Title: Assessing Children’s Morphological Knowledge and Awareness
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Learner Outcomes:
1. Describe the importance of morphological knowledge for children’s language and literacy development
2. Summarize methods used for assessing morphological knowledge in written tasks
3. Discuss the advantages and limitations of each type of written morphological knowledge assessment

Abstract: Knowledge and awareness of the morphological structure of words is an important skill for school-aged children but assessment can be challenging, particularly for written language. For speech-language pathologists, assessment of morphological knowledge is largely unfamiliar, partly because there are no norm-referenced tests. We present the results of a scoping review to explore and identify assessments and scoring methods for morphological knowledge in school-aged children (preschool to grade 8). Using interactive examples of various morphological knowledge tasks, we will describe the assessments and scoring methods found across the literature, highlight the advantages and limitations of each, and discuss the clinical implications for assessing children’s morphological knowledge.

Summary: Morphological awareness refers to one’s “conscious awareness of the morphemic structure of words and their ability to reflect on and manipulate that structure” (Carlisle, 1995, p. 194). Ample evidence suggests that morphological awareness is an essential contributor to vocabulary, reading comprehension, word recognition, and spelling (e.g., Goodwin & Ahn, 2013, Bowers & Kirby, 2010). Assessment of morphological knowledge, however, is complex and requires analysis of morphological structures. As there are no specific norm-referenced morphological awareness tests at this time, many researchers have developed criterion-referenced morphological awareness tasks to help speech-language pathologists examine morphological knowledge (Apel & Werfel, 2014).

Children’s knowledge and awareness of morphology has been assessed in a variety of ways. The focus of this presentation is on tasks involving written language. We will provide interactive examples of various morphological knowledge tasks, such as decomposition, judgment, and production tasks, and discuss the strengths and weakness of each. In decomposition tasks, students must identify the correct base of a given derivation or inflection. Judgment tasks require students to make decisions, without manipulating the structure of the word or set of words, by applying their morphological knowledge (Kirby et al., 2012). Production tasks, such as spelling multimorphemic words, test a student’s ability to spell words by applying knowledge of morphology and morphological rules.

Spelling skills required for production tasks, like spelling multimorphemic words, depends on a strong linguistic foundation of phonological awareness (Stahl & Murray, 1994), morphological awareness (Apel et al., 2012), and orthographic knowledge (Treiman, 1994). Many assessments of spelling focus solely on whole-word orthographic accuracy (e.g., Test of Written Spelling-4; Larsen, Hammill, & Moats, 1999), but some relatively new approaches focus on multilingual analysis to provide a window into children’s repertoire of linguistic skills across not only orthography and phonology, but also morphology (e.g., Masterson & Apel, 2010, Silliman, Bahr, & Peters, 2016). Approaches to assessment of spelling multimorphemic words and their ability to accurately measure morphological knowledge will be presented.
Results of our scoping review will help us to explore the assessments and scoring methods for morphological knowledge found across the literature, highlight the advantages and limitations of each, and discuss the clinical implications for assessing children’s morphological knowledge. The review was conducted using Preferred Reporting Items of Systematic reviews and Meta-Analyses (PRISMA) guidelines (Moher et al., 2009). PRISMA guidelines provided the framework for objectively including, excluding, and evaluating relevant studies across three electronic databases: EBSCO Education Research Complete, ERIC, and PsycINFO.

Reference List:


Inclusionary Criteria:

Results of this scoping review may inform the development of future methods of scoring morphology in measures of spelling and written language development. Spelling reflects quality and precision of representations across linguistic, cognitive, and perceptual domains. There are a variety of scoring methods used for spelling tasks and the insights we glean about these methods, specifically morphological scoring, may vary with the scoring method used (Murphy & Justice, 2019; Treiman, Kessler, & Caravolas, 2019).

### KEY FINDINGS

- Production tasks, specifically spelling morphemic 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; Daffern, Mackenzie, & Hemmings, 2015).
- Dichotomous and some multilingual scoring protocols used in production tasks do not provide a quantitative measure specifically for morphological accuracy (e.g., POMAS; Silliman, Bahr, & Peters, 2016).
- Using multiple scoring protocols to analyze production and decomposition tasks may provide a more comprehensive analysis of children’s morphological awareness.

### METHODS

- **Research Databases**: Education Research Complete, ERIC, PsychINFO
- **Search Terms**: “morphological awareness”, “morphological awareness” AND spelling, “morphological awareness” AND assess, “oral evaluation” OR “oral test” OR “oral screen”, “morphological awareness” AND “written”，spelling AND morph*

### RESULTS

- The purpose of our study was to conduct a scoping review to investigate methods of scoring morphology in measures of spelling and written language development 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.