Finding Your Place in the Forest of Multiple Intelligences

Appendix

Katie Hope Grobman
CopernicanRevolution.org

Introduction

You're welcome to use Copernican Revolution activities and essays for your thesis and studies. Having information about scholarly aspects like psychometric data, activity design details, and norm calculations may help. The primary focus of my essays is connecting educated laypersons with psychology. To help people like you, with advanced academic interests, I add an appendix like this one with each activity. Just to be sure it will work for your purposes, please complete each activity yourself before using it with your students or in your classes.

When citing, please reference the activity essay:

https://copernicanrevolution.org/intelligence/multiple-intelligences

A preferred citation in APA style is:

Grobman, K. H. (2024). Finding Your Place in the Forest of Multiple Intelligences. CopernicanRevolution.org

Scale Development

The Multiple Intelligences measure is from Tirri et al., 2013 and is validated with an SEM. However, it did not include all the intelligences. It's missing Existential (somewhat debated) and Naturalistic (standard). Our lab created 7 to 9 items for each of these and they're the basis of the scores. The other scales have 4 items each. To identify the 4 best items for the two scales based on having high reliability and low correlations with the other scales.

Scores range 1 to 7 like the original study, though the paper included a version with a 5 point scale too.

Normative Data

The following is mean and standard deviation based on several hundred of my college students.

Existential   4.81 ± 0.84

Interpersonal   4.91 ± 1.00

Intrapersonal   5.15 ± 0.91

Kinesthetic   4.52 ± 1.13

Linguistic   4.39 ± 1.20

Logical/Mathematical   4.34 ± 1.23

Musical   4.92 ± 1.24   (women 4.80 vs men 5.18, $r^2 = 0.74$)

Naturalistic   4.64 ± 0.89   (women 4.74 vs men 4.41, $r^2 = 0.74$)

Spatial   4.39 ± 0.99

Note. Other gender differences are small and, while statistically significant, I consider effect sizes below a single percent too weak to emphasize.

Original Survey Source

Tirri, P., Nokelainen, P., & Komulainen, E. (2013). Investigating students' multiple intelligences and learning styles in problem-based learning context. Interactive Learning Environments, 21(4), 388-403.

(modified with two additional scales as described above)