Part 1: Task Analysis
The Steps/Behavior, the Natural Cue and Natural Consequences

Paula Gumpman, Georgia Department of Education
The Basics – March 17, 2022

A Task Analysis is Systematic Instruction

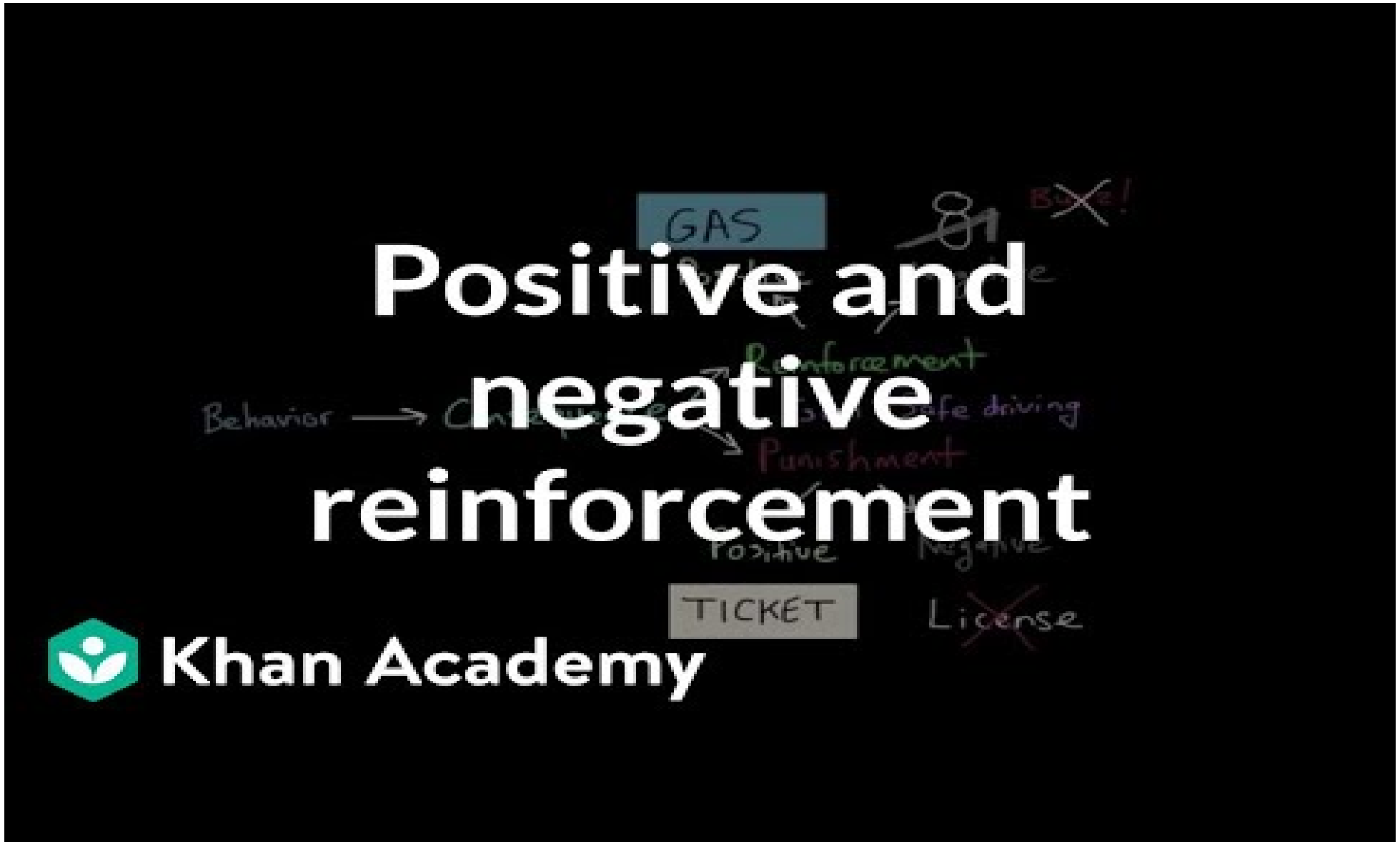
- A student's instructional program is made up of sessions, and within those sessions are instructional trials
- All trials of systematic instruction are made up of three components.
  - Antecedent – Natural Cue
  - Behavior - Observable(we know when it starts and when it ends)
  - Consequence – Natural Consequence

Parts of a Task Analysis 1

- Step/Behavior – this refers to the steps of the task analysis of the activity or skill being taught. A task analysis is the sequential breakdown of the task or activity into its component steps.
- Natural Cue – this refers to the naturally occurring stimuli that elicit the desired activity or skill. For example, the alarm clock ringing is the natural cue for many people to get out of bed and get ready to go to school or work.

Parts of a Task Analysis 2

- Natural Consequences - are the events occurring naturally after the student's performance or attempted performance of the activity or skill. For example, eating a candy bar is the natural consequence for using a vending machine correctly. A door failing to open is the natural consequence for pushing the door to open when it is supposed to be pulled to open.


Positive and negative reinforcement
GAS
Behavior
Punishment
TICKET
License
Khan Academy

Discussion

Task Analysis – Step/Behavior

- Behavior – The target behavior is the one the educator wants the student to learn and that is why it is targeted for instruction. The behavior or response follows an antecedent or stimulus. When recording the responses of learners, it is important that behaviors be both **observable** and **measurable.**

- Step/Behavior – this refers to the steps of the task analysis of the activity or skill being taught. A task analysis is the sequential breakdown of the task or activity into its component steps.

Task Analysis

Break It Down

Discussion

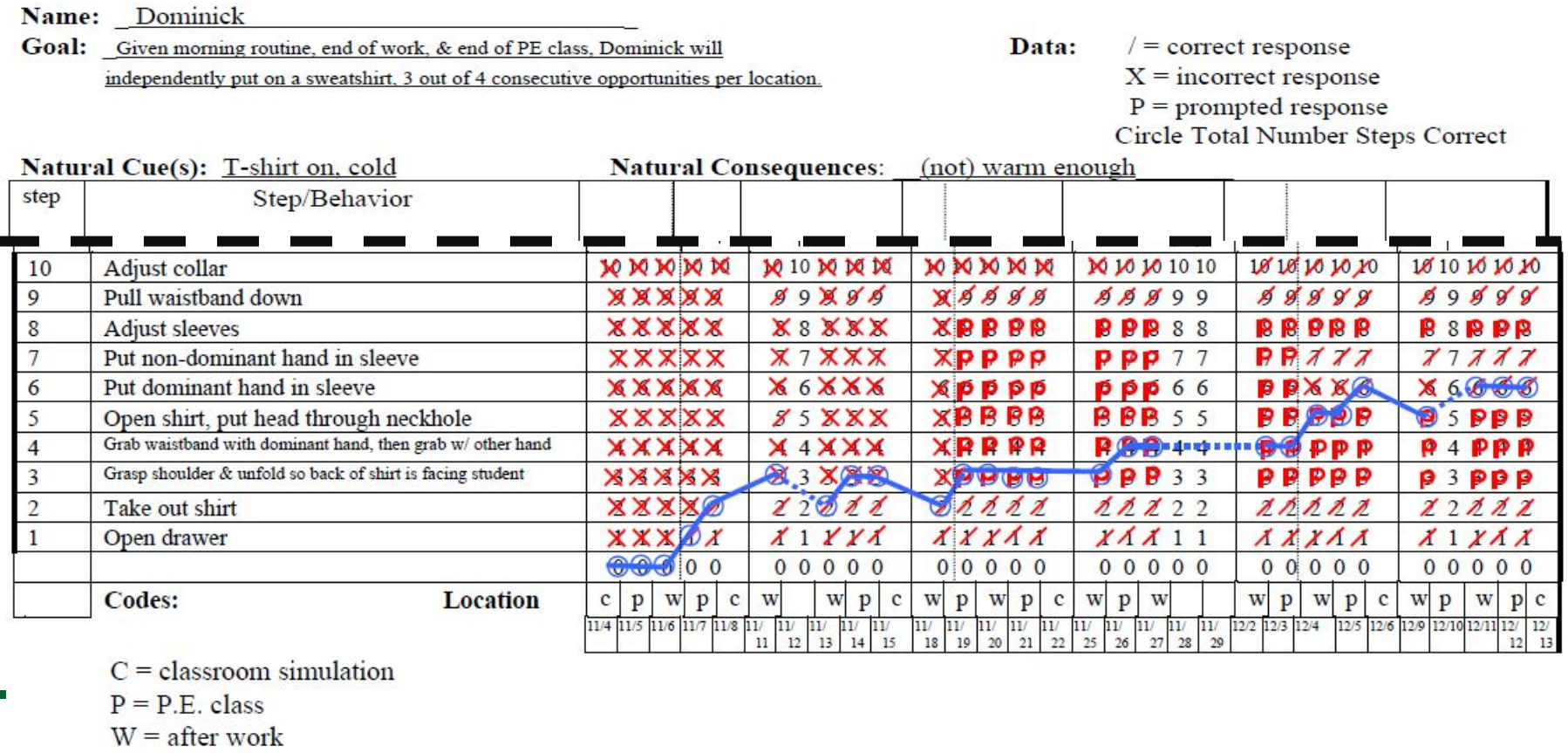
Parts of a Task Analysis

- Teaching Strategy
  - Teaching Approach
    - Trial and Error(be sure to note the error correction procedure)
      - Standard Error Correction Procedure
      - Repeated Practice
      - System of Least Prompts (verbal prompt, gestural prompt, model prompt, physical prompt)
    - Errorless Learning(be sure to note the specific prompt/fade procedure)
      - Constant time delay
      - Progressive time delay
      - Decreasing prompt hierarchy
      - Fading of Multiple prompts

    and
  - Chaining Strategy
    - Forward Chaining
    - Backward Chaining
    - Total Task Presentation

Task Analysis Data Sheet (TADS)

The task analysis data sheet (TADS) is the data sheet that is used most frequently by teachers to monitor student progress toward IEP goals that are activity-based tasks broken into smaller steps. This could be a permanent record not only of the student's progress toward goals but also the teacher's attempt(s) at addressing the IEP goals.



Name: Dominick

Goal: Given morning routine, end of work, & end of PE class, Dominick will independently put on a sweatshirt, 3 out of 4 consecutive opportunities per location.

Data: / = correct response
X = incorrect response
P = prompted response
Circle Total Number Steps Correct

Natural Cue(s): T-shirt on, cold

Natural Consequences: (not) warm enough

step	Step/Behavior
10	Adjust collar
9	Pull waistband down
8	Adjust sleeves
7	Put non-dominant hand in sleeve
6	Put dominant hand in sleeve
5	Open shirt, put head through neckhole
4	Grab waistband with dominant hand, then grab w/ other hand
3	Grasp shoulder & unfold so back of shirt is facing student
2	Take out shirt
1	Open drawer

Codes: **Location**

C = classroom simulation
P = P.E. class
W = after work

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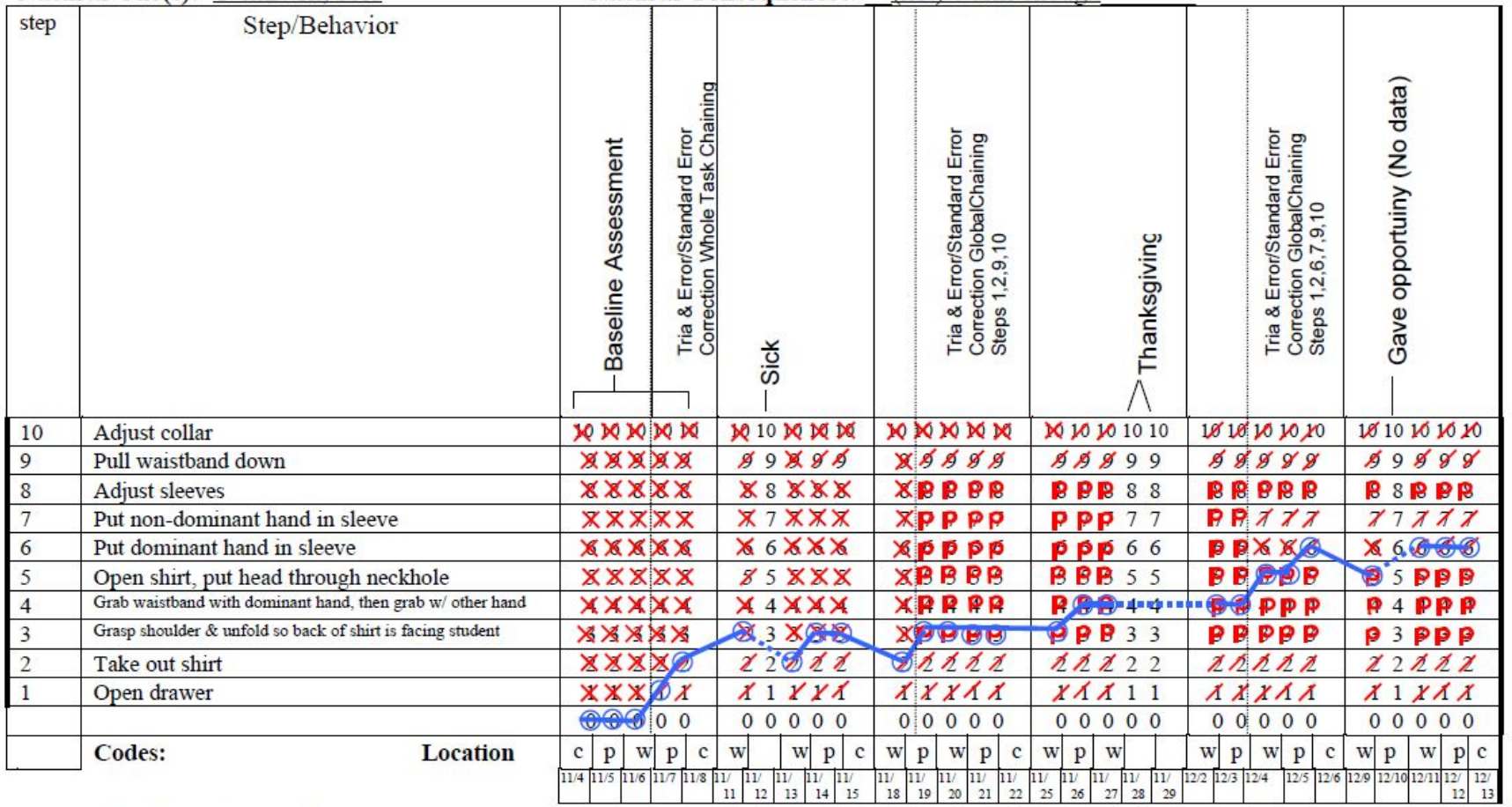

C = classroom simulation
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Part 2: Task Analysis Chaining Strategies and Trial and Error or Errorless Learning

Paula Gumpman, Georgia Department of Education

A Task Analysis is Systematic Instruction (Review)

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- All trials of systematic instruction are made up of three components.
  - Antecedent – Natural Cue
  - Behavior - Observable(we know when it starts and when it ends)
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Parts of a Task Analysis (Review)

- Natural Consequences - are the events occurring naturally after the student's performance or attempted performance of the activity or skill. For example, eating a candy bar is the natural consequence for using a vending machine correctly. A door failing to open is the natural consequence for pushing the door to open when it is supposed to be pulled to open.

Task Analysis – Step/Behavior (Review)

- Behavior – The target behavior is the one the educator wants the student to learn and that is why it is targeted for instruction. The behavior or response follows an antecedent or stimulus. When recording the responses of learners, it is important that behaviors be both **observable** and **measurable.**

- Step/Behavior – this refers to the steps of the task analysis of the activity or skill being taught. A task analysis is the sequential breakdown of the task or activity into its component steps.

Task Analysis Data Sheet (TADS)

- Students Name and the Goal.

Name: Dominick

Goal: Given morning routine, end of work, & end of PE class, Dominick will independently put on a sweatshirt, 3 out of 4 consecutive opportunities per location.

Data: / = correct response
X = incorrect response
P = prompted response
Circle Total Number Steps Correct

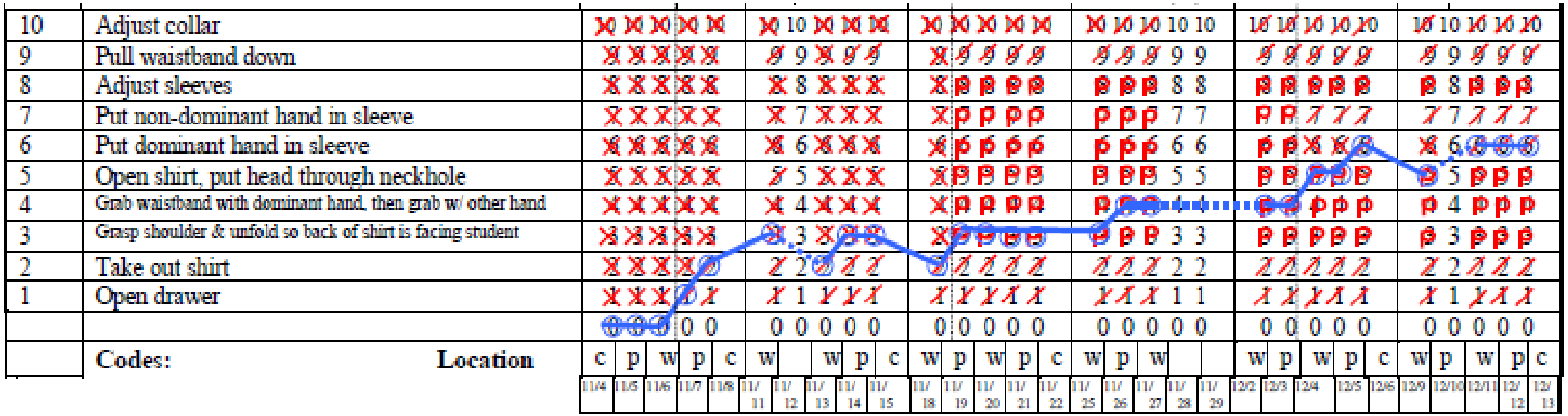
Natural Cue(s): T-shirt on, cold **Natural Consequences:** (not) warm enough

step	Step/Behavior								

- The TADS should include the Natural Cue and well as the Naturals Consequence

TADS – With Steps

- As we discussed during our last session, The task must be broken down into steps
  - Watch someone do the task (a person than can independently complete the task, video tape yourself)
  - Right down each step



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The LRE for LIFE Project

Steps for Building Instructional Program Packets: Selected Activity Analyses (Unabbreviated Version)

Georgia Department of Education

Teaching Strategy

- Chaining Strategy
- Trial and Error
- Errorless Learning

When choosing the best learning method for a student, the nature of the task should be considered.

Chaining Strategies -

- Forward Chaining (each step of the sequence is taught and reinforced when completed correctly, after the learner completes step one with a predetermined criterion of accuracy the student is taught the next step of the sequence with reinforcement contingent upon completion of all previous steps.)

- Backward Chaining (all behaviors identified in the task analysis are initially completed by the trainer, except for the final behavior in the chain)

Trial and Error with Error Correction Procedure

- Trial and Error is a process in which the student is encouraged to try to guess or figure out the correct response and learn from any errors made.

- MPSR - Standard Error Correction Procedure **(What do you do when a student makes an incorrect response)**
  - Repeated Practice (Model, Prompt, Switch, Repeat)
  - https://youtu.be/uzT9Z5bS4M0

Error Correction Procedure in Trial and Error Learning

System of Least Prompts

Standard Error Correction Procedure **(What do you do when a student makes an incorrect response)**

(**Think about Wait Time**)

1. Independent (the student doe not need assistance)
2. Gestural Prompt (point or tap to get the students visual attention(avoid verbal prompt))
3. Verbal Prompt (do a verbal or physical demonstration of the action)
4. Modeling (verbal and physical demonstration)
5. Partial Physical Prompt (tactical assistance such as a tap at the elbow or hand)
6. Full Physical Prompt (hand over hand)

https://youtu.be/mYkx4i3kX4Y

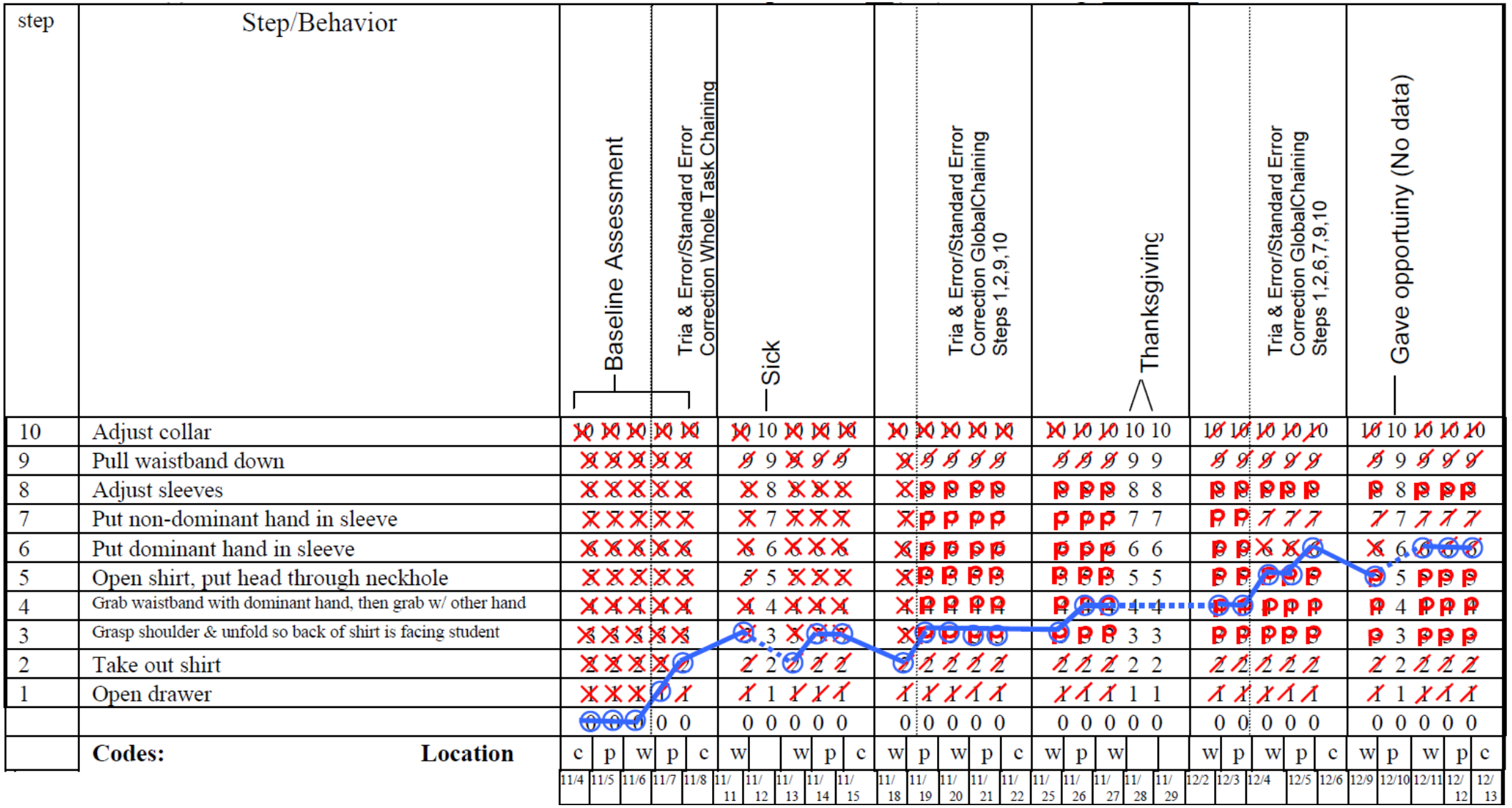
Errorless Learning

- Errorless teaching is an instructional strategy that a student always respond correctly as each skill is taught, the student is provided with a prompt or cue immediately following an instruction. The immediate prompt prevents any chance for incorrect responses. Unlike other teaching procedures where opportunities for initial mistakes are allowed and then corrected through prompting, errorless learning's immediate prompting ensures that the student may only respond correctly. Prompts are systematically removed until children are able to respond correctly on their own.
- Prompting and or Fading Strategy
  - Constant Time Delay
  - Progressive Time Delay
  - Decreasing Prompting Hierarchy
  - Fading of Multiple Prompts

Prompting and or Fading Strategy in Errorless Learning

- Prompting and or Fading Strategy
  - Constant Time Delay (time delay is a prompt fading strategy with the same amount of time between the instruction and the prompt, the delaying of prompts gives the student a brief window of opportunity to give a correct response on their own)
  - Progressive Time Delay (time delay is a prompt fading strategy that systematically increases the amount of time between the instruction and the prompt, this delaying of prompts gives the student a brief window of opportunity to give a correct response on their own)
  - Decreasing Prompting Hierarchy (most to least prompting, prompts are systematically faded by decreasing the intrusiveness of assistance provided to promote independence in responding.(full physical, partial physical, model, gesture)
  - Fading of Multiple Prompts (example of decreasing prompt levels using time delay may be delaying prompts 2 seconds, then 3 seconds, and then 5 seconds. An example of decreasing prompts in most-to-least prompting may be lessening the intrusiveness from hand over hand, to a light physical touch, to shadowing the response without any physical contact.)

TADS and Teaching Strategy



Discussion

Parts of a Task Analysis

- Chaining Strategy
  - Forward Chaining
  - Backward Chaining
  - Total Task Presentation

- Errorless Learning(be sure to note the specific prompt/fade procedure)
  - Constant time delay
  - Progressive time delay
  - Decreasing prompt hierarchy
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- Teaching Strategy
  - Teaching Approach
    - Trial and Error(be sure to note the error correction procedure)
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TADS

Figure 1

Name: _____ A

Goal: _____

I

Data: / = correct response
X = incorrect response
P = prompted response
Circle Total Number Steps Correct

D

C

Natural Cue(s): _____ **Natural Consequences:** _____

step	Step/Behavior						
		E					
20		20 20 20 20 20	20 20 20 20 20	20 20 20 20 20	20 20 20 20 20	20 20 20 20 20	20 20 20 20 20
19		19 19 19 19 19	19 19 19 19 19	19 19 19 19 19	19 19 19 19 19	19 19 19 19 19	19 19 19 19 19
18		18 18 18 18 18	18 18 18 18 18	18 18 18 18 18	18 18 18 18 18	18 18 18 18 18	18 18 18 18 18
17	B	17 17 17 17 17	17 17 17 17 17	17 17 17 17 17	17 17 17 17 17	17 17 17 17 17	17 17 17 17 17
16		16 16 16 16 16	16 16 16 16 16	16 16 16 16 16	16 16 16 16 16	16 16 16 16 16	16 16 16 16 16
15		15 15 15 15 15	15 15 15 15 15	15 15 15 15 15	15 15 15 15 15	15 15 15 15 15	15 15 15 15 15
14		14 14 14 14 14	14 14 14 14 14	14 14 14 14 14	14 14 14 14 14	14 14 14 14 14	14 14 14 14 14
13		13 13 13 13 13	13 13 13 13 13	13 13 13 13 13	J 13 13 13 13	13 13 13 13 13	13 13 13 13 13
12		12 12 12 12 12	12 12 12 12 12	12 12 12 12 12	12 12 12 12 12	12 12 12 12 12	12 12 12 12 12
11		11 11 11 11 11	11 11 11 11 11	11 11 11 11 11	11 11 11 11 11	11 11 11 11 11	11 11 11 11 11
10		10 10 10 10 10	10 10 10 10 10	10 10 10 10 10	10 10 10 10 10	10 10 10 10 10	10 10 10 10 10
9		9 9 9 9 9	9 9 9 9 9	9 9 9 9 9	9 9 9 9 9	9 9 9 9 9	9 9 9 9 9
8		8 8 8 8 8	8 8 8 8 8	8 8 8 8 8	8 8 8 8 8	8 8 8 8 8	8 8 8 8 8
7		7 7 7 7 7	7 7 7 7 7	7 7 7 7 7	7 7 7 7 7	7 7 7 7 7	7 7 7 7 7
6		6 6 6 6 6	6 6 6 6 6	6 6 6 6 6	6 6 6 6 6	6 6 6 6 6	6 6 6 6 6
5		5 5 5 5 5	5 5 5 5 5	5 5 5 5 5	5 5 5 5 5	5 5 5 5 5	5 5 5 5 5
4		4 4 4 4 4	4 4 4 4 4	4 4 4 4 4	4 4 4 4 4	4 4 4 4 4	4 4 4 4 4
3		3 3 3 3 3	3 3 3 3 3	3 3 3 3 3	3 3 3 3 3	3 3 3 3 3	3 3 3 3 3
2		2 2 2 2 2	2 2 2 2 2	2 2 2 2 2	2 2 2 2 2	2 2 2 2 2	2 2 2 2 2
1		1 1 1 1 1	1 1 1 1 1	1 1 1 1 1	1 1 1 1 1	1 1 1 1 1	1 1 1 1 1
		0 0 0 0 0	0 0 0 0 0	0 0 0 0 0	0 0 0 0 0	0 0 0 0 0	0 0 0 0 0
	Codes:	H					
		F					

G

Location

Date

Figure 2

Name: Dominick

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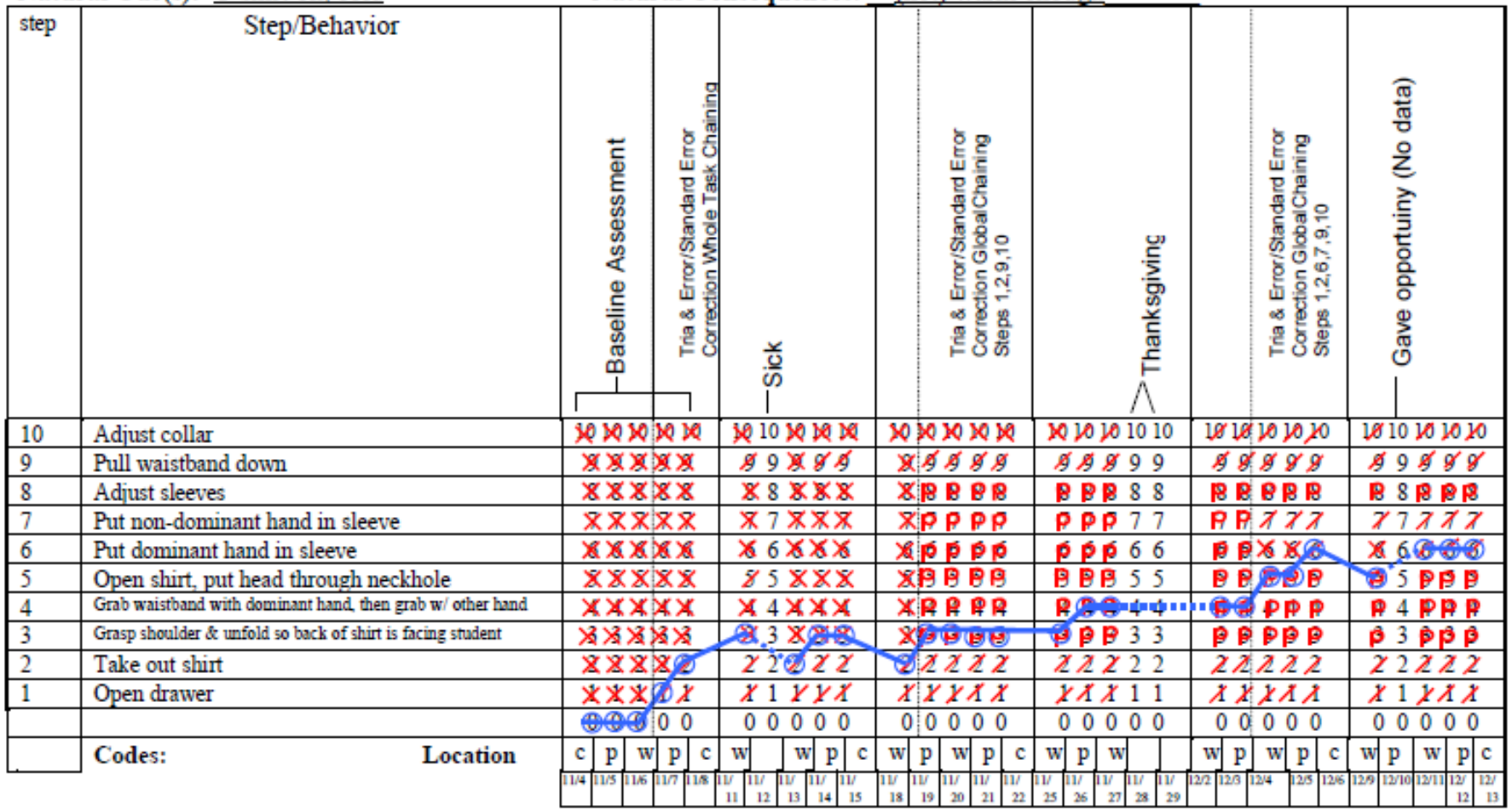

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Discussion

Division for Special Education Services and Supports

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