PROMISING PRACTICE

Supporting Reading Comprehension for English Learners At-Risk of Reading Difficulties in the Postsecondary Classroom

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For many English Learners (ELs), access to postsecondary education has been limited (Kanno, 2018; Kanno & Cromley, 2015; Kanno & Kangas, 2014). This inaccessibility is evident in admissions data for 2-year colleges and even more pronounced for 4-year colleges (Kanno & Kangas, 2014). Indeed, Kanno and Cromley (2015) noted the contradictory situation where the K–12 EL population has continued to increase; however, this growth has not translated to admissions into 4-year college programs. Additionally, colleges have not been transparent in terms of their reporting related to the overall success of ELs in their programs (Kanno & Cromley, 2015). Of particular concern to postsecondary educators is that lack of access has been attributed in part to deficits in reading proficiency (Kanno & Cromley, 2015).

Even for ELs who successfully gain access to postsecondary education, challenges remain. In a study involving ELs who transitioned from surrounding school districts to a local university, it was determined that these students were generally "inadequately prepared for the literacy demands of university" (Roessingh & Douglas, 2012, p. 285). Roessingh and Douglas (2012) noted several conditions in institutions of higher education contribute to putting ELs at risk for non-completion, such as (a) lack of differentiated instruction (DI) and scaffolded supports, (b) large class sizes, (c) advanced reading materials with complex academic language. In fact, Roessingh and Douglas (2012) postulated that the average freshman textbook is written at a grade equivalent reading level of 20, whereas the average freshman EL is reading at a grade equivalent level of nine. Most notably, Roessingh and Douglas (2012) argued that this discrepancy is common among most developed nations. Fortunately, there are things that postsecondary institutes can do to better support ELs.

As noted above, Roessingh and Douglas (2012) shared that many postsecondary education programs do not adequately differentiate and scaffold instruction, suggesting that these are areas where postsecondary professionals can target change. In response to this need to differentiate instruction (DI) and scaffold supports in the postsecondary classroom, first we share definitions of the two terms. Pozas et al. (2020) defined DI "as a toolbox of instructional practices, which enables teachers to appropriately cater to students' specific learning requirements and ensure successful learning for all students within

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a diverse and inclusive classroom" (p. 218). Essentially, to address students' learning needs, DI involves instructors making adjustments to content, process, product, or affect (Tomlinson et al., 2010). Despite the known benefits of DI, Danley and Williams (2020) argued that little research has examined its implementation in the college classroom.

Scaffolded supports are additional tools, such as visual aids (e.g., checklist, graphic organizers etc.) or content enhancements that help the student access or make sense of the material being taught which are then systematically removed (faded) when the student no longer needs the additional aid (Kennedy et al., 2021). Scaffolded supports allow students to access the same content as their peers wherein the teacher provides the necessary supports for the students to be able to perform the task before they can do so independently (Larkin, 2001). An important aspect of scaffolding instruction is that the supports should be removed when the student is ready to move towards greater independence (Larkin, 2001).The reading intervention described herein not only allows for DI, but it also includes scaffolds to support students' reading comprehension to ensure that they can access the same critical readings as their classmates. This reading intervention is designed to move students towards greater independence in terms of their reading skills based on the targeted nature of the components of the intervention.

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A Tertiary Level Reading Intervention

The reading intervention that we will describe provides educators working with college students the opportunity to DI and scaffold supports to meet the individual needs of their students. This reading intervention was part of a proof-of-concept study exploring a tertiary level reading intervention for ELs at-risk of reading difficulties.

Theoretical Underpinnings

The Simple View of Reading (abbreviated as SVR; Gough & Tunmer, 1986; Hoover & Gough, 1990) is an explanatory model for the mechanisms that are responsible for reading comprehension. As such, reading comprehension is the result of effective decoding and listening comprehension skills (Hoover & Gough, 1990). In this model, both components are necessary to achieve reading comprehension. However, there is a possible difference in the relative importance of these skills between English L1 students (where English is the students' primary language) and English L2 students (where English is not the students' primary language). Pasquarella et al. (2012) noted that for English L1 students, listening comprehension surpasses decoding skills as an explanatory factor of reading comprehension levels toward the end of middle school. However, this may not be applicable to adolescent L2 reading comprehension. Pasquarella et al. (2012) examined the factors related to L2 reading comprehension in adolescent ELs who were just beginning to learn English and determined that decoding, vocabulary, and the interaction between these two factors were significant predictors of reading comprehension for this population of students. The researchers concluded that the predictive model for reading comprehension for adolescent English L2 differed from that of adolescent English L1 students as vocabulary knowledge was the only significant predictor of reading comprehension for the latter group (Pasquarella et al., 2012). Thus, our reading intervention is grounded in the SVR and recognizes that decoding and listening comprehension may differently impact the reading comprehension of adolescent ELs who are struggling with reading in their L2 when compared with their English L1 peers.

Intervention Components

Decoding

In reading, decoding requires readers to match graphemes (letter or letters) to phonemes (sounds) to discern words (Ehri, 2022). To eliminate opportunities for readers to 'guess' words when decoding, educators may use pseudowords which require the reader to accurately match phonemes to each grapheme rather than rely on context or predictable patterns. *Pseudowords* are defined as "phonologically legal forms that are not in the lexicon of a given language" (Chuang et al., 2021, p.945). Decoding is an important skill for ELs as Pasquarella et al. (2012) examined factors related to reading comprehension in adolescents and determined that significant predictors of reading comprehension for ELs included: (a) decoding, (b) vocabulary, and (c) the interaction of decoding and vocabulary. Similarly, Brasseur-Hock et al. (2011) noted that adolescents with significantly

low reading comprehension levels generally demonstrate issues in areas such as decoding and fluency.

Phonological Awareness

Phonological awareness is a predictor of reading disability (Geva et al., 2000). Despite the many studies that have uncovered the significant relationship between phonological awareness and reading comprehension (Wanzek et al., 2016), there is a dearth of studies investigating this relationship in older students with reading disabilities (Swanson et al., 2005). Interestingly, Swanson et al. (2005) described fMRI research (see Brookheimer, 2003) which demonstrated that—similar to younger readers—brain patterns in older students with reading difficulties responded to explicit instruction in phonological awareness. Swanson et al. (2005) found that explicit instruction involving phonological awareness with struggling readers in the seventh grade (n = 35) resulted in significant improvement in terms of reading comprehension. Swanson et al. (2005) determined that the phonologically-based intervention showed a statistically significant difference (ES = .57) between the intervention and non-intervention groups, with the intervention group performing significantly better in terms of phonological awareness. The authors concluded that explicit instruction in phonological awareness can lead to improved reading comprehension outcomes for ELs in their L2.

Morphological Awareness

For ELs, vocabulary knowledge supports reading comprehension (Aryadoust & Baghaei, 2016; August et al., 2005; Li & Kirby, 2014) and improved reading comprehension leads to the acquisition of more vocabulary (Bowers & Kirby, 2010; Stanovich, 1986). Schmitt et al. (2011) determined that a linear relationship exists between vocabulary knowledge and reading comprehension. Indeed, these researchers postulated that ELs need to be familiar with 98% of the text vocabulary in order to achieve solid comprehension of the reading (Schmitt et al., 2011). Morphological analysis has been proposed as an efficacious strategy to enhance students' vocabulary (Bowers & Kirby, 2010; Crosson & Moore, 2017; Pressley et al., 2007). As such, Bowers and Kirby (2010) hypothesized that the use of morphological analysis may allow for exponential vocabulary growth as it can be applied to novel vocabulary especially when compared with alternatives such as the direct instruction of individual vocabulary words. These authors defined morphological analysis as a process "in which learners break complex words into constituent meaning elements called morphemes" (Bowers & Kirby, 2010, p. 517). According to these researchers, it is through an analysis of the morphemes that make up words (i.e., bases, prefixes, and suffixes) that students can derive meaning. Research shows that morphemic analysis increases vocabulary knowledge (Baker et al., 2014; Anglin, 1993) and that vocabulary knowledge improves reading comprehension (Schmitt et al., 2011).

Implementation: Example Scenario

To illustrate how this tertiary level reading intervention for ELs at-risk of reading difficulties can be used to differentiate and scaffold instruction in the college classroom, we will describe a hypothetical class scenario.

Where can the Intervention be Implemented to Differentiate Instruction?

College-level courses require students to complete readings. This reading intervention allows instructors to leverage DI to support ELs' reading comprehension skills while completing required readings. Although this intervention could be tailored to be embedded within any content-area course, it is particularly well-suited for use within the English classroom. As such, we will base the description of its implementation in a hypothetical first-year English class.

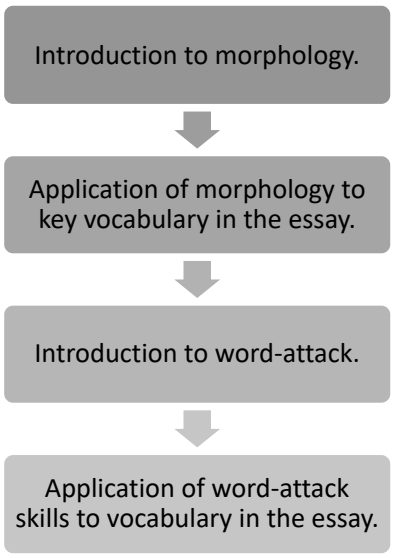
What are the Components of the Intervention?

The reading intervention consists of prerecorded PowerPoint lessons with narration. The lessons include morphemic analysis and alphabetic and phonological awareness. Morphemic analysis instruction follows procedures recommended by Kieffer and Lesaux (2007) and alphabetic and phonological awareness procedures are similar to those recommended by the Corrective Reading Program (Engelmann et al., 2008).

How do I Implement the Intervention to Support the Reading Skills of ELs At-Risk of Reading Difficulties?

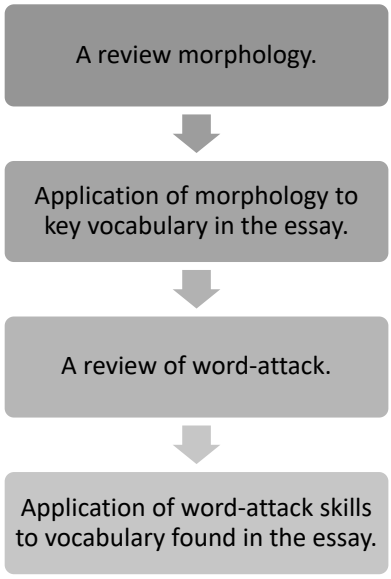
Assume that the students enrolled in a foundational English course are required to read three essays upon which major class writing assignments are based. As such, a firm understanding of these essays is essential for student success in the course. Prior to reading each assigned essay, students who require DI will be given the opportunity to participate in the reading intervention which has been specifically designed to enhance their comprehension of the content of the essay and develop their overall reading skills in English. Each reading intervention video will target prefixes, suffixes, and sound blends associated with key vocabulary in each essay. Intervention sessions are designed to occur online outside of regular class time and can be integrated into the course platform. The first intervention video addresses the topics found in Figure 1.

Figure 1
Content of First Reading Intervention Video



As shown in Figure 2, subsequent reading intervention videos will include the following topics:

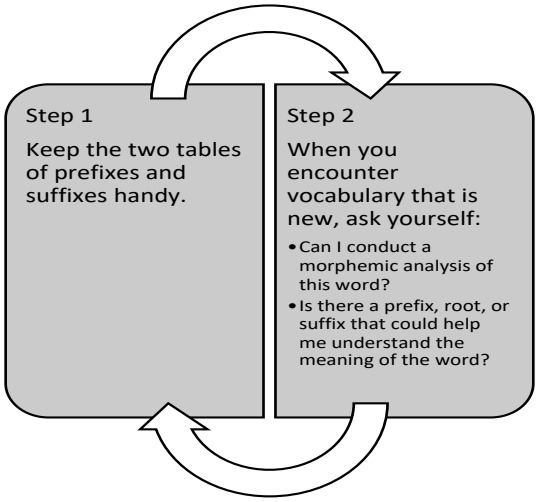
Figure 2
Content of Subsequent Reading Intervention Videos



As such, the reading intervention videos consist of the following skills: morphemic analysis and alphabetic and phonological awareness.

In the first section, students learn that morphology is the study of meaningful units of language and how those units are combined in words. Students are presented with a summary of research indicating that morphemic analysis skills can help build vocabulary knowledge which in turn can increase reading comprehension. Next, the teacher models how to conduct a morphemic analysis using sample vocabulary. This is followed by a presentation of key vocabulary from the target essay where the teacher models the steps for conducting a morphemic analysis. For example, if the prefix auto appears often in an essay, students learn that the prefix auto means "by oneself or itself" (Cambridge Dictionary, n.d.) and then review key vocabulary such as *autoethnographic* and *autobiography.* A similar process can be used to introduce important suffixes in the reading. Finally, the teacher models a full morphemic analysis where key vocabulary is analyzed according to the prefix, root, connector, and suffix. The teacher can provide additional scaffolded support by preparing a reference sheet that includes tables of prefixes and suffixes from the essay with their meanings. Additionally, a scaffolded support (see Figure 3) in the form of a flow chart outlining the steps to follow when reading the essay can be provided to the students:

Figure 3
Flow Chart For Use When Reading



The next exercises involve the introduction of recurrent sound combinations from the target essay. For example, participants may learn that the letters A-I go together and make the sound ãã̃ã. The participants are then presented with a series of words containing the sound combination A-I, which is underlined. The teacher reads the words aloud, asks the participants to repeat the words, then provides a brief pause for the students to repeat the word containing the target sound combination. Students are also encouraged to discriminate between the sounds in the spoken words. This process can be repeated for other sound combinations.

Upon completion of the reading intervention, students are prompted to read the assigned essay equipped with the skills learned and scaffolds provided. Teachers may also wish to survey their students (either formally or informally) to receive feedback in relation to both the DI in the form of the reading intervention videos and the

additional scaffolded supports (i.e., prefix and suffix tables and reading flow chart) to ascertain whether students find the supports helpful and to make modifications accordingly. Teachers should also monitor student reading comprehension in relation to the assigned readings to determine whether the DI and scaffolded supports are having the desired effect or whether additional supports may be necessary.

Student Feedback

Students who have participated in this reading intervention have indicated that they found the video lessons helped them to better understand the related readings. They also commented on how they transferred what they learned from the lessons into reading new materials. Overall, students supported the social validity of the reading intervention grounded in morphological, alphabetic, and phonological awareness.

Implications for Practice

DI and scaffolded supports can be leveraged to increase inclusive education and to respond to the learning needs of ELs in the college classroom. The need for DI and scaffolded supports for ELs in college to address concerns related to reading comprehension is well established. The components of the intervention are supported by the research literature and the social validity of the reading intervention may encourage students to participate in the intervention. The fact that this reading intervention can be tailored to meet the immediate educational needs of students to support their reading comprehension of contextually appropriate material makes this intervention a classroom appropriate tool that can be leveraged in the college classroom to differentiate instruction.

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