

Runestone

NAMES:

Topics Chosen

- 9.14: The Accumulator Pattern with Strings
- 16.2. Calculating the Sum of a List of Numbers¶

What is Helpful about Inline Exercises?

- It provides a step-by-step diagram of everything that is going on as code is executed
 - Helps keep track of all global variables as well as local variables within functions
 - Helpful to help beginner students visualize what is going on at a high level
- You can see what code is running, and then change it and see how it changes
- If get an error, it explains the error

Is Less Text Helpful?

- Did not notice how there was less text in the chapters– it seemed to say what was needed.
- It is nice to be able to do exercises and read text, rather than just read text

How are Learning Theories Used

- Learning Styles
 - The hands-on interactive activities along with the labs will appeal to learners who don't want to just read.
- Vygotsky's Zone of Proximal Development
 - The textbook provides instantaneous feedback and help for students to understand why their answer is wrong and what could be right

Missing from Physical Textbook?

1. Images / color to keep students interested
2. Some do not have summaries
3. Some do not have exercises

Is Online Text Truly a Better Experience?

- Having interactive activities introduces the potential of bugs occurring, which can be more frustrating than not having the interactive problems.
- The instant feedback on checking your understanding questions are greatly beneficial, as even if you get it wrong, it gives you an explanation on why its wrong.
- PythonTutor integration is beneficial for more freeform code, as it shows diagrams
- Textbook seems to be a work in progress, which gets the textbook out sooner, though for readers who are referencing later chapters could be frustrating.
- Can easily search through the textbook rather than needing to look through it

ZyBooks

NAMES:

Topics Chosen

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What is Helpful about Inline Exercises?

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Refactor

NAMES: Ebenezer, Emily, Aaron

Topics Chosen

- 2/13 - Turtle Graphics and Functions
- 2/27 - dictionaries

What is Helpful about Inline Exercises?

- CS 101 Programming in Python
- R&R stands for Run & Revise (can run program real time)
 - Can download your code to run later as well
- They check actual absorption of content and explanations as to why you are / aren't correct
- shows you real time implementation of how your code works and why certain lines are / aren't important

Is Less Text Helpful?

- definitely. Especially when reading from a screen
- I still feel like the amount of text is overwhelming. I just keep scrolling and scrolling.

How are Learning Theories Used

- The feedback on the questions is a good example of ZPD because it helps students close the gap between what they could learn alone by adding this assistance.
- Serving different "types" of learners
- No connectivism, no way to connect for learners

Missing from Physical Textbook?

- Technological overwhelm (viewing for hours)
- I want to turn a page
- Do less for more

Is Online Text Truly a Better Experience?

- No

This feels the exact same to me as a physical textbook in terms of the inline texts. The only novel feature is that I can hit a button to check my answers instead of flipping to the back of the textbook.

Python Bakery

NAMES: Arely Sun, David Xu, Sofa Radkova

Goal

- make a truly instructor-friendly Python CS1 course that can be quickly deployed while still effectively teaching students.

Topics Chosen

- Variables (chapter 1, part b)
- Functions (chapter 2)

What is Helpful about Inline Exercises?

- Can interact with the code and see how changes to the code change output
- Easy way to run and test code without having to open an editor
- Can turn python code into scratch (helpful for those who understand information visually)
- Show the examples of poor code to drive home the concepts from the text
- Wish there was a way to take away a small cheat sheet of code chunks from the chapter

Is Less Text Helpful?

- Kind of more helpful for more experienced learners but tend to get distracted by exercises
- Not sure if it is suitable for first-time programmers, since they might require more explanations and other options for analogies and examples
- The summaries at the bottom and bolded words are helpful for highlighting the most important takeaways

How are Learning Theories Used

- UDL: flexibility, choices available for learners to build their own learning experience (text, coding segments, videos with audio, diagrams)
- Can see that it's catering to learning styles, which are a myth
- Constructivism - acquired knowledge through experience rather than passive transmission

Missing from Physical Textbook?

- Bookmarking, annotations (especially after you play around with code and draw some conclusions for yourself)
- A sense of accomplishment from completing a chapter (like with a physical book you can see how many pages you've been through) - maybe could implement a progress bar

- Usually has practice problems at the end of each chapter but the online textbook only offers examples (no opportunity to apply the concepts)

Is Online Text Truly a Better Experience?

- Online text is a better experience. You can copy and paste code into an editor, GPT, online notes, etc.
- The video version of content is good for auditory learners
- Further into the textbook the frequency of visual examples decreases (at some points they just disappear)