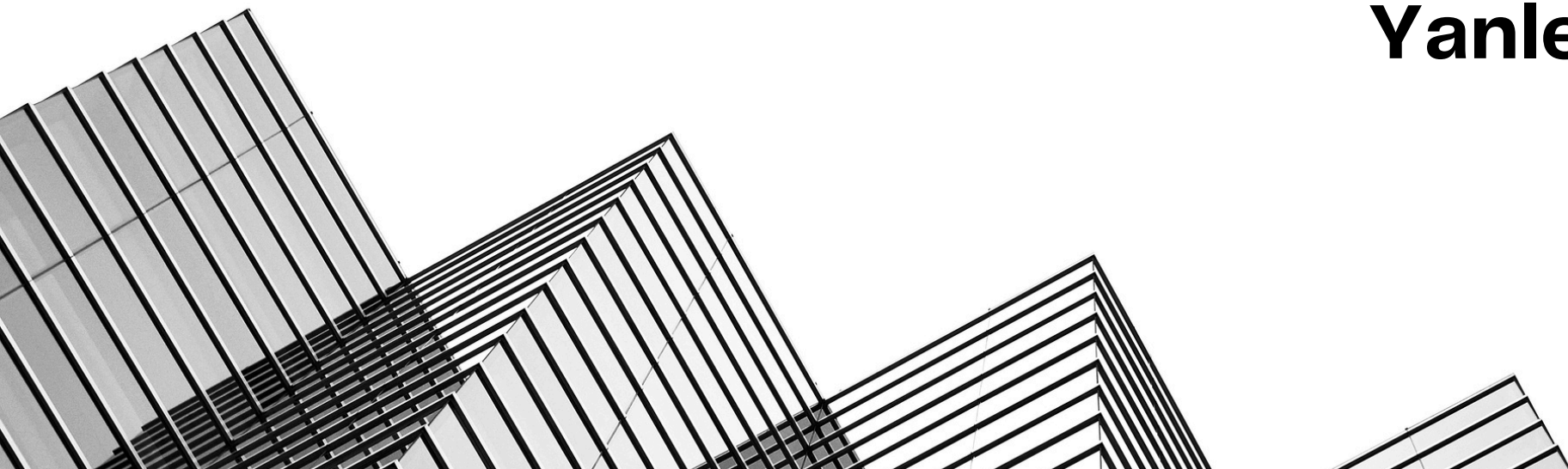# Analysis on Engagement and Efficiency from Student Responses and Question Types

C16

IDK

Yanle Lyu, Jiaxin Luo, Janel Wu, Bruce Zhang

For each chapter over 3 books ...
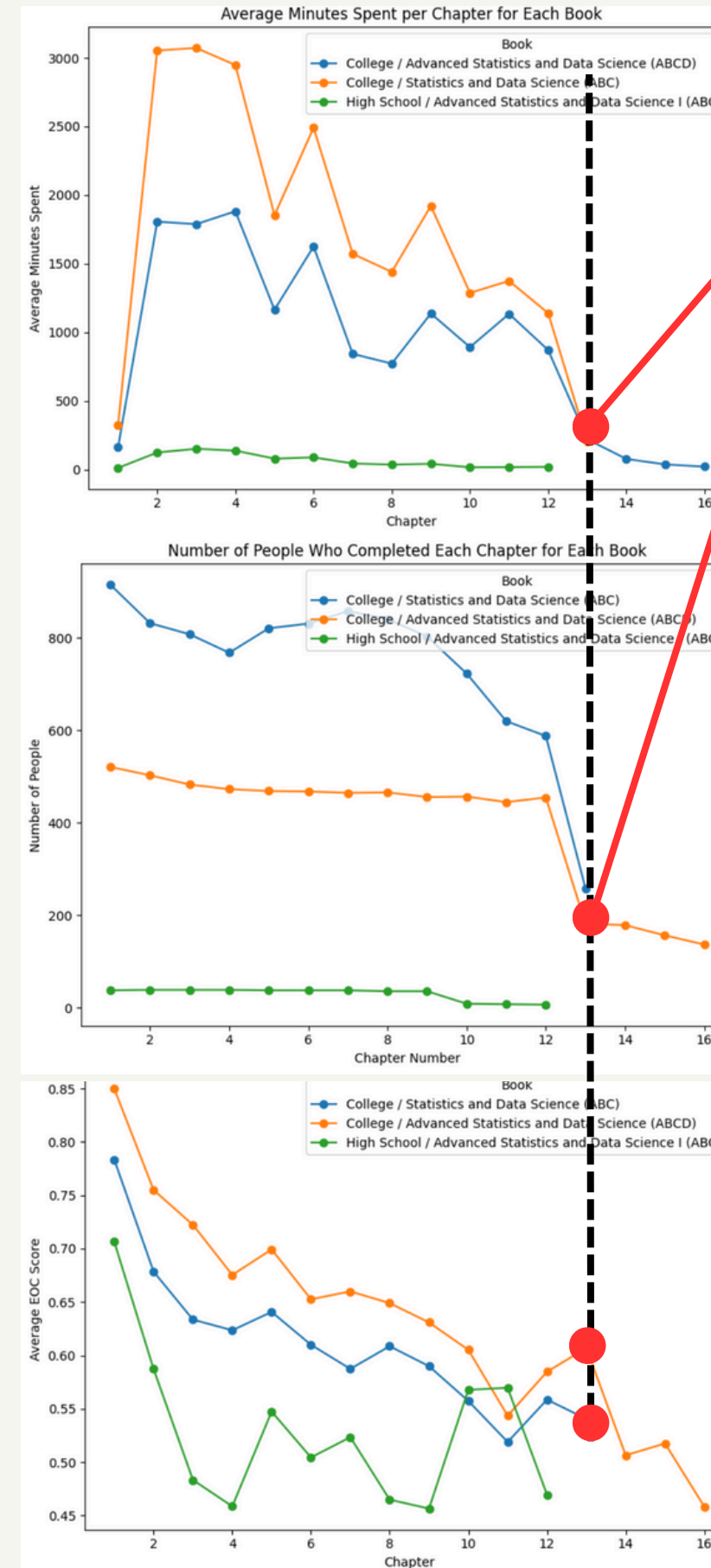
⬇ **Time Spend**

Engagement

⬇ **Completion Rate**

Easiness/ Coherence

- Only **25%** of students complete all chapters
- Only **49%** of students complete over 90% chapters

⬇ **Performance**

Effectiveness

- 15 students cross materials 15% grade improvement in avg.

Figure 1. Chapter-wise analysis of metrics

Figure 1. Chapter-wise analysis of metrics

Figure 2. Chapter-wise Avg. EOC for ABCs

College/ (ABC)
Ch. 13 What You Have Learned

College/ (ABCD)
PART IV: MULTIVARIATE MODELS
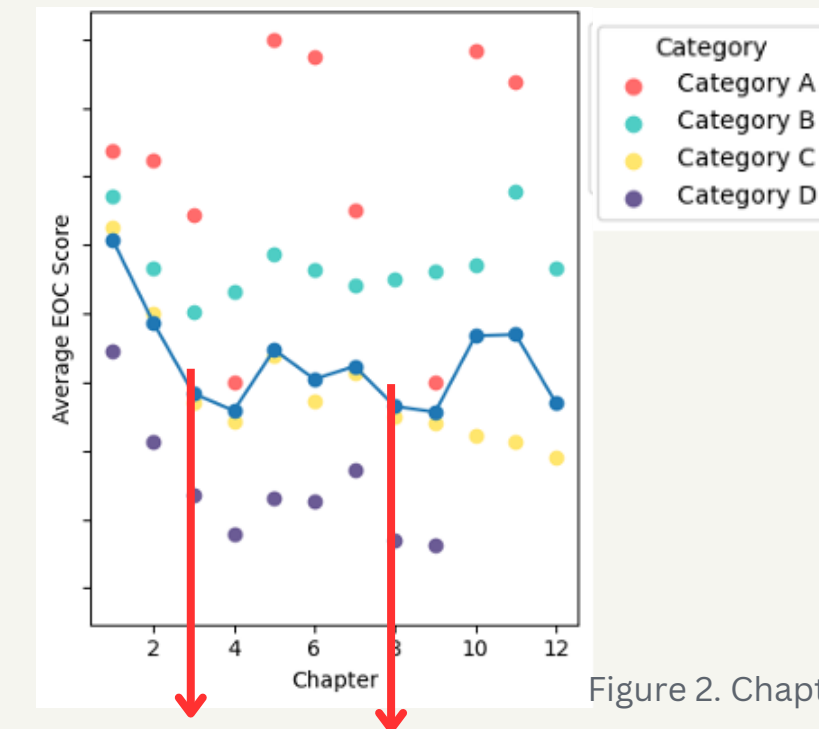
Ch.13 Introduction to **Multivariate Models**

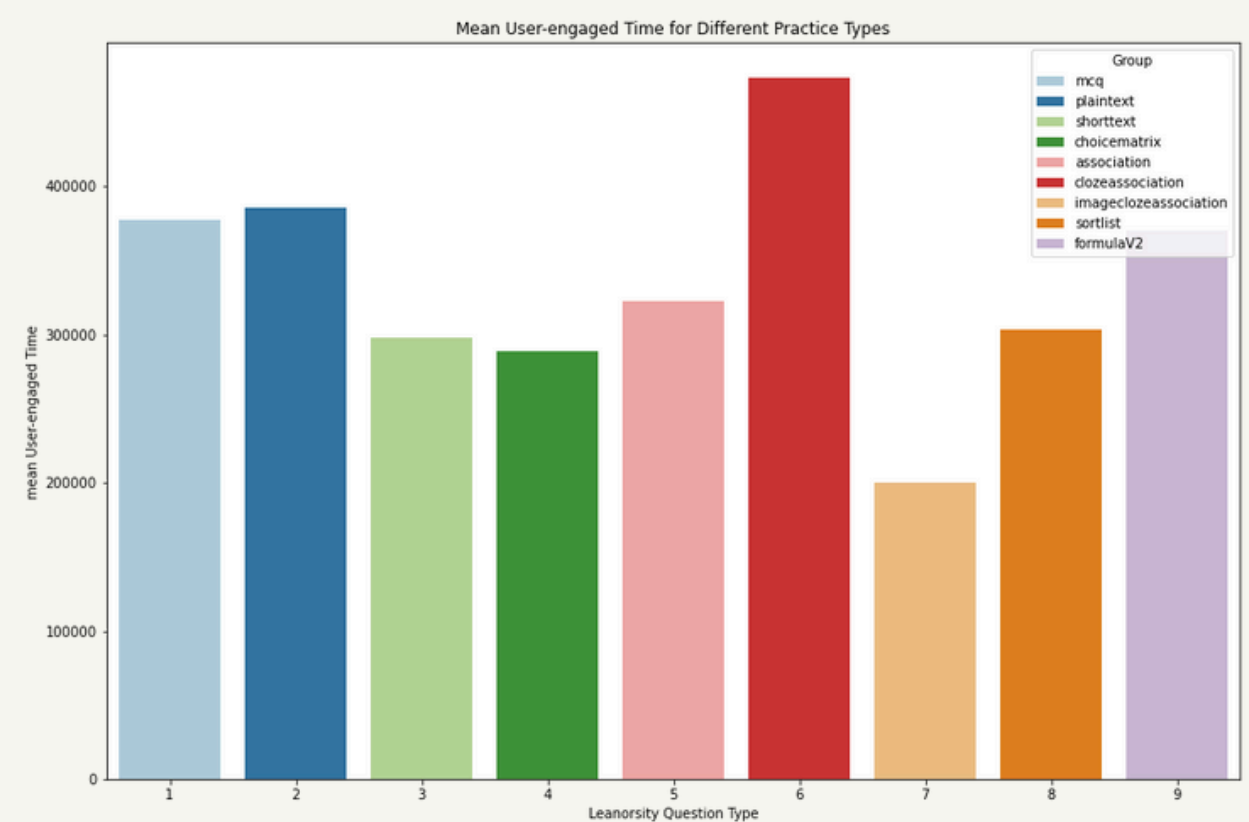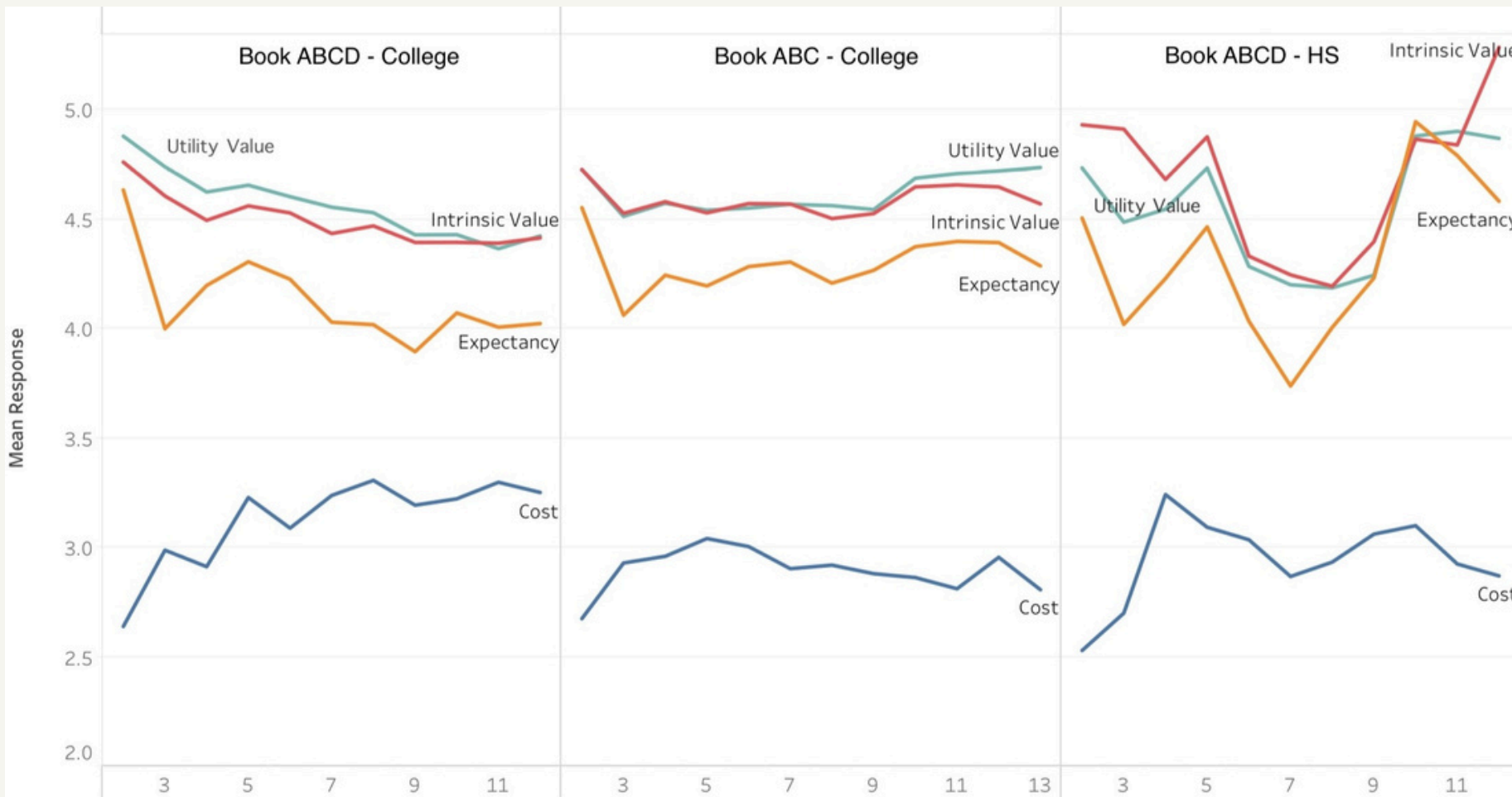**High School/ (ABC) & College/ (ABC)**

Ch. 4 - Explaining **Variation**

Ch. 9 - Models with a Quantitative **Explanatory Variable**

Combined with
Student Feedbacks

Suggestion:
- **Reduce the number of MCQ questions; Increase Clozeassociation questions**
- **Encourage advanced learning**
- **Adjust difficulty based on responses**
- **Students engage more on Friday nights**

User–engaged–Time For Each Learnosity Types:
- MCQ occupies 92.48% of All Types of Questions.
- However, the Clozeassociation (only 0.49%) has the highest engaged time.