Dynamic Assessment of deaf children’s language and literacy skills

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Is this new?

- Problem in studying children’s language development in that it is difficult to distinguish between impairment and delays due to natural variations in the learning backgrounds (Hart & Risley, 1995)

- Bilingual children/ELL (Gutierrez-Clellen, Simon-Cereijido, & Sweet, 2012; Sullivan, 2011)
  - Unfamiliarity with standardized testing (Peña, Iglesias, & Lidz, 2001)
  - Differences between their home and school language experiences (Flanagan, Ortiz, & Alfonso, 2013; Rogoff, 2003; Schieffelin & Ochs, 1986)

- Cognitive profile of children with reading disability cannot always be discriminated from that of generally low-achieving children when using static or traditional assessments (Swanson & Howard, 2005)
Why is this distinction important?

- Avoiding misdiagnosis
- Decreasing the likelihood of a mismatch between...

support ≠ needs
Child’s response to assisted performance as frame of reference for separating poor readers from children who are reading disabled
Dynamic Assessment (DA)

+ measure learning potential
+ evaluate enhanced performance

Learning through interaction with a more experienced peer or adult (Vygotsky, 1978)
Performance

- Initial ability level
- Learning ability

Learning potential: extend to which the performance of a child at a given time can be modified with intervention
How do you carry out a Dynamic assessment?

1. Test – teach – retest

2. Graduated prompting

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DA with deaf children

DA focus on cognitive skills

1990
Tzuriel & Caspri, 1992
Olswang & Bain, 1996

2004
Lidz, 2004

2013
Asad, Hand, Fairgray, & Purdy, 2013

2017
Mann, Peña & Morgan, 2014
Mann, Peña, & Morgan, 2015

DA within language learning context

Hoskin, 2017
DA of vocabulary knowledge
(Mann, Peña & Morgan, 2014; Mann, Peña, & Morgan, 2015)

Test → Teach → Re-test

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• 37 children, 6-10 years, from Deaf school in USA
• 2 Language ability groups (weak vs. strong)
Mediation activities

“Categories”
A: ..can you think of a different way of grouping these items? These shapes, you grouped them, but can you think of a different way of grouping these?

C: [Shakes head]

A: No? Is this right or wrong? [puts all of the purple shapes together] Can you do this?

C: No because they are different shapes.

A: In what way are these shapes similar?

C: The color. Same.

A: You cannot group them?

C: Can’t group them. They don’t fit in the same group because of their different shapes.
A: Ok so you put all the dog pictures together in one group. OK. Can you think of a different way to group them?

C: No.

A: Think of different ways you can group them. You can do it any way you want. Use your imagination. Is it possible to put all of the pictures in this top row in a group together?

C: No they are different. One is a cat and the other is a dog.

A: That’s true, they are all very different. But they are all animals, right?

C: Yes but they are all different animals.

11 years
A: Can you think of a specific group that would include apple and candy?

C: *Shakes head* Because candy is not healthy. And fruit is healthy.

A: So they are separate.

C: They are different...

A: Do you think it would be possible to group candy because it is a food, right? And an apple is food, right? So if I wanted to make a big group of all foods, can I put both apple and candy into the group?

C: They are different but you could. But I don't like to do that because if you have too big of a group you are forced to root through it to find anything.
Findings

• Group (strong/weak) differences in learners’ response to mediation

• Response to mediation predictive of language ability

• Increase in post test scores

• Benefit of mediation regardless of ability
But.. isn’t DA just like teaching?

YES but...
DA..

..provides information on how a child learns in a short & structured way.

Pictures removed due to copyright
DA..

..provides information on how a child learns in a short & structured way.

Each session about 20-25 minutes

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Scripted mediation, Measure of child’s response to mediation

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Scripted mediation, Measure of child’s response to mediation

Each session about 20-25 minutes

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This enables practitioners to form assumptions how the child may respond to future intervention
Evaluating children’s response to learning

<table>
<thead>
<tr>
<th>AFFECTIVE</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anxiety</td>
<td>Calm, little to no soothing required</td>
<td>Fidgety, but can be soothed</td>
<td>Uncomfortable, breaks needed to sooth</td>
<td>Distressed, much soothing required</td>
<td>Distraught, crying, cannot be soothed</td>
</tr>
<tr>
<td>Comments:</td>
<td></td>
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</tr>
</tbody>
</table>

| Motivation | Enthusiastic, engages in tasks readily | Curious, asks about tasks | Ambivalent, unsure about tasks | Guarded, seems fearful of tasks | Avoidant, does not want to engage |
| Comments: | | | | | |

| Tolerance to frustration | Persistent, wants to continue despite difficulty | Contrite, voices difficulty, but continues | Tentative, appears unsure about continuing | Frustrated, continues under protest | Rejecting, cannot continue |
| Comments: | | | | | |
Evaluating children’s response to learning

<table>
<thead>
<tr>
<th>COGNITIVE (cont.)</th>
<th>Elaboration</th>
<th>Problem-solving</th>
<th>Organized, but inefficient</th>
<th>Sketchy plan</th>
<th>Disorganized, haphazard plan</th>
<th>No plan; trial and error</th>
</tr>
</thead>
<tbody>
<tr>
<td>Comments:</td>
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<tr>
<td>Verbal mediation</td>
<td>Elaborates plan clearly</td>
<td>Talks through problem</td>
<td>Talks occasionally</td>
<td>1-2 word utterances only</td>
<td>No verbal mediation</td>
<td></td>
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<tr>
<td>Comments:</td>
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<tr>
<td>Flexibility</td>
<td>Uses multiple strategies readily</td>
<td>Has preferred strategies, but can change when necessary</td>
<td>Some evidence of more than one strategy and occasionally utilizes them</td>
<td>Recognizes limitations of strategy, but cannot see alternatives</td>
<td>Persists with one strategy, regardless of outcome</td>
<td></td>
</tr>
</tbody>
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Mediated Learning Observation Form (Peña & Villareal, 2000):
How to make DA meaningful in the classroom?
Improving Learning through DA Framework

(Lauchlan & Carrigan, 2013)
Improving Learning through DA Framework

(Lauchlan & Carrigan, 2013)

Assessment
- Complete Learning Principles Checklist
- Identify important factors for child’s learning

Feedback
- Complete Learning Profile
- Feedback to parent, teacher and specialist support
- Feedback to child (using child friendly resources)

Intervention
- Strategies identified from ‘Bank of Strategies’

Parent Strategies
- Working with Individual Child

Teacher Strategies
- Working with Whole Class Or Group

Child Strategies
- Working within class, group or individually

Review
- Formal / Informal
Improving Learning through DA Framework
(Lauchlan & Carrigan, 2013)
Improving Learning through DA Framework

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A collaborative approach

- Educational psychologist, SLT, teacher, SENCO, CSW, parent, child, researcher
- Agreeing on which Learning Principles to target (cognitive & emotional) and how to target them
- Use of DA to bring about change in these principles
  - In what ways can the assessor/mediator enable change in the child’s approach to learning?
Deaf children’s online reading
(Mann, O’Neill & Thompson, ongoing)

- Exploring strategies used by deaf and hearing secondary students when reading online/carrying out searches on the internet
- Focus on good readers
- Extend to students with varying literacy levels

http://www.ssc.education.ed.ac.uk/research/onlinereading/
Thank you!

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