C. Binder 81-07-07

Dear Language Therapist:

It's clear that we need to more systematically consider options for measuring and charting various language pinpoints. Especially with this population, the application of precision teaching to complex language objectives is still relatively new and needs a lot of work.

A common problem is that your training tends to emphasize the <u>complexity</u> of language behavior, and your therapy sessions often reflect this perspective. Thus sessions in which there are a small number of opportunities to perform each of a relatively large number of language skills are common. The first step, then, is to decide somewhat more precisely what you should teach, count, and time, since we know that skill mastery generally requires relatively large numbers of performance opportunities.

Given a smaller slice of skill, however, there are still lots of obstacles to reliable direct measurement. I've tried to list some of the measurement options and how they might apply. I'd appreciate your using the attached form (and added sheets, if necessary) to list very concretely the kinds of language behaviors you'd like to measure along with some examples and maybe the purpose or reason for the objectives. These lists will form the basis for developing a set of measurement strategies for "precision language therapy."

Carl Binder

Measurement Options for Language

1. Short (15 sec. — 3 min.) timings for language elements e.g.,

Hear/Say answers to questions, etc. See•Hear/Tap objects, pictures, etc. Think/Say details or facts or names, etc. See/Say objects, pictures, etc. Think/Ask questions

These are fairly simple movement cycles, working with repeated practice. Corrects/errors/skips. One option is to set a time limit on the latency of response, e.g., 10 sec., and move on to the next item if there is no response in 10 secs. (i.e., a skip).

2. Medium (3 min — 30 minute) timings for compounds, spontaneous use of various syntactic structures, etc. The movement cycles may be more complex, not always so easy to define, may occur in less "structured" situations. Some-times such measures are more like "language samples."

In fact, the Chart will certainly accommodate MLU information. In a fixed period of time count words (•) and utterances (**4**). Chart count/min of each on the same chart. The distance between them corresponds to MLU. This could be done weekly or monthly.

The problem that might arise if you count spontaneous utterances, use of -ing, etc., in a medium length, relatively unprogrammed timing is that day-to-day variations in the situation, opportunities to use the particular form, etc., may create large day-to-day bounce. If you <u>do</u> see that kind of bounce (e.g., greater than x2.0 or x3.0), you should consider ways of making the situation less variable from day to day in order to distinguish between bounce in such variables as frequency of opportunities or occasions for responding and bounce attributed to more student-related characteristics (e.g., health, sleepiness, etc.). Only by minimizing such bounce will we then be able to see clearly the effects of our various attempts to

produce or improve learning (i.e. celeration). Seeing the celeration through the bounce is like hearing the speaker at a party -- too much noise covers it up.

3. Longer (half or full-day) timings

Opportunities and instruction-following (compliance) Opportunities and social exchange Spontaneous speech or use of specific language structures Etc.

-Same problem of bounce

-Fixed number of opportunities? Or count opportunities for charting a ceiling. Use in conjunction with briefer, more controlled measurements to check for celeration correlation. Use wrist counter or other unobtrusive device.

-Write down time-start/time-stop.

4. One measure per week.

A) On one day per week as long as you're getting around x3.0 growth per month, you're doing OK. Otherwise daily measure and/or change treatment.

To track low priority objectives.

B) Sum across all days

Few opportunities or occasions per day No minutes dimension For very low frequency usage

What are the kinds of language behavior you'd like to be able to measure?

| Category | Example(s) | Purpose |
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