

# Use of the Dynamic Indicators of Basic Early Literacy Skills with English Language Learners



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## Introduction

### Background

- School population is becoming more diversified
- At the same time, schools are being held more accountable for the performance of *all* students
- We know that ELL students traditionally do not perform well already
- Schools are moving towards using data to inform better instruction (i.e. RtI)—One method of doing this is using Curriculum-Based Measurements (such as DIBELS)

### Current Knowledge

- Which (if any) DIBELS indicator is the best predictor of ELL students' abilities?
  - Muter (2001) found that phonological awareness abilities are a very high predictor of early literacy acquisition.
  - In 2008, Betts found that letter-sound correspondence (alphabetic principles) and phonological awareness correlate highly for predictors of reading and writing development.
  - Felton (1995) found a connection between phonological processes, naming speed, and later literacy skills.
  - Lesaux (2007) discovered that phonological awareness ability is actually a higher predictor of future reading abilities than any other task, including oral language proficiency.

### Unresolved Issues

- ORF cannot be measured until the end of the first grade
- Few studies have been done regarding the *early* literacy skills of kindergarten and first grade and their predictive abilities
- Most research has been mainly done with Spanish-speaking students—Students of other language backgrounds have not been evaluated

### Statement of the Problem

- There was a connection found between phonological processes, naming speed, and later literacy skills for ELLs
- Less research is available about early literacy curriculum-based measurements
- The literature that does exist has mixed findings:
  - While the DIBELS Initial Sound Fluency measure was predictive of later decoding skills for kindergartners, the Phoneme Segmentation measure was not

## Method

### Project Design

This study was conducted using archival student data from a Midwestern school district. ELL student performance on DIBELS measures in kindergarten (Letter Naming Fluency, Initial Sound Fluency, Phoneme Segmentation Fluency, and Nonsense Word Fluency) and first grade (Nonsense Word Fluency, Phoneme Segmentation Fluency) were used to predict performance on Oral Reading Fluency measures and state mandated reading assessments in third grade in comparison to native English speakers' performance on the same measures.

Students were primarily from Hmong speaking families (91.2%).

### Measures

#### • Winter Kindergarten Benchmark

- Initial Sound Fluency
- Phoneme Segmentation Fluency
- Nonsense Word Fluency
- Letter Naming Fluency

#### • Spring Kindergarten Benchmark

- Letter Naming Fluency
- Phoneme Segmentation Fluency
- Nonsense Word Fluency

#### • Winter First Grade Benchmark

- Nonsense Word Fluency
- Phoneme Segmentation Fluency

#### • Spring First Grade Benchmark

- Phoneme Segmentation Fluency
- Nonsense Word Fluency
- Oral Reading Fluency

## Regression Analysis

Winter Kindergarten	R	R <sup>2</sup>	F	df	Sig. F
General Education	.60	.36	55.27	4	.000
ELL	.63	.39	7.810	4	.000
Spring Kindergarten	R	R <sup>2</sup>	F	df	Sig. F
General Education	.59	.34	73.52	3	.000
ELL	.51	.26	5.91	3	.002

## Regression Beta Weights

	Winter Kindergarten		Spring Kindergarten	
	ELL	GenEd	ELL	GenEd
PSF	.113	.230	.220	.247
LNF	.465	.261	.143	.298
NWF	-.047	.135	.265	.161
ISF	.250	.127		
	ELL n = 53 GE n = 407		ELL n = 55 GE n = 424	

## Regression Analysis

Winter First Grade	R	R <sup>2</sup>	F	df	Sig. F
General Education	.62	.39	94.06	3	.000
ELL	.51	.26	6.37	3	.001
Spring First Grade	R	R <sup>2</sup>	F	df	Sig. F
General Education	.65	.43	110.54	3	.000
ELL	.57	.32	8.56	3	.000

## Regression Beta Weights

	Winter First Grade		Spring First Grade	
	ELL	GenEd	ELL	GenEd
PSF	.002	.214	-.111	.126
NWF	.236	.017	.227	-.065
ORF	.338	.579	.478	.667
	ELL n = 59 GE n = 450		ELL n = 58 GE n = 450	

## Results

- The findings suggest that in the Winter of kindergarten year, Letter Naming Fluency is a good predictor of subsequent third-grade WKCE scores for ELL students; even more so than it is for native English speakers
- By first grade, Phoneme Segmentation Fluency can no longer be considered a valid predictor of future WKCE performance for either ELL or native English speaking students
- Nonsense Word Fluency and Initial Sound Fluency also do not seem to be valid predictors of either ELL or native English speakers performance on future WKCE scores in kindergarten or the first grade.
- Oral reading fluency is consistently the best predictor of WKCE student performance for both ELL and native English speaking students, although it holds a stronger correlation for native speakers in comparison to ELL students.

## Discussion

- The primary purpose of the current study was to discover whether there are any early reading skills that could be measured in ELL students that could potentially be predictive of later reading achievement scores on the WKCE. The hope was to identify a measure that was as valid in comparison to a similar measure found for native English speaking students.
- The results add to the research that suggest that early literacy skills and CBMs can provide useful and valid information for predicting future performance on standardized measures.
- The present study provides evidence that oral reading fluency seems to be a consistent measure for predicting future performance for both ELL and native English speaking students

### Limitations

This study was conducted on primarily Hmong speaking students in the Eau Claire Area School District. Data regarding other languages and predictability of the DIBELS measures may not generalize.

Since archival data was used, the method of conducting the DIBELS measures could not be monitored.

Type of ELL services received between kindergarten and third grade were not disclosed. How these services may have impacted third grade reading achievement is unknown.

Only DIBELS measures were looked at; other measures were not studied or considered.

Future research should replicate the current findings with other populations of various linguistic and cultural backgrounds.

### Conclusions

CBMs, such as DIBELS, can be predictive of future reading achievement of both ELL and native English speaking students. While not as strong for ELL students, it suggests that there are early literacy skills that can be targeted to potentially help increase later third grade reading achievement.

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### Explanation of Measures

**Initial Sound Fluency (ISF):** The examiner presents four pictures to the child, names each picture, and then asks the child to identify (i.e., point to or say) the picture that begins with the sound produced orally by the examiner.

**Phoneme Segmentation:** The PSF measure assesses a student's ability to segment three- and four-phoneme words into their individual phonemes fluently.

**Nonsense Word Fluency:** The student is presented a sheet of paper with randomly ordered VC and CVC nonsense words (e.g., sig, rav, ov) and asked to produce verbally the individual letter sound of each letter or verbally produce, or read, the whole nonsense word

**Letter Naming Fluency:** Students are presented with a page of upper- and lower-case letters arranged in a random order and are asked to name as many letters as they can.

**Oral Reading Fluency:** Student performance is measured by having students read a passage aloud for one minute. Words omitted, substituted, and hesitations of more than three seconds are scored as errors. Words self-corrected within three seconds are scored as accurate. The number of correct words per minute from the passage is the oral reading fluency score.

### Participants

	Ethnicity		Home Language	
	GE	ELL	GE	ELL
African Am.	0.7%	0.0%	English	100% 0%
Hispanic	1.5%	1.9%	Spanish	-- 1.9%
Am. Indian	0.7%	0.0%	Hmong	-- 96.2%
Asian	2.9%	96.2%	Arabic --	1.9%
Caucasian	92.4%	1.9%		
	n		409	52

GE=Students in General Education Classroom  
ELL=English Language Learners