

Impact of School-Based, Linguistically Relevant Literacy Interventions for Spanish-English Bilingual Students

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BACKGROUND

In the fall of 2015, the National Center for Education Statistics reported 9.5% or 4.8 million students were English Language Learners (ELLs) (“The Condition of Education,” 2018). ELLs often face challenges in school when accessing an English only curriculum. Researchers in education believe that early literacy instruction can mitigate academic disparities (Baker et al., 2012, p. 738); however, there needs to be more research on whether the instruction should be provided in the child’s native language or in English (p. 738).

There were two methods of literacy intervention for ELLs in this systematic review: sequential intervention and paired intervention. Sequential intervention provides intervention in the student’s native language before transitioning to English. Meanwhile, paired intervention provides intervention in English and Spanish.

OBJECTIVES

The purpose of this systematic review was to investigate the impact of linguistically relevant literacy interventions for bilingual children.

METHODS

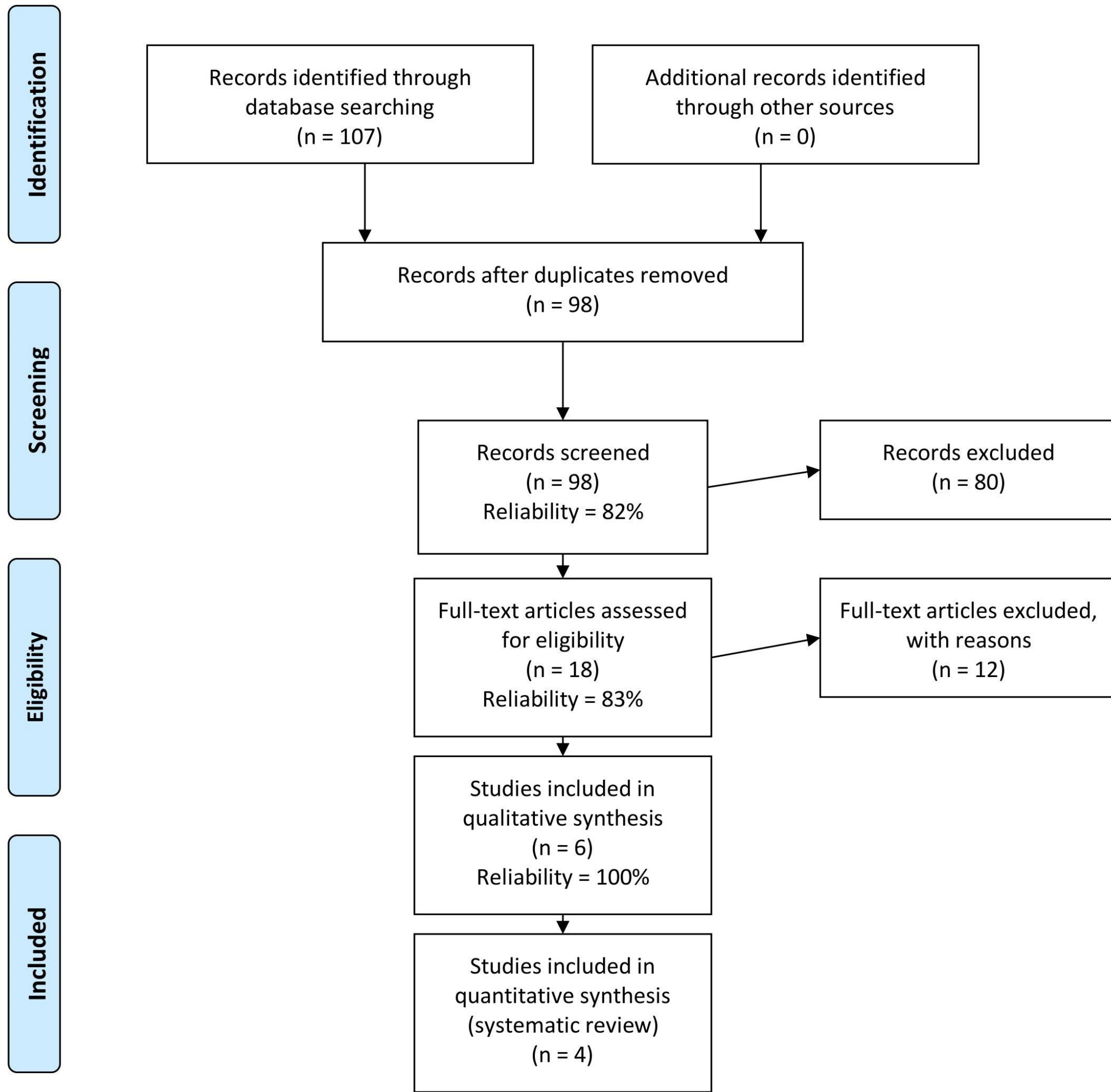
Databases: ERIC, Educational Full Text

Inclusion Criteria: Spanish-English bilingual students ages 3-8 whose native language is Spanish, school-based intervention, intervention in Spanish or paired (English and Spanish)

Exclusion Criteria: children outside the age range, daycare and home-based interventions, ELL students who have another native language outside of Spanish, intervention in English only

Search Limiters: Peer-Reviewed Academic Journals

The authors conducted the initial search and de-duplication followed by screening for inclusion (title/abstract and full text), quality appraisal, and data extraction. During the title/abstract stage, 50 articles were double reviewed. During the full text and quality appraisal stages, all the articles were double reviewed.



RESULTS

Spanish Only Literacy Intervention

Citation	Population	(n)	Study Design	Spanish Results	English Results
Vaughn et al. 2006	1st grade ELL students	69	Experimental RCT	PA Comp: d=.73; p=.003 NSWF: d= .85; p=.001 ORF: d=.58; p= .002 LN: d= .46; p= ns	PA Comp: d=.07; p=ns NSWF: d=.15; p=ns ORF: d=.04; p=ns LN: d= -.33; p=ns
Baker et al. 2017	1st grade ELL students	78	Experimental RCT	NSWF: g= -.05; p=.81 ORF: g=.3; p=.14	NSWF: g= -.2; p=.54 ORF: g=.1; p= .71

Paired Literacy Intervention: English and Spanish

Citation	Population	(n)	Study Design	Spanish Results	English Results
Soltero-Gonzalez et al. 2016	3rd grade ELL students	358	Experimental longitudinal	RAL: d=.42; p=.000 Oregon Assessment of Knowledge and Skills (OAKS): 62% of students in paired literacy program met or exceeded standards	RAL: d= .56; p=.000 Oregon Assessment of Knowledge of Skills (OAKS): 79% of students in paired literacy program met or exceeded standards than 49% of comparison
Baker et al. 2012	1st grade ELL students	214	Experimental RCT	<u>English Only Results</u> ORF: 1 st grade p= .079 2 nd grade p=.049 3 rd grade p = .12	

Note: PA Comp= Phonemic Awareness Composition; NSWF= Non-sense word fluency; ORF= Oral Reading Fluency; LN= Letter Naming; RAL= Reading Achievement Level

- The authors appraised the articles using the *Cincinnati Children’s Legend: Evidence Appraisal of a Single Study All Domains Descriptive Study, Epidemiologic Study, Case Series*.
- Out of the six final articles, four were deemed good quality, and two were deemed lesser quality. We extracted data from the four articles that we both determined to be of good quality.
- Two of the good quality articles provided intervention in Spanish only.
 - The results indicate that Spanish only interventions provide potential for statistically and clinically significant results for Spanish literacy outcomes.
 - There were little to no reported significant differences for English literacy outcomes.
- The other two good quality articles provided intervention in both Spanish and English.
 - In these paired (bilingual) literacy programs, there were no noted significant and clinical differences between these students and students receiving English only intervention in Spanish and English outcomes.

DISCUSSION

- The results suggest that interventions based on cross-linguistic transfer, which is the ability to transfer what one knows from one language to another language, may not be effective in lower elementary students (Baker et al., 2017, p. 224).
- Other studies providing paired literacy intervention did not show much statistical or clinical significance in Spanish or English literacy outcomes when compared to students receiving English only interventions.
- Our results are limited due to the low number of articles that met our inclusion criteria.
- Our initial search was not an exhaustive search due to the time constraints of our course. We only searched two databases, and we limited our articles to peer-reviewed journals only.
- We also did not complete further types of searches outside of databases such as grey literature or chain citation searching.
- Furthermore, two of our articles did not meet our quality expectations to rely on the validity of the results.
- Results could also be limited because authors only searched interventions for Spanish-native speakers in the United States. There could be more conclusive results for other highly spoken languages in the US.
- However, these results highlight the need for further research to prove the actual impact of school-based, linguistically relevant intervention for bilingual students in the United States.
- Future research could also identify preferred methods for these interventions and compare Spanish-only intervention to paired literacy intervention with a control group.

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DISCLOSURES/ACKNOWLEDGEMENTS

This systematic review was completed as an assignment for SPHS 701 Introduction to Research Methods under the guidance of Jessica Steinbrenner and Thomas Page. The authors have no financial or intellectual conflicts of interest.