

Comparing Performance on the Paper and Digital Formats of WISC-V Coding



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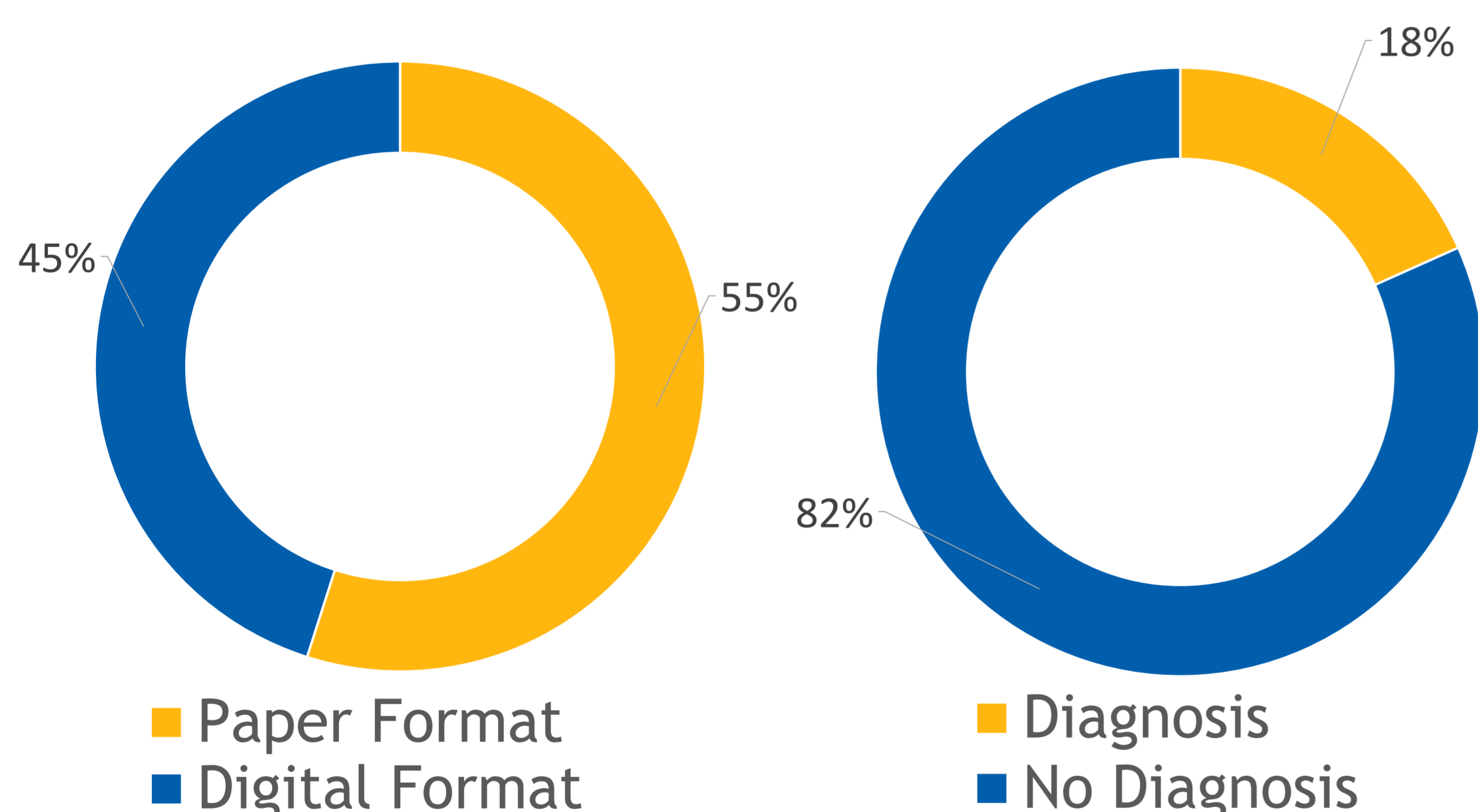
Introduction

- Unlike previous versions of the Wechsler Intelligence Scale for Children (WISC), two administration formats were developed for the WISC-V:
 - The traditional paper-and-pencil format
 - A new digital tablet format
- These formats differ in the Coding subtest response style:
 - Paper format requires children to write symbols with a pencil, drawing on graphomotor ability
 - Tablet format simply requires children to touch a symbol from an array displayed on-screen
- Three pilot studies conducted by the publisher demonstrated equivalence of these formats (Raiford et al., 2016), which supported the use of the normative and psychometric data gathered on the paper format with the digital format.
- No independent study has examined the normative data and psychometric properties of the digital format.

PURPOSE: To examine the equivalence of the paper and digital formats of the WISC-V Coding subtest in an independent community sample

Participants & Methods

- Archival data was analyzed from two studies involving community samples of children aged 6-14 years ($M = 9.8$; 62% female).
- Participants were administered select subtests of the WISC-V, including paper / digital Coding.
- ANCOVA was used to examine differences in scaled scores across formats when controlling for age, gender, and psychological diagnosis



Results

- Participants who were administered digital Coding had significantly greater scaled scores than those who were administered the paper format when controlling for age, gender, and presence of a psychological disorder, $F(5, 208) = 67.43, p < 0.001$.

Variable	Paper ($n = 117$)	Digital ($n = 96$)
Coding	9.50 (2.96)	12.81 (2.91)
Age	9.64 (2.19)	9.96 (1.82)
Estimated IQ	104.7 (11.6)	105.9 (11.6)

Conclusions

- In contrast to previous research, the current study found significant differences in mean scaled scores between the paper and digital Coding format when the same normative data was used.
- This suggests that the two formats of Coding are not equivalent and may be measuring different abilities, (i.e., only the paper version now includes a graphomotor component).
- Development of separate normative data is recommended for the digital format of WISC-V Coding.

