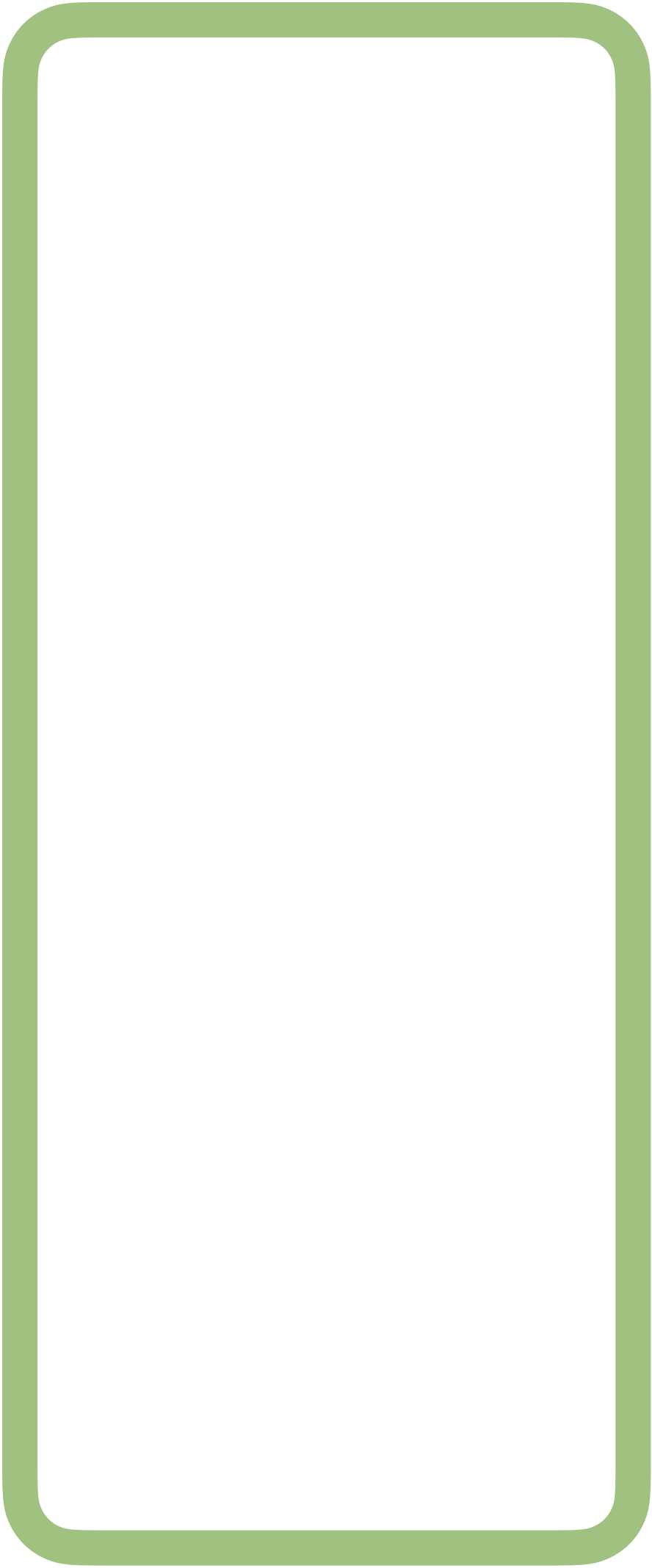


Utility of coding	Teaching outcome	Characteristic to moderate	Teaching strategy
Programming is an important skill	Programming skills	Student work pace	Focus on navigating programming errors
Computation aids content learning	Physics-code connection	Impact of course design	Leverage affordances of computational problems
Computation makes difficult problems easier	Capabilities of computation	Student attention to programming details	Encourage reflection on coding
Computation offers space for broader skills	A new approach to learning	Student attitudes	Leverage collaboration

Theme and Variation



Category of Description

Results

Pawlak, Irving, & Caballero, Phys. Rev. PRA (2020)

122LLAsinterviewed

Results

12 LAs Interviewed

Utility of coding	Teaching outcome	Characteristic to moderate	Teaching strategy
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Category of Description			
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Teaching strategy

Most of the time, I just teach them how to do it because it's usually when they've just like edited like one line of code, and then it's like, "Oh, we have the tabbing error." I'll just be like, "Here's how you solve that: Highlight, and then do the thing, and then, yay, it's good." Then they'll be like, "Okay. Cool. Now I know how to do this in the future."

Kendra

**Teaching
strategy**

**Focus on
navigating
programming
errors**

**Leverage
affordances of
computational
problems**

**Encourage
reflection on
coding**

**Leverage
collaboration**