

Research Plan



A Toolkit to Measure Children's Curiosity

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Introduction

- Curiosity is a key driver of information seeking and learning, beginning in early childhood.
- Yet, research on children's curiosity remains fragmented (Grossnickle, 2016).
- There is a **lack of standardized, validated tools** that reflect its multifaceted nature (Jirout et al., 2024).
- Our study aims to develop a **comprehensive toolkit** to assess individual differences in curiosity among children aged 7–11 years.
- Altogether, the study will lay the groundwork for advancing curiosity as a measurable and impactful educational target.

Methods

Scoping Review

- We are conducting a scoping review of existing measures of curiosity for children aged 0-12 years (Prenévost et al., 2024).
- Based on the result, we will select measures to incorporate in our task battery.

Pilot Testing

- We will pilot test novel tasks where needed, based on mapping of measures from the literature onto the taxonomy of curiosity facets.

Psychometric Properties

- Sample size: 600 children, 7-11 years old.
- Reliability and construct validity will be assessed for the individual tasks and across the tasks.

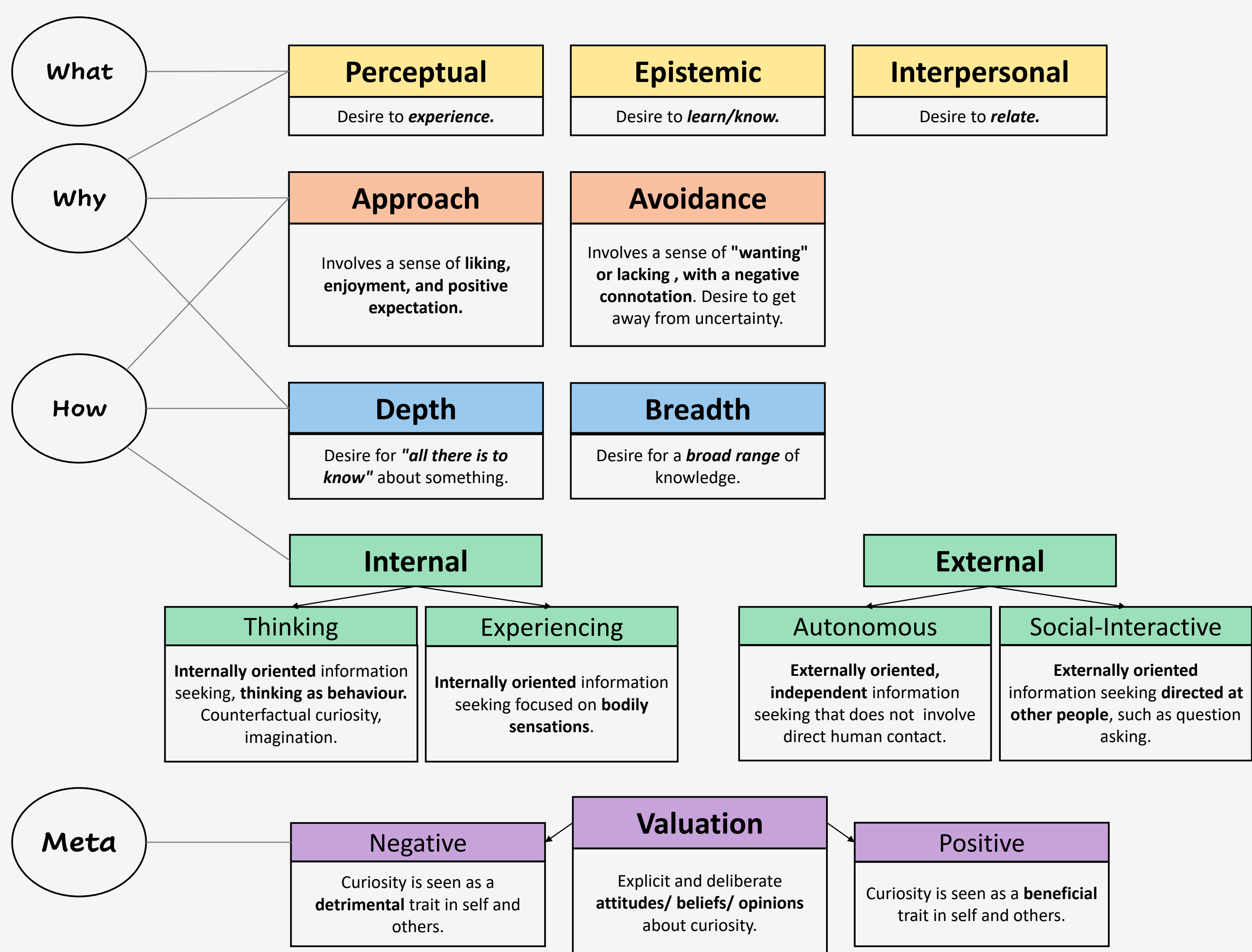
Test-Retest Reliability

- Sample size: 200 children, 7-11 years old.
- Test-retest reliability will be assessed (2 weeks delay).

Predictive Validity

- Sample size: 1200 children, 7-11 years old.
- Longitudinal study predicting academic achievement & well-being

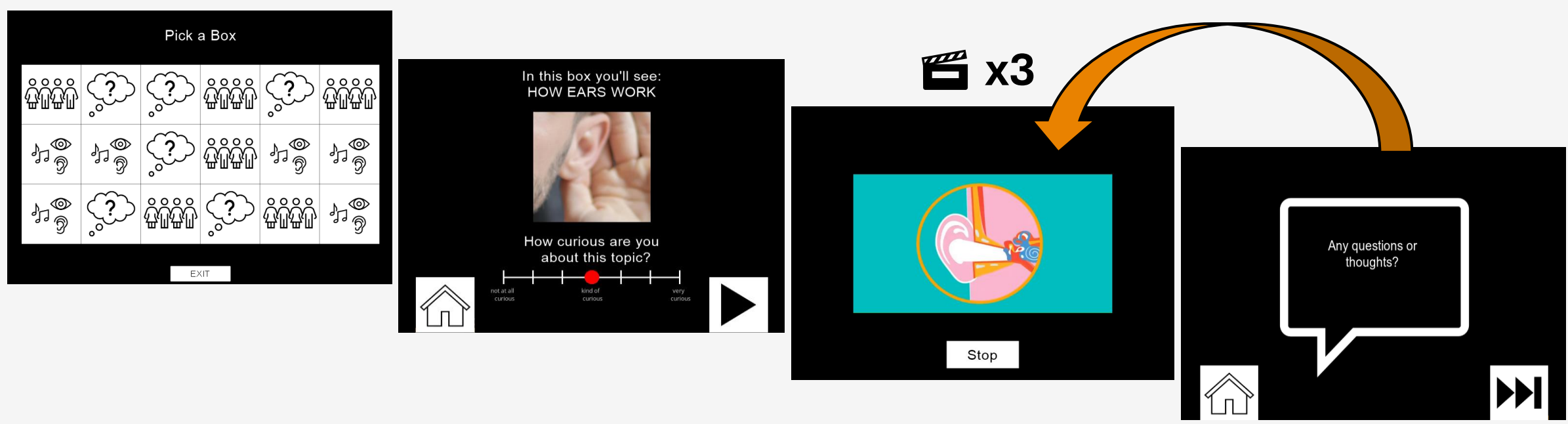
Taxonomy of Curiosity Facets



Example task

Multifaceted Exploration Task

- 3x6 grid (18 topics)
- Epistemic/Perceptual/Interpersonal
- Breadth/Depth



Research Plan



Step 1 (2024-25):
Scoping the literature



Step 2 (2024-26):
Mapping and developing measures



Step 3 (2025-27):
Creating and validating an online toolkit



Step 4 (2027-29):
Longitudinal studies

References

- Grossnickle, E. M. (2016). Disentangling Curiosity: Dimensionality, Definitions, and Distinctions from Interest in Educational Contexts. *Educational Psychology Review*, 28(1), 23–60. <https://doi.org/10.1007/s10648-014-9294-y>
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- Prenévost, M. H., FitzGibbon, L., & Bazhydai, M. (2024). Operationalization of Curiosity in Childhood: A Scoping Review. *OSF*. <https://doi.org/10.17605/OSF.IO/N8VT5>

