Scoring Morphology in Measures of Spelling and Written Morphological Awareness: A Scoping Review

Victor A. Lugo
Kimberly A. Murphy
Old Dominion University, kamurphy@odu.edu
Emily Diehm

Follow this and additional works at: https://digitalcommons.odu.edu/cdse_pubs

Part of the Communication Sciences and Disorders Commons, Language and Literacy Education Commons, Morphology Commons, and the Special Education and Teaching Commons

Repository Citation
Lugo, Victor A.; Murphy, Kimberly A.; and Diehm, Emily, "Scoring Morphology in Measures of Spelling and Written Morphological Awareness: A Scoping Review" (2019). Communication Disorders & Special Education Faculty Publications. 53.
https://digitalcommons.odu.edu/cdse_pubs/53

This Poster is brought to you for free and open access by the Communication Disorders & Special Education at ODU Digital Commons. It has been accepted for inclusion in Communication Disorders & Special Education Faculty Publications by an authorized administrator of ODU Digital Commons. For more information, please contact digitalcommons@odu.edu.
Introduction

- Ample evidence suggests that morphological awareness is an essential contributor to vocabulary, reading comprehension, word recognition, and spelling (e.g., Goodwin & Athna, 2013; Bowers & Kirby, 2010).
- There currently are no norm-referenced measures of morphological awareness, but researchers have developed a variety of tasks to help SLPs assess children’s morphological awareness (Apel & Werfel, 2014).
- Morphological awareness can be assessed orally as well as in written tasks, such as spelling.
- Spelling reflects quality and precision of representations across linguistic domains, including morphology (Perfetti, 1992; Perfetti & Hart, 2002).
- There are a variety of scoring methods used for spelling tasks and the insights we glean about these skills, specifically morphology, may vary with the scoring method used (Murphy & Justice, 2019; Treiman, Kessler, & Carvalos, 2019).

Purpose

- The purpose of our study was to conduct a scoping review to investigate methods of scoring morphology in measures of spelling and written morphological awareness in school-aged children (preschool to grade 8).
- Results of this scoping review may inform the development of future assessments of morphological awareness in school-aged children.

Methods

- Research Databases: Education Research Complete, ERIC, PsychINFO
- Search Terms: “morphological awareness”, “morphological awareness AND spelling”, “morphological awareness AND assess OR evaluate OR measure OR test OR screen”, “morphological awareness AND writ”, spelling AND morph*
- Inclusionary Criteria:
  - Peer-reviewed studies
  - Published in English and English is the primary language of assessment
  - Published in the last 20 years (1999-2019)
  - Incorporation direct assessment of school-aged children (preschool to grade 8) of typical and atypical language and literacy development
  - Assessed spelling and/or written morphological awareness
  - Described scoring methods for spelling and/or morphological awareness assessments

Results

- A total of 3059 records were assessed for eligibility (n = 129; 94 text articles). Of these, 190 articles were included for review, 141 were excluded, and 59 were removed. A total of 94 studies were included for the scoping review.

Summary of Tasks

<table>
<thead>
<tr>
<th>Type of Task</th>
<th>Examples of Written Morphological Awareness Tasks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Production</td>
<td>Use base words (e.g., “Farm: My uncle is a farmer”). The students are asked to write the word in the blank (Apel, 2012).</td>
</tr>
<tr>
<td>Deposition</td>
<td>Decomposition tasks may provide a more comprehensive analysis of morphological accuracy (e.g., POMAS; Silliman, 2016).</td>
</tr>
</tbody>
</table>

Judgment

- Production & Deposition tasks create multiple components of morphological evaluation.

- Production tasks test a student’s ability to produce the base word (e.g., “Spell the word ‘farmer’ twice, then read the sentence and ask the student to write the word using their spelling of the base word” (Apel, 2013)).

- Judgment tasks require students to make a decision (e.g., “Identify the correct base of a given derivation” (Apel et al., 2012)).

Scoring Methods

- Dichotomous Scoring (46)
- Point Scale Scoring (21)
- Multilingual Scoring (36)
- Combination of Scoring Methods (14)

Key Findings

- Production tasks, specifically spelling multimorphemic words, represent the most common written morphological awareness task found in the literature.
- Dichotomous scoring represents the most common scoring protocol across all measures of written morphological awareness in the literature.
- Spelling and written morphological awareness tasks are typically paired with one or more oral morphological awareness tasks.
- 17 out of 94 studies utilize two different types of written tasks to measure children’s morphological awareness.
- Multilingual scoring protocols are used in decomposition cloze tasks, spelling words in isolation, and narrative tasks only.

Discussion

- Judgment tasks are often used with younger school-aged children, but may serve as a misleading measure of morphological awareness due to guessing.
- Inconsistencies exist across multilingual scoring protocols regarding base and suffix boundaries, suffixing rules (e.g., CoST; Dafm, Mackenzie, & Hennings, 2015).
- Dichotomous and some multilingual scoring protocols used in production tasks do not provide a quantitative measure specifically for morphological accuracy (e.g., POMAS; Stillman, Bahr, & Peters, 2016).
- Using multiple scoring protocols to analyze production and decomposition tasks may provide a more comprehensive analysis of children’s morphological awareness.

Author Disclosures: Lugo, Murphy, & Diehm report no financial or non-financial conflicts of interest related to the content of this poster.

Download the Poster & References: