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Is Ownership an Emergent Property of Authentic Learning? An Astrophysics Case Study

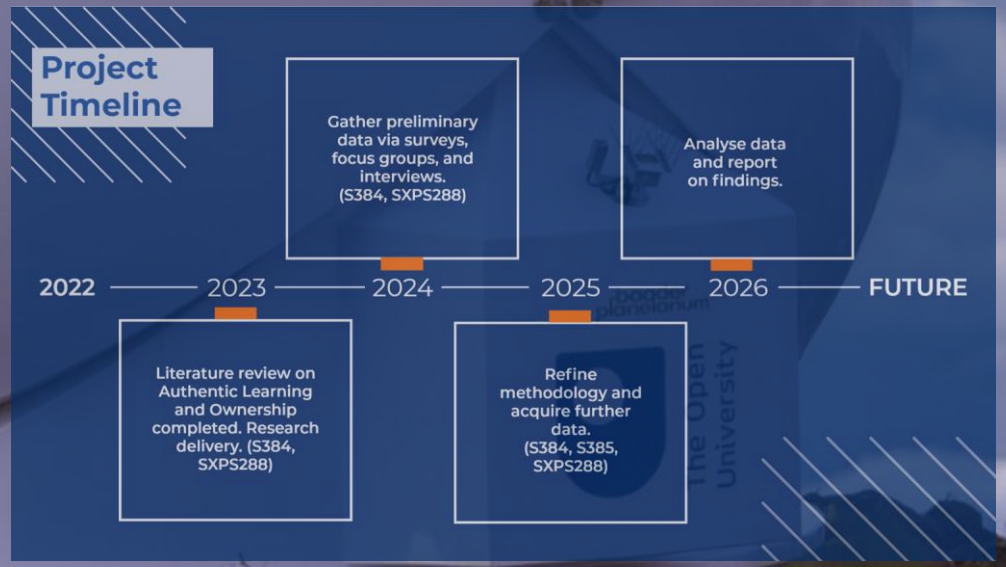
Christopher Wolfe, Ulrich Kolb, Mark Jones, Sally Jordan

Context

Some modules allow students to access the PIRATE remotely operated telescope to collect data, whereas other modules provide data from existing astronomical databases.
This study investigates the relationship between the development of ownership feelings and the data acquisition modes.

Research Questions

- Do students develop ownership feelings toward activities that they believe are authentic?
- Does the mode of data acquisition affect the ownership feelings?
- Do ownership feelings correlate with course outcomes?



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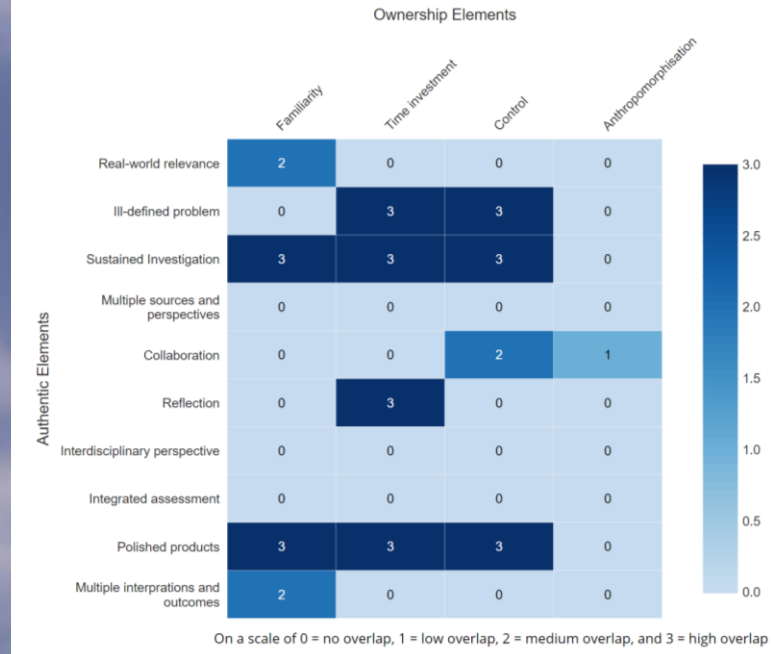
Overview of authentic elements and ownership



Analysis

The literature suggests overlap between the conditions which generate ownership feelings (Coiceru et al. 2020) and authentic learning environments and activities (Lombardi, 2007). Ownership could arise in any sufficiently authentic learning environment or authentic learning task. Heatmap figure shows overlap between concepts.

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