



Cardiovascular Fitness and Creativity in Children

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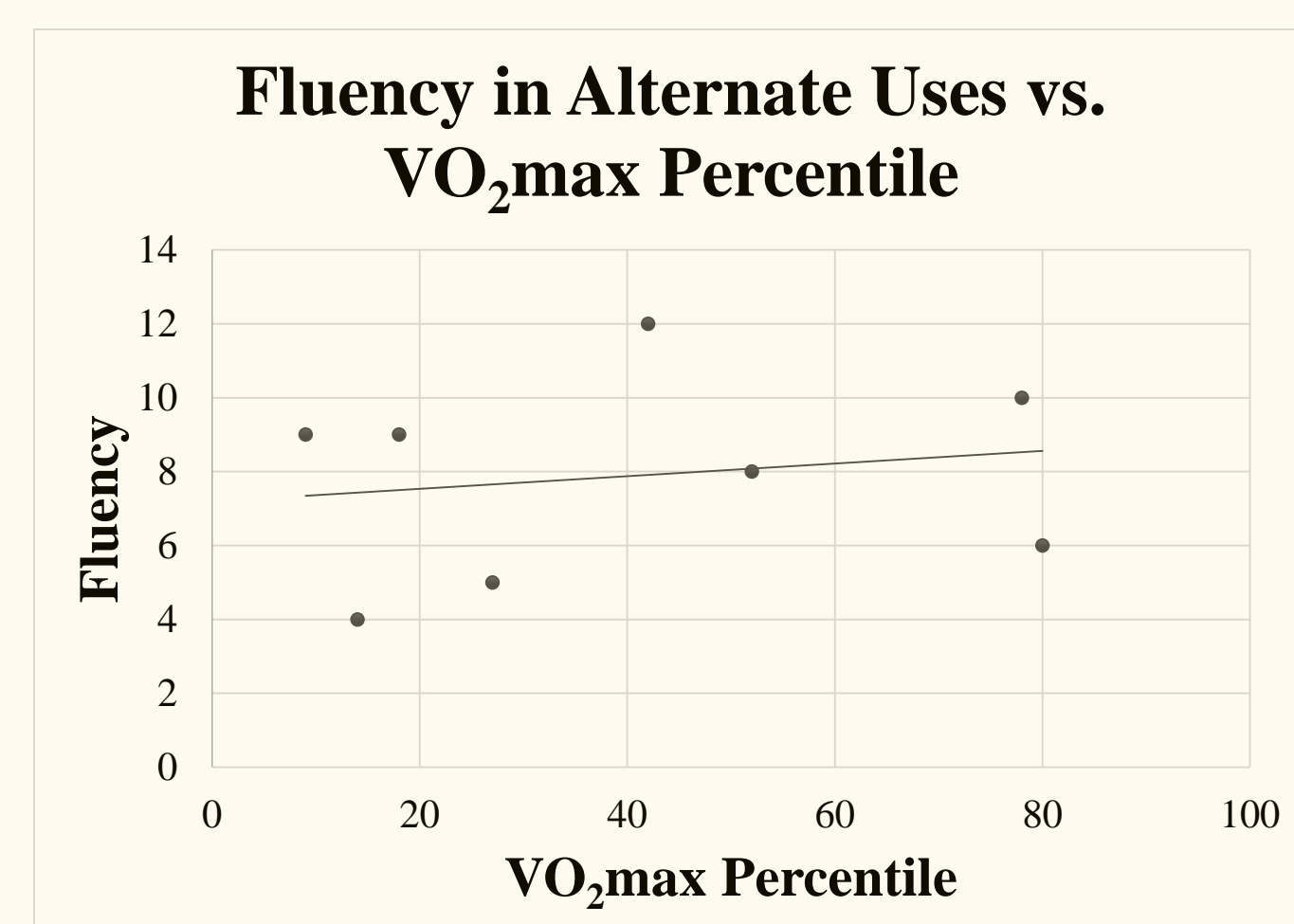
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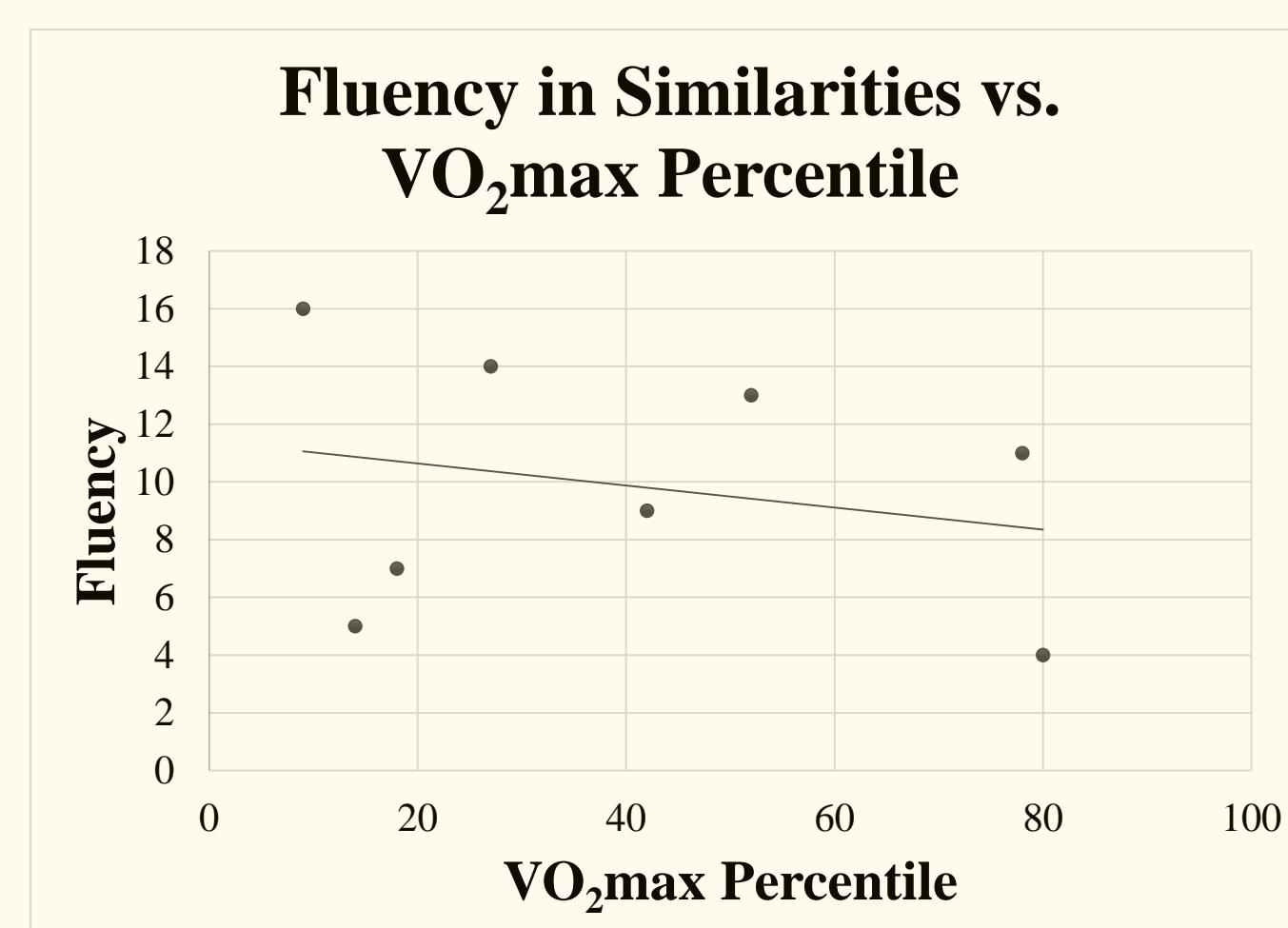
Introduction

Cardiovascular fitness is a positive correlate, and aerobic exercise is an inducer, of cognitive benefits and neural changes. Cardiovascular fitness may be significantly related to improved creativity. This has not been studied in-depth, and there are no studies examining this relationship in children, who are in a particularly malleable period of neural development.

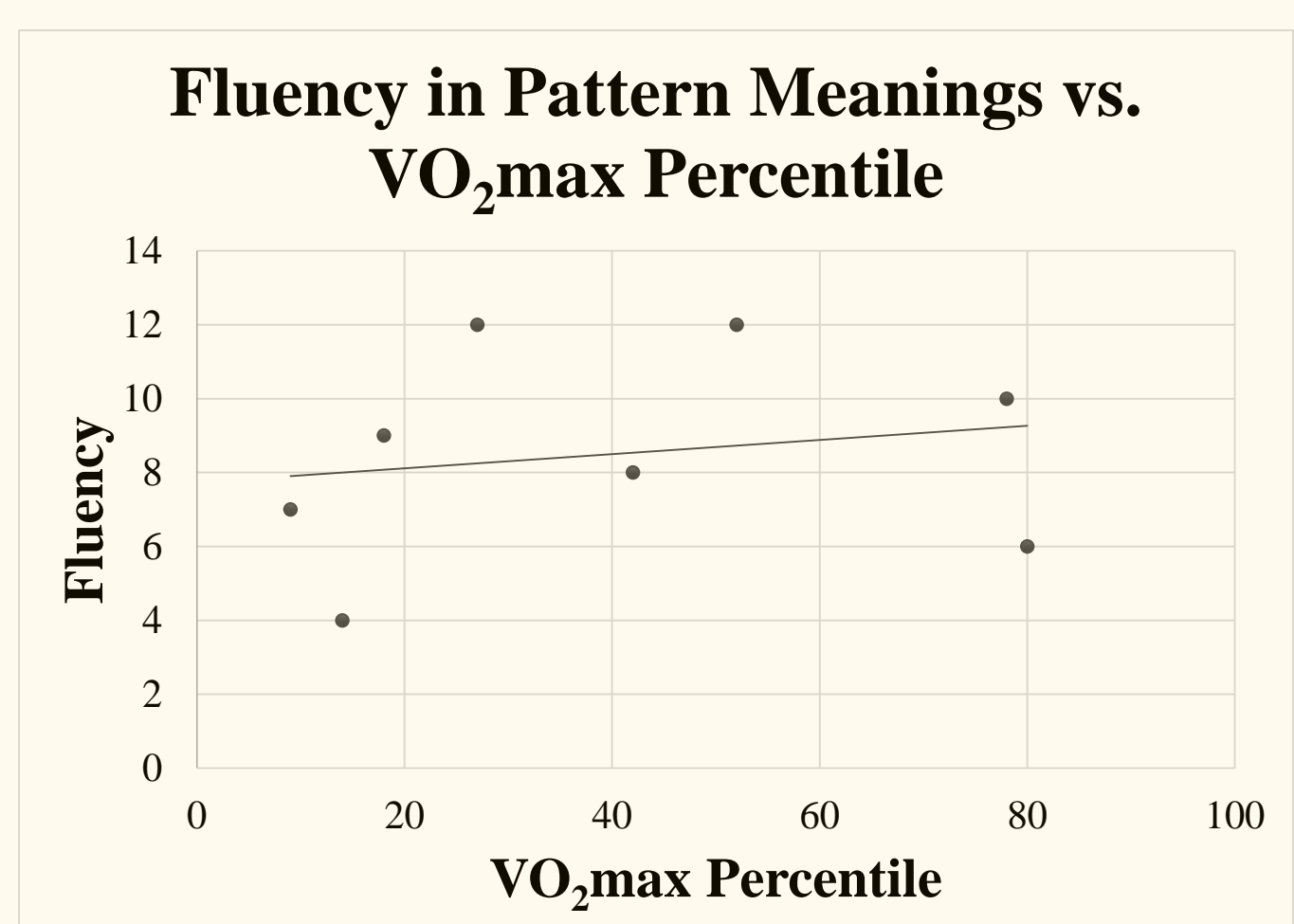
Results



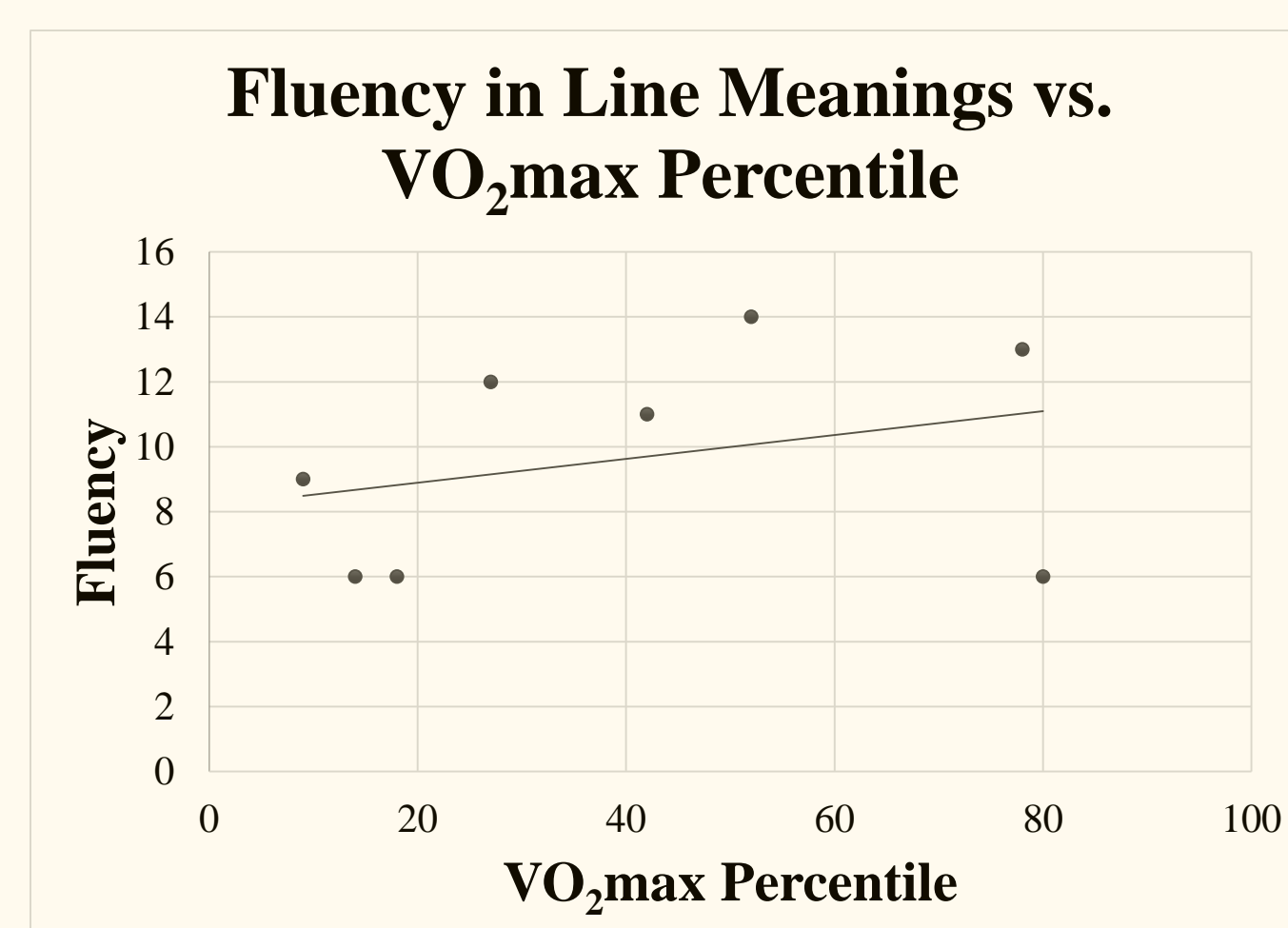
r = 0.178, p = 0.673 (n=8)



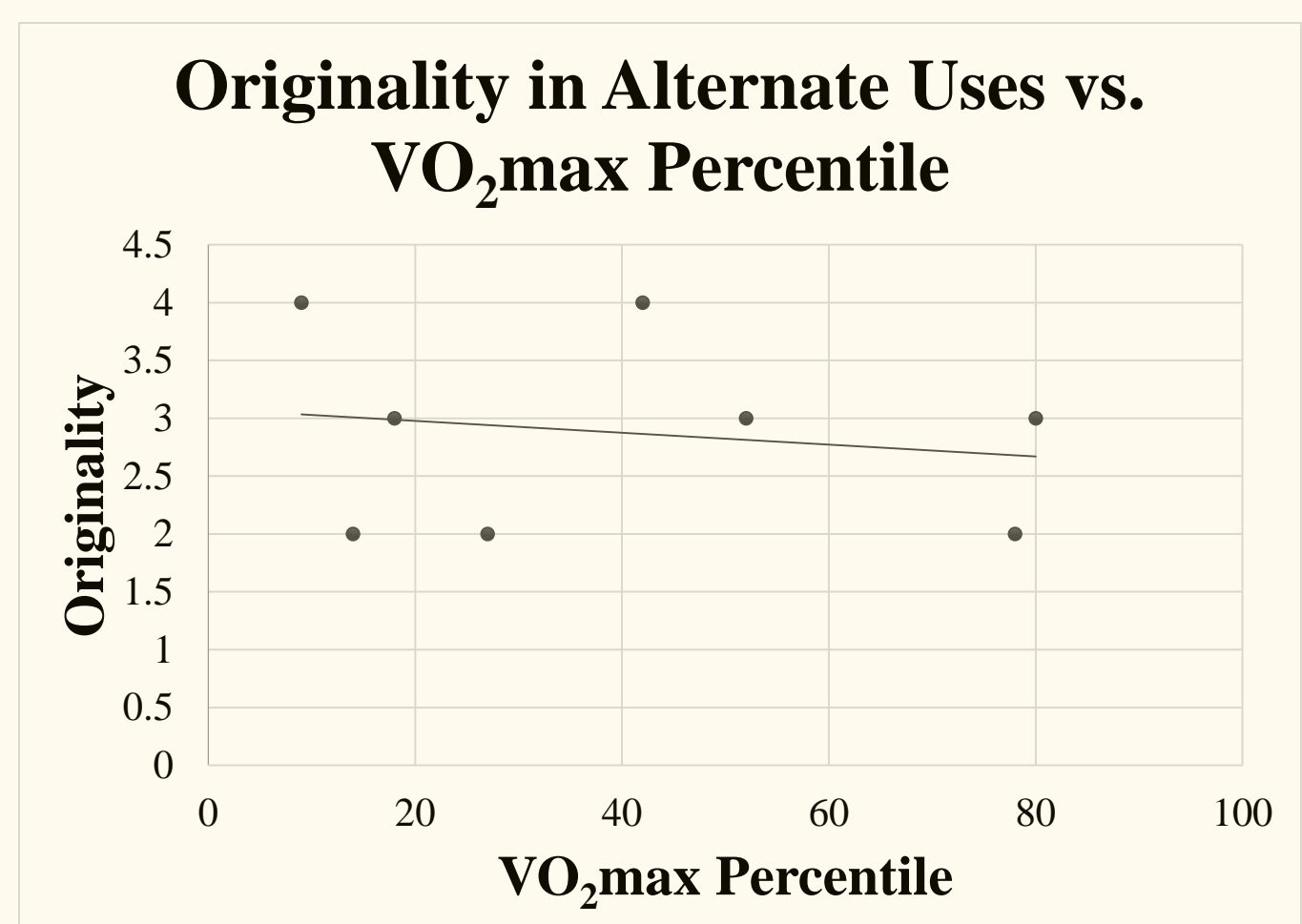
r = -0.246, p = 0.557 (n=8)



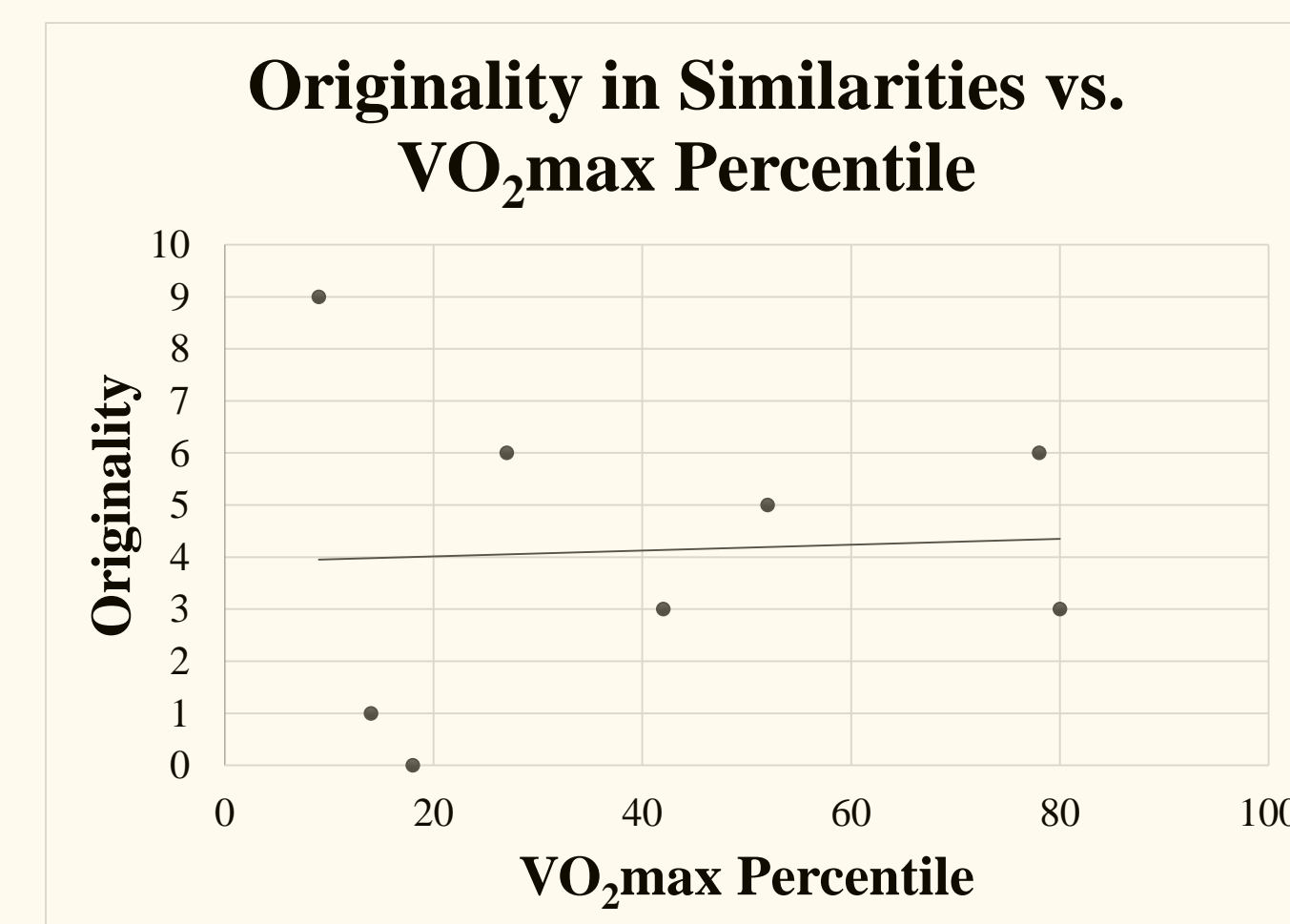
r = 0.19, p = 0.653 (n=8)



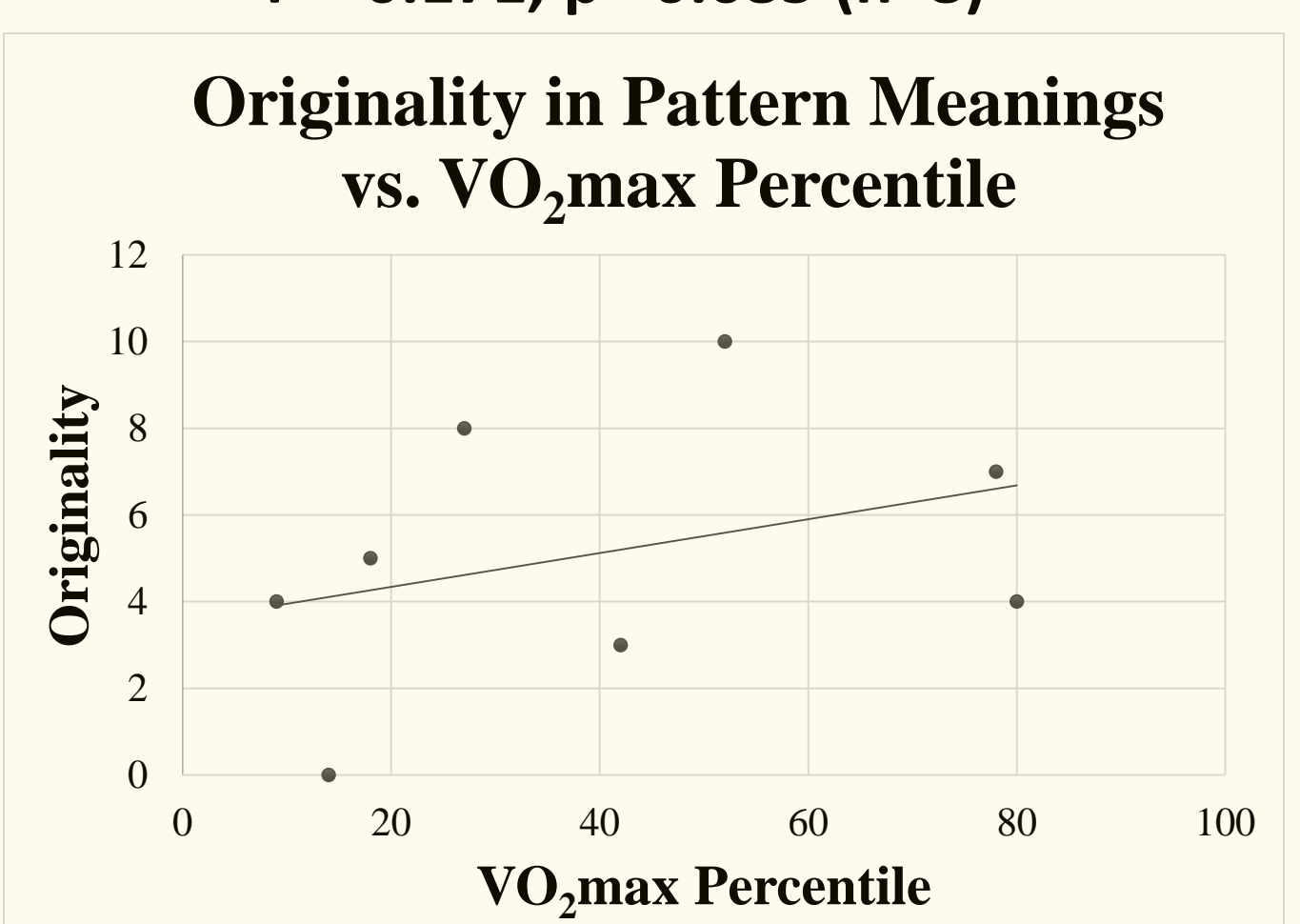
r = 0.308, p = 0.459 (n=8)



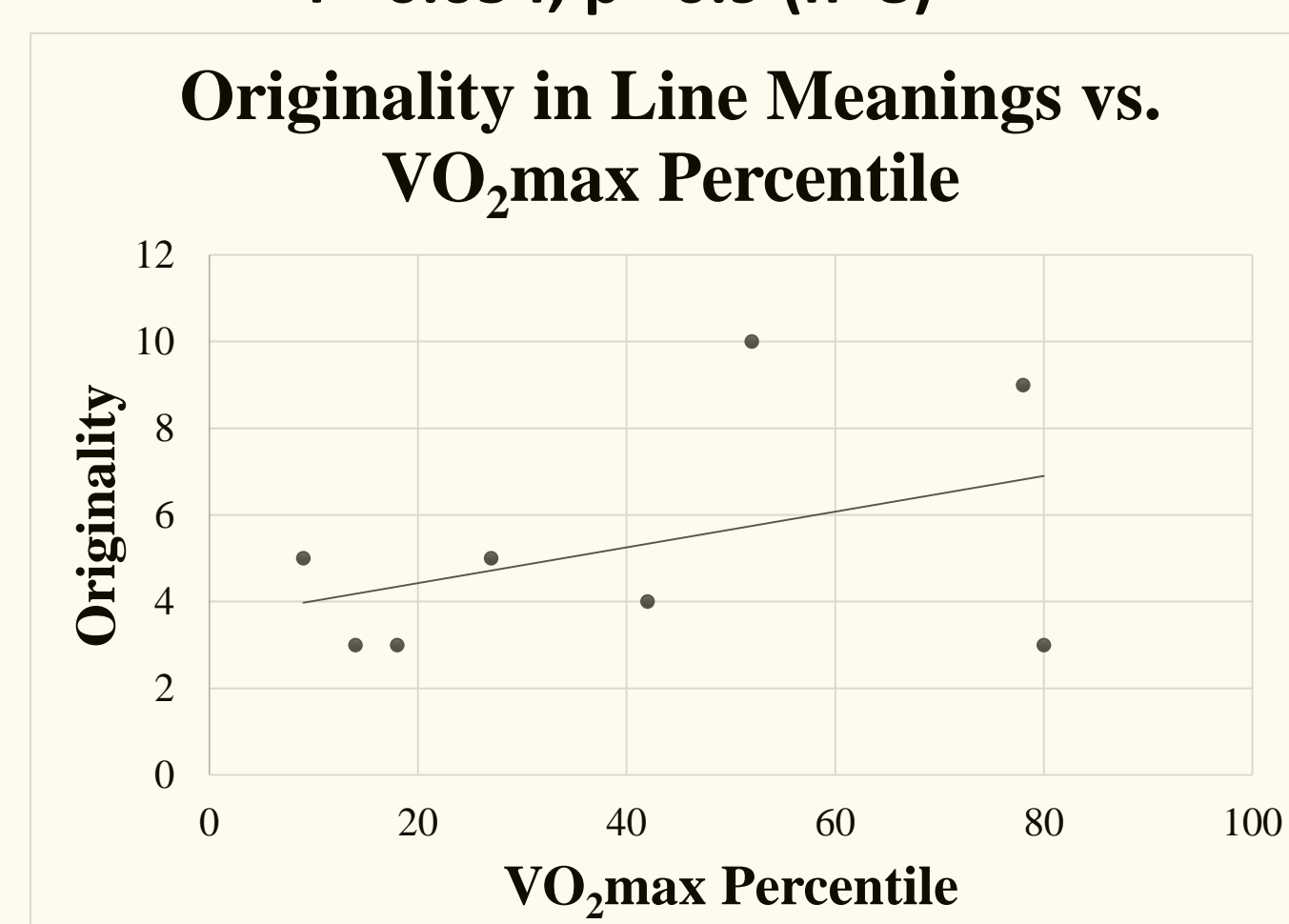
r = -0.171, p = 0.685 (n=8)



r = 0.054, p = 0.9 (n=8)



r = 0.348, p = 0.398 (n=8)



r = 0.417, p = 0.304 (n=8)

Subjects

Eight 9-11 year olds

Methods

Cardiovascular Fitness

VO₂max test- maximal oxygen consumption

Measurement 1- VO₂max Percentile



Creativity

Verbal Examples

Measurement 1: The number of responses given that are considered appropriate (fluency)

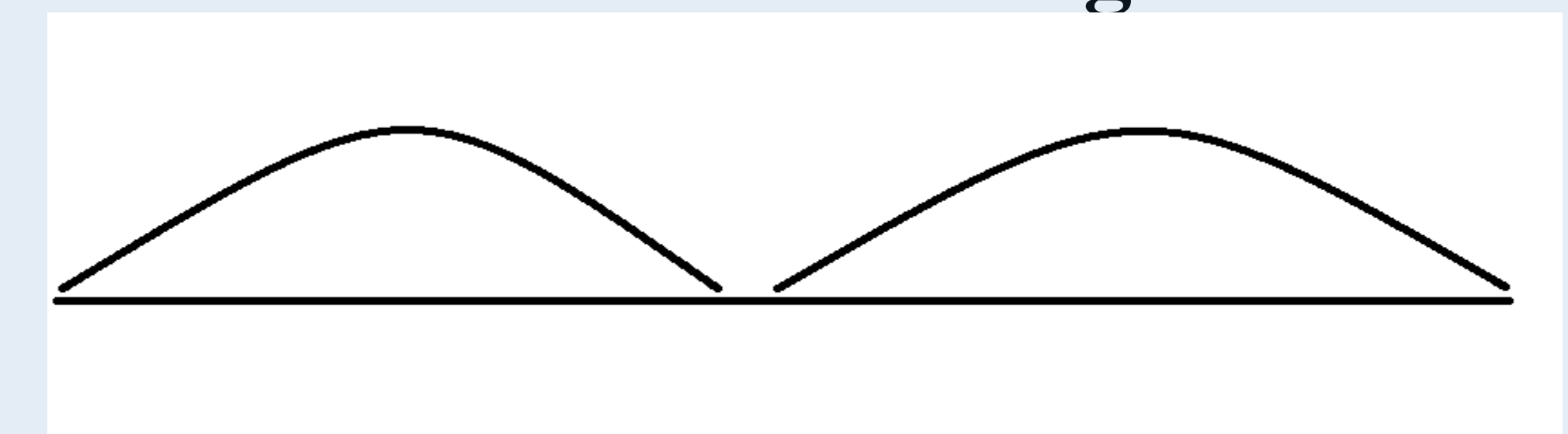
Alternate Uses: "Tell me all the different ways that you could use a shoe."

Measurement 2: The number of unique responses -responses that only one subject thought of (originality)

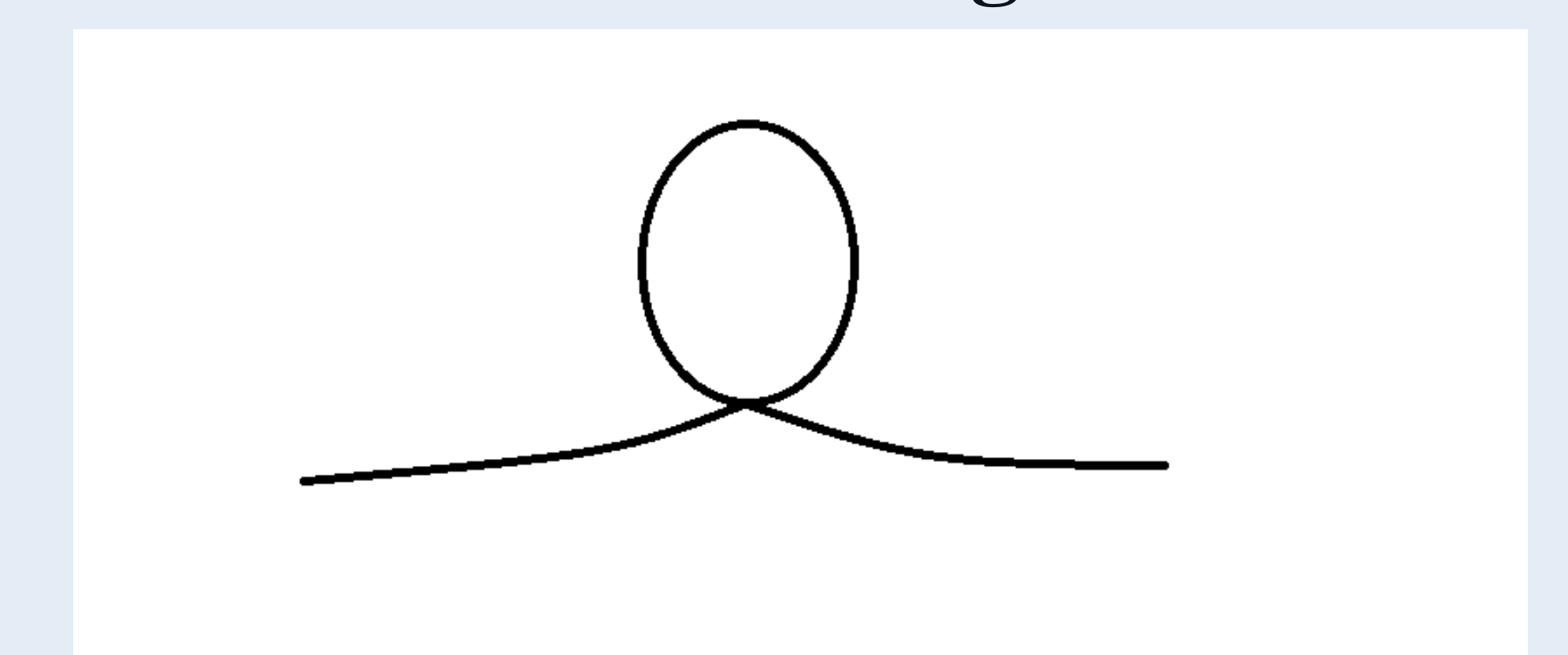
Similarities: "Tell me all the ways in which a cat and a mouse are alike."

Visual Examples

Pattern Meanings:



Line Meanings:



Discussion

- No significant correlations
- Limited sample size
- Future directions- neuroimaging, other variables

Acknowledgements

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