Improving Student Proficiency and Confidence Evaluating Stuttering Using an Online Module

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SLP 5311: Stuttering
- Required course to obtain Master’s in Speech Language-Pathology at Vanderbilt University
- This course provides theoretical perspectives and clinical practice for stuttering evaluation
- Key learning objective: “Students will be able to assess the severity and nature of developmental stuttering in terms of its physical manifestation (e.g., frequency and duration of disfluencies) and its affective impact on the client and their families through the use of appropriate assessment instruments and interview techniques.”

Disfluency Counts
- Disfluency counts are a core component of assessing stuttering that includes categorizing disfluency types and measuring stuttering frequency
- 3% SLD is the standard disfluency threshold for identifying a stuttering disorder

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<thead>
<tr>
<th>Stuttering-Like Disfluencies (SLDs)</th>
<th>Example</th>
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<tbody>
<tr>
<td>Sound/Syllable Repetitions</td>
<td>I w-w-w-want that</td>
</tr>
<tr>
<td>Whole Word Repetitions</td>
<td>I want want want that</td>
</tr>
<tr>
<td>Audible Prolongations</td>
<td>I wwwwant that</td>
</tr>
<tr>
<td>Inaudible Prolongations</td>
<td>I (pause with tension) want that</td>
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<table>
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<tr>
<th>Non-Stuttering-Like Disfluencies (NSLDs)</th>
<th>Examples</th>
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<tr>
<td>Phrase Repetitions</td>
<td>I want I want that</td>
</tr>
<tr>
<td>Interjections</td>
<td>I uh uh want that</td>
</tr>
<tr>
<td>Revisions</td>
<td>I want, I would like, that</td>
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Will an online module improve student proficiency and confidence evaluating stuttering?

- Speech-language pathologists are both less comfortable measuring stuttering than other speech-language disorders AND exhibit low reliability on measures of stuttering frequency.
- While evaluating stuttering has been prioritized in SLP 5311 for the past 20 years, the mode in which it has been taught has remained relatively unchanged.
- We wanted to test whether using an online module that utilizes additional video examples and immediate targeted feedback improves student proficiency and confidence completing disfluency counts.
Approach
Step 1: Evaluate “business as usual” practice (completed)
- A control sample of masters speech-language pathology students (n = 15) was used to determine student proficiency and confidence following “business-as-usual” instruction in Fall 2017.
- Instruction consisted of:
  - 1-hour in-class labs during the first 8 weeks of class
  - The completion of five 300-word disfluency count speech samples as lab homework.

Step 2: Develop and implement the experimental online module (in progress)
- An experimental sample of masters speech-language pathology students (n = TBD) will be used to determine student proficiency and confidence following instruction with the addition of the online module in Fall 2018.

Step 3: Compare results for “business as usual” and the online module

Assessment
Proficiency Assessment
A 5-question assessment was developed on BrightSpace to measure student progress on the learning objectives by comparing proficiency on the first day of class (pre-instruction) to proficiency 9 weeks later (post instruction).

Confidence Survey
A survey was created to collect student demographic information, student-reported confidence post-instruction, and student feedback.

Preliminary Results: Business as usual

Figure 3. Bar graph depicting significantly higher scores on the assessment at post-test compared to pre-test. $t (14) = 8.985, p < .001$.

Figure 4. Bar graph depicting student confidence on various measures to evaluate stuttering (i.e., select survey results). While most students felt confident using disfluency counts, many were less confident using the SSI and KiddyCAT or OASES.