

# The DATA Model for Teaching Preschoolers with Autism

by

**Ilene Schwartz, Ph.D., BCBA-D**

University of Washington  
Seattle

**Julie Ashmun, M.Ed., BCBA**

University of Washington  
Seattle

**Bonnie McBride, Ph.D., BCBA-D**

University of Oklahoma Health Sciences Center  
Oklahoma City

**Crista Scott, M.Ed., BCBA**

University of Washington  
Seattle

and

**Susan Sandall, Ph.D.**

University of Washington  
Seattle



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# About the Forms

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## About the Authors

**Ilene Schwartz, Ph.D., BCBA-D**, is Professor of Education at the University of Washington (UW) and the Director of the Haring Center for Research and Training in Inclusive Education at UW. She earned her Ph.D. in child and developmental psychology from the University of Kansas and is a Board Certified Behavior Analyst (BCBA-D). Ilene has an active research and professional training agenda with primary interests in the area of autism, inclusive education, and the sustainability of educational interventions. She has had consistent research funding from the U.S. Department of Education since 1990 and serves on a number of editorial review boards including the Topics in Early Childhood Special Education and the Journal of Early Intervention. Ilene is the director of Project DATA at the University of Washington and is currently involved in research projects examining the efficacy of the Project DATA model with toddlers and preschoolers with autism. Ilene is dedicated to building inclusive schools and societies and views inclusion as the celebration of diversity put into action. She is proud of what she and her colleagues have accomplished at the Haring Center, where research, training, and service are integrated to provide world-class early learning experiences to children with and without disabilities.

**Julie Ashmun, M.Ed., BCBA**, is Director of the Professional Development Unit at the University of Washington's Haring Center for Research and Training in Inclusive Education. She began working in preschool and child care centers in 1995, and since then has been a Project DATA teacher and coordinator, a professional development research assistant and trainer, and a family resource coordinator. Julie has a master's degree in education, with an emphasis in early childhood special education, and is a Board Certified Behavior Analyst (BCBA). Julie is interested in effective practices for professional development in education and adult learning. She also devotes her time to researching and working with children with neurodevelopmental delays, including autism, and working with families and educators. Julie's research focuses on assessment and intervention practices for inclusive school-based programs for children with disabilities, including autism spectrum disorders.

**Bonnie McBride, Ph.D., BCBA-D**, is Associate Professor of Pediatrics in the Department of Developmental and Behavioral Pediatrics at the University of Oklahoma Health Sciences Center. She has expertise in early childhood special education, early childhood education, and applied behavior analysis. She has a long history of using behavioral principles to work with children with autism spectrum disorder (ASD) and other disorders. She completed her doctoral work at the University of Washington where she was a teacher in the inclusive preschool and the first head teacher of Project DATA. Since moving to Oklahoma, Bonnie has been instrumental in increasing the availability of services to young children with ASD and their families. She has developed a statewide network to implement Project DATA for toddlers and preschoolers in Oklahoma. She has served as Principal Investigator for two randomized control trials of the Project DATA model funded by the Institute of Education Sciences (toddler and preschool).

**Crista Scott, M.Ed., BCBA**, taught for 8 years in early childhood special education. Most of that time was spent as a teacher in an inclusive preschool and coordinator for Project DATA at the University of Washington's Haring Center for Research and Training in Inclusive Education. Crista has a master's degree in education, with an emphasis in early childhood special education, and is a Board Certified

Behavior Analyst (BCBA). In addition to teaching in special education, Crista is interested in providing effective professional development activities. She was a product manager for the Office of Head Start's National Center on Quality Teaching and Learning, supporting the development and dissemination of professional development materials for educators in early learning. Crista supported an Institute of Education Sciences grant that investigated the use of self and in-person coaching strategies to increase the use of embedded teaching practices in early childhood special education classrooms. Currently, she is coordinating an evaluation project on the implementation of Filming Interactions to Nurture Development, a program that supports interactions between childcare providers and children in infant and toddler environments. This project is in partnership with Washington State's Department of Early Learning and the University of Oregon.

**Susan Sandall, Ph.D.**, is Professor of Education at the University of Washington. Her scholarly interests are effective instructional practices for young children with disabilities in inclusive settings; the changing roles of teachers of young children with disabilities, their relationships with other providers, and the implications for personnel preparation; and effective approaches for professional development and knowledge utilization. Susan was Principal Investigator for the National Center on Quality Teaching & Learning, funded by the Office of Head Start, and continues this work through EarlyEdU. She serves on the Division for Early Childhood's (DEC) Commission on Recommended Practices and edits publications on DEC recommended practices. She is coauthor of *Building Blocks for Including and Teaching Preschoolers with Special Needs* (2000, 2008). Awards include the Mary McEvoy Service to the Field Award and the Merle B. Karnes Service to the Division Award from the Division of Early Childhood, Council for Exceptional Children.

## SECTION II

# Project DATA Instructional Programs

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## INSTRUCTIONAL PROGRAM SHEET: Mealtime

### *Drinks from an Open Cup*

Child: \_\_\_\_\_ Date initiated: \_\_\_\_\_ Date completed: \_\_\_\_\_

**Objective:** In the presence of an open cup with liquid and told “Drink some \_\_\_\_” or “Take a drink,” or when thirsty, the child holds the cup, drinks from the cup, and places the cup back on the surface.

**Mastery criterion:**

- 90% or higher correct responding for each set
- Minimum of 10 opportunities per day
- 2 consecutive teaching days
- No spilling

**Generalization:**

**People:** At least two adults

**Settings:** At least two settings

**Materials:** At least three different cups

**Things to consider:** May also teach sitting at the table or eating skills

Task analysis	Teaching sequence
<ol style="list-style-type: none"> <li>1. Puts hands on cup</li> <li>2. Picks up cup</li> <li>3. Brings cup to mouth</li> <li>4. Tilts cup toward mouth</li> <li>5. Sips</li> <li>6. Takes cup away from mouth, turning upright</li> <li>7. Puts cup on table</li> <li>8. Releases cup</li> </ol>	<ol style="list-style-type: none"> <li>1. Teach two steps of task analysis</li> <li>2. Teach next two steps of task analysis</li> <li>3. Teach next two steps of task analysis</li> <li>4. Teach next two steps of task analysis</li> </ol>

### PROGRAMMING LOG

	Acquisition		Generalization		Maintenance	
	Start date	End date	Start date	End date	Date/data	Date/data
1						
2						
3						
4						

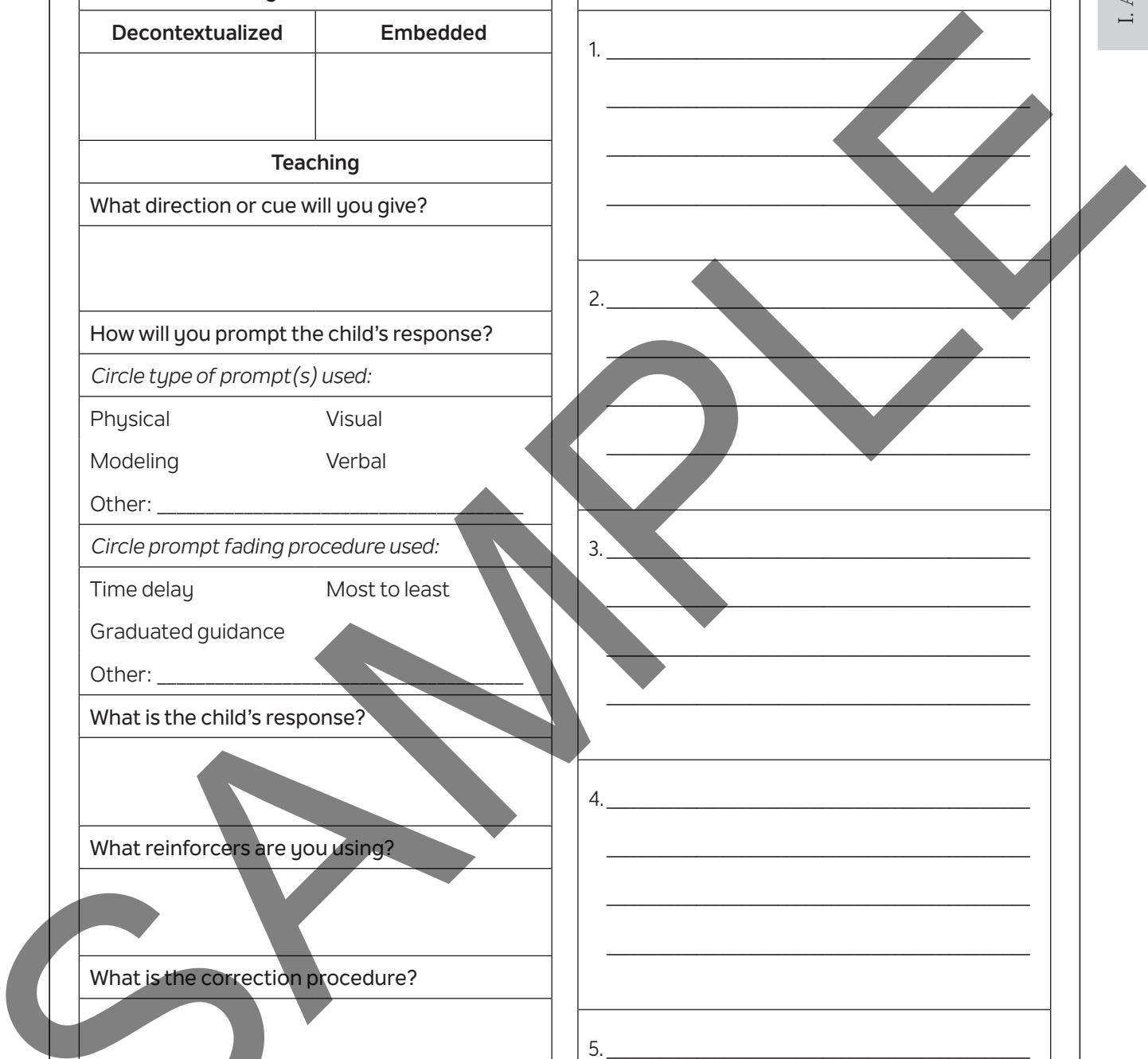


**LESSON PLAN: Mealtime**

*Drinks from an Open Cup*

Settings and materials	
Decontextualized	Embedded
<b>Teaching</b>	
What direction or cue will you give?	
How will you prompt the child's response?	
<i>Circle type of prompt(s) used:</i>	
Physical	Visual
Modeling	Verbal
Other: _____	
<i>Circle prompt fading procedure used:</i>	
Time delay	Most to least
Graduated guidance	
Other: _____	
What is the child's response?	
What reinforcers are you using?	
What is the correction procedure?	
How will you collect data? ( <i>circle answer</i> )	
Percentage correct	Frequency
Duration	Permanent product
Other: _____	

Sets	
1.	_____
	_____
	_____
	_____
2.	_____
	_____
	_____
	_____
3.	_____
	_____
	_____
	_____
4.	_____
	_____
	_____
	_____
5.	_____
	_____
	_____
	_____



**INSTRUCTIONAL PROGRAM SHEET: Mealtime***Drinks from an Open Cup—Example*

Child: \_\_\_\_\_ Date initiated: \_\_\_\_\_ Date completed: \_\_\_\_\_

**Objective:** In the presence of an open cup with liquid and told “Drink some \_\_\_\_” or “Take a drink,” or when thirsty, the child holds the cup, drinks from the cup and places the cup back on the surface.

**Mastery criterion:**

- 90% or higher correct responding for each set
- Minimum of 10 opportunities per day
- 2 consecutive teaching days
- No spilling

**Generalization:****People:** At least two adults**Settings:** At least two settings**Materials:** At least three different cups**Things to consider:** May also teach sitting at the table and eating skills

Task analysis	Teaching sequence
1. Puts hands on cup 2. Picks up cup 3. Brings cup to mouth 4. Tilts cup toward mouth 5. Sips 6. Takes cup away from mouth, turning upright 7. Puts cup on table 8. Releases cup	1. Teach two steps of task analysis 2. Teach next two steps of task analysis 3. Teach next two steps of task analysis 4. Teach next two steps of task analysis

**PROGRAMMING LOG**

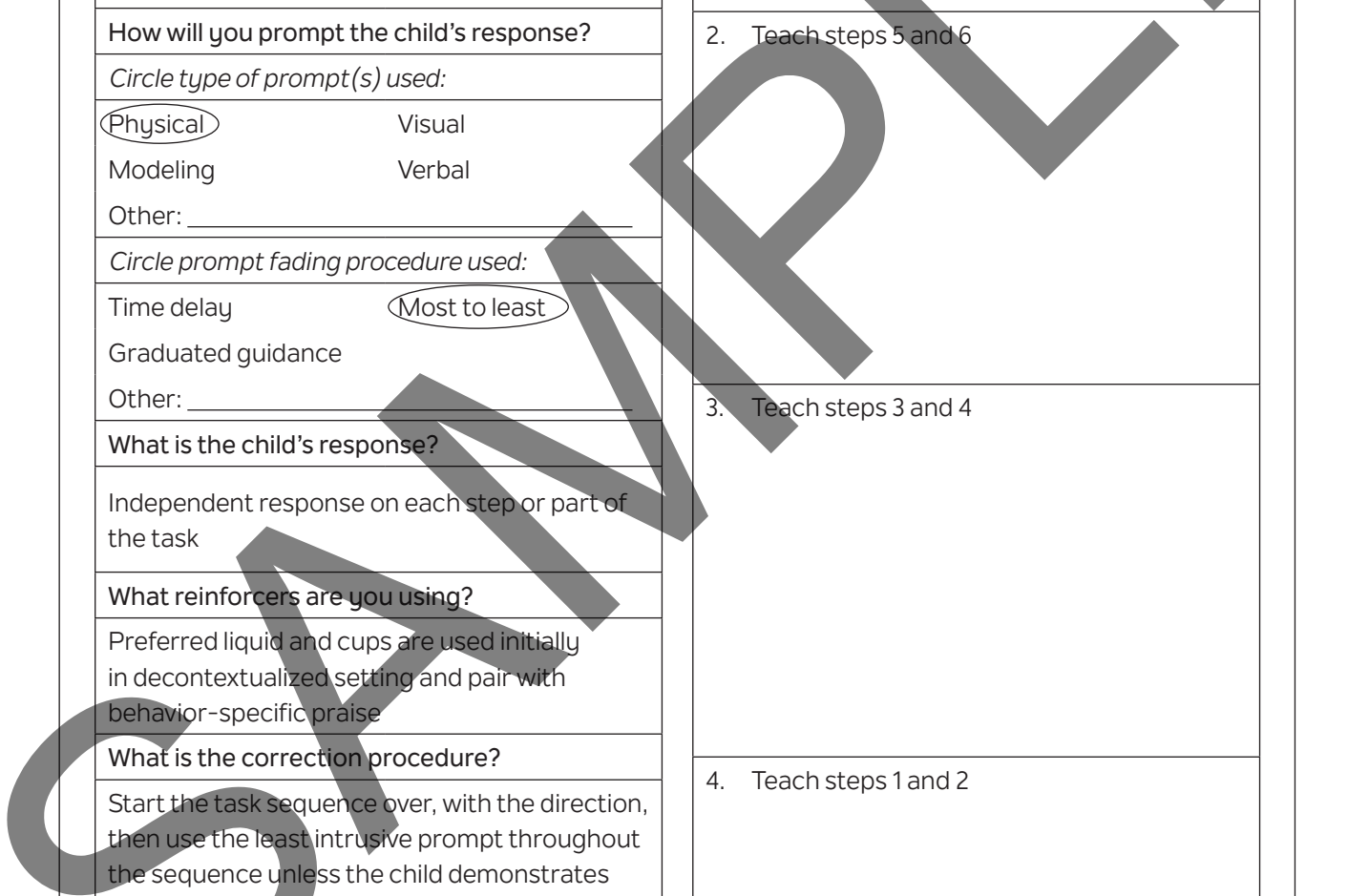
	Acquisition		Generalization		Maintenance	
	Start date	End date	Start date	End date	Date/data	Date/data
1	2/12/14	2/25/14				
2	2/25/14	3/7/14				
3	3/7/14	3/20/14				
4	3/20/14	4/4/14	4/4/14	4/25/14	5/15/14; 100%	6/15/14; 100%

**LESSON PLAN: Mealtime**

*Drinks from an Open Cup—Example*

Settings and materials	
Decontextualized	Embedded
Work at table: Child preferred small cup with preferred liquid	Snack and mealtimes. Same cups and liquids as served to peers
Teaching	
<b>What direction or cue will you give?</b>	
Cup is present "Take a drink" "Drink some"	
<b>How will you prompt the child's response?</b>	
<i>Circle type of prompt(s) used:</i>	
<input checked="" type="checkbox"/> Physical	<input type="checkbox"/> Visual
<input type="checkbox"/> Modeling	<input type="checkbox"/> Verbal
Other: _____	
<i>Circle prompt fading procedure used:</i>	
<input type="checkbox"/> Time delay	<input checked="" type="checkbox"/> Most to least
<input type="checkbox"/> Graduated guidance	
Other: _____	
<b>What is the child's response?</b>	
Independent response on each step or part of the task	
<b>What reinforcers are you using?</b>	
Preferred liquid and cups are used initially in decontextualized setting and pair with behavior-specific praise	
<b>What is the correction procedure?</b>	
Start the task sequence over, with the direction, then use the least intrusive prompt throughout the sequence unless the child demonstrates mastery of one of the steps in the sequence.	
<b>How will you collect data? (circle answer)</b>	
<input checked="" type="checkbox"/> Percentage correct	<input type="checkbox"/> Frequency
<input type="checkbox"/> Duration	<input type="checkbox"/> Permanent product
<input checked="" type="checkbox"/> Other: percentage correct for each step of the task	

Sets
<b>Teach using backward chaining:</b>
1. Teach steps 7 and 8
2. Teach steps 5 and 6
3. Teach steps 3 and 4
4. Teach steps 1 and 2



**INSTRUCTIONAL PROGRAM SHEET: Mealtime***Eats with a Spoon or Fork*

Child: \_\_\_\_\_ Date initiated: \_\_\_\_\_ Date completed: \_\_\_\_\_

**Objective:** When presented with food that requires a fork or spoon for use, and told "Time to eat" or when the child is hungry, he or she initiates and uses a fork or spoon by spearing food or scooping.

**Mastery criterion:**

- 90% or higher correct responding for each set
- Minimum of 10 opportunities per day
- 2 consecutive teaching days
- Little or no spilling, as age appropriate

**Generalization:****People:** At least two adults**Settings:** At least two settings**Materials:** At least two different spoons or forks

**Things to consider:** Movement of bringing fork or spoon to mouth and back down should be controlled and slow. Serve easy to scoop and spear food when teaching this skill (e.g., applesauce, pudding, cut up soft fruit).

Task analysis	Teaching sequence
1. Grasps spoon or fork	1. Teach two steps of task analysis
2. Scoops or spears food with spoon or fork	2. Teach next two steps of task analysis
3. Brings spoon or fork to mouth	3. Teach next two steps of task analysis
4. Puts spoon or fork in mouth and takes bite	4. Teach next two steps of task analysis
5. Takes spoon or fork from mouth	
6. Puts spoon or fork on table, plate, or bowl	

**PROGRAMMING LOG**

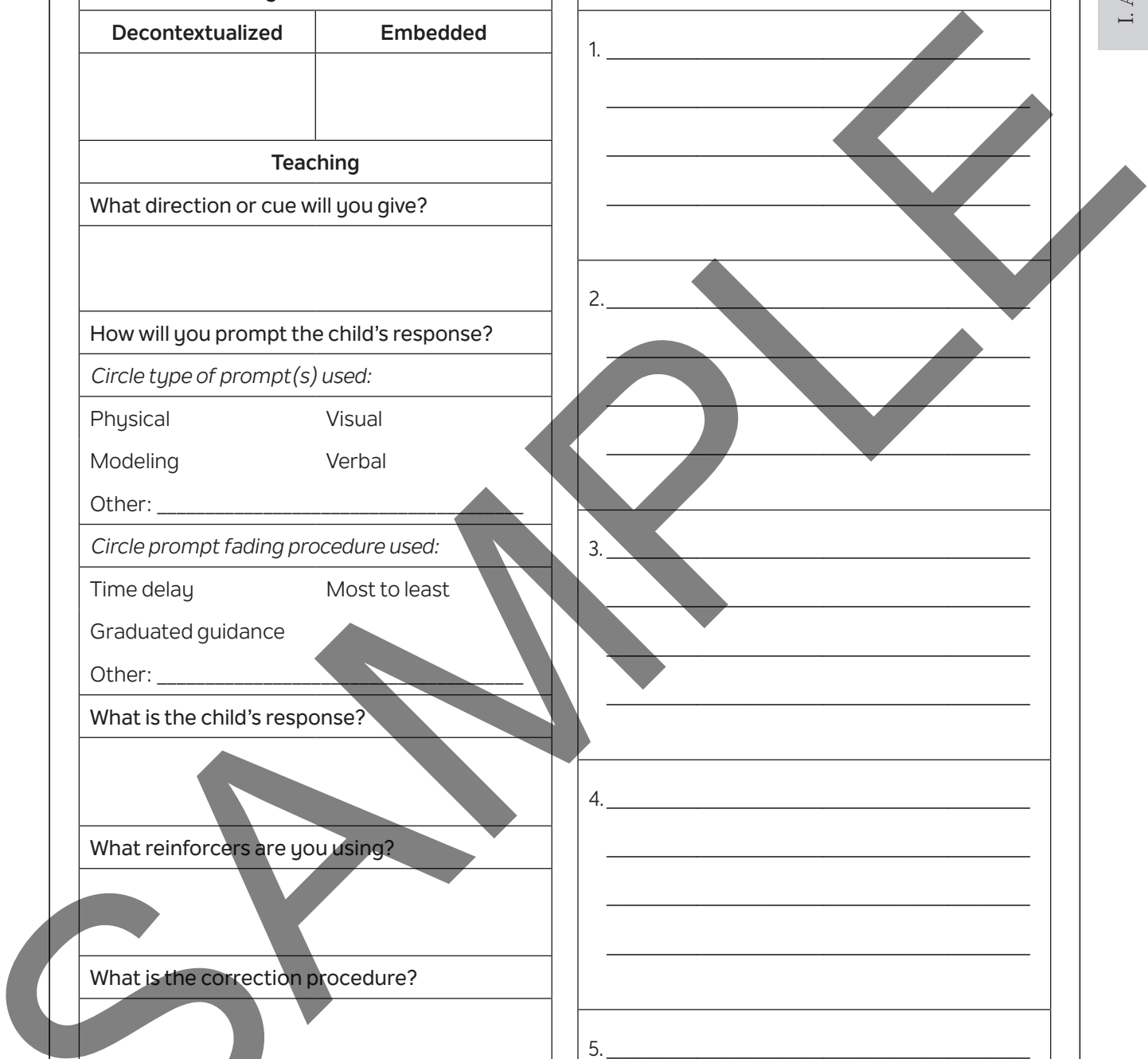
	Acquisition		Generalization		Maintenance	
	Start date	End date	Start date	End date	Date/data	Date/data
1						
2						
3						

**LESSON PLAN: Mealtime**

*Eats with a Spoon/Fork*

Settings and materials	
Decontextualized	Embedded
<b>Teaching</b>	
What direction or cue will you give?	
How will you prompt the child's response?	
<i>Circle type of prompt(s) used:</i>	
Physical	Visual
Modeling	Verbal
Other: _____	
<i>Circle prompt fading procedure used:</i>	
Time delay	Most to least
Graduated guidance	
Other: _____	
What is the child's response?	
What reinforcers are you using?	
What is the correction procedure?	
How will you collect data? ( <i>circle answer</i> )	
Percentage correct	Frequency
Duration	Permanent product
Other: _____	

Sets
1. _____ _____ _____ _____
2. _____ _____ _____ _____
3. _____ _____ _____ _____
4. _____ _____ _____ _____
5. _____ _____ _____ _____



**INSTRUCTIONAL PROGRAM SHEET: Mealtime***Eats a Variety of Food*

Child: \_\_\_\_\_ Date initiated: \_\_\_\_\_ Date completed: \_\_\_\_\_

**Objective:** When presented with foods not currently in child's repertoire and told, "Time to eat," Child eats the foods.**Mastery criterion:**

- Eats \_\_\_\_ new foods (this number depends on team decision)
- Eats three bites of each new food
- At least 2 days for each food

**Generalization:****People:** At least two adults**Settings:** At least two settings**Materials:** At least three different meals (breakfast, lunch, and dinner)**Things to consider:** Consider extra exposure to food (e.g., do cooking projects, play with food in sensory table). Consider family preferences when choosing foods to introduce.**Teaching sequence**

1. Bowl of new food is near child's plate for mealtime
2. Food is on child's plate for at least 5 seconds
3. Food is on child's plate for at least 10 seconds
4. Child tolerates food on plate for an indefinite amount of time
5. Child touches food with finger
6. Child holds food in hand
7. Child touches food to lips
8. Child touches food to tongue
9. Child licks food
10. Child takes a small bite of food
11. Child takes a regular size bite of food
12. Child chews and swallows more than one bite
13. Child eats the food provided

Adapted from Ogata, Beth, & Lucas, Betty. (1999). *Autism, Nutrition, and Picky Eating*. In Yang, Yuchi, Lucas, Betty, & Feucht, Sharon (Eds.). *Nutritional Interventions for Children with Special Health Care Needs*. (3rd ed.) (pp. 272–273). Seattle, WA: Washington State Department of Health.

**PROGRAMMING LOG**

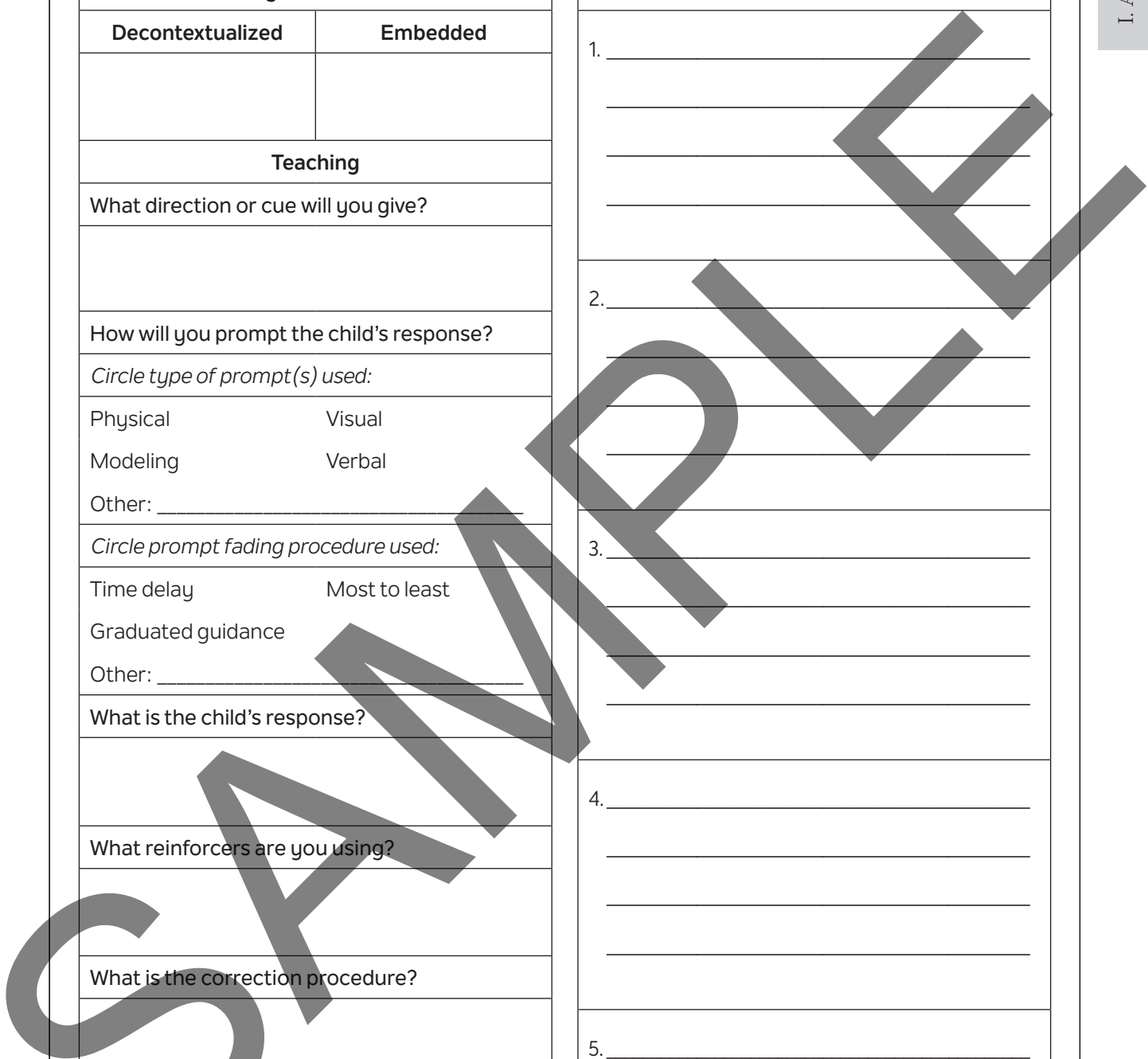
	Acquisition		Generalization		Maintenance	
	Start date	End date	Start date	End date	Date/data	Date/data
1						
2						
3						
4						

**LESSON PLAN: Mealtime**

*Eats a Variety of Food*

Settings and materials	
Decontextualized	Embedded
<b>Teaching</b>	
What direction or cue will you give?	
How will you prompt the child's response?	
<i>Circle type of prompt(s) used:</i>	
Physical	Visual
Modeling	Verbal
Other: _____	
<i>Circle prompt fading procedure used:</i>	
Time delay	Most to least
Graduated guidance	
Other: _____	
What is the child's response?	
What reinforcers are you using?	
What is the correction procedure?	
How will you collect data? ( <i>circle answer</i> )	
Percentage correct	Frequency
Duration	Permanent product
Other: _____	

Sets
1. _____ _____ _____ _____
2. _____ _____ _____ _____
3. _____ _____ _____ _____
4. _____ _____ _____ _____
5. _____ _____ _____ _____



**INSTRUCTIONAL PROGRAM SHEET: Mealtime***Remains at the Table During Meals*

Child: \_\_\_\_\_ Date initiated: \_\_\_\_\_ Date completed: \_\_\_\_\_

**Objective:** During snack or lunch at school, the child remains with the group at the table until the child asks to leave, adult excuses child, or until the natural end of the meal.

**Mastery criterion:**

- Remains at the table for the duration of the meal, asks to leave or is excused
- Three consecutive meals
- At least 2 days

**Generalization:****People:** At least two adults**Settings:** At least two settings**Materials:** At least three different meals (e.g., breakfast, lunch, dinner)

**Things to consider:** May also teach eating skills. Materials may be brought to the table, such as a book, to keep child occupied or as a point of reference for mutual sharing.

**Teaching sequence**

1. Considering child's baseline, remains at the table for an additional period of time (e.g., 15 seconds to 1 minute)
2. Child asks to be excused (e.g., "All done." "Can I be excused?")
3. Remains at the table, doubling the amount of time from the first set, may ask to be excused or told the meal time is all done
4. Double the amount of time from previous set
5. Consider sitting for entire duration or meal

**PROGRAMMING LOG**

	Acquisition		Generalization		Maintenance	
	Start date	End date	Start date	End date	Date/data	Date/data
1						
2						
3						
4						
5						



**LESSON PLAN: Mealtime**

*Remains at the Table During Meals*

Settings and materials	
Decontextualized	Embedded
Teaching	
What direction or cue will you give?	
How will you prompt the child's response?	
<i>Circle type of prompt(s) used:</i>	
Physical	Visual
Modeling	Verbal
Other: _____	
<i>Circle prompt fading procedure used:</i>	
Time delay	Most to least
Graduated guidance	
Other: _____	
What is the child's response?	
What reinforcers are you using?	
What is the correction procedure?	
How will you collect data? ( <i>circle answer</i> )	
Percentage correct	Frequency
Duration	Permanent product
Other: _____	

Sets
1. _____ _____ _____
2. _____ _____ _____
3. _____ _____ _____
4. _____ _____ _____
5. _____ _____ _____

