

An Examination of the Equivalence of the In-Person and Remote Administration of the Feifer Assessment of Reading Screening Form

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The present study suggests that remote and in-person administration of the Phonemic Awareness (PA) and Semantic Concepts (SC) subtests of the Feifer Assessment of Reading (FAR) Screening Form are generally equivalent.

During remote administration, it is not recommended to use the Rapid Automatic Naming (RAN) subtest; the newly developed Screening Remote Index (SRI) should be used to derive the screening index score.



Objective

- As psychologists rely more on technology while navigating the digital world, we must adapt existing assessment tools.
- A process was designed for conducting remote administration of the FAR Screening Form (Feifer, 2015), which was designed to identify children (ages 4–21 years) at risk for developmental dyslexia.
- The FAR Screening Form includes three subtests: one from the Phonological Index (Phonemic Awareness [PA]), one from the Fluency Index (Rapid Automatic Naming [RAN]), and one from the Comprehension Index (Semantic Concepts [SC]).
- Our current study evaluates the equivalence between online remote administration and in-person administration of the FAR Screening Form.

Method

- This study used a demographically-corrected normative comparison.
- 70 participants were administered the FAR Screening Form in an online remote format over a videoconferencing platform.
- Participants and examiners followed a specific procedure to retain the validity of scores (Feifer & Champ Morera, 2021).
- Individuals were matched based on age, sex, education, and race/ethnicity with participants from the standardization sample of the FAR Screening Form.

Method (continued)

Demographic Characteristics of the FAR Screening Form Traditional and Remote Administration Samples

Demographic characteristic		Administration format			
		Traditional in-person (N=70)		Online remote (N=70)	
		Male	Female	Male	Female
Age (years)	4–7	9	9	9	9
	8–12	12	11	12	11
	13–17	5	11	5	11
	18–21	8	5	8	5
	M	11.74		11.74	
	SD	4.93		4.93	
Grade	PK–Grade 2	10	10	10	10
	Grades 3–8	13	12	13	12
	Grades 9+	11	14	11	14
Race/ethnicity	White	40%		40%	
	Black	13%		13%	
	Hispanic	24%		24%	
	Other ^a	23%		23%	
Parent education	Less than high school graduate	2%		0%	
	High school graduate	24%		26%	
	Some college	24%		24%	
	College graduate	50%		50%	

^aIncludes American Indians, Alaska Natives, Asian Americans, Pacific Islanders, and any other group not classified as White, Black, or Hispanic.

Results

- Independent-samples *t* tests were conducted to examine differences in subtest and index *T* scores between the in-person and remote administration formats.
- No significant differences were found for the PA and SC subtests, as well as the overall FAR Screening Index.
- Effect size estimates (Cohen's *d* and omega squared) for the PA, SC, and FAR Screening Index *t* tests were small, indicating no significant effects.
- RAN, a speeded subtest, showed a significant effect between online remote administration ($M = 94.41$, $SD = 15.00$) and traditional in-person administration ($M = 100.00$, $SD = 14.33$), $t(138) = -2.253$, $p = .026$, $d = 0.381$.

Results (continued)

- Due to this effect, the new FAR SRI was created that includes only the PA and SC subtests.
- The SRI has demonstrated reliability and validity consistent with the FAR Screening Index.
- The SRI has a strong correlation ($r = .82$) with the FAR Total Index.

Descriptive Statistics for FAR Screening Form Remote Test Scores by Administration Format

Subtest/index score	Traditional in-person administration		Online remote administration		Total sample	
	M	SD	M	SD	M	SD
Phonemic Awareness (PA)	102.39	17.74	98.84	16.05	100.61	16.95
Semantic Concepts (SC)	101.01	16.86	102.90	19.02	101.96	17.93
FAR Screening Remote Index (SRI)	102.14	14.86	101.33	15.87	101.74	15.32
N	70		70		140	

Note. All subtest and index scores are standard scores ($M = 100$, $SD = 15$).

Significance and Effect Size of Administration Format on FAR Screening Form Remote Subtest and Index Scores

Subtest/index	Effect size			
	<i>t</i>	<i>p</i>	Cohen's <i>d</i>	ω^2
Phonemic Awareness (PA)	-1.239	.217	0.204	.004
Semantic Concepts (SC)	0.621	.536	0.105	-.004
FAR Screening Remote Index (SRI)	-0.313	.754	0.053	-.006

Note. A positive effect size indicates higher scores with traditional in-person administration ($N = 140$).

Conclusions

- No significant differences were found between online remote versus traditional in-person administration of the PA and SC subtests on the FAR Screening Form.
- A significant effect for administration was found for the RAN subtest, consistent with literature regarding other speeded processing tasks (Wright, 2008).
- Reduced performance on remotely administered speeded tasks may be due to distractions, slower internet speeds, or differences in materials (digital screen versus traditional booklet).