Meaningful vs. Meaningless Utterances in Inventories and Their Effects on Pupil Performance

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In administering phonics inventories to his pupils, a teacher must be sure he is testing the pupils' knowledge of phonics ("sound sense") and not other or additional knowledge the pupils may possess. Administering this kind of extraneous-free test may be difficult in view of the great ranges of knowledge the students may bring to the testing situation. Therefore, it is the teacher's responsibility to employ in his phonics tests stimuli which he is relatively certain lie outside the ken of the respondents. It would seem, then, that using nonsense syllables (NSS: i.e. meaningless utterances) in phonics tests would be superior to using real words since the latter may be a part of the child's reading, listening or speaking vocabularies. For example, a pupil may not be able to identify the first phoneme in the NSS "moosh" but might be able to call by name that initial letter-sound in the word "mash" because he may have seen the television show or movie by the same name. Using "moosh," thus, may seem more reliable than using "mash" in testing the "m" sound.

A review of the commercial phonics inventories reveals most authors using real words or at best different vocabulary words. The Botel Phonics Mastery Test, for example, uses words like "budge," "fad," "tab," "dude" and "hub" in testing initial consonants. The Stanford Diagnostic Reading Test uses words like "gun," "plate," "cross" and "string."

Personke has researched the subject. He notes, with regard to one particular recall test of spelling nonsense words conducted by Spaulding, "The nonsense words were employed after a pilot study convinced her that she could not use real words and be certain that she was indeed testing the use of generalizations... how does one determine if the subject is actually responding by use of a generalization, or by guessing aided by visual recall, or simply reproducing a learned word?" In another study, Aaron noted that "Nonsense words involving the various phonics principles were prepared so that the person taking the test would be forced to put the principles into practice in "recognizing" unknown words." In comparing NSS to real words in his test, Templin found "... significantly higher scores are obtained when the stimulus is a familiar word rather than ... a nonsense word."

Hypotheses:

1. Pupils taking both a real word phonics test and a NSS phonics test
will yield higher scores in the former test despite the order in which they take the tests. The reasoning is that pupils will be more familiar with the phonics elements in real words than in NSS words.

2. The superior readers will render little disparity between test scores. Reasoning: good readers will perform equally well in phonics whether the stimuli is familiar or not.

3. Inferior readers will render a great disparity in test scores, performing better in the real word test than in the NSS test. Nevertheless, both scores are expected to be low.

4. Intermediate readers will score midway between the superior and inferior readers. However, it is expected that this middle group's ranges of individual scores will be much greater than those of both other groups. The reason is that some intermediate readers read fairly well despite possessing little phonics knowledge and others who have mastered phonics skills do not comprehend material well enough to gain them entry into the superior group.

Procedure:

One hundred sixty-one black, white and hispanic boys and girls in an innercity Philadelphia Junior high were randomly selected to take the Stanford Diagnostic Reading Test, Level Two, Form W. Three groups of twenty were then formed from these 161 and divided into three additional groups. The poor readers (receiving "Below 2.0" in the Stanford), the intermediate (2.1-5.8), and the good readers (6.0-12.7) were then further divided into six groups and were then administered two different 38-unit, teacher-made phonics tests in the order as explained by the following diagram:

<table>
<thead>
<tr>
<th>Group 1</th>
<th>Group 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>took &quot;word&quot; phonics test first and NSS test second</td>
<td>took NSS test first and &quot;word&quot; phonics test second</td>
</tr>
<tr>
<td>poor readers</td>
<td>1</td>
</tr>
<tr>
<td>intermediate readers</td>
<td>3</td>
</tr>
<tr>
<td>good readers</td>
<td>5</td>
</tr>
</tbody>
</table>

The answers to both phonics tests were identical. Each tested the pupils' knowledge of initial and final consonants and digraphs, initial double and triple blends and medial long and short vowels. The only differences in content between tests was that in the word test the teacher emitted real, everyday words (boy, deg, chip), whereas the NSS test contained meaningless utterances (bixt, hong, ching).

All data collection and scoring was performed by this investigator. It entailed the handscoring of the 60-point Stanford Test and each of the thirty-eight point phonics test invented by the investigator.
<table>
<thead>
<tr>
<th>Group</th>
<th>Mean SDRT Grade Scores</th>
<th>Average Real Word Test Scores (%)</th>
<th>Average NSS Test Scores (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>below 22</td>
<td>56.1 (21.3 average number correct)</td>
<td>46.8 (17.8)</td>
</tr>
<tr>
<td>2</td>
<td>below 2</td>
<td>41.1 (15.6)</td>
<td>29.2 (11.1)</td>
</tr>
<tr>
<td>3</td>
<td>4.1</td>
<td>86 (32.7)</td>
<td>60 (22.8)</td>
</tr>
<tr>
<td>4</td>
<td>4.8</td>
<td>89.9 (34.1)</td>
<td>71.8 (27.3)</td>
</tr>
<tr>
<td>5</td>
<td>8.2</td>
<td>98.7 (37.5)</td>
<td>85 (32.3)</td>
</tr>
<tr>
<td>6</td>
<td>8.6</td>
<td>98.5 (37.4)</td>
<td>90.8 (34.5)</td>
</tr>
</tbody>
</table>

RESULTS

Figure Legend: Variations in Phonics Test Scores Using Nonsense & Real Words.

1. Hypothesis one was supported. Every group did better in the word test than in the NSS test.

2. Hypothesis two was supported. There was only a four point difference on the average between test scores between both superior groups.

3. Hypothesis three was rejected. Like the superior group, there was only a four point difference on the average between test scores between both poor groups. Nevertheless, both poor groups did poorly on both tests, ranging from a low of 29.2 on a NSS test to a high of only 56% on a word test.

4. Hypothesis four was supported. However, the reasoning that the middle group's ranges of individual scores would be much greater than those of both other groups was rejected. Individual ranges (not shown here) of the poor groups were from 1-32 correct; intermediate 8-38; superior, 26-38. Thus, the ranges between the poor and intermediate groups were almost equal, with the superior groups revealing a much smaller range.

In testing some of the superior readers on the NSS words (especially when these words were presented before the real words), many pupils registered doubt and confusion as to whether they were putting down correct answers. As it turned out, they were giving correct responses although perhaps none of them would have bet on it. In fact, only two superior readers received as low as a 68% on one test, the NSS test. This point is even less surprising in view of the fact that with identical 6.4 reading scores they had barely made the superior reading group.

Of the sixty pupils used in this experiment, only four students did better in the NSS test than in the word test. It is not only interesting to note that all four were poor readers but that they also came from the same group group one. Could it be that some poor readers do better in reading tests in which the symbols are new to them than in tests that use familiar symbols which the pupils have for so long found frustrating, confusing and
disgusting? Could it be that while most pupils find NSS strange, some other pupils find them refreshing? Only further experimentation in these areas may yield some answers.

Conclusions

This experiment supports the view that in testing pupils' phonics knowledge, it is wiser to use NSS. Moreover, it suggests that with developmental (i.e. reading level-grade level) readers on the secondary level it is not necessary to give phonics tests, they are beyond that.

Results also showed that some poor reading comprehenders will do well in phonics tests; good reading comprehenders will do well almost always in phonics tests; that intermediate reading comprehenders will yield great ranges of phonics scores, thus making them perhaps the most baffling, interesting, and unpredictable group of all.

REFERENCES


6 Bjorn Karlson and others. (Op. cit.).