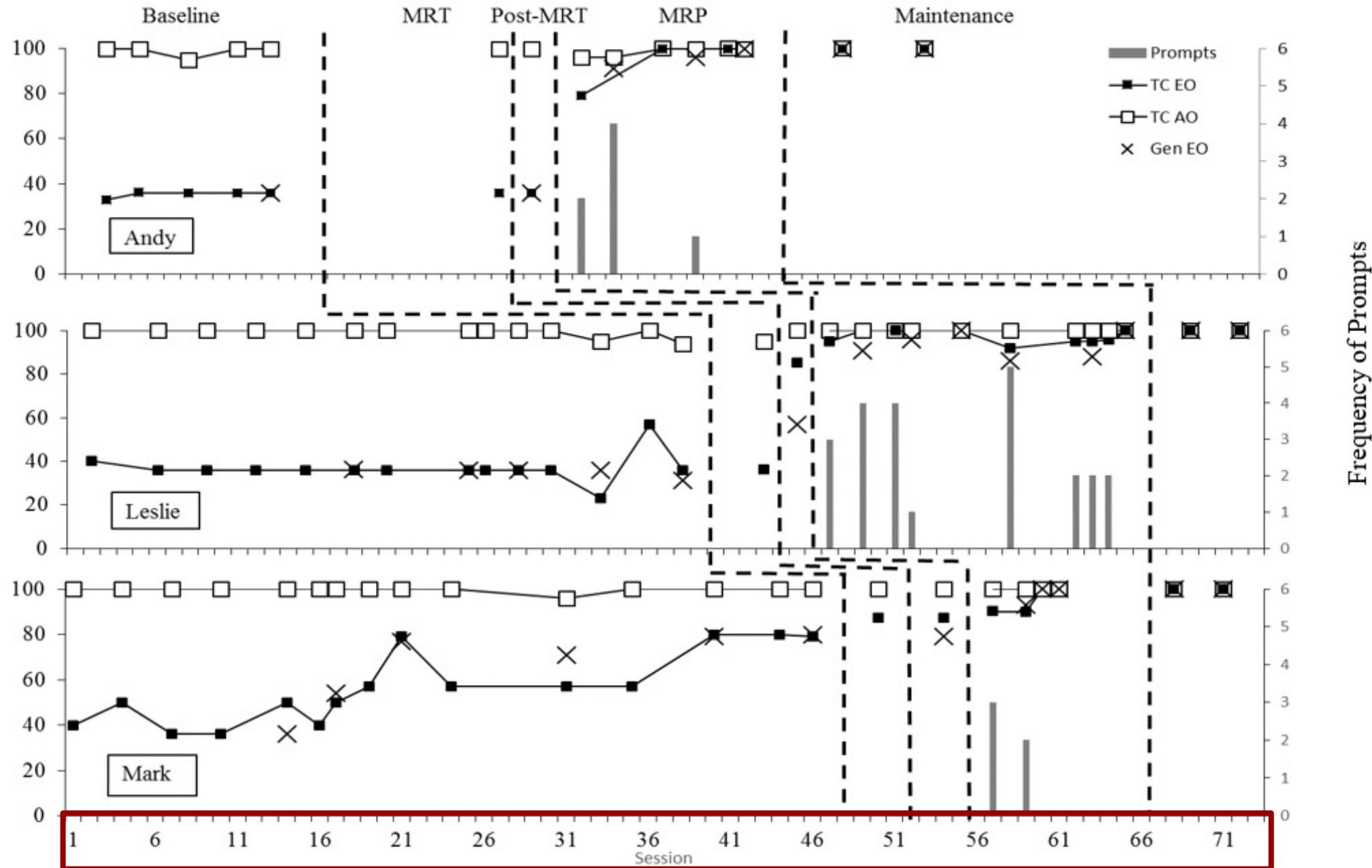
Pre-requisite Skills Training

- Purpose: Ensure participants could complete the tasks independently during typical scenarios (no problem present)

Baseline

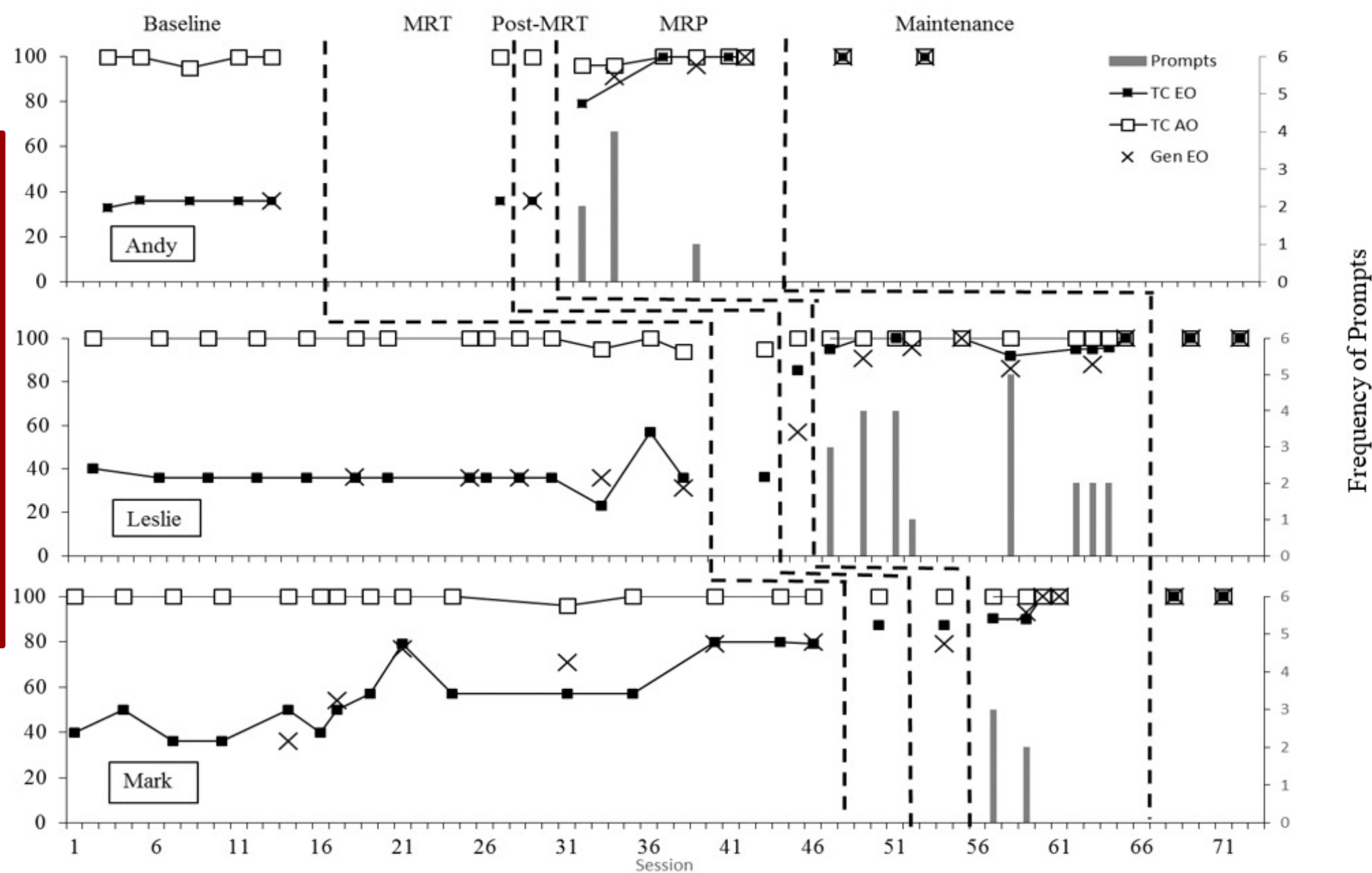
- Purpose: Assess percentage of steps completed correctly on tasks with problem scenarios and typical scenarios
- Participants given a set of job folders
- Instructed to “do your work”
- No prompts or feedback for correct or incorrect responding
- No help provided

Percentage of Steps Completed Correctly



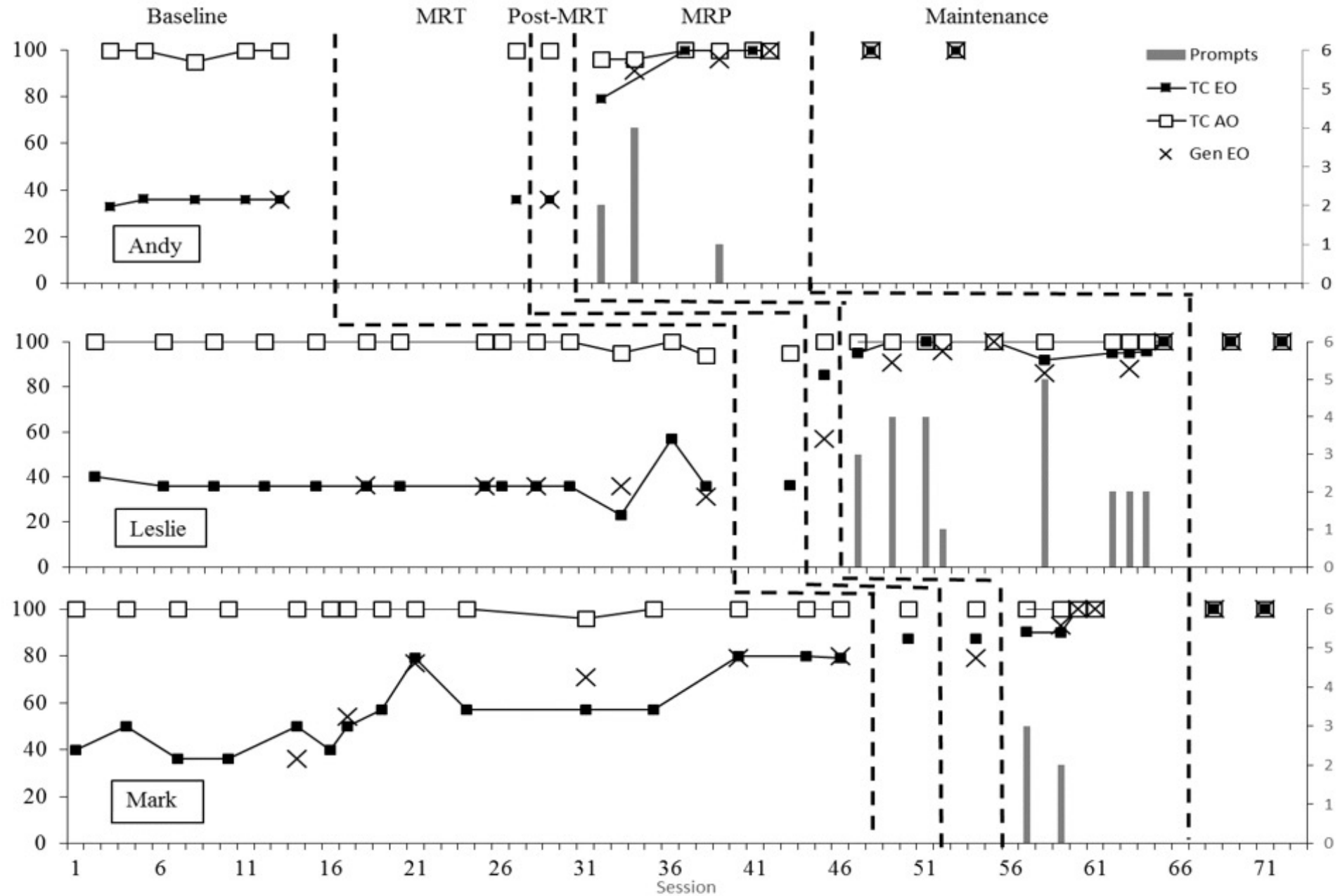
Note: MRT = Mediating-Response Training; MRP = Mediating-Response Prompting; Prompts = Experimenter prompts during EO scenarios; TC EO = Task completion during EO scenarios; TC AO – Task completion during AO scenarios

Percentage of Steps Completed Correctly



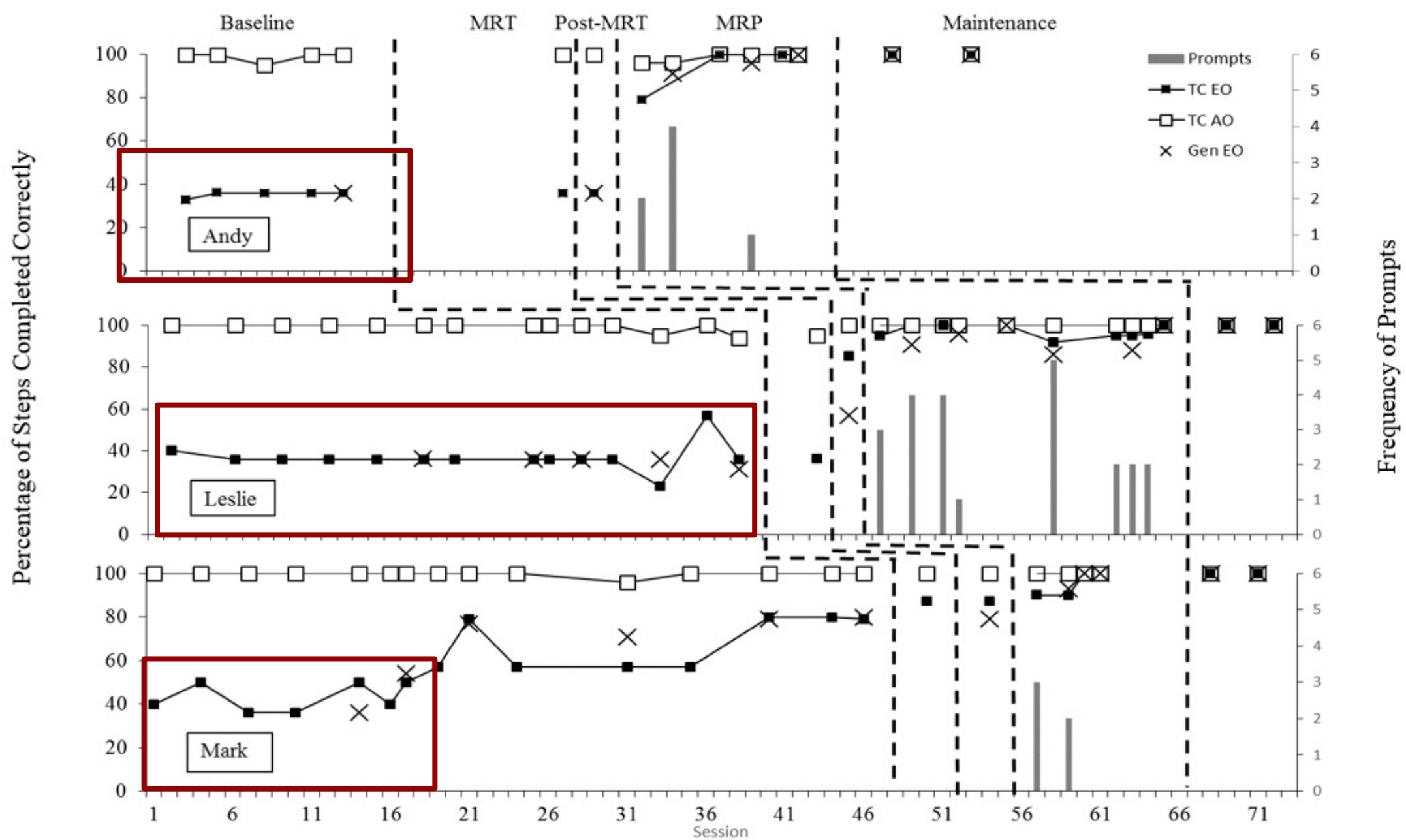
Note: MRT = Mediating-Response Training; MRP = Mediating-Response Prompting; Prompts = Experimenter prompts during EO scenarios; TC EO = Task completion during EO scenarios; TC AO – Task completion during AO scenarios

Percentage of Steps Completed Correctly

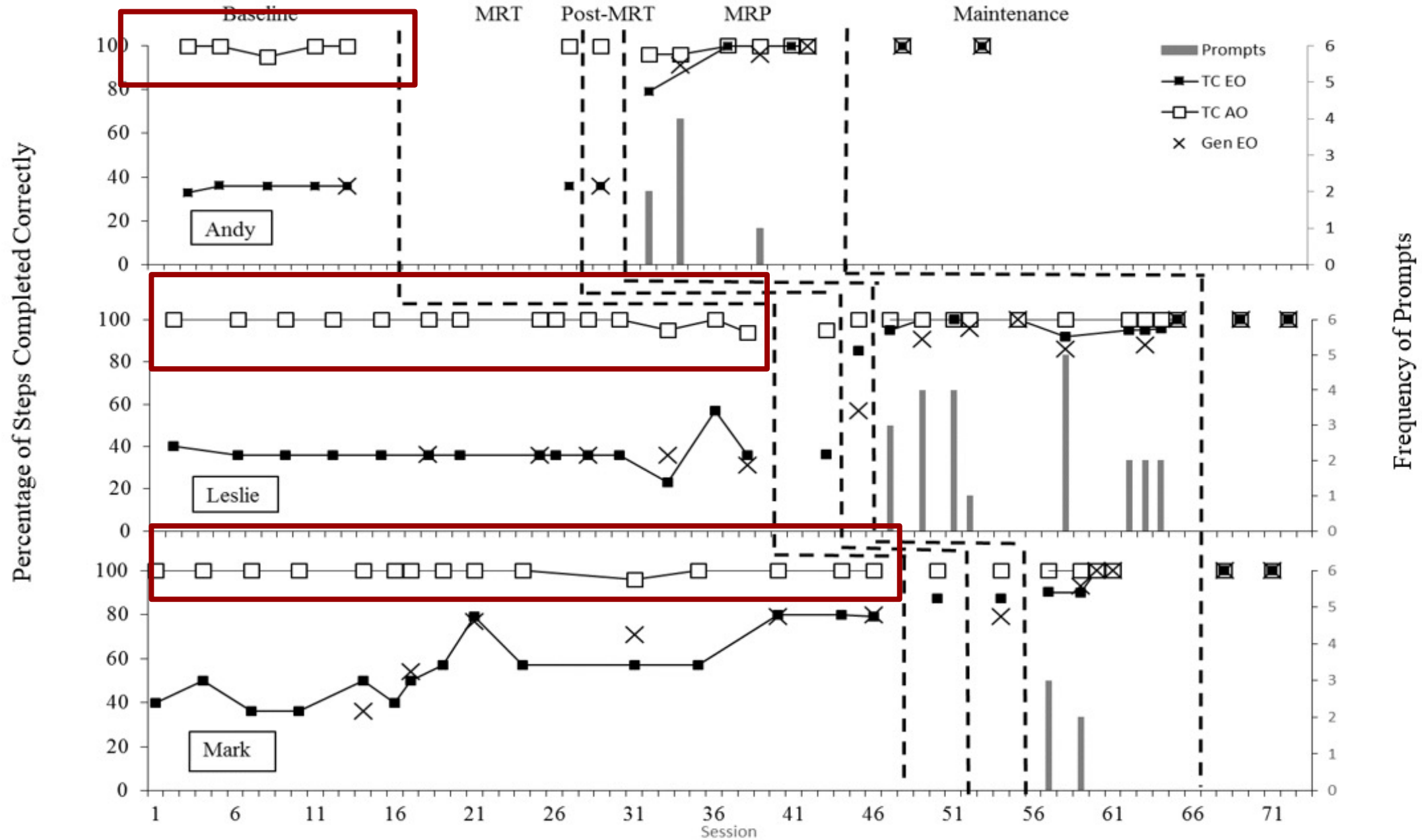


Frequency of Prompts

Note: MRT = Mediating-Response Training; MRP = Mediating-Response Prompting; Prompts = Experimenter prompts during EO scenarios; TC EO = Task completion during EO scenarios; TC AO – Task completion during AO scenarios



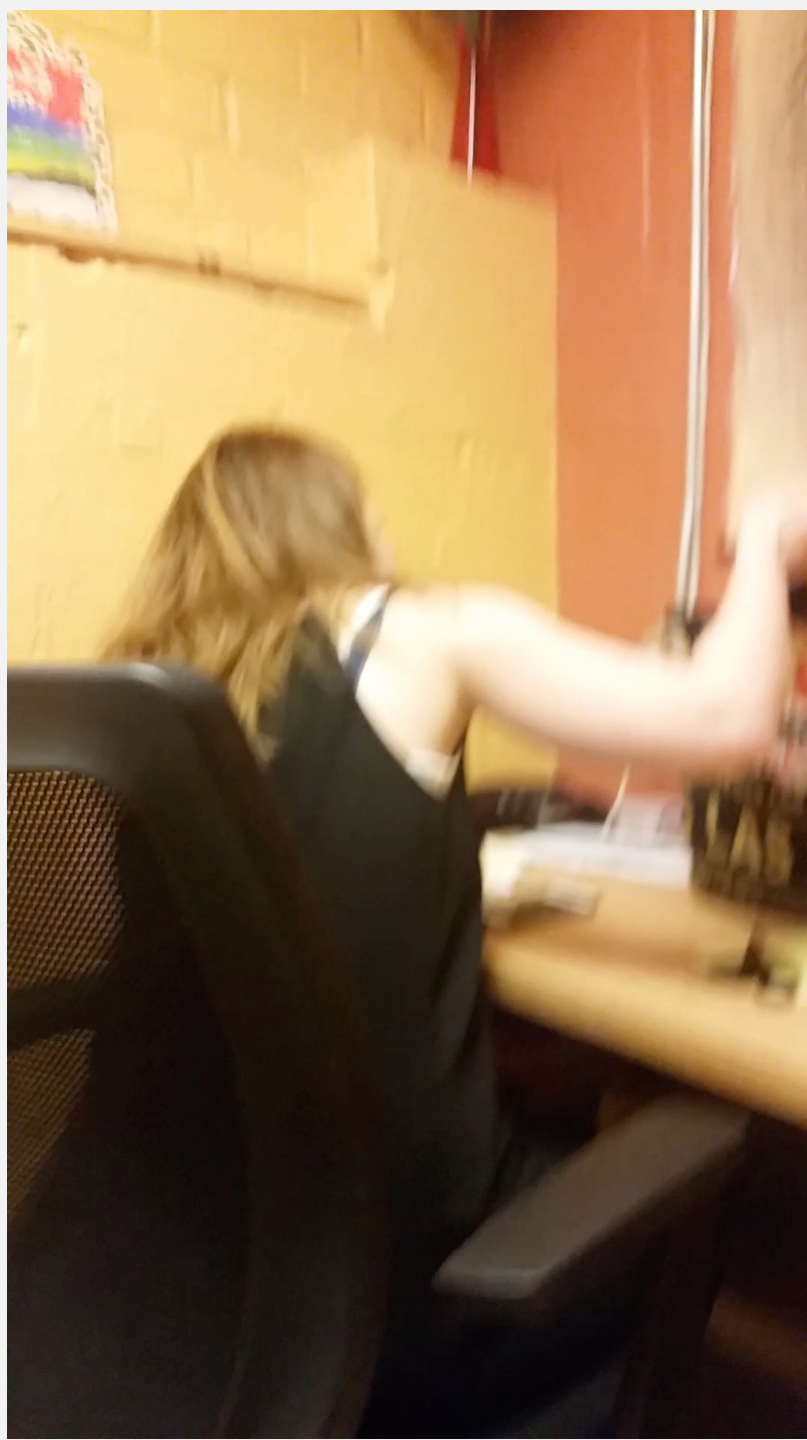
Note: MRT = Mediating-Response Training; MRP = Mediating-Response Prompting; Prompts = Experimenter prompts during EO scenarios; TC EO = Task completion during EO scenarios; TC AO – Task completion during AO scenarios



Note: MRT = Mediating-Response Training; MRP = Mediating-Response Prompting; Prompts = Experimenter prompts during EO scenarios; TC EO = Task completion during EO scenarios; TC AO – Task completion during AO scenarios

Baseline for Leslie

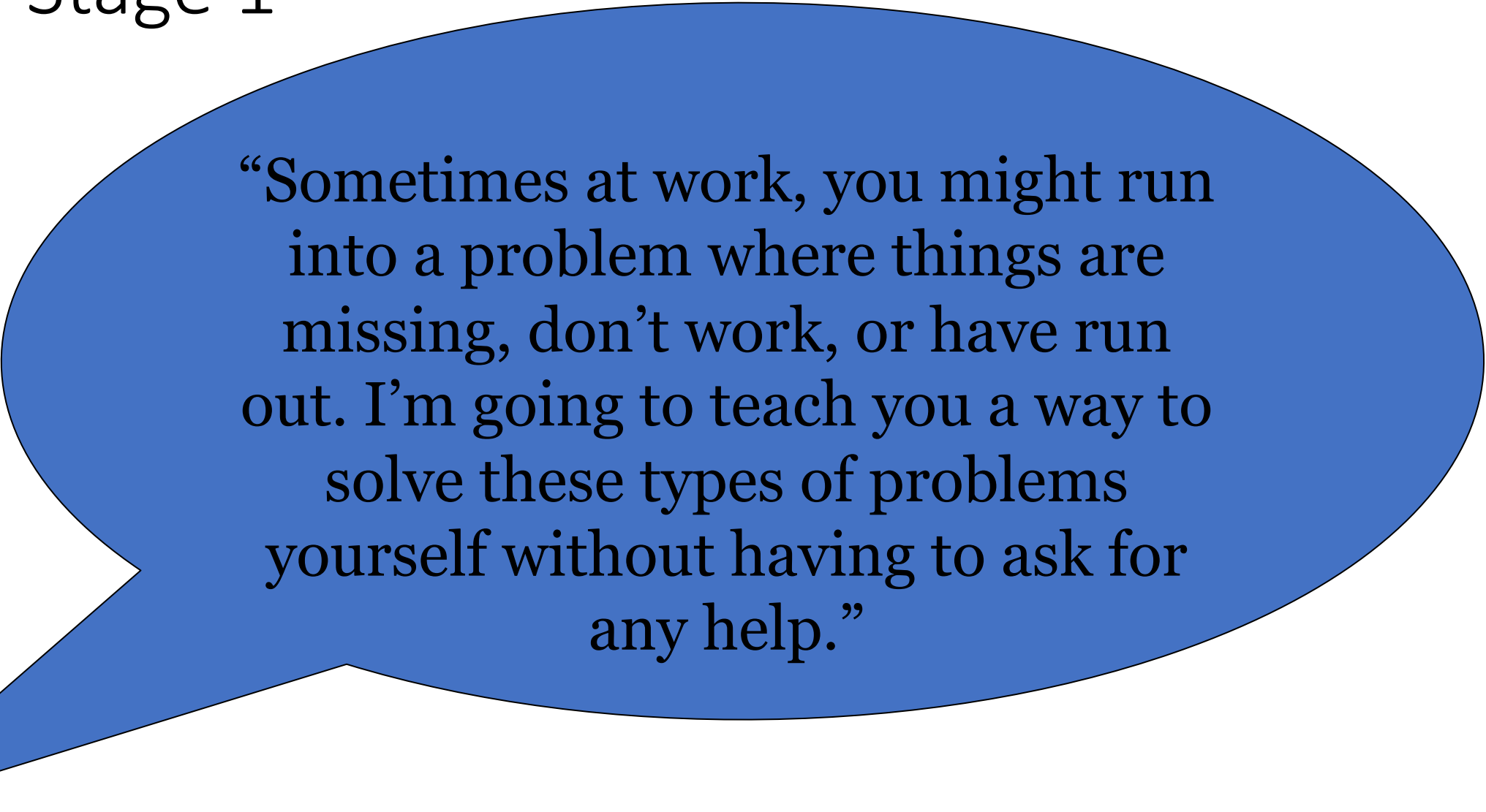
Video 1



Mediating-Response Training (MRT)

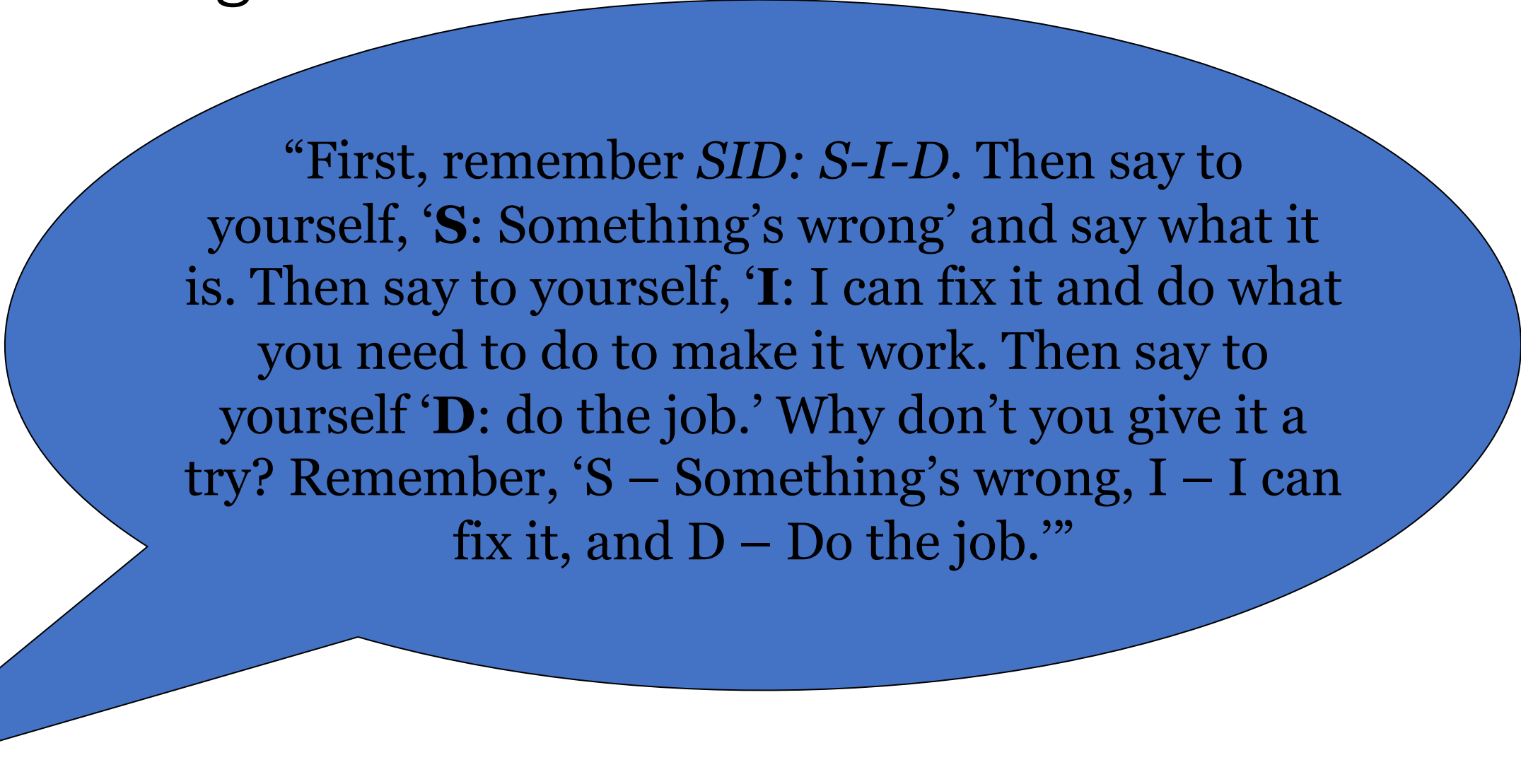
- Purpose: Teach the mediating responses
 - **S** = Something's wrong
 - **I** = I can fix it
 - **D** = Do the job
- Two stages
 - Stage 1: Train the mnemonic and rules
 - Stage 2: Model strategy use

MRT Stage 1



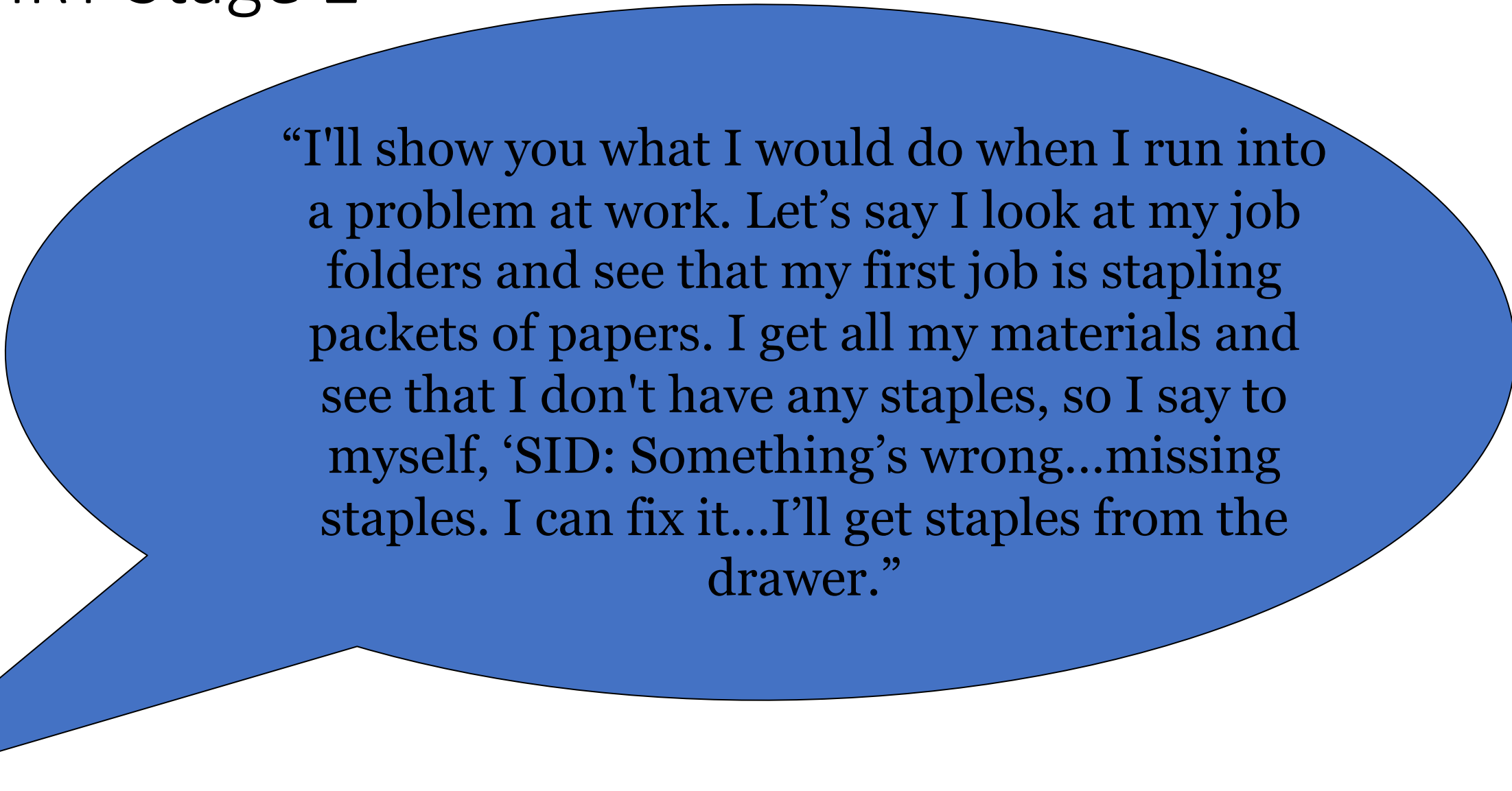
“Sometimes at work, you might run into a problem where things are missing, don’t work, or have run out. I’m going to teach you a way to solve these types of problems yourself without having to ask for any help.”

MRT Stage 1



“First, remember *SID: S-I-D*. Then say to yourself, ‘**S**: Something’s wrong’ and say what it is. Then say to yourself, ‘**I**: I can fix it and do what you need to do to make it work. Then say to yourself ‘**D**: do the job.’ Why don’t you give it a try? Remember, ‘S – Something’s wrong, I – I can fix it, and D – Do the job.’”

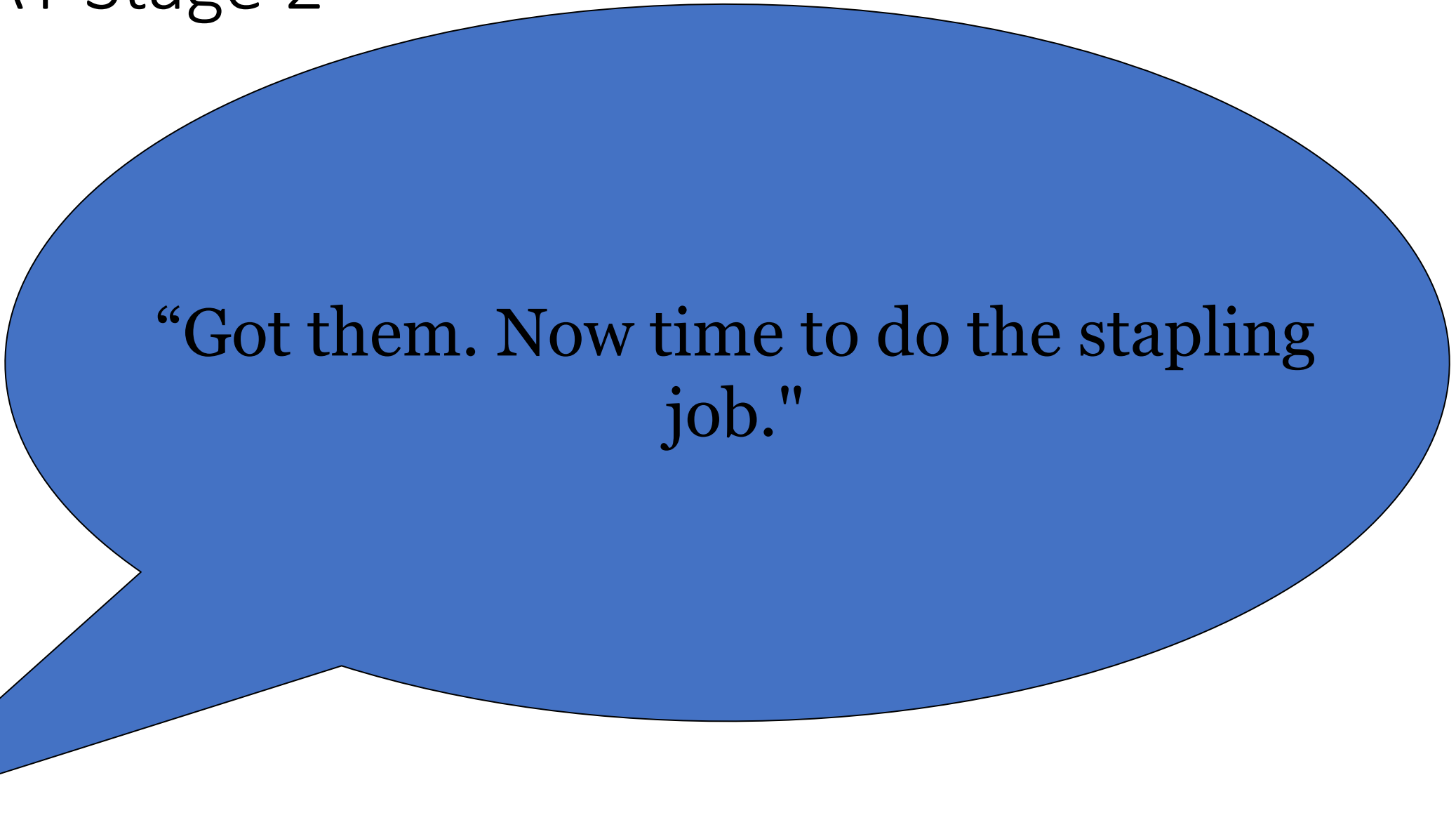
MRT Stage 2



“I'll show you what I would do when I run into a problem at work. Let's say I look at my job folders and see that my first job is stapling packets of papers. I get all my materials and see that I don't have any staples, so I say to myself, 'SID: Something's wrong...missing staples. I can fix it...I'll get staples from the drawer.'”

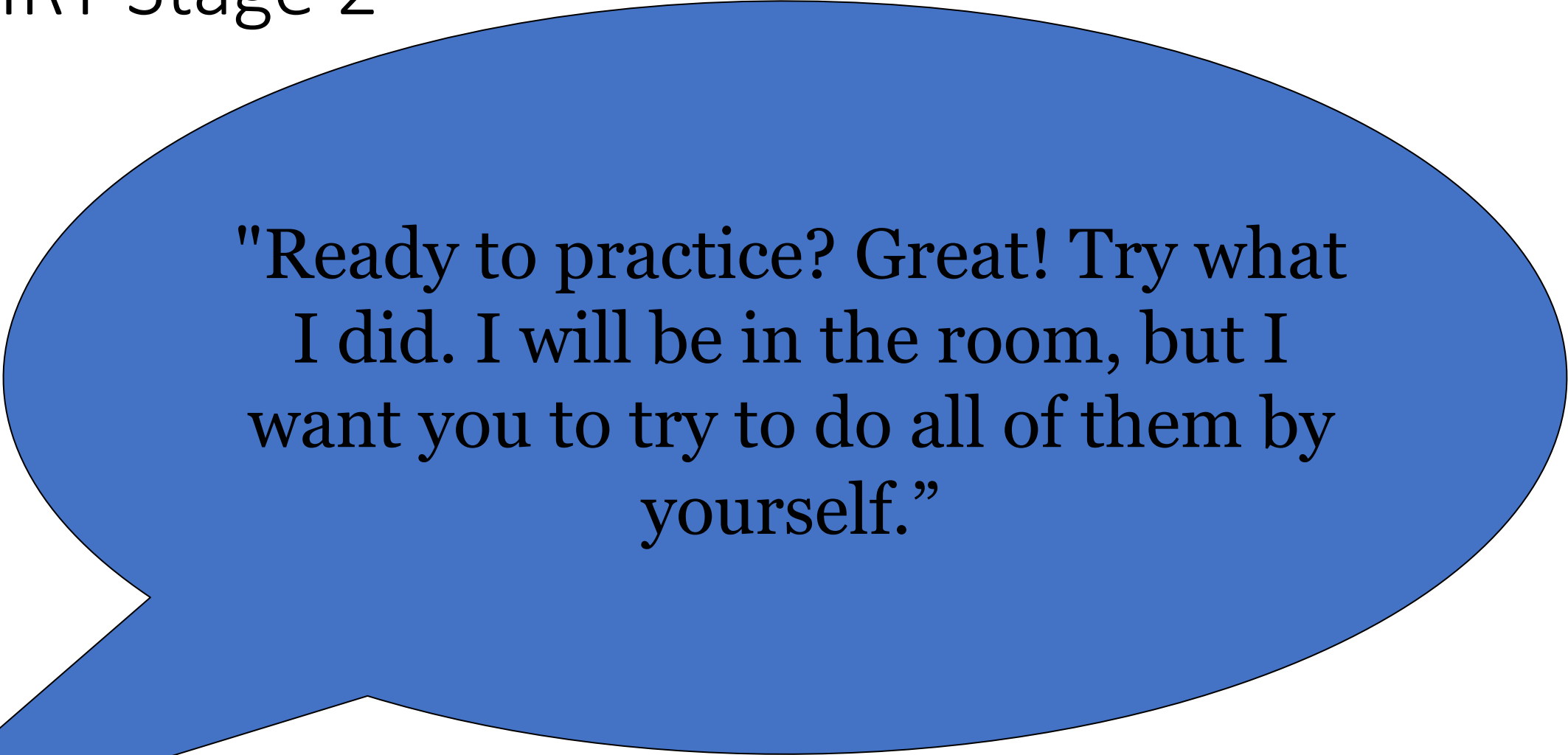


MRT Stage 2

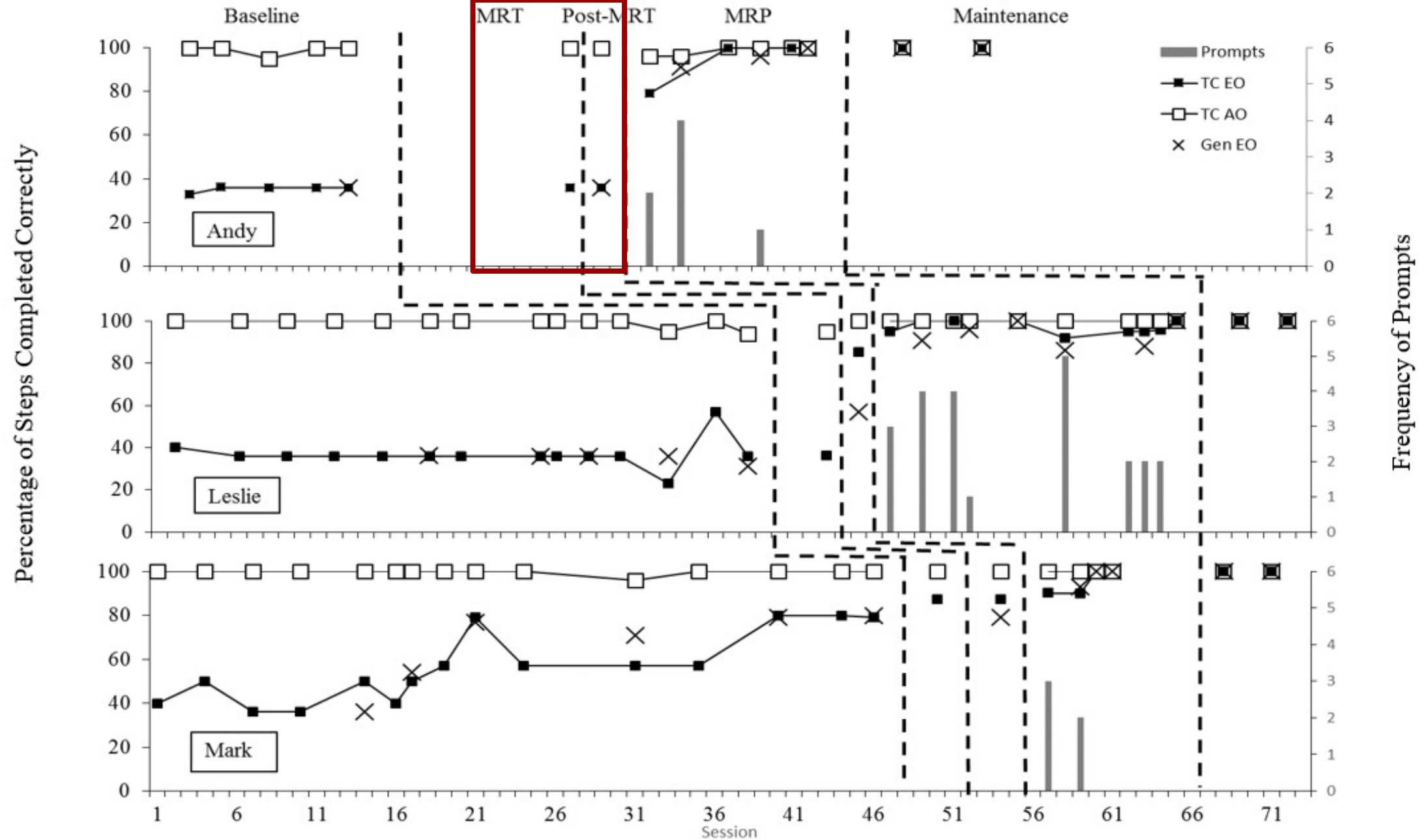


“Got them. Now time to do the stapling
job.”

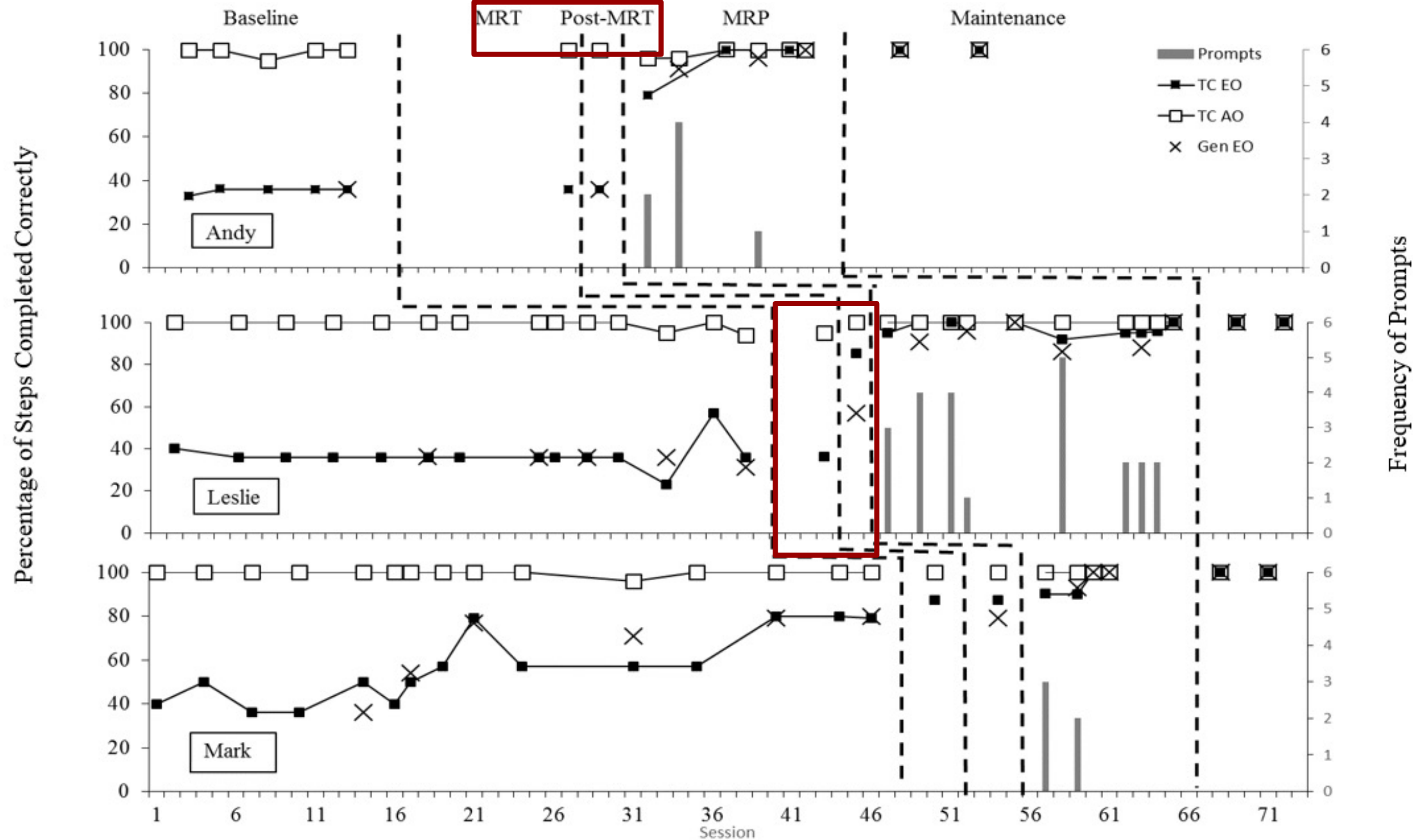
MRT Stage 2



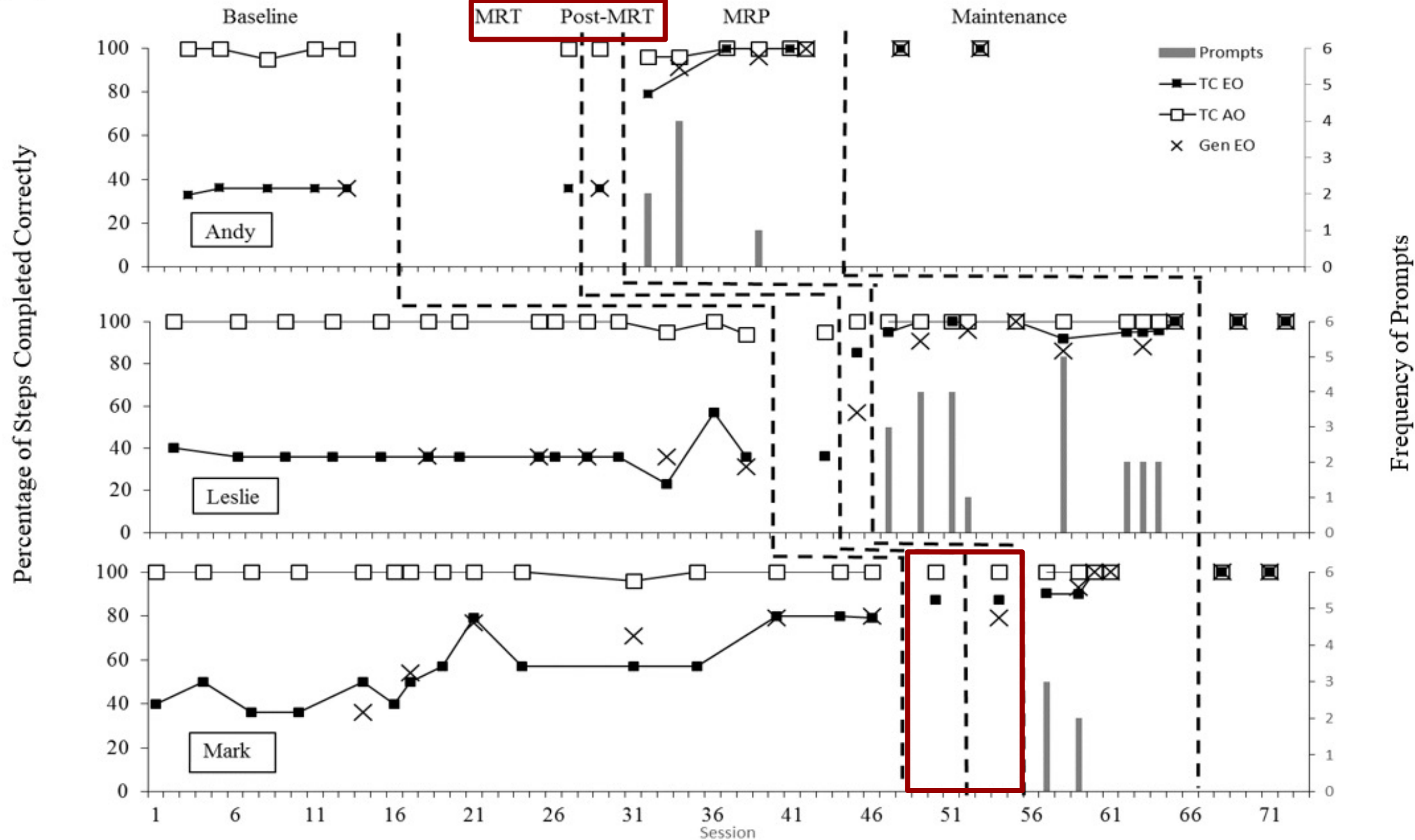
"Ready to practice? Great! Try what I did. I will be in the room, but I want you to try to do all of them by yourself."



Note: MRT = Mediating-Response Training; MRP = Mediating-Response Prompting; Prompts = Experimenter prompts during EO scenarios; TC EO = Task completion during EO scenarios; TC AO – Task completion during AO scenarios



Note: MRT = Mediating-Response Training; MRP = Mediating-Response Prompting; Prompts = Experimenter prompts during EO scenarios; TC EO = Task completion during EO scenarios; TC AO – Task completion during AO scenarios

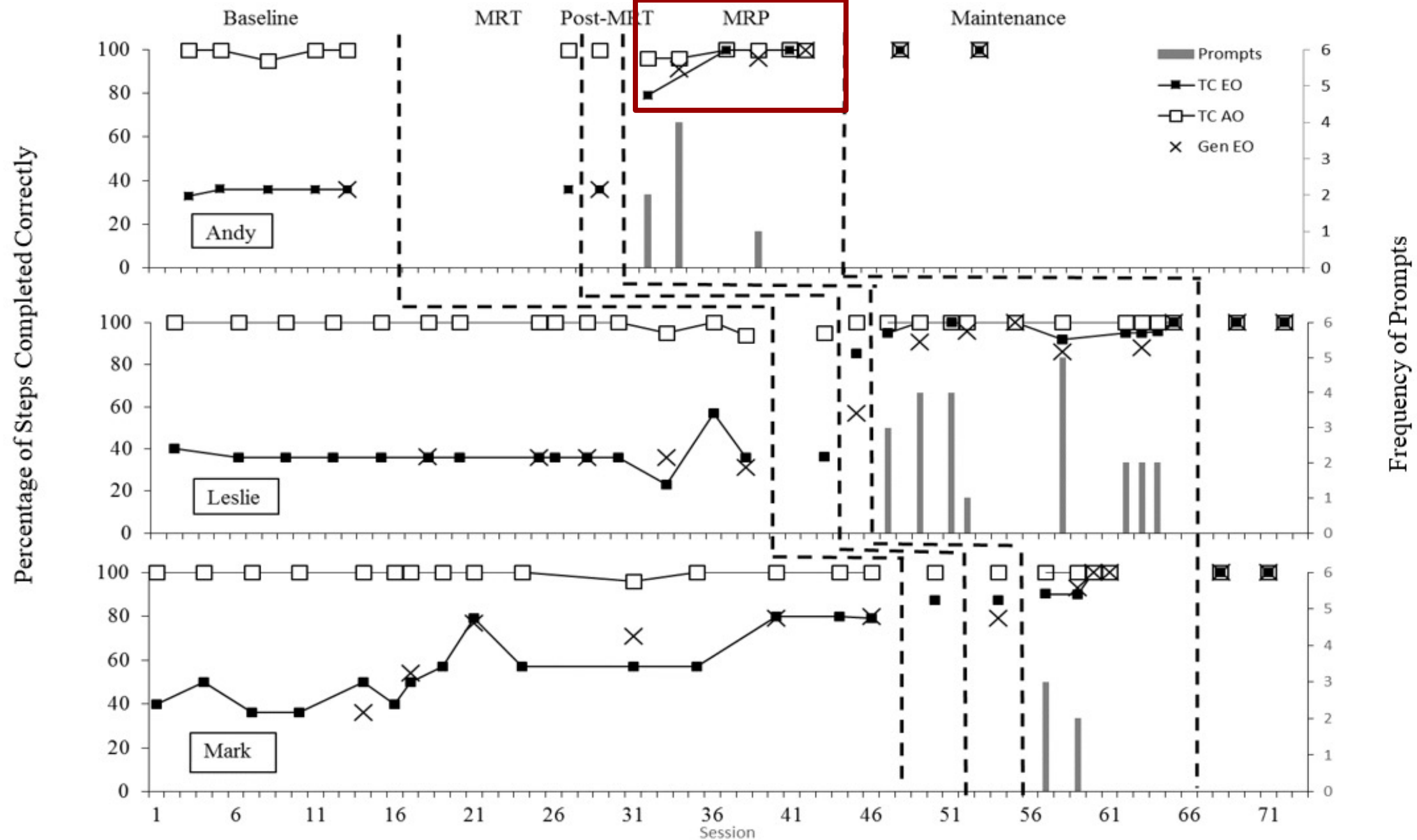


Note: MRT = Mediating-Response Training; MRP = Mediating-Response Prompting; Prompts = Experimenter prompts during EO scenarios; TC EO = Task completion during EO scenarios; TC AO – Task completion during AO scenarios

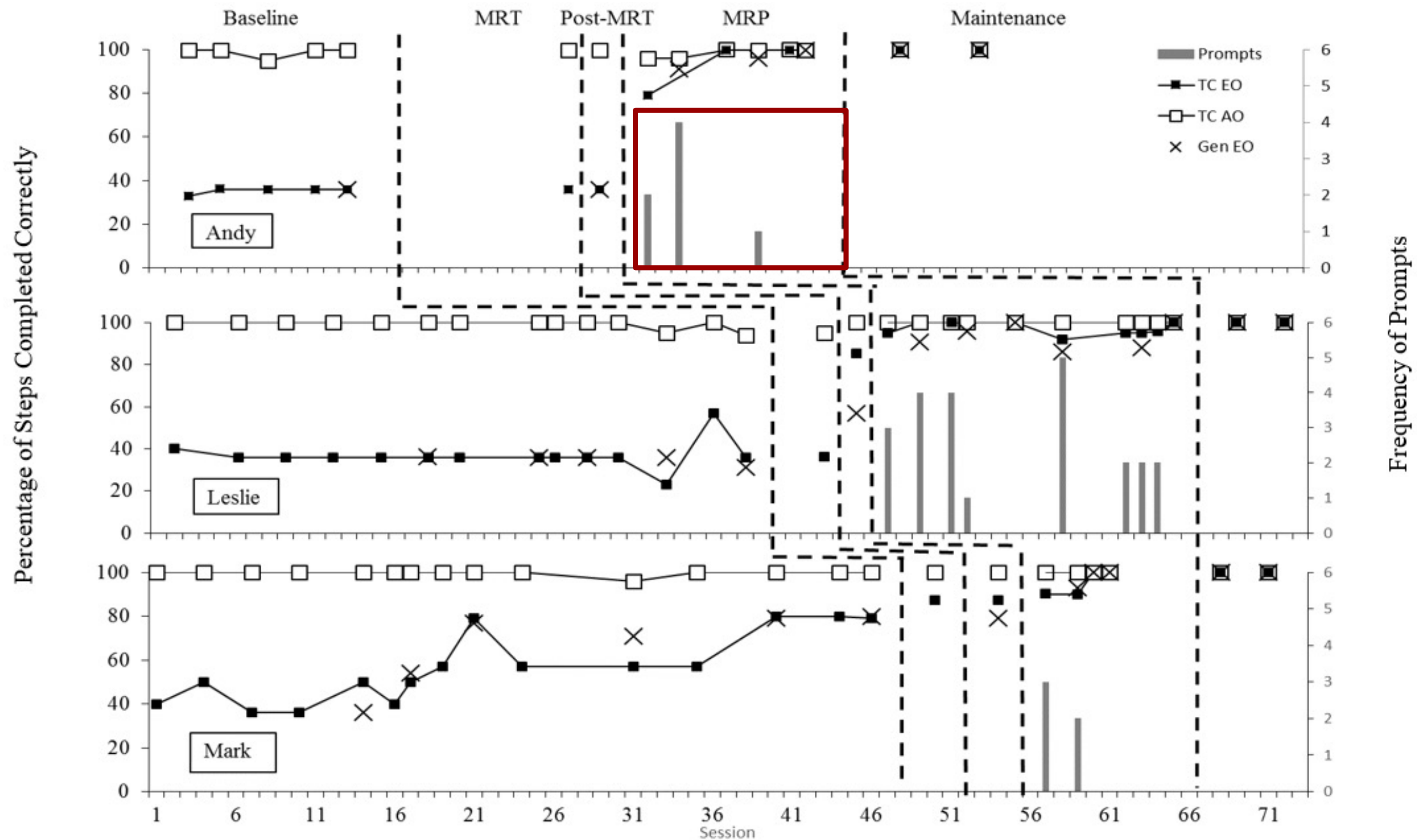
Mediating Response Prompts (MRP)



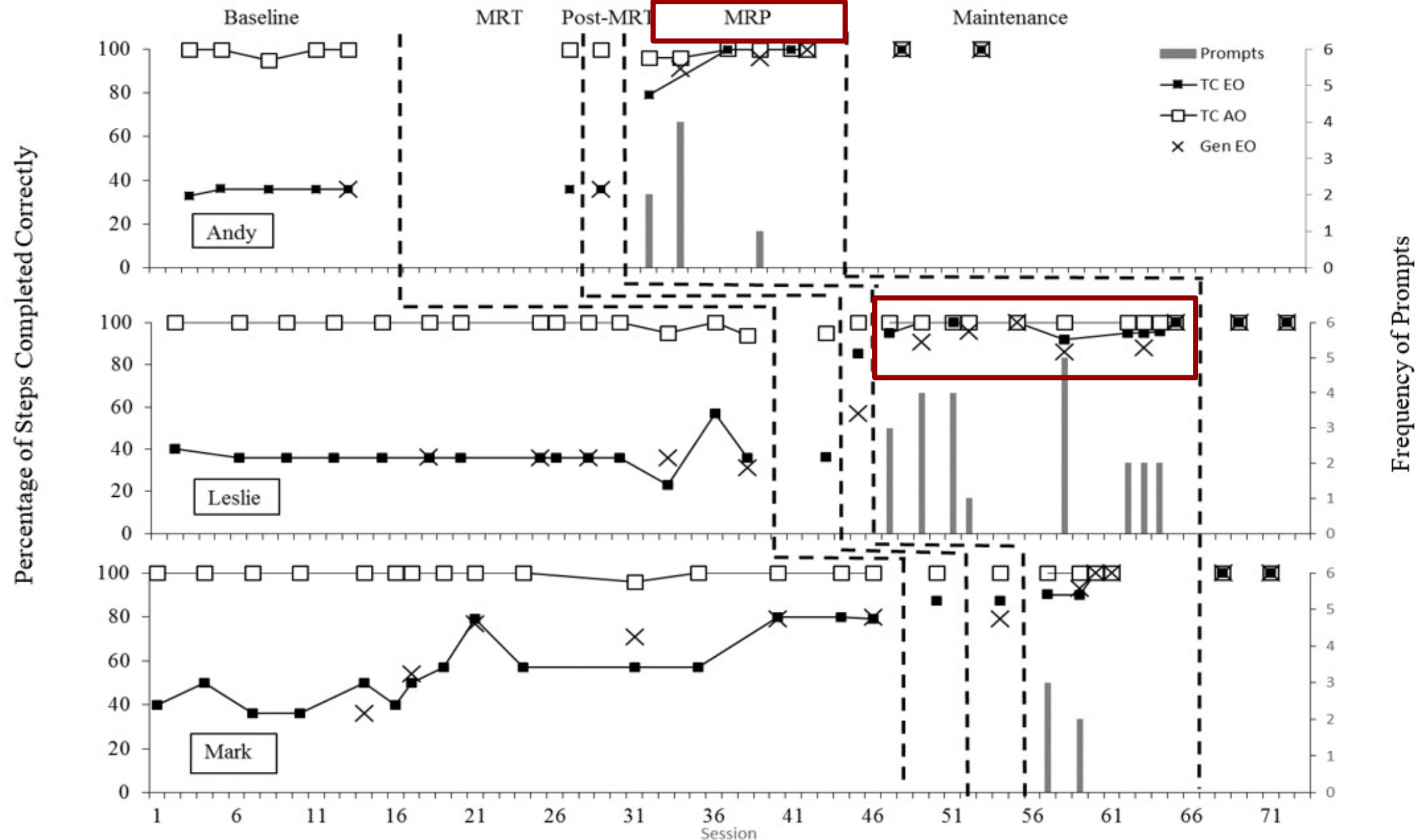
“Remember SID and your rules”



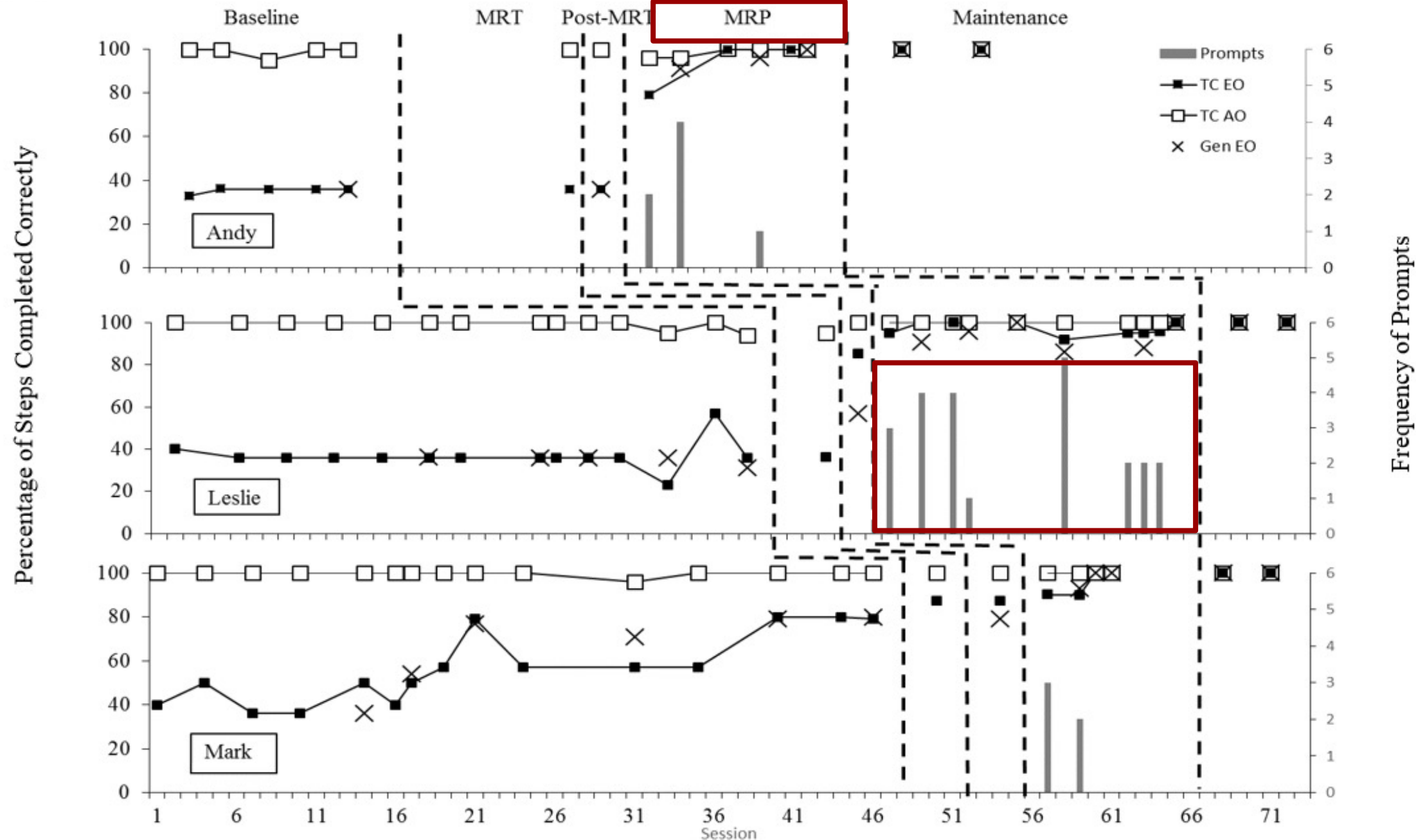
Note: MRT = Mediating-Response Training; MRP = Mediating-Response Prompting; Prompts = Experimenter prompts during EO scenarios; TC EO = Task completion during EO scenarios; TC AO – Task completion during AO scenarios



Note: MRT = Mediating-Response Training; MRP = Mediating-Response Prompting; Prompts = Experimenter prompts during EO scenarios; TC EO = Task completion during EO scenarios; TC AO – Task completion during AO scenarios



Note: MRT = Mediating-Response Training; MRP = Mediating-Response Prompting; Prompts = Experimenter prompts during EO scenarios; TC EO = Task completion during EO scenarios; TC AO – Task completion during AO scenarios

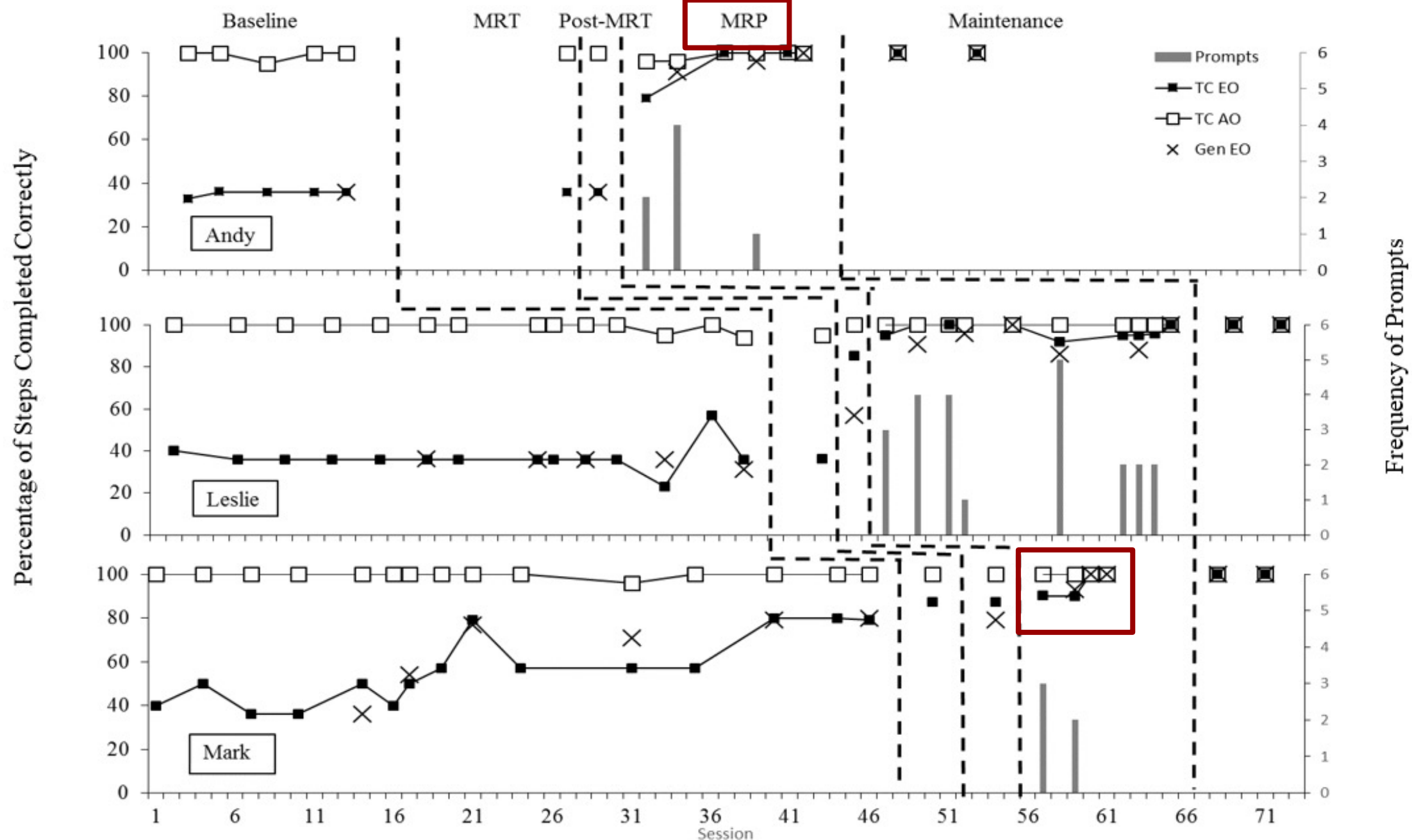


Note: MRT = Mediating-Response Training; MRP = Mediating-Response Prompting; Prompts = Experimenter prompts during EO scenarios; TC EO = Task completion during EO scenarios; TC AO – Task completion during AO scenarios

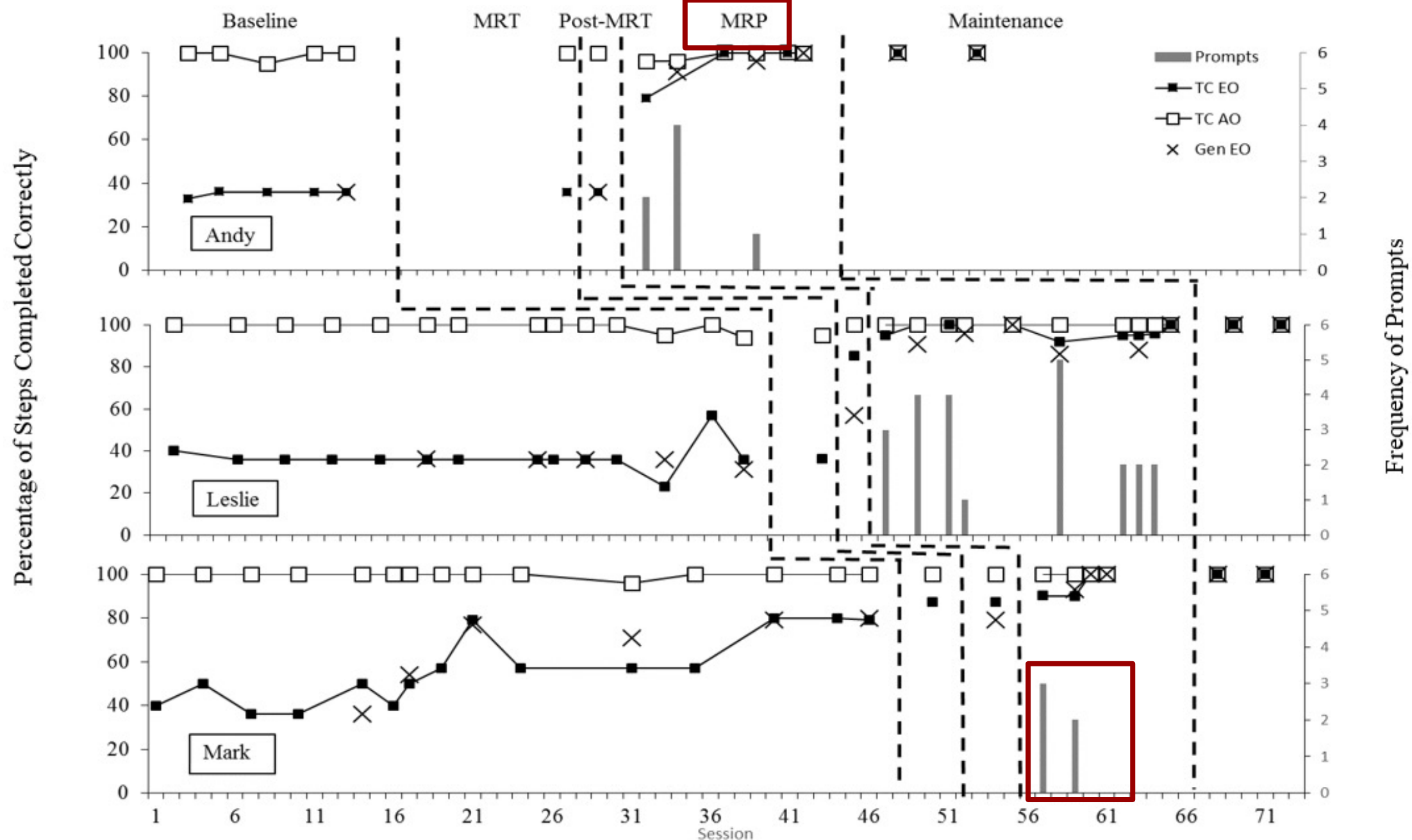
MRP for Leslie

Video 2





Note: MRT = Mediating-Response Training; MRP = Mediating-Response Prompting; Prompts = Experimenter prompts during EO scenarios; TC EO = Task completion during EO scenarios; TC AO – Task completion during AO scenarios



Note: MRT = Mediating-Response Training; MRP = Mediating-Response Prompting; Prompts = Experimenter prompts during EO scenarios; TC EO = Task completion during EO scenarios; TC AO – Task completion during AO scenarios

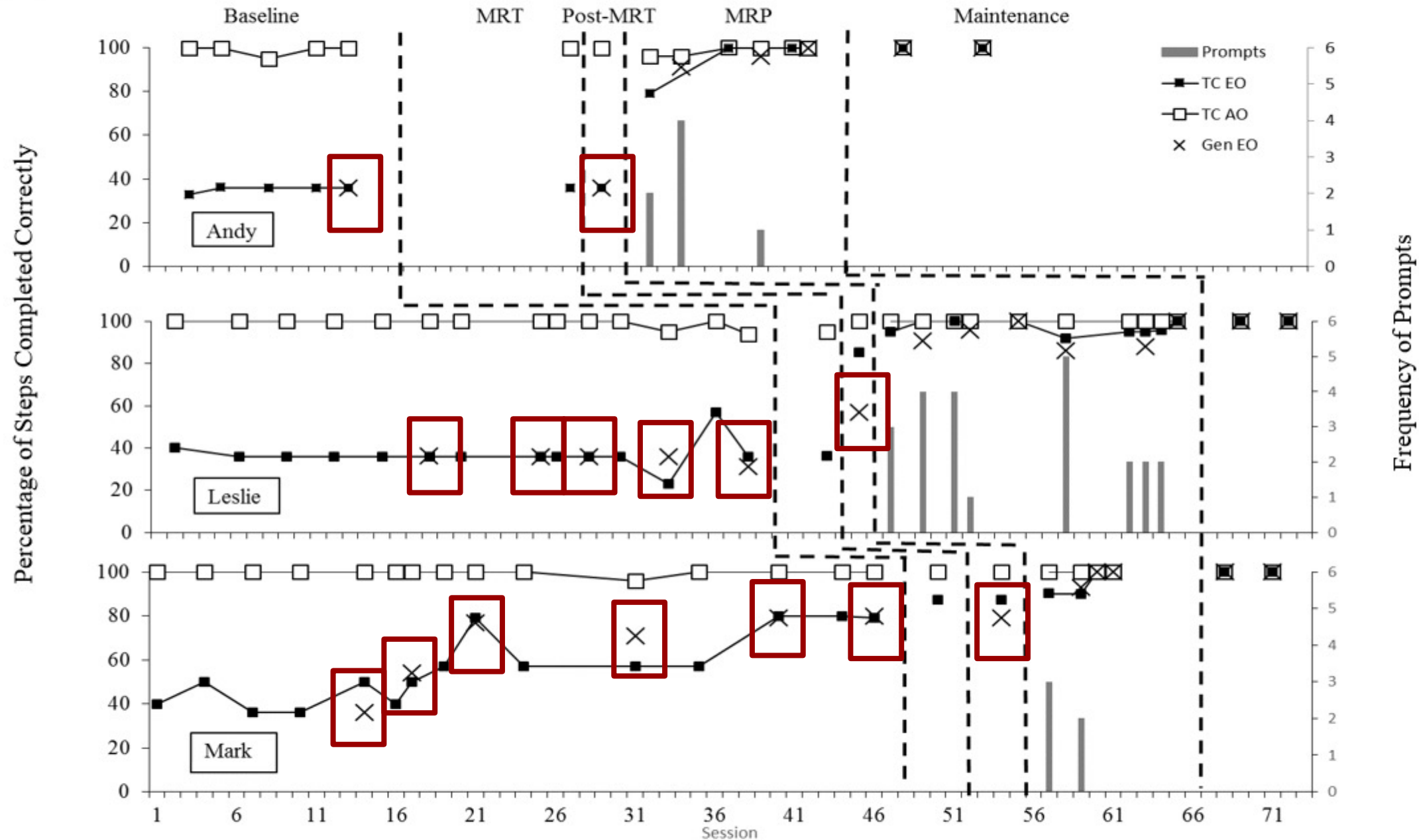
Generalization and Maintenance

Programmed for generalization by teaching to three tasks from each category

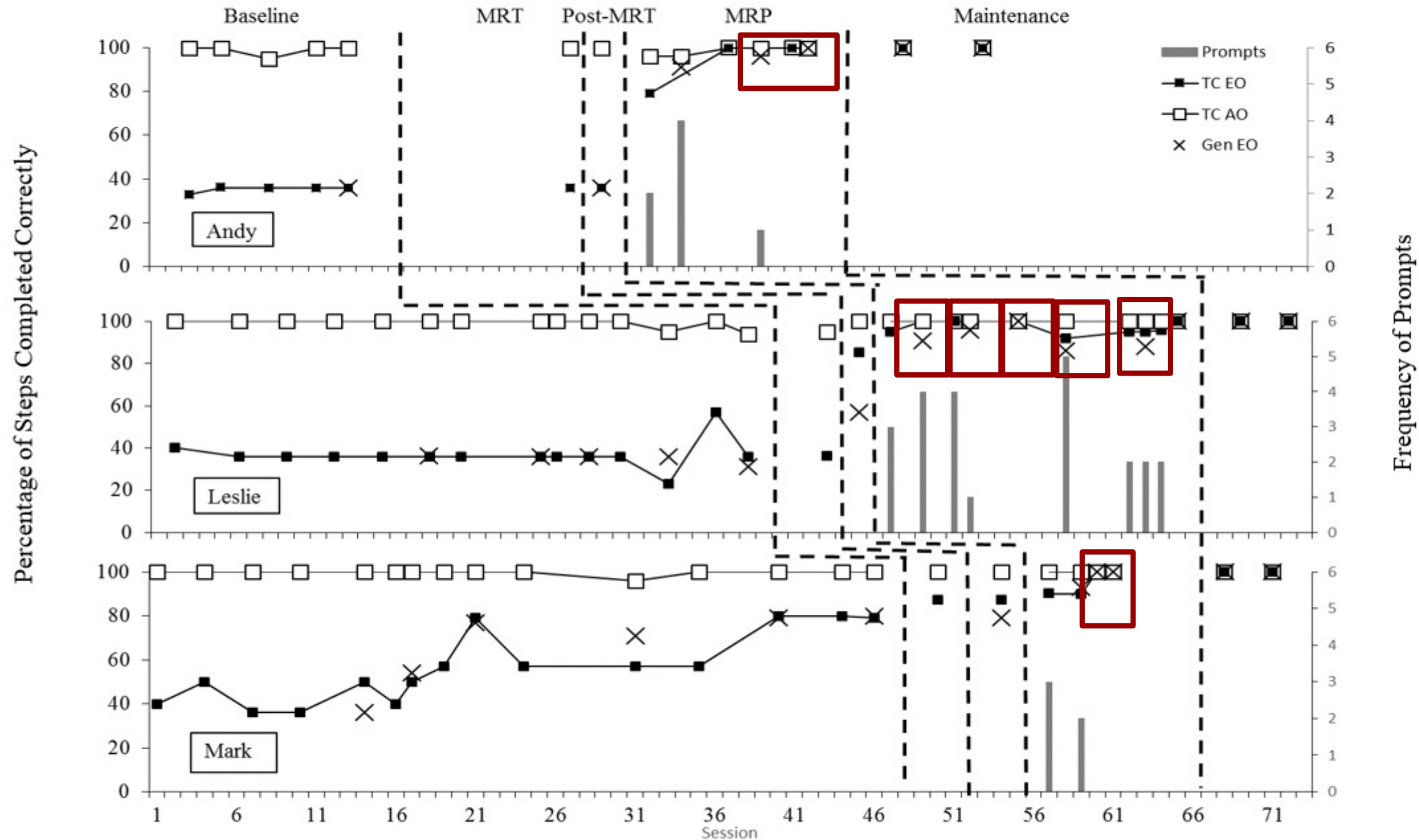
- Assessed generalization with novel tasks

Maintenance

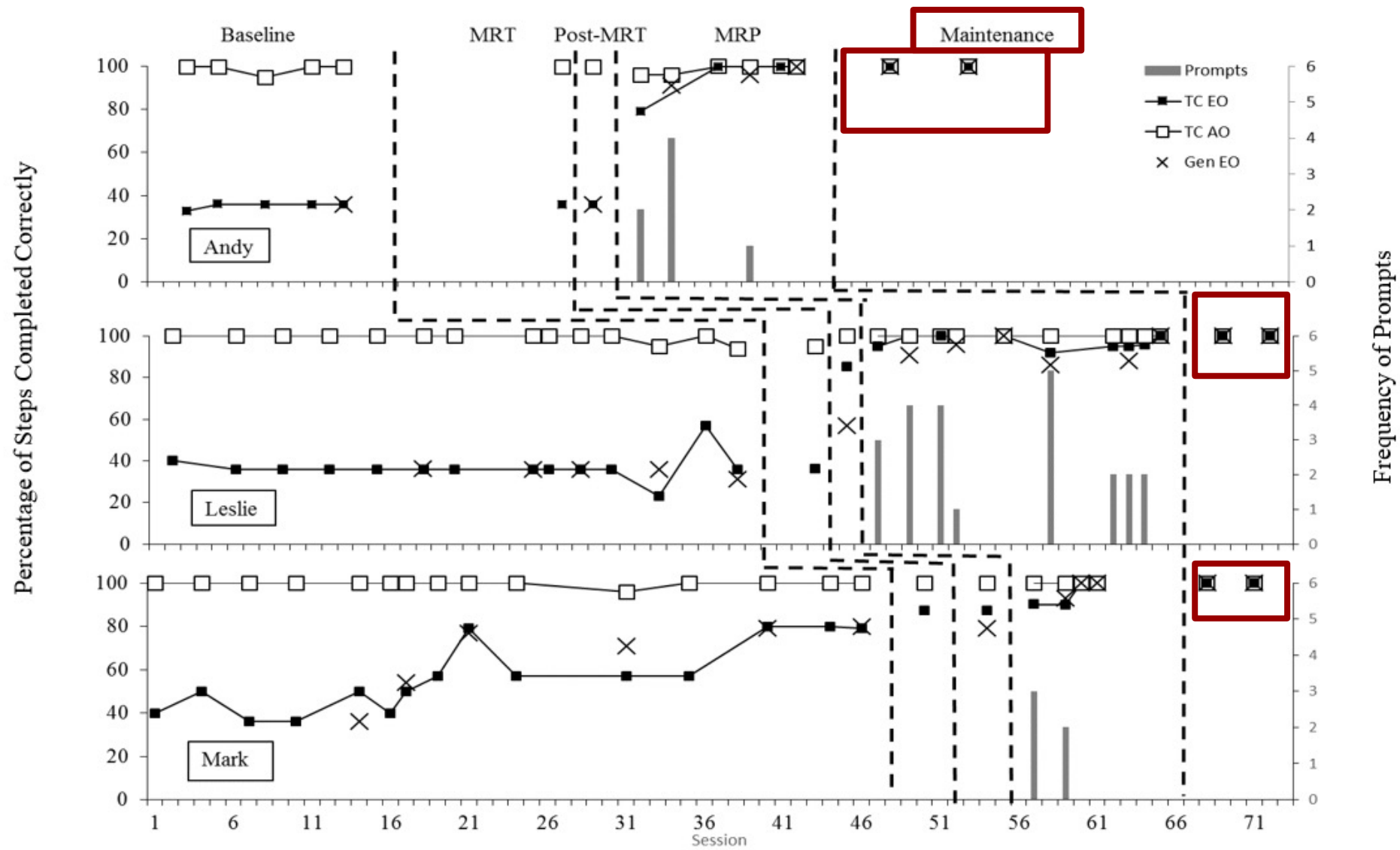
- Evaluated following mastery
- Andy: 4 and 6 weeks
- Leslie and Mark: 4 and 8 weeks



Note: MRT = Mediating-Response Training; MRP = Mediating-Response Prompting; Prompts = Experimenter prompts during EO scenarios; TC EO = Task completion during EO scenarios; TC AO – Task completion during AO scenarios



Note: MRT = Mediating-Response Training; MRP = Mediating-Response Prompting; Prompts = Experimenter prompts during EO scenarios; TC EO = Task completion during EO scenarios; TC AO – Task completion during AO scenarios



Note: MRT = Mediating-Response Training; MRP = Mediating-Response Prompting; Prompts = Experimenter prompts during EO scenarios; TC EO = Task completion during EO scenarios; TC AO – Task completion during AO scenarios

Conclusion

All participants learned the strategy

- Applied the problem-solving strategy when problems were present
- Did not apply the strategy when problems were not present

Noteworthy Components

- Noteworthy components
 - Mands for assistance
 - Problem solving across tasks
 - Social validity

Noteworthy Components

- Noteworthy components
 - Mands for assistance
 - Problem solving across tasks
 - Social validity

Recommendations

- Unanswered questions:
 - Categories of problems are not the only types of problems that might arise
 - Unclear if the mnemonic is necessary to prompt recall of the rule-based problem-solving strategy
 - Evaluating written instructions, flow charts, or other technology-based supports

Rules aren't for Everyone

Rule-based strategy worked for young adults with ASD who had more verbal behavior

What about folks with fewer verbal skills?

- Still have problems obtaining and maintaining employment
- Still need problem-solving skills

Other ways of teaching problem solving

- Activity schedules

Effects of a problem-solving strategy on the independent
completion of vocational tasks by adolescents with autism
spectrum disorder

CINDY C. LORA

CALDWELL UNIVERSITY

APRIL N. KISAMORE

HUNTER COLLEGE

KENNETH F. REEVE

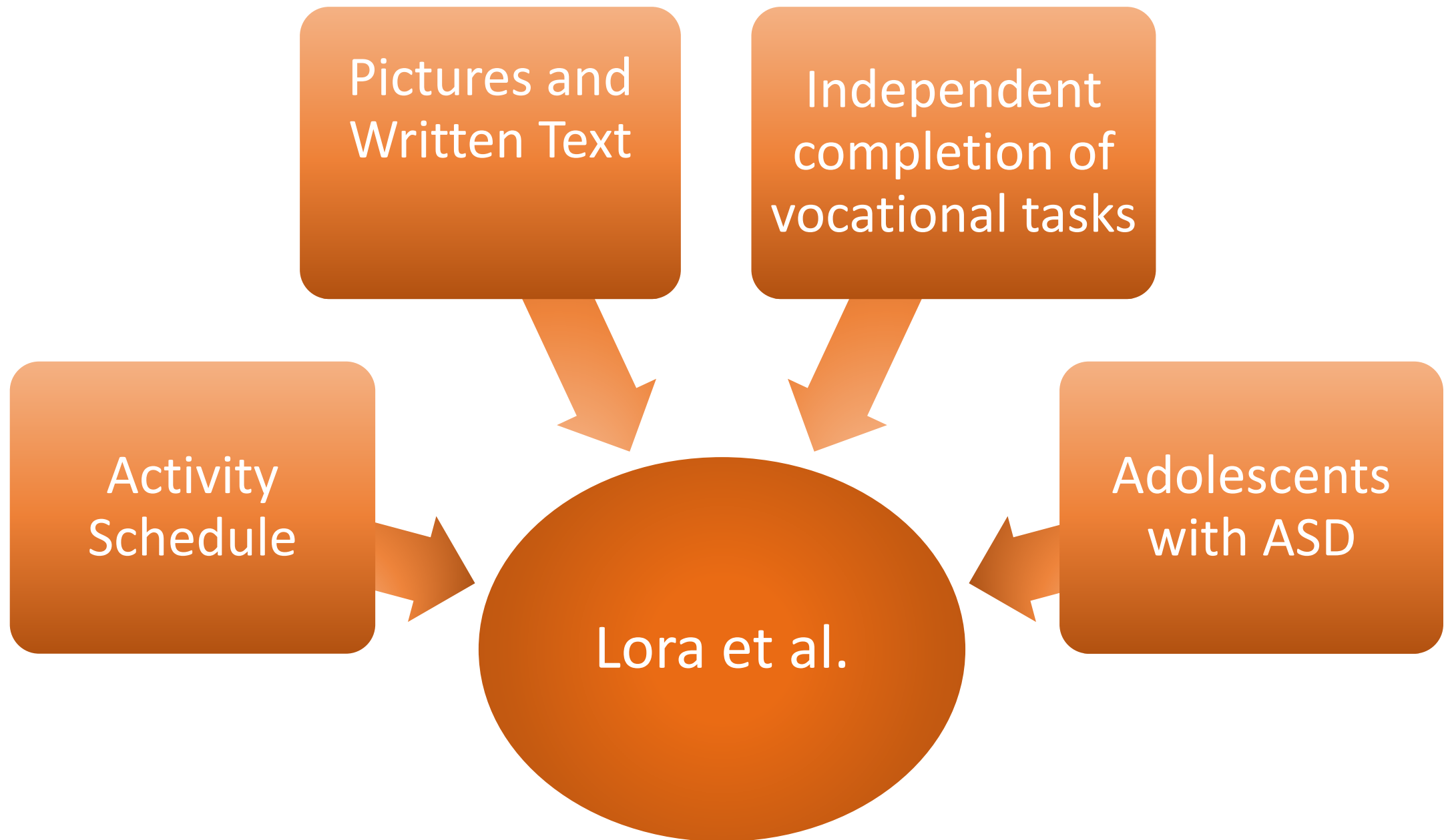
CALDWELL UNIVERSITY

DAWN B. TOWNSEND

INSTITUTE FOR EDUCATIONAL ACHIEVEMENT

Activity Schedules

- Increase independence of individuals with ASD across activities:
 - Leisure (MacDuff et al., 1993)
 - Social (Krantz et al., 1993)
 - Academic (Kinney et al., 2003)
 - Vocational (Wacker & Berg, 1983)



Participants

- Alex: male, 15 years old
- Jacob: male, 14 years old
- Kristina: female, 12 years old
- Travis: male, 12 years old
- Characteristics
 - Diagnosed with ASD
 - Lack of independent problem-solving skills while completing tasks
 - Problem behavior evoked by inability to complete tasks

Setting and Materials

- Various locations at the participants' private school
- Common classroom materials
- List of vocational tasks
- Problem solving binder
- Individualized reinforcement systems

Category	Task to Complete	Typical Scenario	Problem Scenario	Location
Missing Item	Erase board	Eraser present	Eraser missing	Office cabinet
	Clip papers	Paper clips present	Paper clips missing	Copy room
	Refill pen basket	Pens present	Pens missing	Supply closet
	Clean garbage	Bag present	Bag missing	Office cabinet
Broken Item	Staple papers	Functioning stapler	Stapler broken	Supply cabinet
	Highlight zeros	Highlighter intact	Highlighter broken	Copy room
	Rubber band papers	Rubber bands intact	Rubber bands broken	Office cabinet
	Cut papers in half	Functioning scissors	Scissors broken	Copy room
Mismatched Items	Add papers to binder	Binders correct size	Binders too small	Copy room
	File index cards in a box	Index cards correct size	Index cards too small	Office cabinet
	Bind papers together	Binder clips correct size	Binder clips too small	Supply cabinet
	Stuff envelopes	Envelopes correct size	Envelopes too small	Supply cabinet

Category	Task to Complete	Typical Scenario	Problem Scenario	Location
Missing Item	Erase board	Eraser present	Eraser missing	Office cabinet
	Clip papers	Paper clips present	Paper clips missing	Copy room
	Refill pen basket	Pens present	Pens missing	Supply closet
	Clean garbage	Bag present	Bag missing	Office cabinet
Broken Item	Staple papers	Functioning stapler	Stapler broken	Supply cabinet
	Highlight zeros	Highlighter intact	Highlighter broken	Copy room
	Rubber band papers	Rubber bands intact	Rubber bands broken	Office cabinet
	Cut papers in half	Functioning scissors	Scissors broken	Copy room
Mismatched Items	Add papers to binder	Binders correct size	Binders too small	Copy room
	File index cards in a box	Index cards correct size	Index cards too small	Office cabinet
	Bind papers together	Binder clips correct size	Binder clips too small	Supply cabinet
	Stuff envelopes	Envelopes correct size	Envelopes too small	Supply cabinet

Category	Task to Complete	Typical Scenario	Problem Scenario	Location
Missing Item	Erase board	Eraser present	Eraser missing	Office cabinet
	Clip papers	Paper clips present	Paper clips missing	Copy room
	Refill pen basket	Pens present	Pens missing	Supply closet
	Clean garbage	Bag present	Bag missing	Office cabinet
Broken Item	Staple papers	Functioning stapler	Stapler broken	Supply cabinet
	Highlight zeros	Highlighter intact	Highlighter broken	Copy room
	Rubber band papers	Rubber bands intact	Rubber bands broken	Office cabinet
	Cut papers in half	Functioning scissors	Scissors broken	Copy room
Mismatched Items	Add papers to binder	Binders correct size	Binders too small	Copy room
	File index cards in a box	Index cards correct size	Index cards too small	Office cabinet
	Bind papers together	Binder clips correct size	Binder clips too small	Supply cabinet
	Stuff envelopes	Envelopes correct size	Envelopes too small	Supply cabinet

Category	Task to Complete	Typical Scenario	Problem Scenario	Location
Missing Item	Erase board	Eraser present	Eraser missing	Office cabinet
	Clip papers	Paper clips present	Paper clips missing	Copy room
	Refill pen basket	Pens present	Pens missing	Supply closet
	Clean garbage	Bag present	Bag missing	Office cabinet
Broken Item	Staple papers	Functioning stapler	Stapler broken	Supply cabinet
	Highlight zeros	Highlighter intact	Highlighter broken	Copy room
	Rubber band papers	Rubber bands intact	Rubber bands broken	Office cabinet
	Cut papers in half	Functioning scissors	Scissors broken	Copy room
Mismatched Items	Add papers to binder	Binders correct size	Binders too small	Copy room
	File index cards in a box	Index cards correct size	Index cards too small	Office cabinet
	Bind papers together	Binder clips correct size	Binder clips too small	Supply cabinet
	Stuff envelopes	Envelopes correct size	Envelopes too small	Supply cabinet

Behavior of Interest (Dependent Variable)

Percentage of Steps Completed Correctly

1. Identified missing/broken/mismatched item
2. Initiated going to the correct location
3. Obtained the correct item
4. Brought correct item back to work area
5. Initiated completion of task

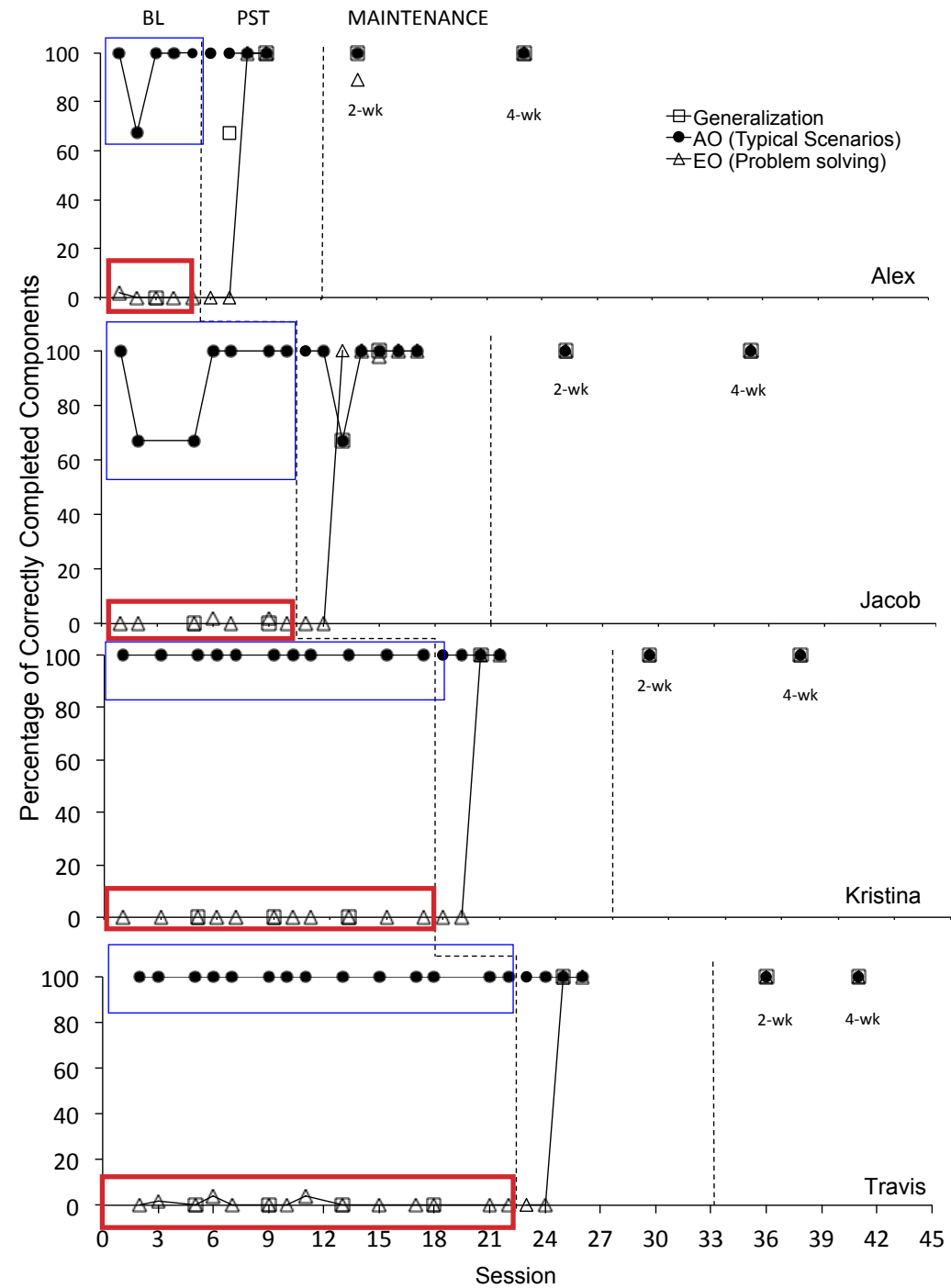
Mastery was 100% across two sessions

Pre-requisite Skills Training

- Purpose: Ensure participants could complete the tasks independently during typical scenarios (no problem present)

Baseline

- Purpose: Assess percentage of steps completed correctly on tasks with problem scenarios and typical scenarios
- Given list of tasks
- Attempts to seek assistance resulted in “Okay” and resumed activity
- No response for 10 s resulted in session termination
- Response to problem resulted in removal of task from the study



Baseline for Alex

Video 3



Don't forget to
check the
mail box
every day

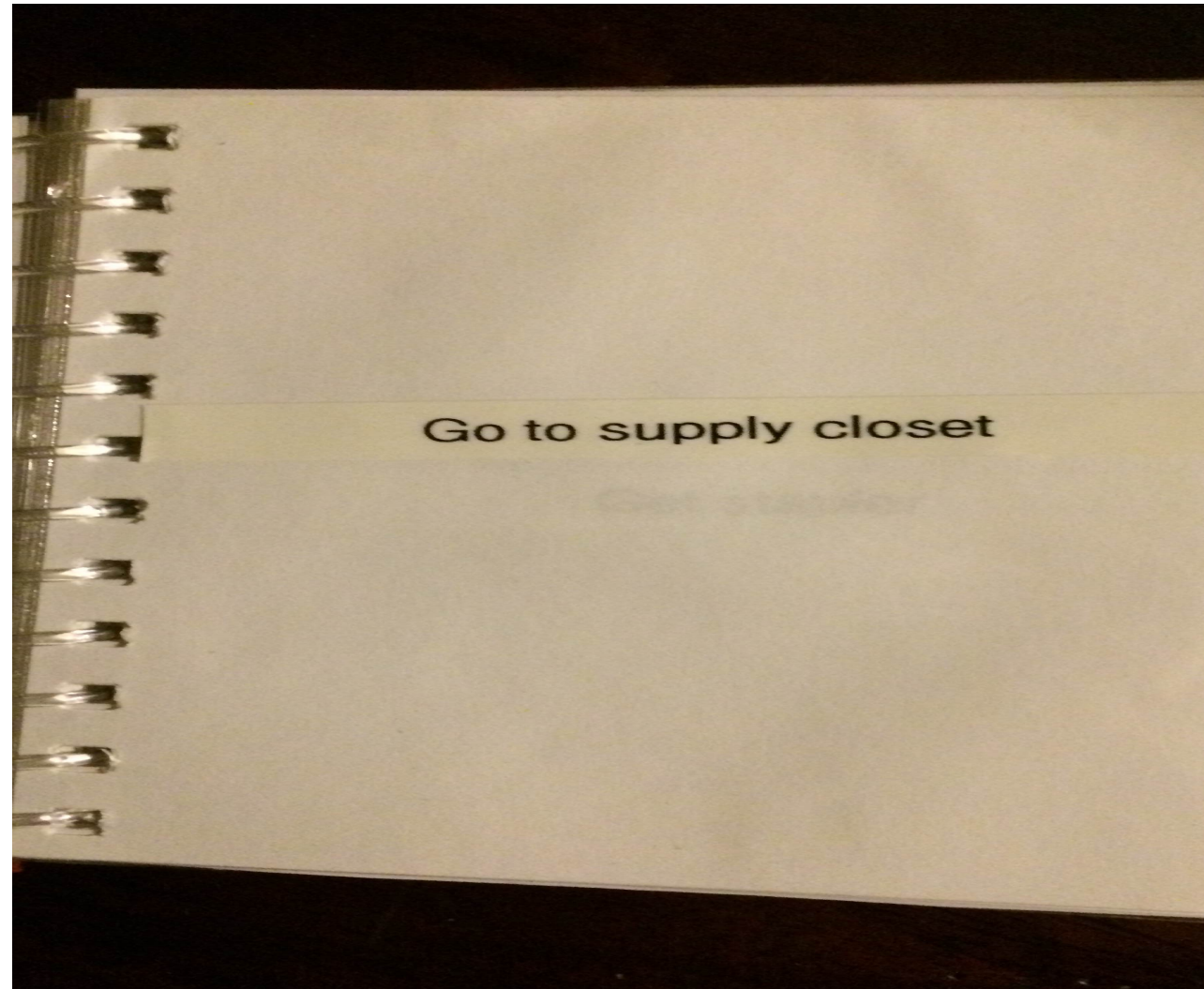
Problem-Solving Training

- Purpose: Teach participants to use problem-solving binder to solve problems
- Task list and problem-solving binder presented
- Constant prompt delay
- Correct responses resulted in tokens and praise
- Problem scenarios
- Typical scenarios

Step #1:
Identify correct item



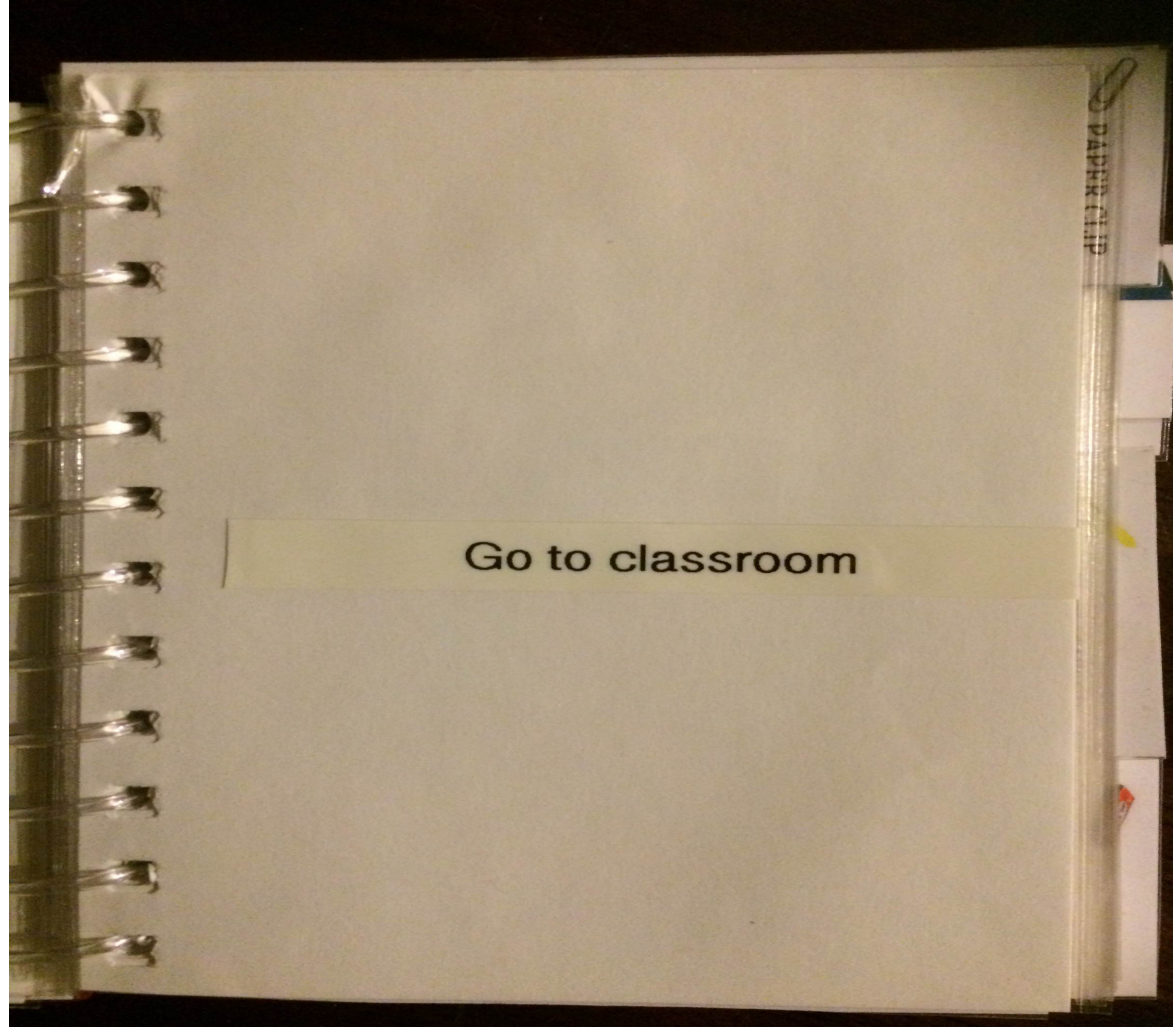
Step #2:
Going to correct location



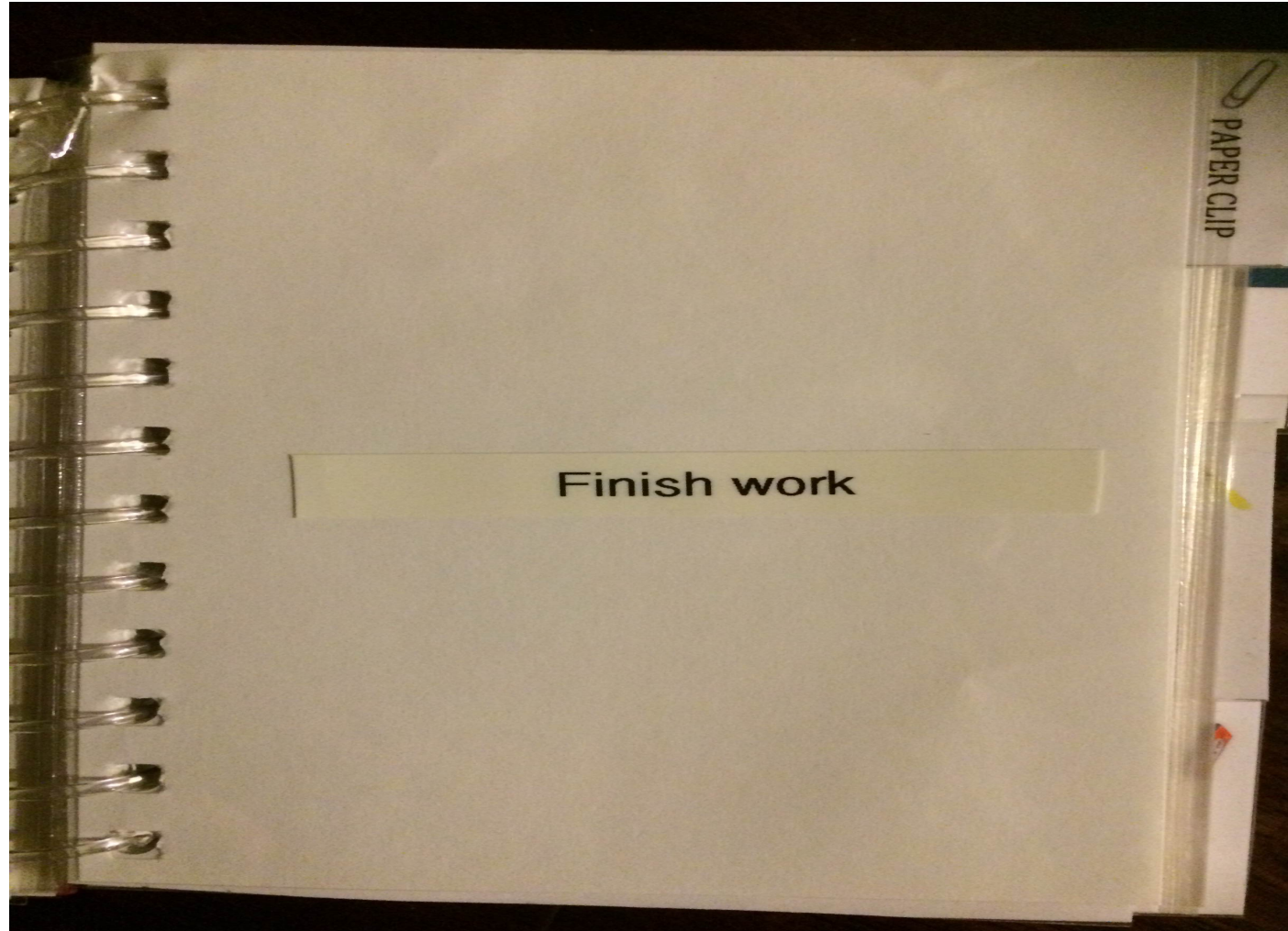
Step #3: Obtaining correct item

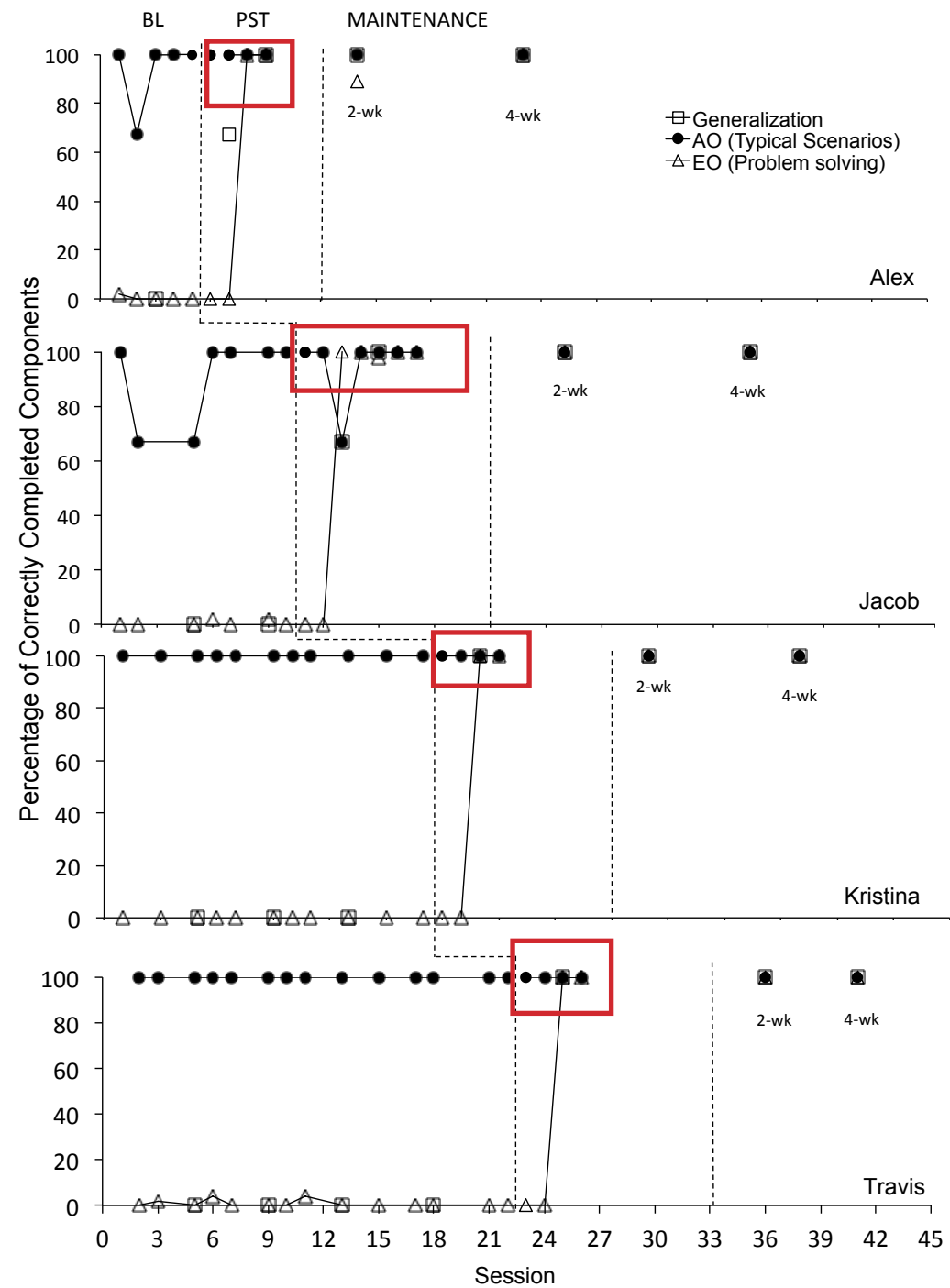


Step #4: Returning to work area



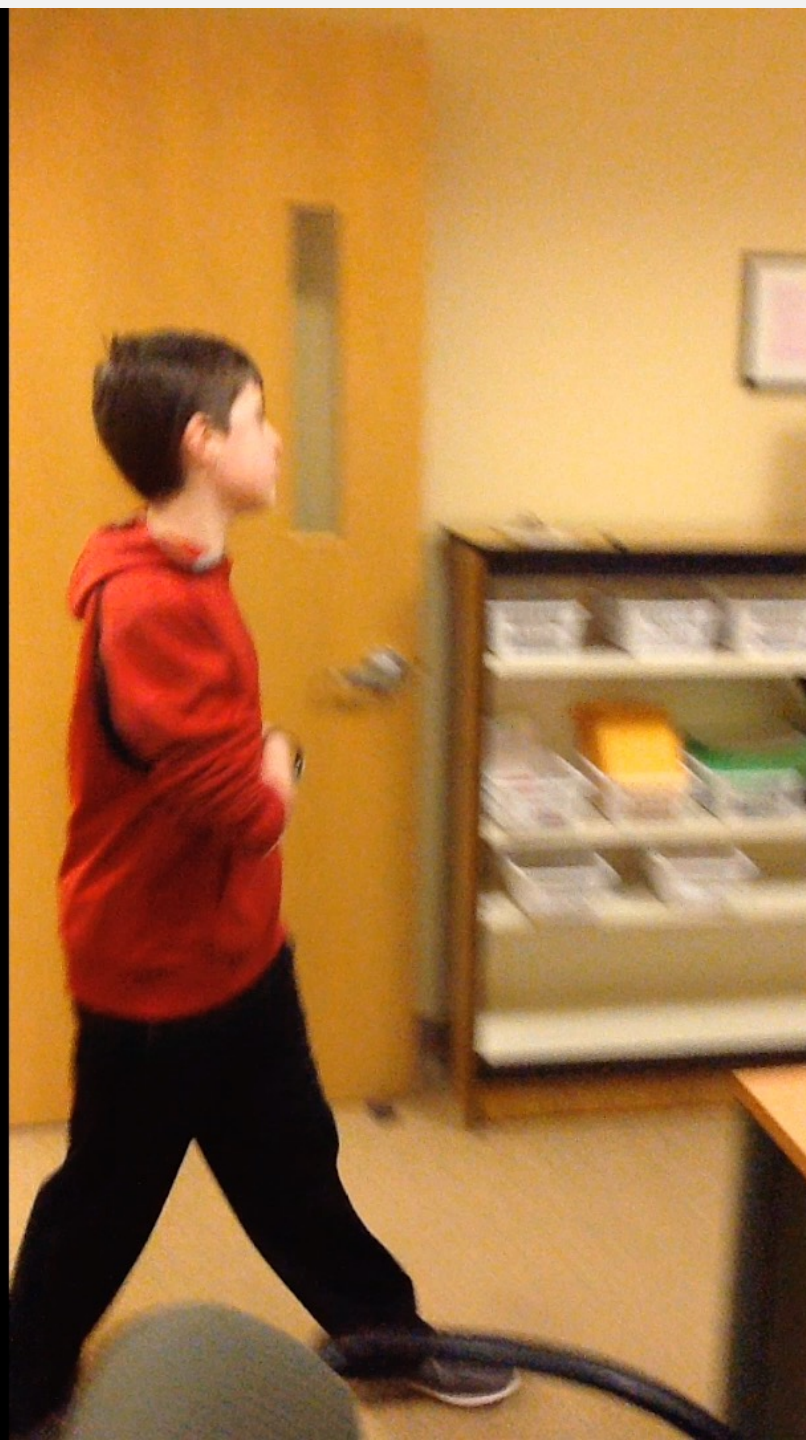
Step #5: Completing task





PST for Alex

Video 4



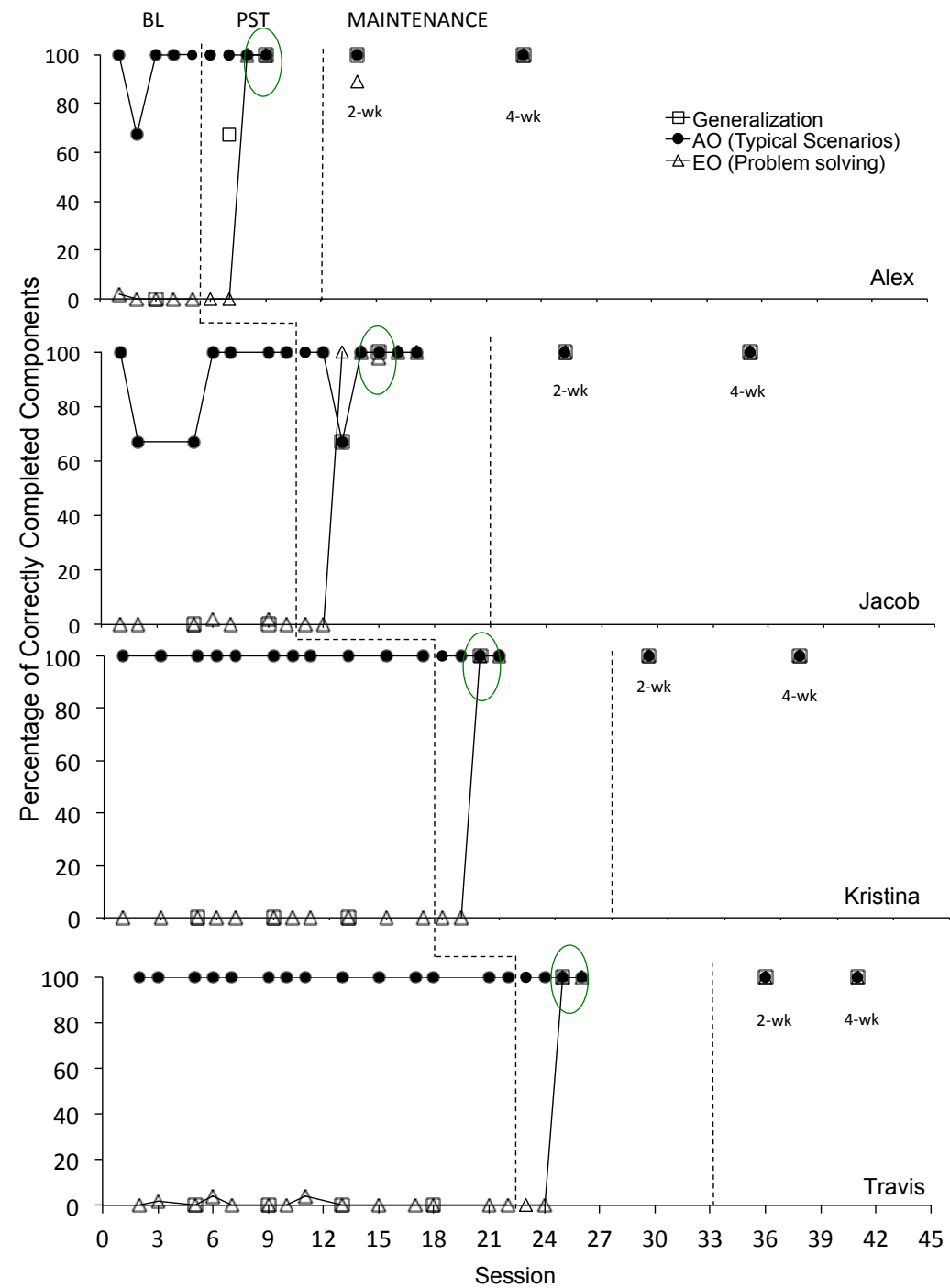
Generalization and Maintenance

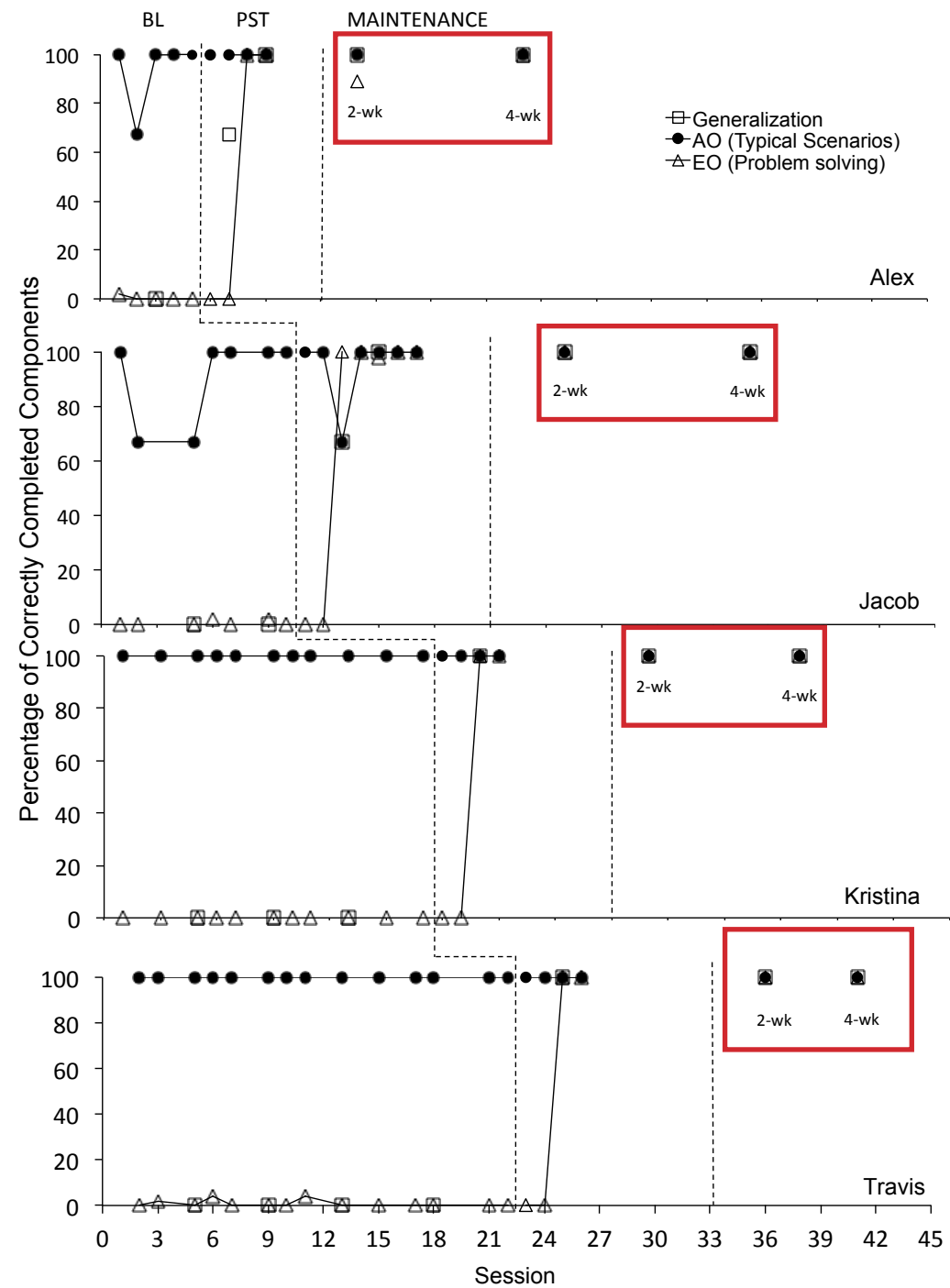
Programmed for generalization by teaching to three exemplars

- Assessed generalization to the fourth exemplar

Maintenance

- Assessed 2 and 4 weeks after mastery criterion was met
- Procedures identical to those in baseline
 - Task list and problem-solving binder present





CTLE Keynote 1: TULIP



Conclusions and Recommendations

Problem-solving training was successful

Generalization occurred from trained to non-trained problem scenarios

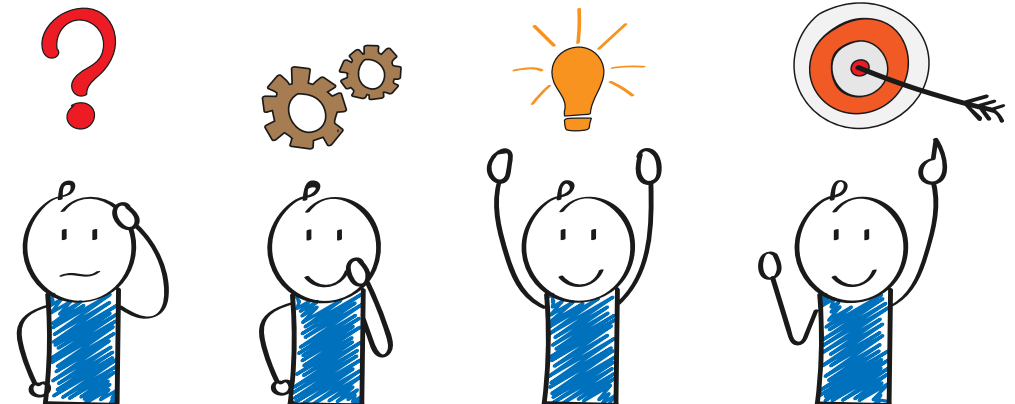
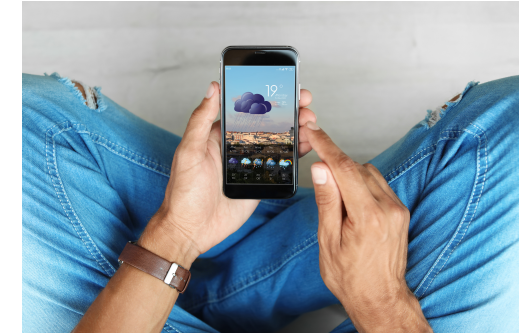
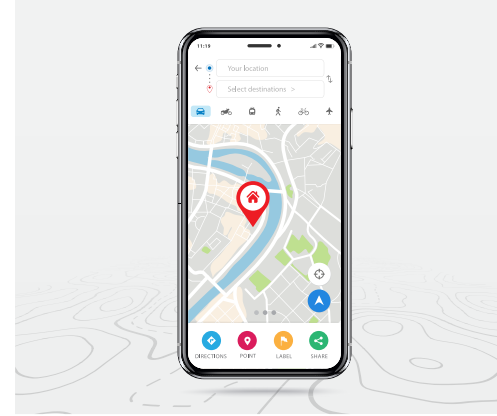
Investigate implementation of problem-solving strategies in actual vocational settings

Investigate efficacy of technological devices to prompt problem solving

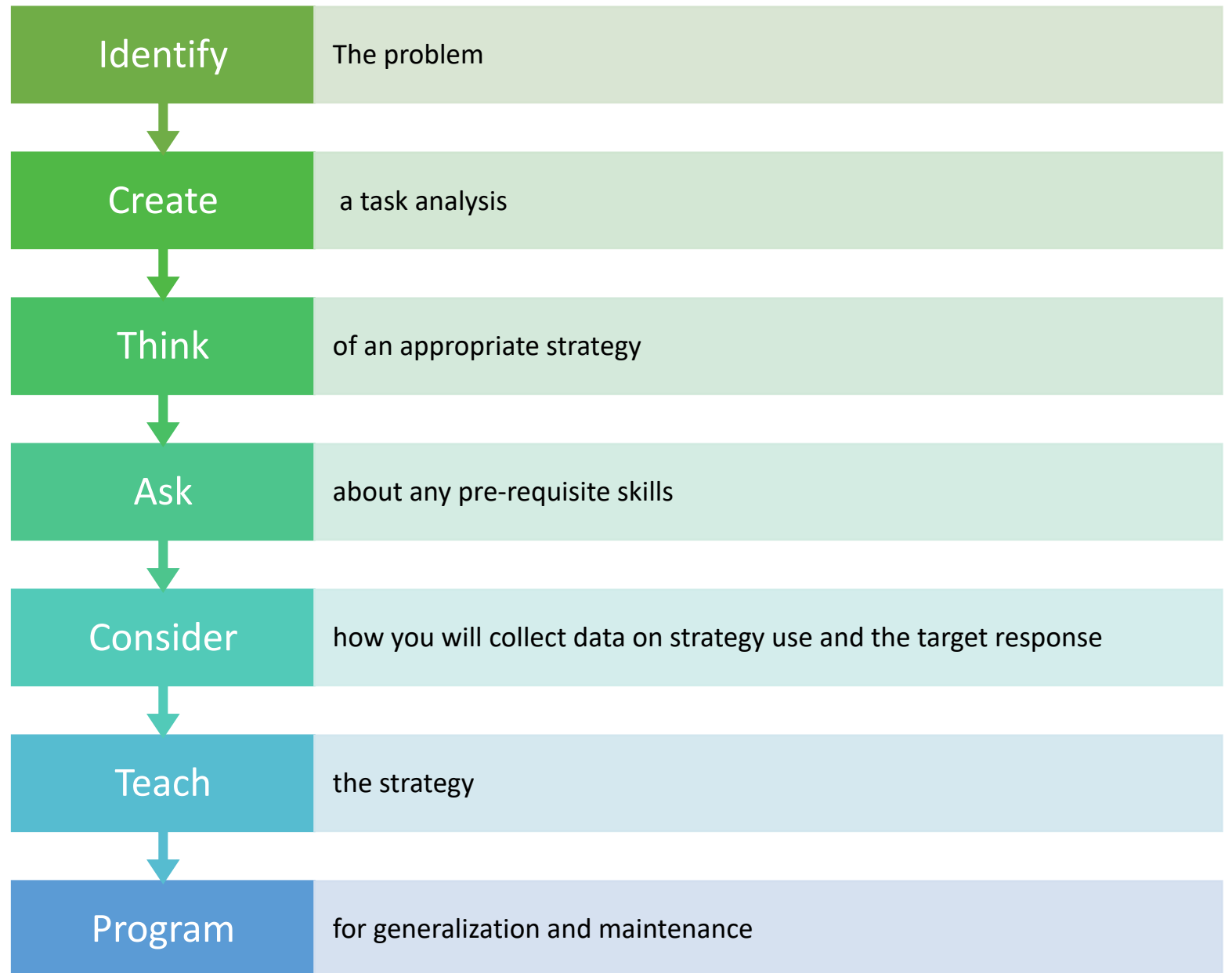
General Recommendations

Think of how to Introduce Problem Solving

- Selecting weather-appropriate clothing using a weather app
- Navigating a bus route to the market using Google maps
- Recalling past events by self-questioning and imagining
- Performing academic tasks like spelling or answering complex questions
- Completing math tasks using rules
- Using Google to find answers to questions



How do we
teach others
to problem
solve?





Empirical Evaluations of Skinner's Analysis of Problem Solving

Judah B. Axe¹  • Stephanie H. Phelan^{2,3,4} • Caitlin L. Irwin²

Published online: 19 November 2018

© Association for Behavior Analysis International 2018

Questions?



Strategies for Increasing Problem Solving in Adolescents with Autism Spectrum Disorder

April N. Kisamore, Ph.D., BCBA-D, LBA (NY)

april.kisamore@hunter.cuny.edu