RESEARCH BASE

Amplify Caminos: The research behind the program

Introduction

Amplify Caminos is an authentic elementary Spanish Language Arts program that provides students with robust instruction grounded in the Science of Reading. Amplify Caminos instruction features explicit, systematic foundational skills instruction, sequenced with deep knowledge-building content, to foster comprehension in K-5 learners.

Amplify Caminos was developed by a bilingual team of experts from across the Latin America and Hispanic diaspora in collaboration with expert academic advisors in a concerted effort to create culturally relevant connections for students with diverse backgrounds. This team strived to ensure that the classroom experiences of students using Amplify Caminos strike a balance between the security of the familiar and the excitement of the unknown. When used in tandem with Amplify CKLA, Amplify Caminos provides a comprehensive Spanish and English biliteracy suite full of high-quality teaching and learning suitable for dual language and biliteracy classroom settings.

Foundational research: The Science of Reading

At the base of the Science of Reading is the Simple View of Reading (SVR). Outlined by researchers Philip B. Gough and William E. Tunmer (1986), the SVR describes skilled reading as the product of two components: language comprehension and word recognition.

- Language comprehension: Background knowledge, vocabulary, language structures, verbal reasoning, literacy knowledge
- Word recognition: phonological awareness, decoding, sight recognition

Language comprehension is the ability to make sense of what we hear; word recognition is the ability to read the words on a page. Reading proficiency in any alphabetic language requires both competencies. The SVR framework has been validated in a variety of studies with Spanish-speaking students, demonstrating the unique importance of both language comprehension and word recognition for reading proficiency (Braze, Tabor, Shankweiler, & Mencl, 2007; Sparks, 2015; Sparks & Patton, 2016; Sparks, Patton, & Luebbers, 2018a; 2019; Baker et al., 2022).

With this research in mind, Amplify Caminos is organized into two strands of instruction for grades K-2: Conocimiento (Knowledge) and Lectoescritura (Skills). Conocimiento focuses on the language comprehension element of the SVR, helping students build coherent knowledge and rich, nuanced vocabulary. Amplify Caminos Lectoescritura focuses on the word recognition element of the SVR, helping students acquire the foundational skills of phonological awareness and phonics for both reading and writing, following the Spanish Language methodology. In grades 3–5, lessons begin to combine

skills and knowledge with increasingly complex texts, close reading, and a greater writing emphasis.

Amplify Caminos Conocimiento content themes follow the same sequence of Amplify CKLA (English) and are based on the Core Knowledge Sequence, which was developed as a content guide for grades PreK-8 and has been used for over two decades in nearly every state. The carefully organized domains build within and across grades, developinging broad content knowledge and vocabulary. Research suggests that this focused, coherent, and systematic approach to knowledge building, vocabulary development, and language learning is highly impactful on reading comprehension (Alexander, Kulikowich, & Schulze, 1994; Cain et al., 2001; Shapiro, 2004).

Amplify Caminos Lectoescritura provides systematic, explicit, and comprehensive instruction in the Spanish language code. The Lectoescritura program takes a soundsfirst approach that supports multilingual and Spanish-language learners as they focus on phonemes (sounds) to build syllables and words, and is particularly impactful for at-risk learners (Vaughn, et al., 2006). Utilizing a synthetic phonics approach, Amplify Caminos supports students in the acquisition of Spanish foundational skills with lessons that teach Spanish phonemes explicitly, starting with the vowels and the most frequent consonants first, and later presenting the least frequent consonants and digraphs. Students will quickly move from learning the sounds to blending phonemes to form syllables, and then manipulating syllables to form words. Students progress to decoding in kindergarten, earlier than in English, given the transparent orthography of Spanish.

For more information on the design principles of Caminos Lectorescritura, please see Appendix.

Supporting research: Bilingual teaching and learning

Amplify Caminos is a Spanish language arts curriculum for grades K-5 that can be used on its own or alongside Amplify CKLA to provide students with equitable instruction in Spanish and English. With Amplify Caminos, teachers will be able to develop student comprehension in Spanish through a content-rich curriculum while also building bridges to English literacy.

Not merely a translation of the English program, Amplify Caminos has been built diligently by a team of bilingual educators and designers to ensure that it specifically addresses Spanish language arts while still remaining equitable to the English program. Amplify Caminos Conocimiento, or the Knowledge strand, presents the same topics in both English and Spanish. This consistency supports multilingual learners as they develop knowledge and receive instruction in two languages, easily allowing the transfer of skills and the transition between languages (e.g., if students are learning about plants in English, they will also learn about plants in Spanish). The Spanish lessons are

transadapted to fit the Spanish language based on Spanish grammar, morphology, and vocabulary. Further, the literature selection includes authentic Spanish narratives, stories, and poetry from a variety of Spanish-speaking countries. By supporting students as they compare and contrast languages through syntactic and contextual analysis, the curriculum helps emergent bilinguals deepen language knowledge (Nogueron, 2020).

Developing reading proficiency in both English and Spanish follows a similar framework or structure. In both languages, instruction must focus on developing both language comprehension and word recognition. Because both English and Spanish are alphabetic languages, calling students' attention to individual phonemes in Spanish words may serve a dual function as they learn to read in both languages. Whether in transitional bilingual, dual language, or Spanish immersion settings, they will, at some point, be expected to develop literacy and comprehension in both languages. This is directly related to the basic concept of metalinguistic awareness in multilingual/English learners, which refers to the understanding of how two languages are similar and different (Beeman & Urow, 2013.)

Research supporting the knowledge-based approach

In 1990, researchers Georgia Kosmoski, Geneva Gay, and Edward L. Vockell tested the relationship between cultural literacy and student achievement in grade schools and found that high scores on a cultural literacy test were positively correlated with high scores on a test of basic skills, regardless of ethnicity. In 2001, researcher Joseph F. Pentony later had similar findings when he examined cultural literacy in college students and community college students.

In the late 1990s, researchers Thomas G. Sticht, C. Richard Hofstetter, and Carolyn H. Hofstetter found a positive correlation between declarative knowledge, literacy practices, and power, as indicated by subjects' occupation, income level, and political activity. The correlation was there even when age, education, and ethnicity were held constant. In other words, those with strong cultural literacy were achieving the American dream. "Educational practices that downplay the importance of content knowledge in favor of processes of thinking or learning should be reconsidered," they wrote.

Over the past few decades, cognitive scientists have established a link between broad background knowledge and reading comprehension. "Cognitive science is clear that knowledge helps you both take in and remember new information," says UnBoundEd VP of Instructional Design & Products Alice Wiggins.

Relying on this research, Amplify Caminos was designed around topics that interest kids, from science to world history to great literature and art. Students build connections across domains and grades, deepening their understanding and engagement each year. This deep knowledge-building content is critical in fostering comprehension in students.

Appendix

Amplify Caminos Lectoescritura: Program principles

Because reading and writing are inverse processes, the Lectoesritura (Skills) lessons teach them in tandem. Spanish writing involves making pictures of sounds; reading involves translating those pictures back into sounds and blending the sounds to make words.

Synthetic phonics approach

- · Phonics instruction begins at the phoneme level, with the phoneme serving as the building block of word-level reading skills.
- · All Spanish phonemes are taught explicitly.
- Students are taught to blend and segment phonemes to form syllables, and blend and segment syllables to form words.

Explicit instruction

- Letter-sound correspondences are taught through explicit instruction. For example, a lesson teaching /m/ might:
 - Direct the teacher to tell the students: "Today's sound is /m/."
 - Engage the students in an oral exercise where they hear and say /m/.
 - Show students how to draw a picture of /m/ by writing the letter 'm' (once they're familiar with the sound).
 - Instruct students to practice writing independently
- Instruction includes multimodal activities for high levels of engagement. Students practice skills through individual movement and using various manipulatives such as letter cards.
- · Student activity pages are used for focused, distributed practice to master skills students have been taught.
- Decodable text is regularly used during instruction to provide students with practice in basic comprehension and reading connected text.

Systematic instruction

- There is a scope and sequence of instruction that starts with basic ideas and builds to more complex concepts.
- The most frequent and least ambiguous phonemes/ graphemes are introduced first, with a combination of vowels and consonants to build words as soon as possible.
- This sequence allows students to begin reading words quickly, either because they are composed entirely of letter-sound correspondences or because they are commonly used words students have been taught.
- Decodable texts are carefully matched to the scope and sequence of instruction to ensure students have practice reading connected text.

Formative assessments and feedback

- · Lessons have clear objectives that indicate what students should know and be able to do at the conclusion of the lesson.
- Lesson activities support mastery of lesson objective(s).
- Instructional activities and activity pages are designed to provide feedback to teachers on how well each student has mastered the lesson objective(s).
- · After each lesson, additional support is included to provide teachers with point-of-use activities for students who may need additional time and practice to master lesson-level objectives.
- Timely assessment measures the acquisition of first and second languages.

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