MaDYK Early Hebrew Literacy Assessment: Development of Preliminary Benchmark Goals

Symposium Paper #2
SSSR Annual Conference
July 13th, 2012

Elana R. Weinberger, Ph.D. & Scott J. Goldberg, Ph.D.
Institute for University-School Partnership
Yeshiva University
Thank You to our collaborators

Roland H. Good III, Ph.D., Ruth A. Kaminski, Ph.D., & Kelly A. Powell-Smith, Ph.D. of Dynamic Measurement Group

Contact info for presenters:

Elana R. Weinberger, Ph.D. scott.goldberg@yu.edu
eweinbe1@yu.edu (212) 960-5400 x 5830 (212) 960-0180

Scott J. Goldberg, Ph.D.
www.yuschoolpartnership.org
Jewish Day School Education

- Approx 230,000 students in grades K – 12 in Jewish day schools in the US
  - 100,000 students in third grade or below (Schick, 2009)
- Hebrew often taught as a foreign/second language beginning in K or Grade 1
- As with English, students first learn to read Hebrew, then read to learn
- Some schools use only Hebrew for Judaic subjects
Hebrew Literacy Assessment: The Challenge

• School-wide assessment and data-based decision-making are crucial to promoting literacy

• Lack of standardized, dynamic assessment of early Hebrew literacy for school-wide screening and progress monitoring

• No norms or benchmark goals for Hebrew reading progress
Addressing this challenge: Creation of **MaDYK**

- Standardized, dynamic assessment of Hebrew literacy, modeled after DIBELS
  - ORF grades 1 & 2 available; ORF grade 3, letter naming & comprehension currently in development

- Goldberg et al. (2010) reported on reliability of the 1\textsuperscript{st} grade measure
  - Median alternate form reliability (single passage) = .83; median alternate-form reliability (aggregate of 3 passages) = .94

- 2\textsuperscript{nd} grade measure
  - Median alternate-form reliability (single passage) = .92; median alternate-form reliability (aggregate of 3 passages) = .97; Inter-rater reliability indicated 94% agreement among raters
  - Teacher rating of student reading was correlated with MaDYK ORF scores in grade 1, \( r = .67, p < .001 \) (n=65); and grade 2, \( r = .73, p < .001 \) (n=38)
MaDYK Administrator Copy

MaDYK
MiYchan Dinami shel Y’cholot Kiriah
Early Hebrew Literacy Assessment: MaDYK Oral Reading Fluency (MORF)
2nd Grade

School: ____________________________ School Year: __________________
Student Name: ______________________
DOB: ____________________________ Gender (circle one): M F
Examiner: __________________________

Does the student’s family speak Hebrew at home (circle one)? Yes No
Is the student, or anyone who lives with the student, originally from Israel (circle one)? Yes No
Specify who is from Israel: 1.__________________________ 2.__________________________

Pronunciation (circle one): Sephardic Ashkenazi Other

<table>
<thead>
<tr>
<th>Date</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>1</th>
<th>2</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td>MORF</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Say the following:
I would like you to read a story to me. Please do your best reading. If you do not know a word, I will read the word for you. Keep reading until I say “stop.” (Place the passage in front of the student.)
Put your finger under the first word (point to the first word of the passage). Ready, begin.

Total words: _____ – errors: _____ = words correct: _____
ב. חיקת קבלת מסקנת

ויתור أحد חוסט הפרות של חינית ב.: כ. השתי, כיום
קרואו לשטח מסקנת, ארף דמי פאדה. אר
ולישט בדידי זַדִי רֶשֶׁי הַקֹּ֫לֶּים אֲרוֹטֵר בַּדֻּקֶת בֵּיתוֹ. כ. שֵׁנִי
אם שְׁנִי את כַּדָּרֶי שֶׁלַּקְלוּת מַדָּרֶי: מְחִיבֶּי
שְׁפָרְתוֹת. עָבְּרוֹת. אֲרוֹטֵרֵי וַדְּנָהָר. בּוֹשָׁה מְתוֹאָה.
ואל אם שְׁמִי פָּתַחְוֶת עַל כַּדָּרֶי. בּוֹשָׁה, בּוֹשָׁה עַשָּׁה
הַמְּשָׁפֶת חֲלֵילֵי לַעֲלָבוֹת הַשְּׁפָרֶת. כ. שְׁמִי.
אֲרְזוֹת מְשָׁפֶת וּמְסָבֶּי מְשָׁפֶת מְקוֹמִיהָ מְשָׁפֶת שָׁלוֹם.
הַמְּשָׁפֶת הַנְּצוֹת מחֵזֵי אֲרְזוֹת עָבְּרוֹת לֶבֶּרֶת בַּדֻּקֶת. כ. שְׁמִי.
כְּרָאָף אֲרְזוֹת סְפָרִים בָּלַיְתָה ב. כ. שְׁמִי שְׁפָרֶת.
שְׁמִי בתו של חינית ב.: כ. השתי, כיום.
**Current Study**

- Year 1 implementation of MaDYK
  - 9 private Jewish day schools in NY, NJ, PA, MA, CO, CA and FL
- Full day training at YU
- MaDYK benchmarks administered to all students in grades 1 & 2

<table>
<thead>
<tr>
<th></th>
<th>Grade 1 Middle</th>
<th>Grade 1 End</th>
<th>Grade 2 Beginning</th>
<th>Grade 2 Middle</th>
<th>Grade 2 End</th>
</tr>
</thead>
<tbody>
<tr>
<td>N</td>
<td>263</td>
<td>334</td>
<td>386</td>
<td>385</td>
<td>367</td>
</tr>
</tbody>
</table>
RESULTS
First Grade Data: 2010-2011

Distribution of Scores for Total Sample

Distribution of Scores for Total Sample

Mean = 17.33
Std. Dev. = 11.732
N = 263

Mean = 26.88
Std. Dev. = 13.19
N = 334
Second Grade Data: 2010-2011

**Histogram**

Median Words Read Correct

- Mean = 33.73
- Std. Dev. = 13.758
- N = 380

**Distribution of Scores for the Total Sample**

Median Score

- Mean = 38.44
- Std. Dev. = 14.393
- N = 385
MaDYK Continuum of Support*

Well below benchmark: Likely to need Intensive support

Below benchmark: Likely to need strategic support

At or above benchmark: Likely to need core support

Likely to need enrichment

20th percentile

5th percentile

40th percentile

95th percentile

*adapted from Caposey (2011)
# MaDYK Preliminary Cut Scores

<table>
<thead>
<tr>
<th>Grade 1</th>
<th>Beginning</th>
<th>Middle</th>
<th>End</th>
<th>Score Level</th>
<th>Need for Support</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0-4</td>
<td>0-12</td>
<td></td>
<td>Extremely Low</td>
<td>Intensive Support</td>
</tr>
<tr>
<td></td>
<td>5-8</td>
<td>13-18</td>
<td></td>
<td>Well Below Benchmark</td>
<td>Intensive Support</td>
</tr>
<tr>
<td></td>
<td>9-13</td>
<td>19-24</td>
<td></td>
<td>Below Benchmark</td>
<td>Strategic Support</td>
</tr>
<tr>
<td></td>
<td>14-41</td>
<td>25-55</td>
<td></td>
<td>At or Above Benchmark</td>
<td>Core Support</td>
</tr>
<tr>
<td></td>
<td>42 and above</td>
<td>56 and above</td>
<td></td>
<td>Superior</td>
<td>Enrichment</td>
</tr>
</tbody>
</table>
# MaDYK Preliminary Cut Scores

## Grade 2

<table>
<thead>
<tr>
<th>Beginning</th>
<th>Middle</th>
<th>End</th>
<th>Score Level</th>
<th>Need for Support</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-13</td>
<td>0-17</td>
<td>0-21</td>
<td>Extremely Low</td>
<td>Intensive Support</td>
</tr>
<tr>
<td>14-22</td>
<td>18-27</td>
<td>22-31</td>
<td>Well Below Benchmark</td>
<td>Intensive Support</td>
</tr>
<tr>
<td>23-30</td>
<td>28-34</td>
<td>32-42</td>
<td>Below Benchmark</td>
<td>Strategic Support</td>
</tr>
<tr>
<td>31-57</td>
<td>35-65</td>
<td>43-83</td>
<td>At or Above Benchmark</td>
<td>Core Support</td>
</tr>
<tr>
<td>58 and above</td>
<td>66 and above</td>
<td>84 and above</td>
<td>Superior</td>
<td>Enrichment</td>
</tr>
</tbody>
</table>
## DIBELS Next vs. MaDYK Growth Rates and Accuracy

<table>
<thead>
<tr>
<th></th>
<th>Grade 1 middle → end</th>
<th>Grade 2 beginning → middle</th>
<th>Grade 2 middle → end</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>DIBELS Next Growth rate</strong></td>
<td>24</td>
<td>20</td>
<td>15</td>
</tr>
<tr>
<td><strong>MaDYK growth rate</strong></td>
<td>10</td>
<td>10</td>
<td>10</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Grade 1 middle</th>
<th>Grade 1 End</th>
<th>Grade 2 beginning</th>
<th>Grade 2 middle</th>
<th>Grade 2 end</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>DIBELS Next Accuracy goal</strong></td>
<td>78%</td>
<td>90%</td>
<td>90%</td>
<td>96%</td>
<td>97%</td>
</tr>
<tr>
<td><strong>MaDYK Mean Accuracy</strong></td>
<td>81%</td>
<td>91%</td>
<td>88%</td>
<td>92%</td>
<td>94%</td>
</tr>
</tbody>
</table>
Content Validity

• No comparable reliable Hebrew reading measure exists

• Teacher rating used as measure of content validity

<table>
<thead>
<tr>
<th></th>
<th>Grade 1 middle</th>
<th>Grade 1 end</th>
<th>Grade 2 beginning</th>
<th>Grade 2 middle</th>
<th>Grade 2 end</th>
</tr>
</thead>
<tbody>
<tr>
<td>r</td>
<td>.67*</td>
<td>.48*</td>
<td>.48*</td>
<td>.58*</td>
<td>.46*</td>
</tr>
</tbody>
</table>

*p<.001
Discussion

• Feedback from Educators
  • Mostly positive
  • Instructional grouping, early intervention, differentiation, below benchmark group critical

• Challenges
  • Time, resources, buy-in, push back on collecting data in grade 1

• Steady growth rate compared to DIBELS Next

• Comparing schools based on instructional practices

• Content Validity
Current Progress

- Enrolled 9 additional schools for 2011-2012
- Total students tested is now over 1,000
- Benchmark goals to be re-evaluated in light on additional data
- Implementing online training for 2012-2013
- Finalizing progress monitoring passages for 2012-2013
Next Steps

• Letter identification task
• Comprehension task
• DIBELS vs. MaDYK scores
  • How do trajectories of growth differ in our sample?