From "Hello World" to Beyond

——An Analysis of Statistical & Data Science Learning Journey on CourseKata

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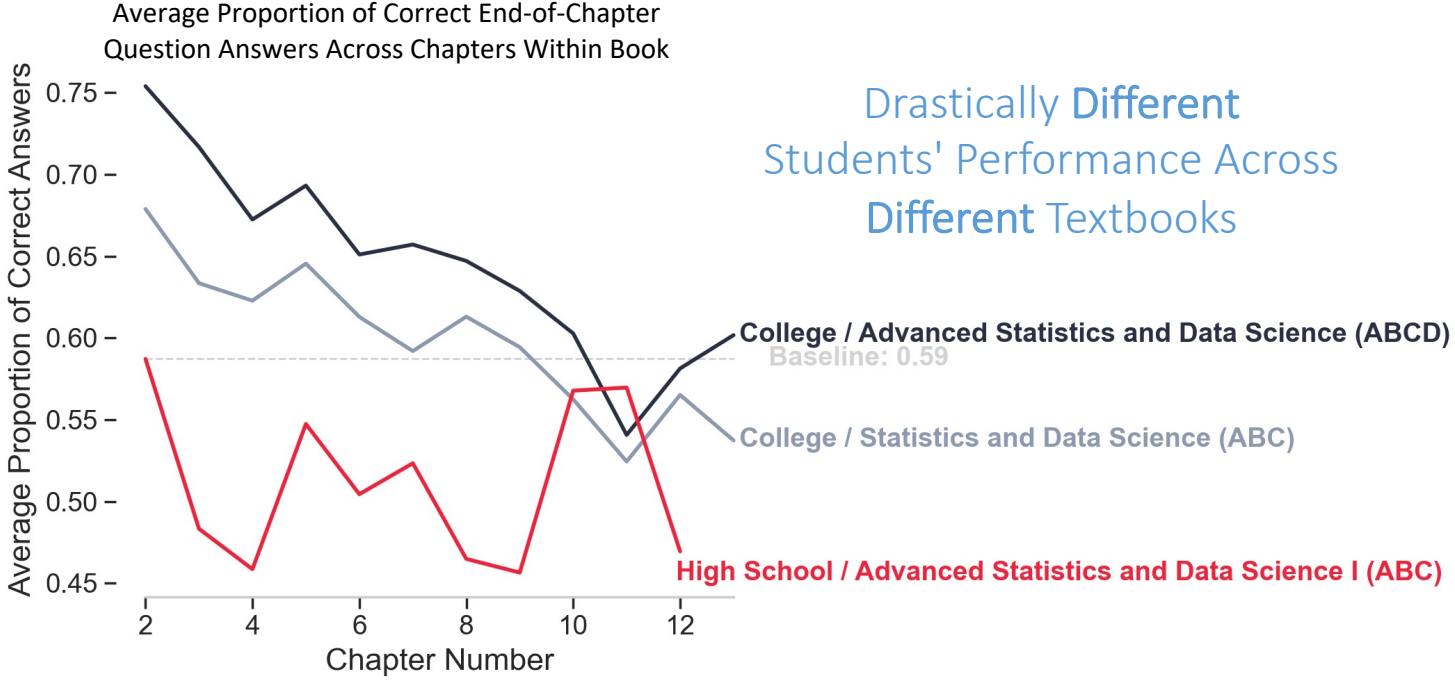
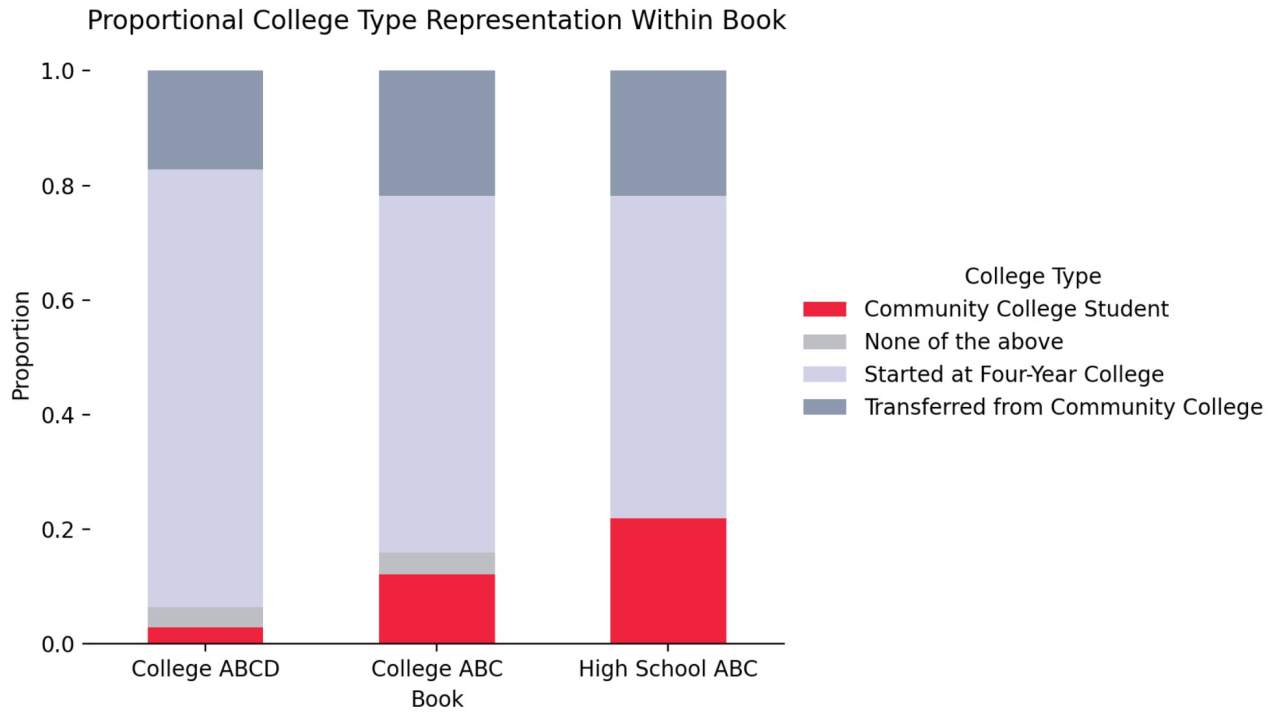
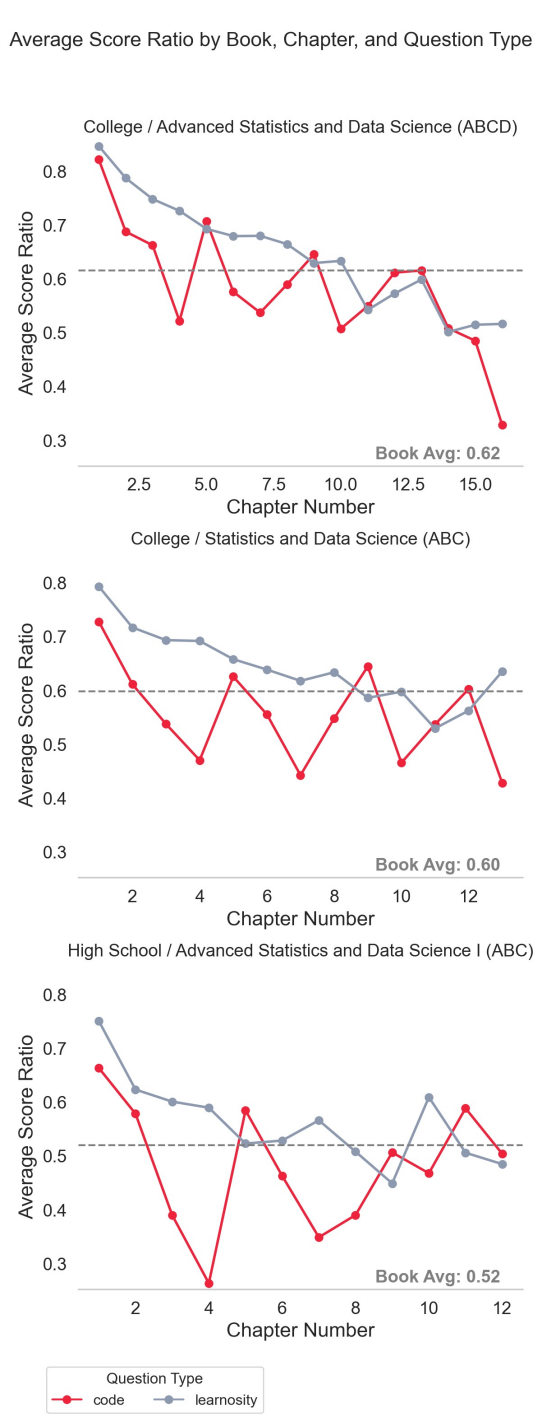


Drastically **Different** Students' Performance Across **Different** Textbooks



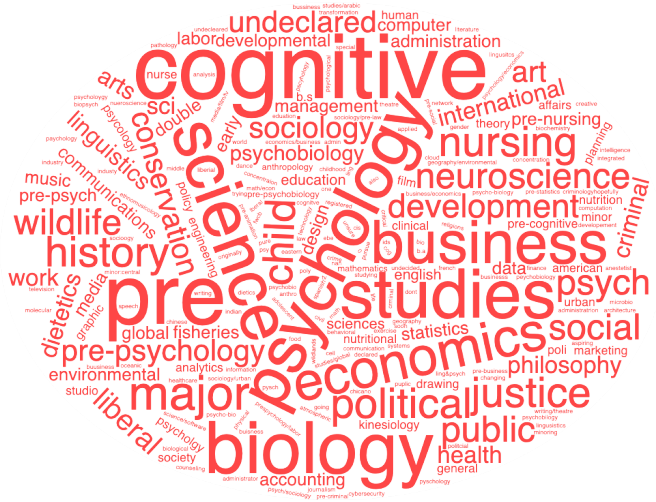
In general, students have LOW average score ratio on coding questions across all three textbooks

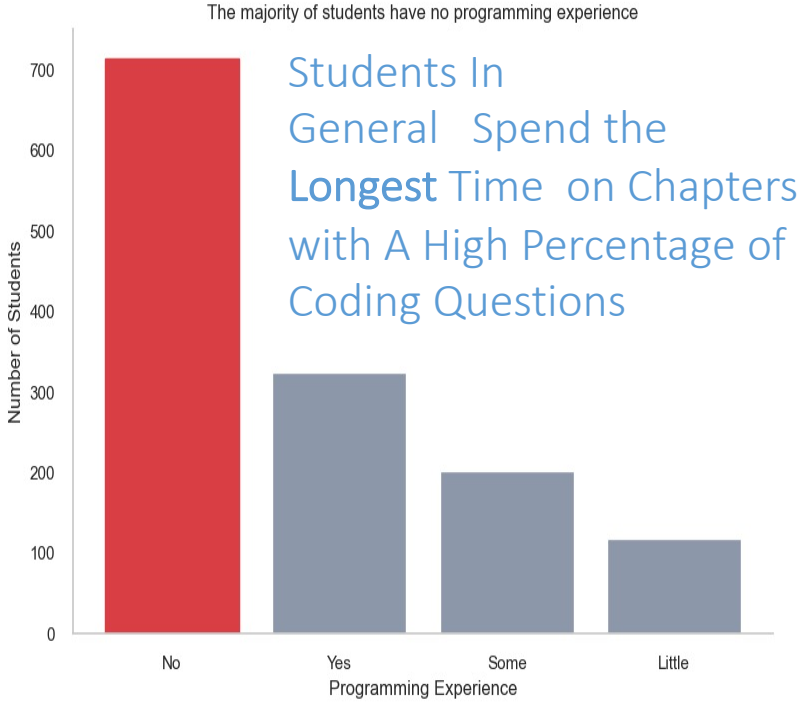


Recommendations:

- ***More tailored Foundational Contents for student groups with weaker educational backgrounds***
- ***More Hands-On Guided Coding Learner Labs***

Many Students Come From Non-Technical Backgrounds (Majors)

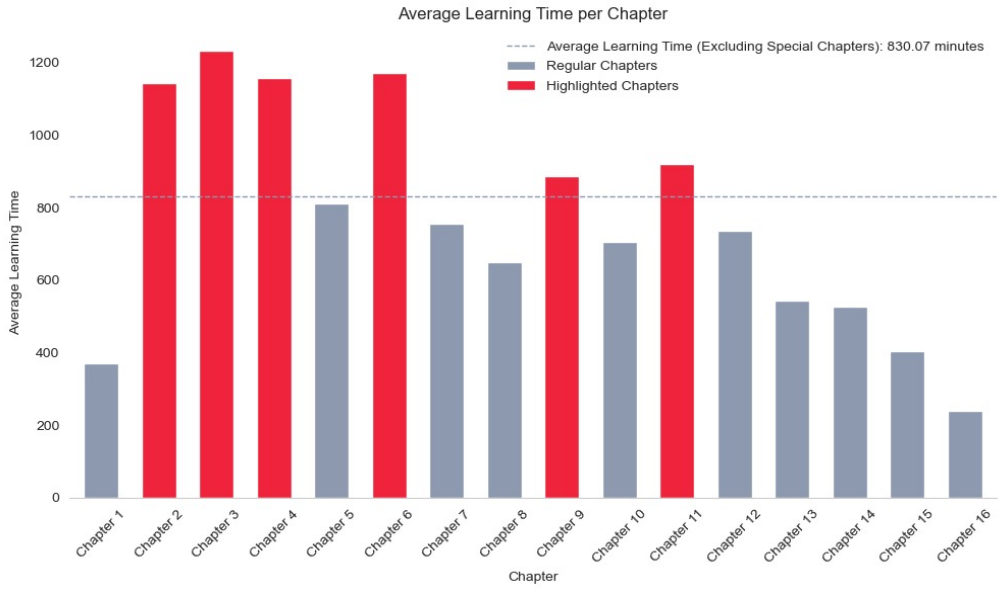




Students In General Spend the **Longest** Time on Chapters with A High Percentage of Coding Questions

Percentage of Question Types By Chapter

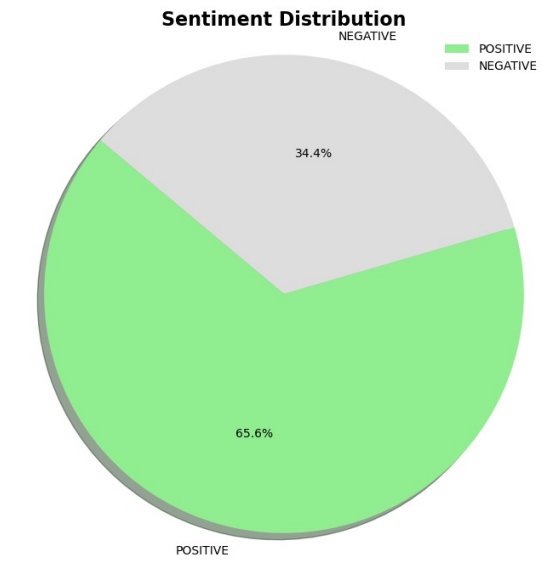
Chapter Number	code	learnosity
1	71.89	28.11
2	33.25	66.75
3	33.54	66.46
4	18.88	79.01
5	19.04	80.96
6	22.61	77.39
7	16.59	83.41
8	20.72	79.28
9	14.53	82.36
10	24.55	75.45
11	23.44	76.56
12	19.82	80.18
13	25.90	74.10
14	30.00	70.00
15	15.42	84.58
16	25.12	74.88



Recommendations:

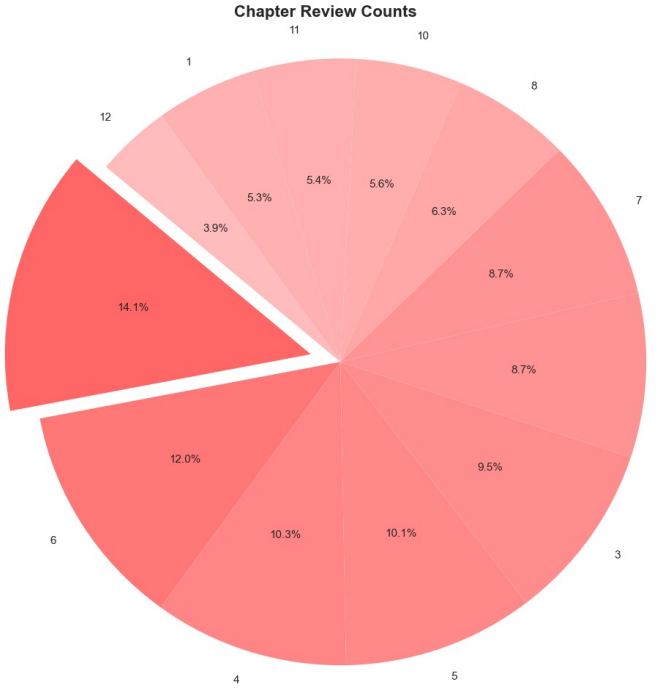
- ***Show Difficulty Levels and Time Commitments Customized to Distribution of Past Learning Records***
- ***Customized Learner Lab Data Examples Based on Students' Backgrounds (Majors)***

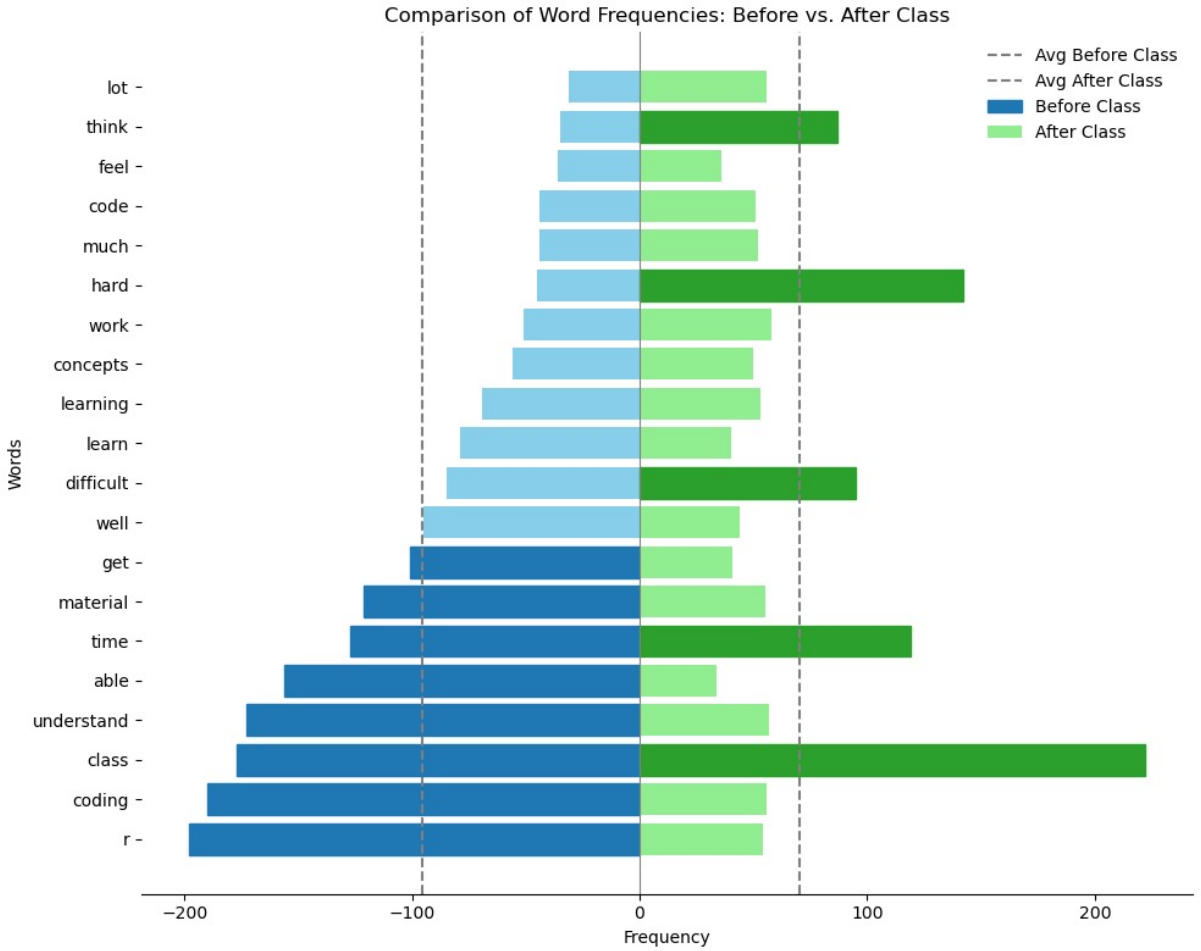
Sentiment Analysis on Students' Post-Class Survey



2/3 students show positive feedback towards their learning experience

High Reviews on **Chapter 2**, coding and theory heavy.





Pre-Class: Students show high concerns regarding their ability to understand the materials, potential time investment. Noticeably, they demonstrate the highest concern regarding **Coding** and **R**.

Post-Class: Students reflect most on the **difficulties**, **challenges**, **critical thinking**, and **time** they invested in their **class**.

Recommendations:

*Implement **Chatbot** to Encourage More Consistent Student Engagement and Reviews Throughout a Complete Study Cycle*

THANK YOU!