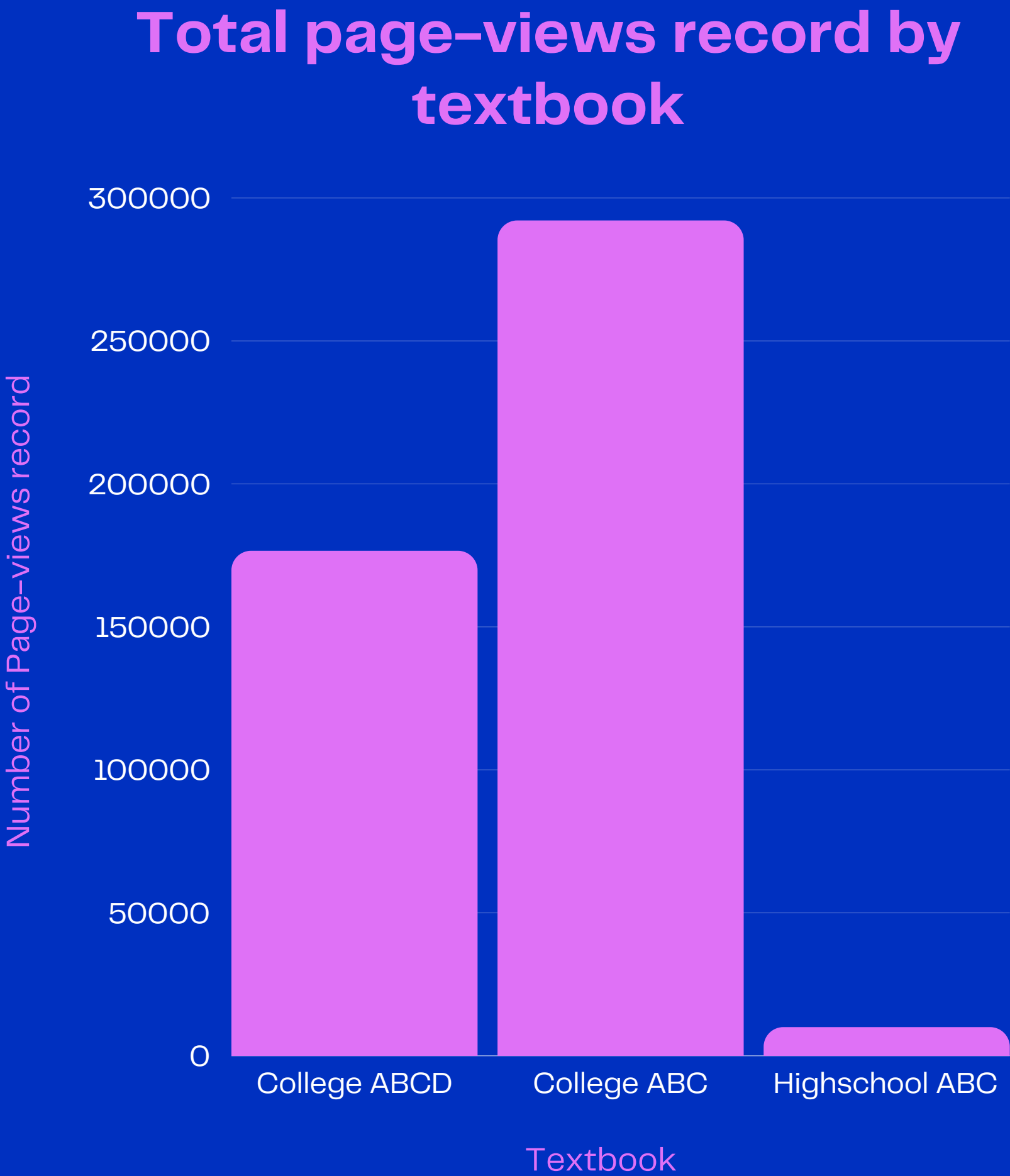# Which CHAPTER do students struggle with the most in CourseKata textbook?

OUR TEAM DECIDED TO FOCUS ON COLLEGE-LEVEL TEXTBOOKS (ABC & ABCD)

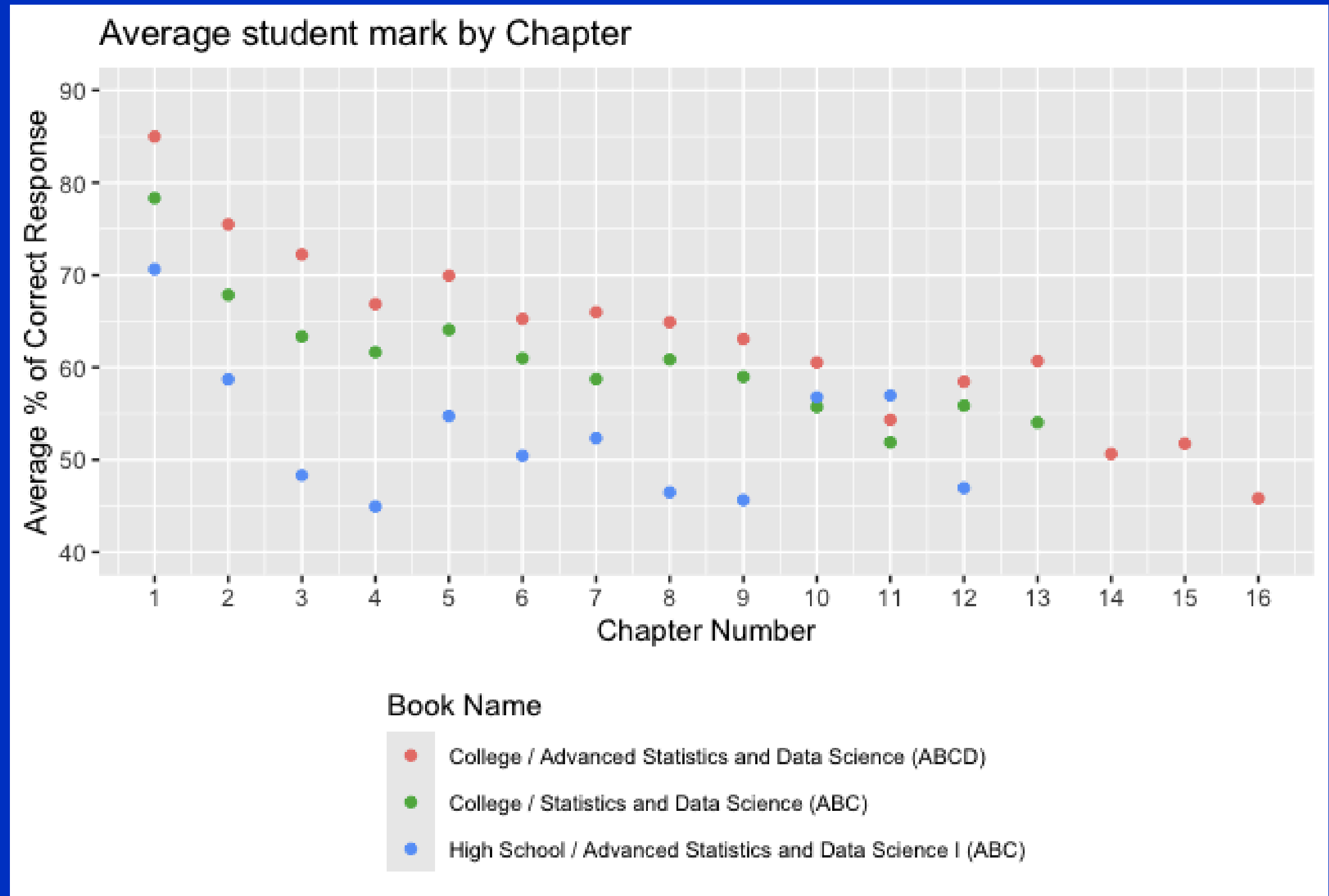## High School Textbook (ABC) has

- **Significantly smaller sample size**
- Much lower understanding in this cohort

Total page–views record by textbook

Number of Page-views record

300000	
250000	
200000	
150000	
100000	
50000	
0	

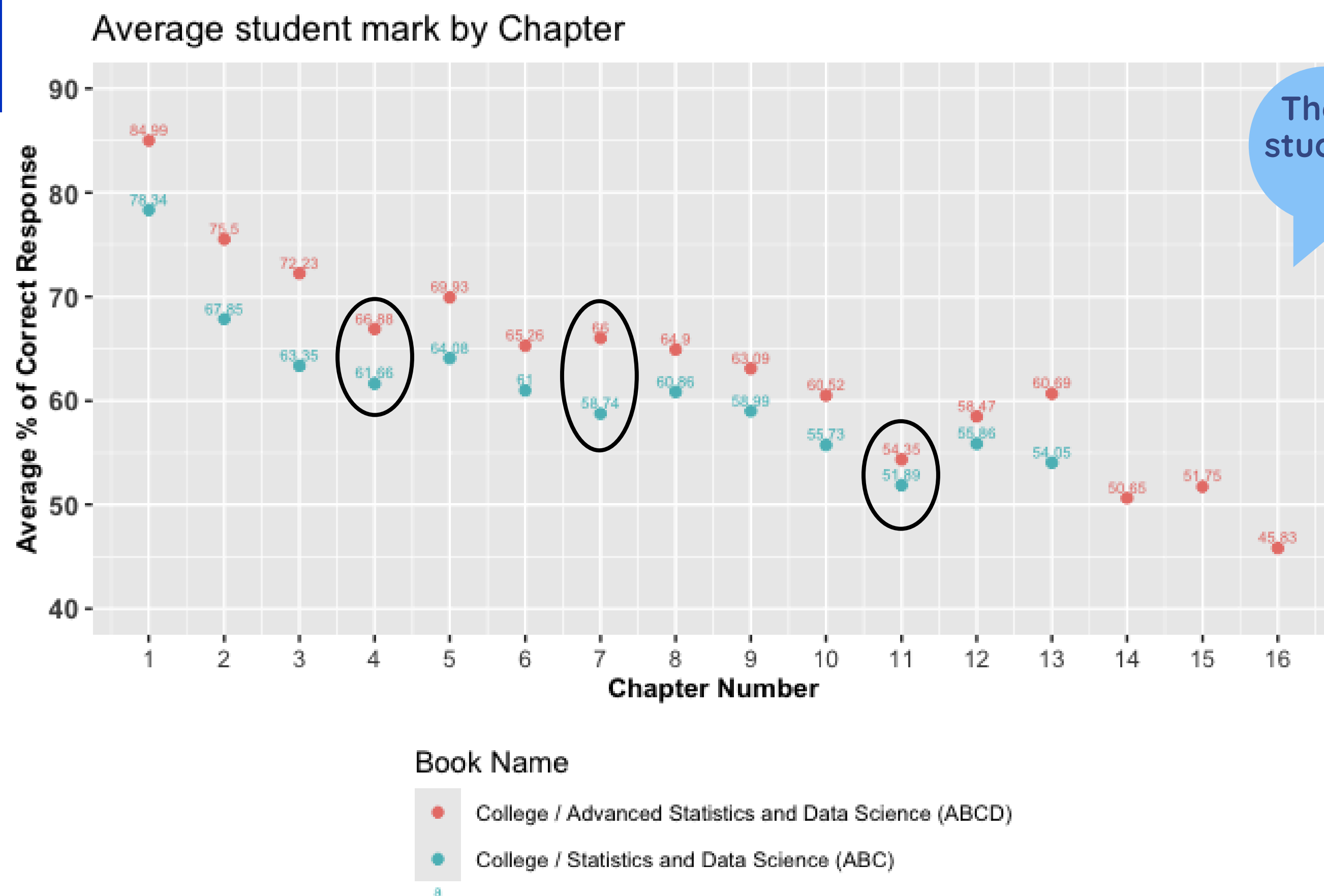College ABCD   College ABC   Highschool ABC

Textbook

OUR TEAM DECIDED TO FOCUS ON COLLEGE-LEVEL TEXTBOOKS (ABC & ABCD)

High School Textbook (ABC) has

- Significantly smaller sample size
- **Much lower understanding in this cohort**

Average student mark by Chapter

Book Name

- College / Advanced Statistics and Data Science (ABCD)
- College / Statistics and Data Science (ABC)
- High School / Advanced Statistics and Data Science I (ABC)

Student performance across the chapters

Average student mark by Chapter

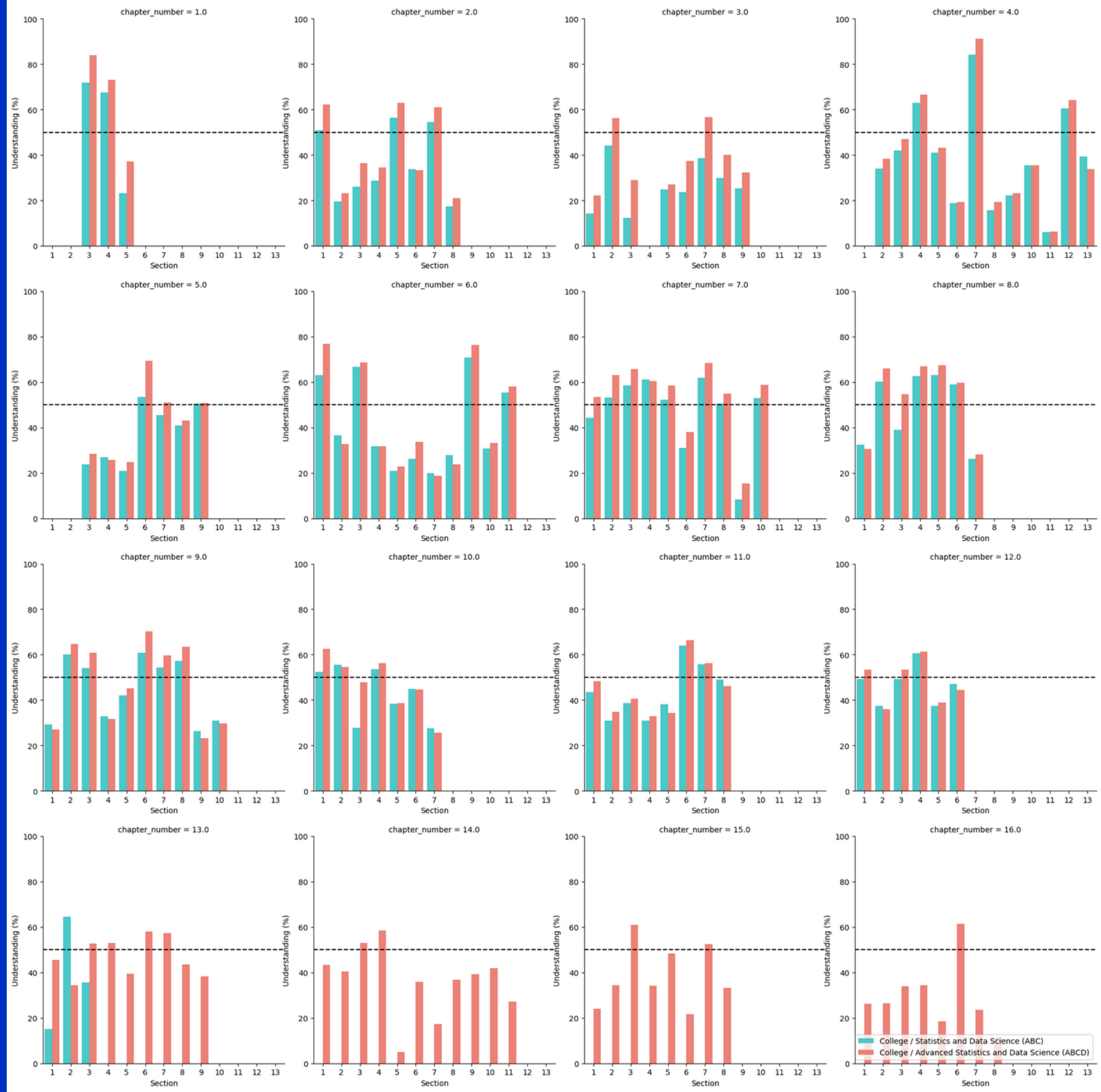There are clear decreases in students' marks for chapter 4, 7 and 11

In this graph, we can observe:
- **Initial performances:** High
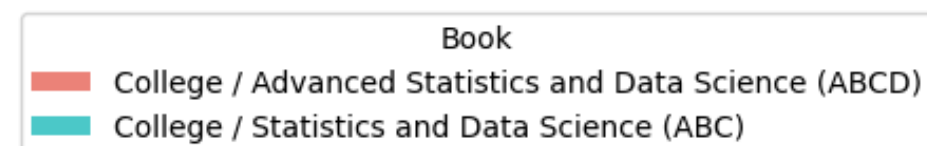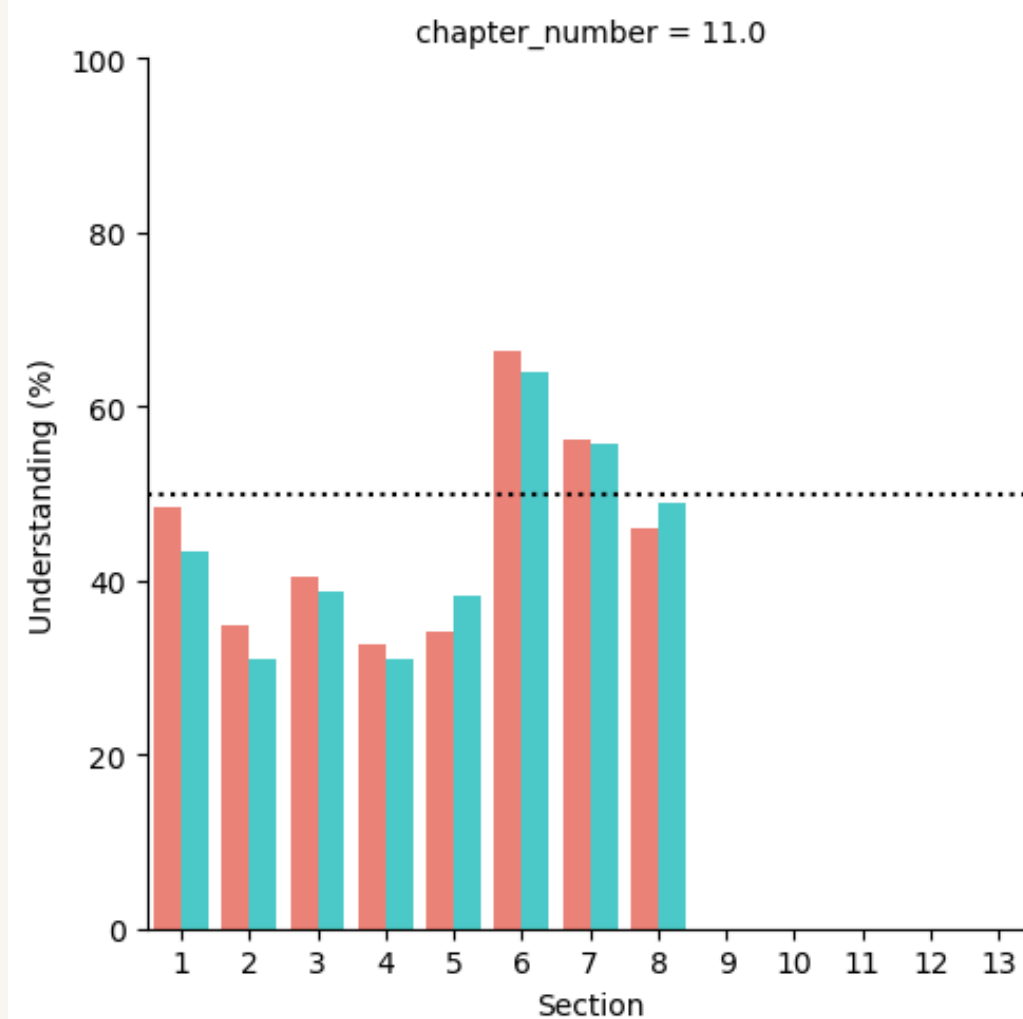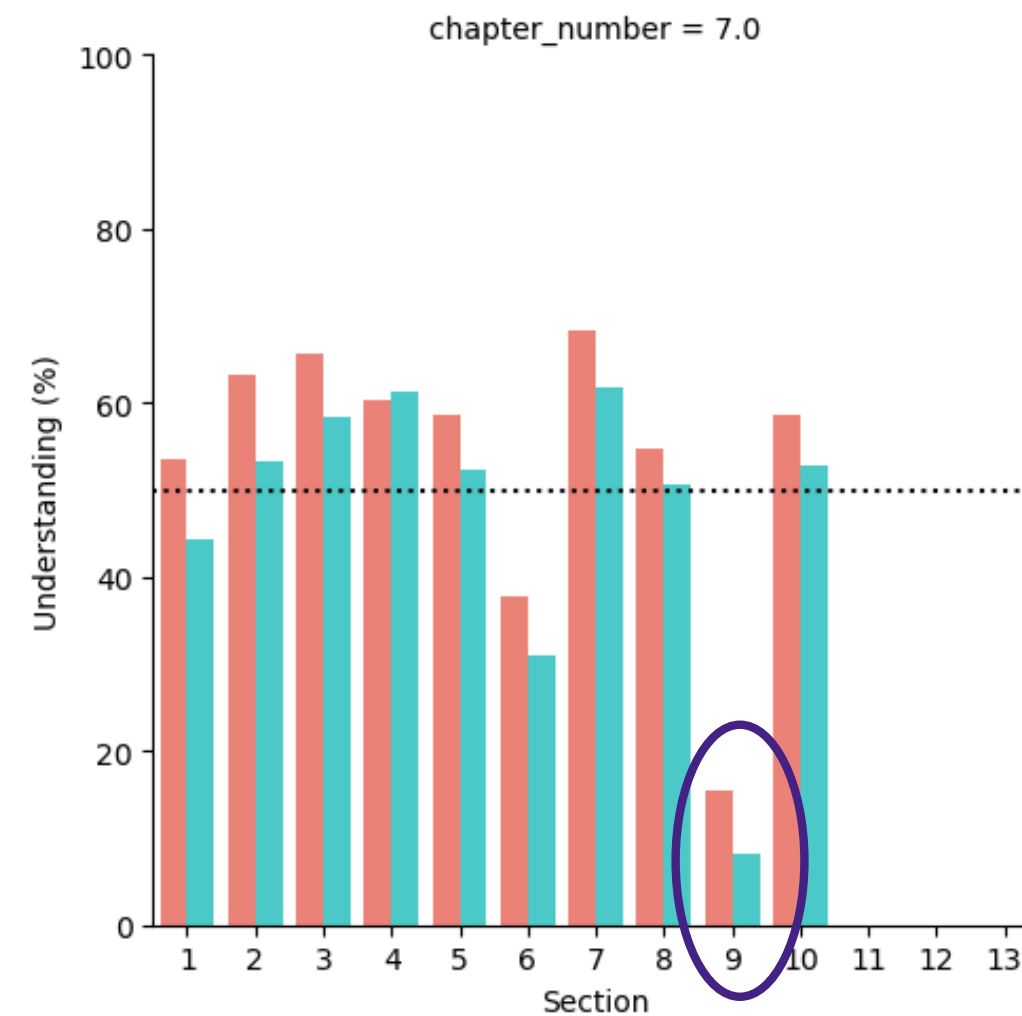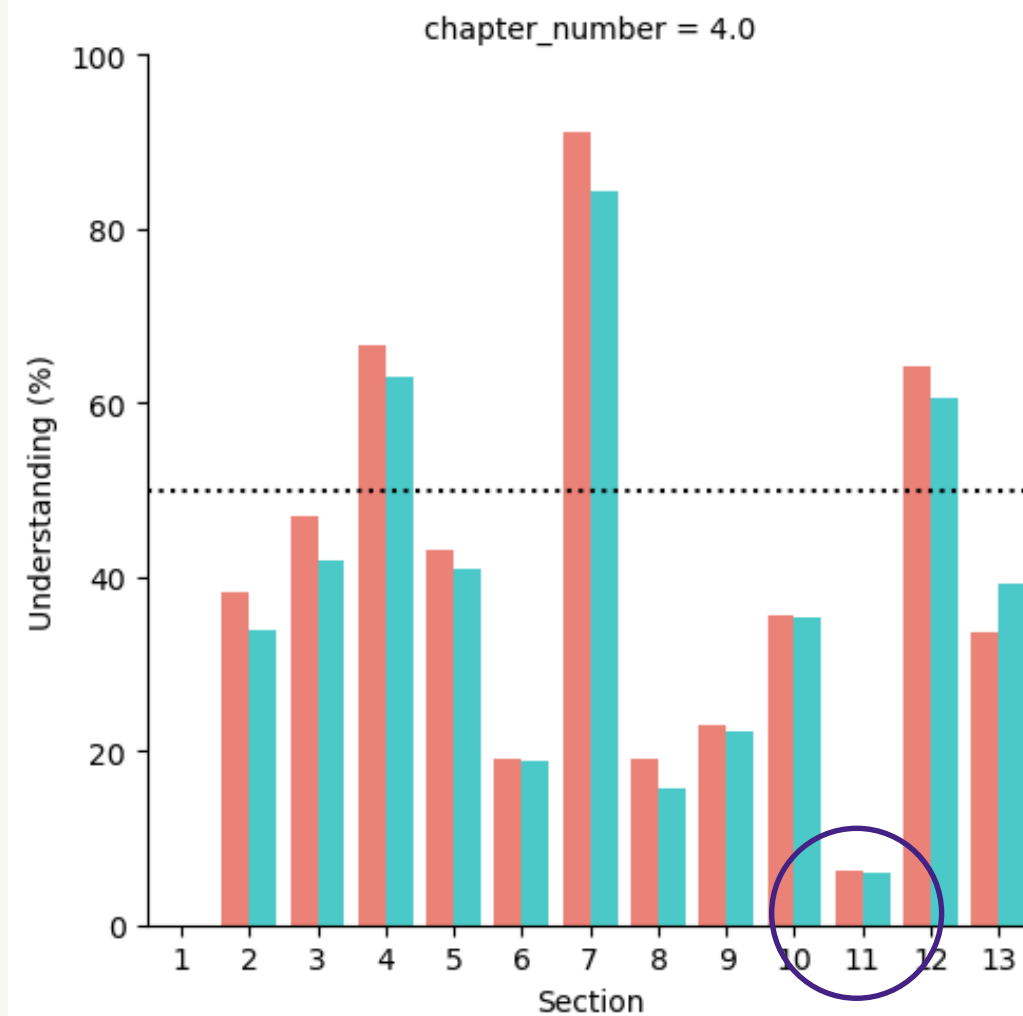- **Declining trend** as students progress

Potential Gap:
- **Learning Gap**
- **Decreasing motivation levels**
- The student marks to student effort levels are to be explored next

Understanding by Chapter & Section

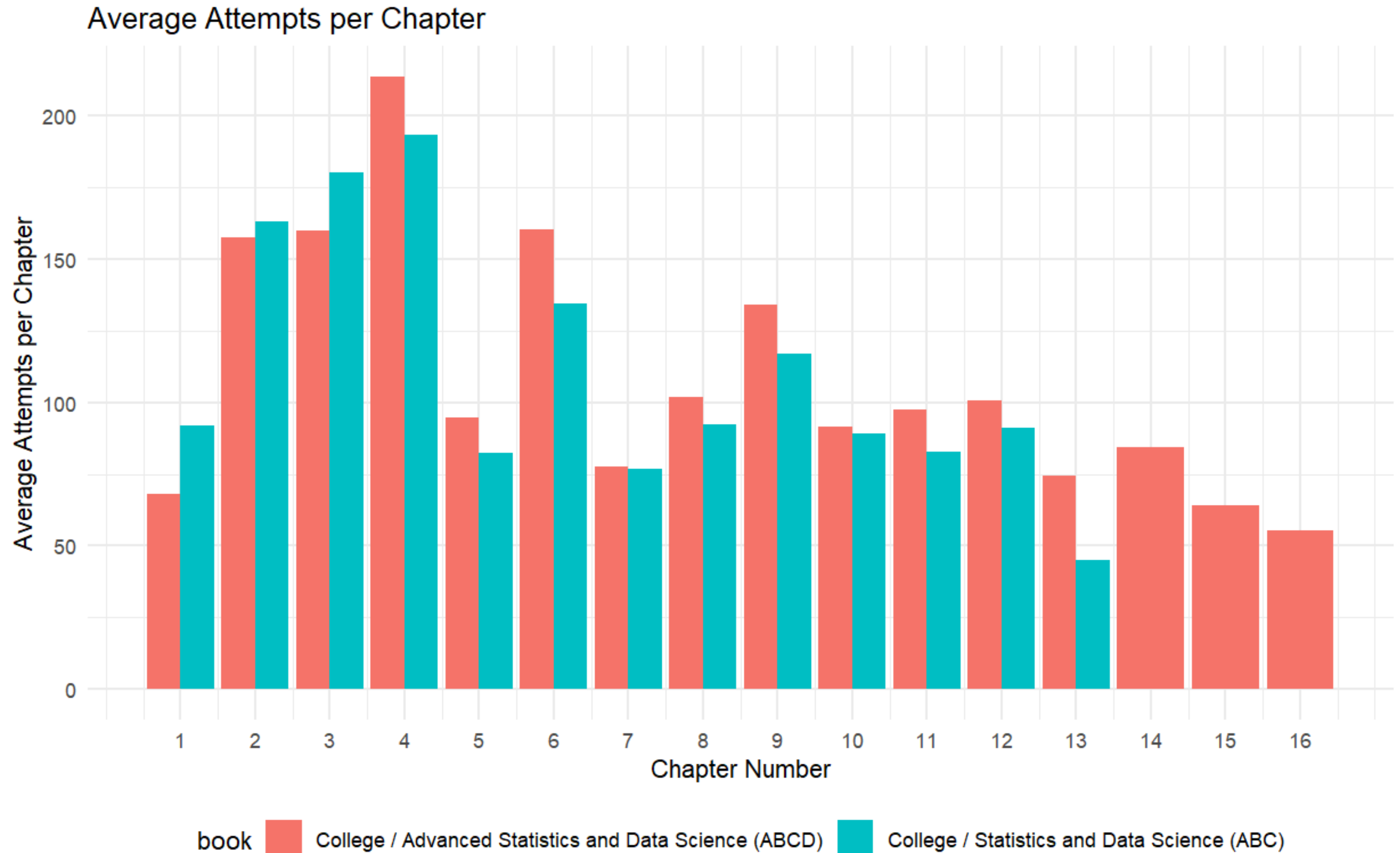# Understanding by Chapter & Section

Understanding per section

Measuring the average understandability of student learning by assessing the average mark out of the number of attempts made

- **ONLY understand <50% of most sections in Chapters 4 & 11 compared to other Chapters in the textbooks**
- **Chapter 4 – Section 11 and Chapter 7 – Section 9 reflect low success rates and understanding**

Book
College / Advanced Statistics and Data Science (ABCD)
College / Statistics and Data Science (ABC)

Students' average attempt for each chapter

Chapter 4 has the highest attempt overall

- Student effort of attempts substantially decreased after Chapter 4
- Shows a downward trend of student motivation levels after exerting high attempt rates for low success mark results

Average Attempts per Chapter

book ■ College / Advanced Statistics and Data Science (ABCD)   ■ College / Statistics and Data Science (ABC)

Which CHAPTER do students struggle with the most in CourseKata textbook?

Overall, students struggle the most with the topic of **Explanatory Variables** (Chapter 4 & Chapter 7) and **Model comparison with F** (Chapter 11)
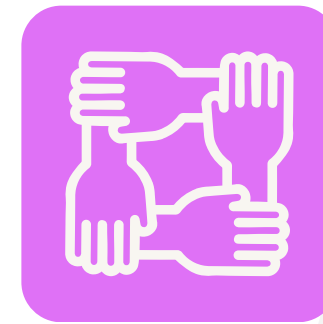
Recommendations

To increase engagement levels

Lean into understanding student learning styles and reducing redundancy in learning materials to increase retention rates

Content analysis

For chapters with higher marks, analyse the content structure, presentation and clarity to understand what makes them successful to improve the chapters with lower marks

Targeted support

Provide additional support resources in chapters that are more challenging e.g. supplementary materials

Feedback mechanisms

Giving immediate feedback on the review performance

Thank you for listening

Sarah Hui   Minh Nguyet Ngo   Thi Minh Thao (Suzie) Le   Phuc Linh Nguyen   Kelly Wang

TEAM BANANA