An Examination of the Equivalence of the In-Person and Remote Administration of the Identi-Fi: A Test of Visual Organization and Recognition

Carrie Champ Morera, PsyD, Alicia Carrillo, BS, Cecil R. Reynolds, PhD, & Robert J. McCaffrey, PhD

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Objectives

- 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 Identi-Fi: A Test of Visual Organization and Recognition (Reynolds & McCaffrey, 2020), which measures visual organizational ability through Visual Recognition and Visual Matching tasks.
- Our current study evaluates the equivalence between online remote administration and traditional in-person administration of the Identi-Fi.

Identi-Fi Subtests and Index

Visual Recognition (VR)	Examinees are presented with a picture of a cut-up illustration of a common object, animal, or body part and must identify the picture solely from the visual presentation, absent physical manipulation of the pieces displayed. Results are presented as *T* scores (*M* = 50, *SD* = 10).
Visual Matching (VM)	Examinees are presented with the same cut-up illustrations from the Visual Recognition subtest, in the same order, and must match the cut-up pieces to the illustration that has been completely assembled. Results are presented as *T* scores (*M* = 50, *SD* = 10).
Visual Organization Index (VOI)	Provides a summary estimate of visual organization skills as represented in cumulative performance on the two tasks of visual organization included in the Identi-Fi, Visual Recognition and Visual Matching. Results are presented as standard scores (*M* = 100, *SD* = 15).

Method

- This study used a demographically-corrected normative comparison.
- 106 participants were administered the Identi-Fi in an online remote format using a videoconferencing platform.
- Participants and examiners followed a specific procedure to retain the validity of scores (Reynolds et al., 2021).
- Individuals were matched based on sex, age group, and race/ethnicity with participants from the standardization sample of the Identi-Fi.

The present study suggests that all subtests on the Identi-Fi, when given in the online remote format in the specified procedure evaluated in this study, are generally equivalent, and examiners can use the norms from the traditional test.

identi-Fi
A Test of Visual Organization and Recognition™

Method (continued)

Demographic Characteristics of the Identi-Fi Traditional and Remote Administration Samples

Demographic characteristic	Administration format	
	Traditional in-person	Online remote
Number of participants	106	106
Gender		
Male	53	53
Female	53	53
Age (years)		
Range	5–76	5–78
M	29.27	29.27
SD	22.91	22.96
Race/ethnicity		
White	53%	53%
Black	17%	17%
Hispanic	19%	19%
Other [a]	11%	11%

Note. *N* = 212. Participants matched 100% on gender, age group, and race/ethnicity.

[a] Includes 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 across index and subtest *T* scores.
- Effect size estimates (Cohen's *d* and omega squared) for all *t* tests were small, indicating no significant effects.

Descriptive Statistics for Identi-Fi Test Scores by Administration Format

	Traditional in-person administration		Online remote administration		Total sample	
Subtest/index score	***M***	***SD***	***M***	***SD***	***M***	***SD***
Visual Recognition (VR)	50.51	7.28	49.20	9.06	49.85	8.22
Visual Matching (VM)	49.25	7.84	47.45	9.12	48.35	8.53
Visual Organization Index (VOI)	99.74	10.32	97.18	12.54	98.46	11.53
N	106		106		212	

Note. Standard scores are provided. Subtest scores are *T* scores (*M* = 50, *SD* = 10). The VOI is an index score (*M* = 100, *SD* = 15).

Significance and Effect Size of Administration Format on Identi-Fi Subtest and Index Scores

			Effect size	
Subtest/index score	***t***	***p***	**Cohen's *d***	ω^2
Visual Recognition (VR)	-1.162	.247	0.160	.002
Visual Matching (VM)	-1.543	.124	0.211	.006
Visual Organization Index (VOI)	-1.621	.107	0.223	.008

Note. A positive effect size indicates higher scores with traditional in-person administration (*N* = 212).

Conclusions

- No significant differences were found between online remote versus traditional in-person administration of the Identi-Fi.
- Effect sizes are small, suggesting similar results between traditional in-person administration and online remote administration of the Identi-Fi.
- These findings suggest general evidence of equivalence between traditional in-person assessment and online remote assessment of the Identi-Fi.