

# The Case of the Boy with Anomia: Successful Intensive Intervention after a Right Hemisphere Tumor

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## Case History

- Unremarkable gestation, birth, and development until age 6 months.
- Early parental observations of possible left-handedness. Child's father, sibling, and other extended family are left-handed.
- Resection of right parietal malignant primitive neuroectodermal brain tumor (PNET) at age 8 months. Chemotherapy and radiation until age 15 months. No recurrence.
- Assessments at age 2 years indicated concerns regarding developmental milestones especially speech and language. SLP and other services were provided with varying intensity. Marked improvement in left upper extremity movement and speech articulation, but language concerns persisted.



## Initial Evaluation

Language evaluation at age 8 years, 2 months (4/2/15):

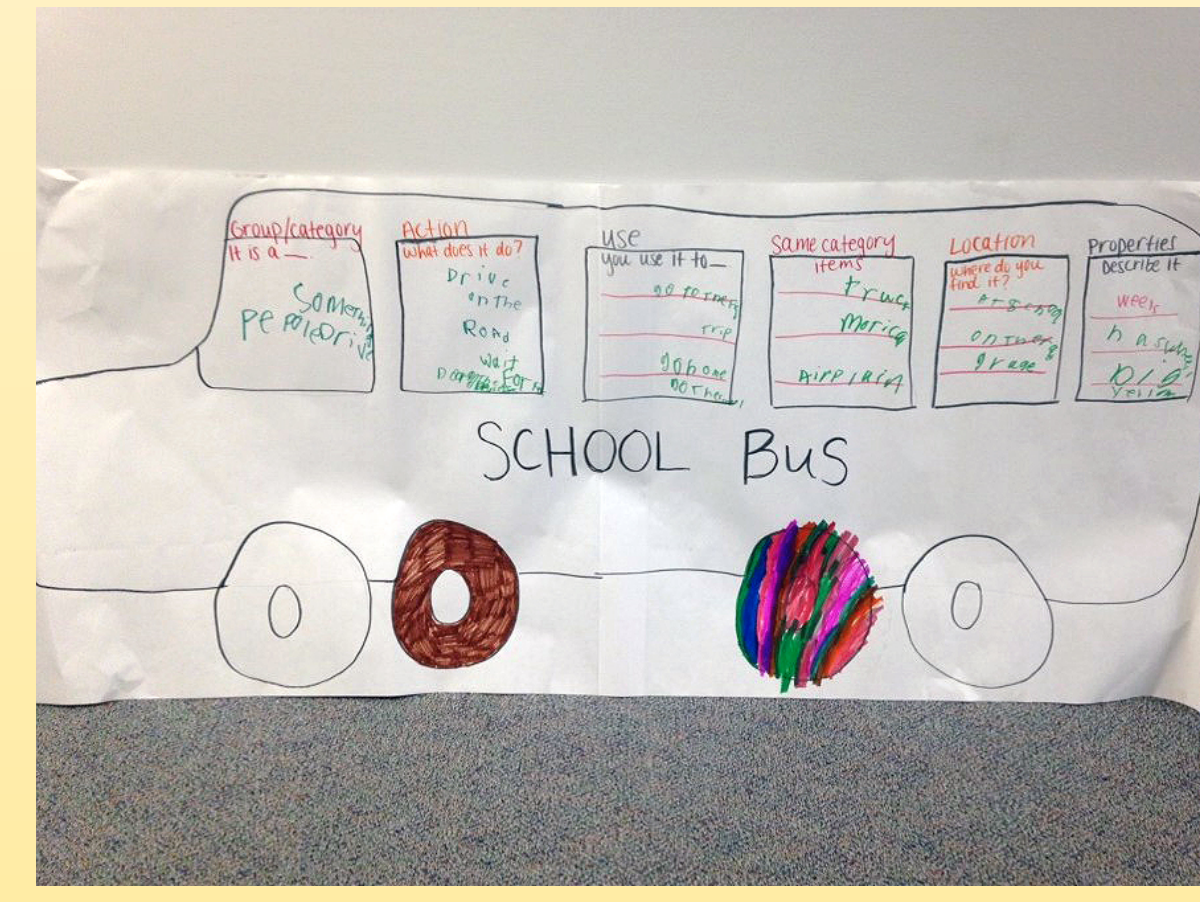
Test/Subtest	Score(s)
<b>TOLD-P:4</b> (January, 2015-reported)	<b>Scaled Score (Severity Rating)</b>
Picture Vocabulary	9 (Average)
Relational Vocabulary	7 (Average)
Oral Vocabulary	2 (Very Poor)
Sentence Imitation	4 (Poor)
	<b>Percentile (Age Equivalency)</b>
<b>ROWPVT-4</b>	8 <sup>th</sup> (5;5)
<b>EOWPVT-4</b>	25 <sup>th</sup> (6;9)
<b>CELF-5: Sent. Comp.</b>	.1 (3;5)
<b>CELF-5: Formulated Sent.</b>	.1 (4;6)
<b>CTOPP: Memory for Digits</b>	2 <sup>nd</sup> (5;0)
<b>TWF</b>	< 1 (NA)

- Language comprehension significantly impaired with contributing verbal working memory and attention deficits.
- Language expression significantly impaired with reduced MLU and poor use of sentence structure and morphology. Typical utterances were 2-3 nouns produced as a phrase.
- Word-retrieval difficulties identified with semantically-related word substitutions frequently noted.

## Goals

Treatment goals at baseline and end of treatment:

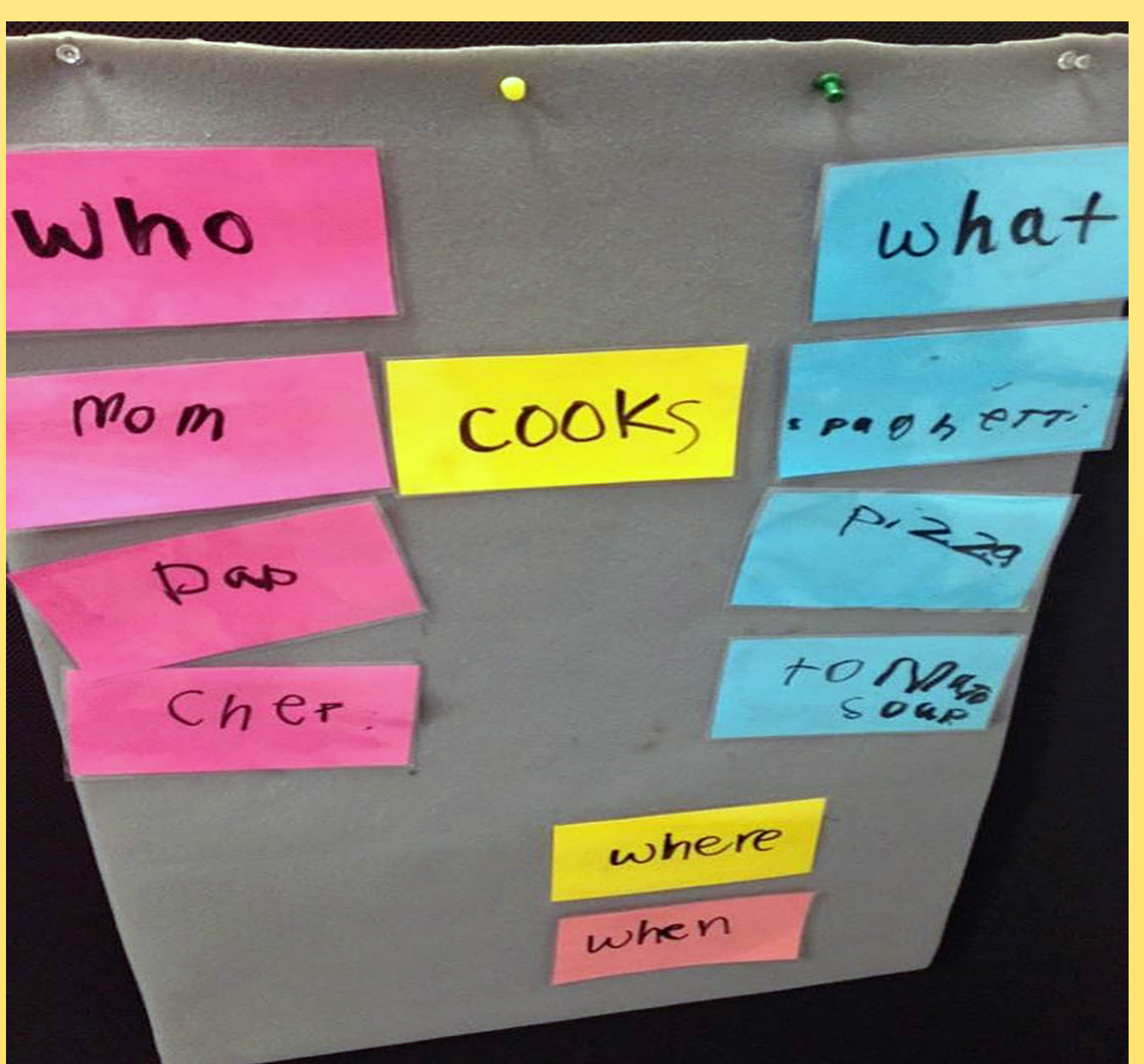
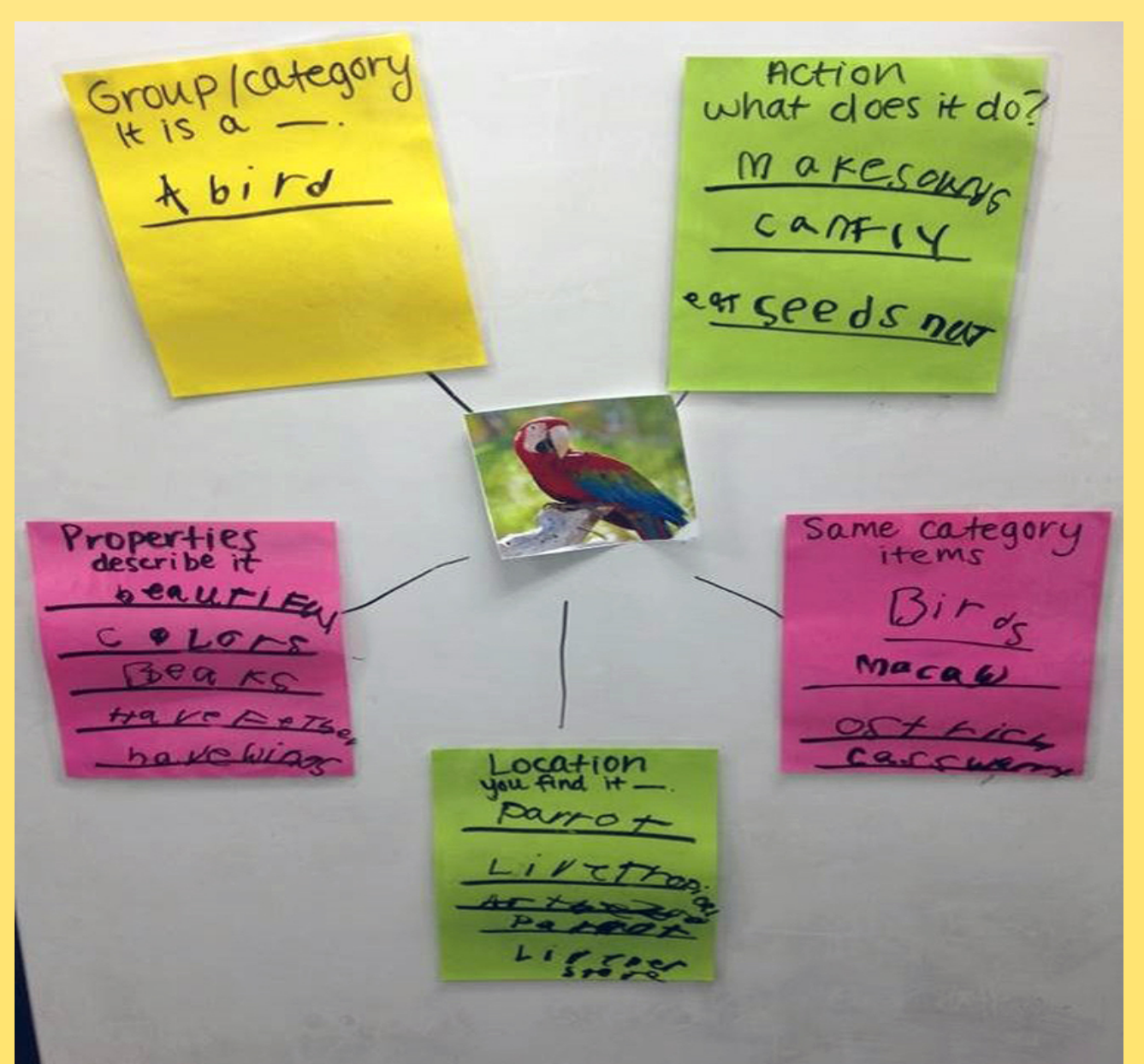
Goals	Baseline	End of Treatment
<b>Spatial Concepts Receptive</b>	57%	93%
<b>Spatial Concepts Expressive</b>	63%	80%
<b>“Wh” Questions Receptive</b>	70%	88%
<b>Pronouns Expressive</b>	65%	82%
<b>Present Progressive Expressive</b>	50%	89%
<b>Semantic Feature Analysis (SFA)</b>	100% (max verbal cues)	100% (reduced verbal cues)
<b>VNeST</b>	83%	100%



## Treatment Results

- **Intensive treatment** 4 days/week x 4 hours/day (2 hours a.m., 2 hours p.m.) x 4 weeks.
- **Morning:** SFA and VNeST (thought to improve word retrieval by stimulating access to semantic networks in adults with aphasia) and traditional goal-focused activities.
- **Afternoon:** Integration of goal-focused language therapy into craft time, gross motor movement, snack time, music therapy 2x/week, story time 2x/week, and review of day/goodbye.

Assessment	Baseline (6/29/15)	End of Treatment (7/29/15)
<b>MLU</b>	2.17	3.50
<b>Type/Token Ratio</b>	.39	.40
<b>% Verbs in Sample</b>	6%	10%



## Conclusions

- Client showed progress on parts of speech targeted. Verb and category naming increased.
- SFA and VNeST appeared to successfully stimulate noun and verb learning and retrieval when used along with traditional therapy.
- Goal performance also supports traditional approaches in an intensive format.

## Disclosures

- Alison Lemke: Financial: employee, University of Iowa. Nonfinancial: None to report.
- Larissa Jordan: Financial: Ph.D. funding, University of Iowa. Nonfinancial: None to report.