# Improving Student Learning Experience within CourseKata

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# Objectives

| | | |
|---|---|---|
| **#1** | **End Goal** | • Improve student learning and performance within CourseKata |

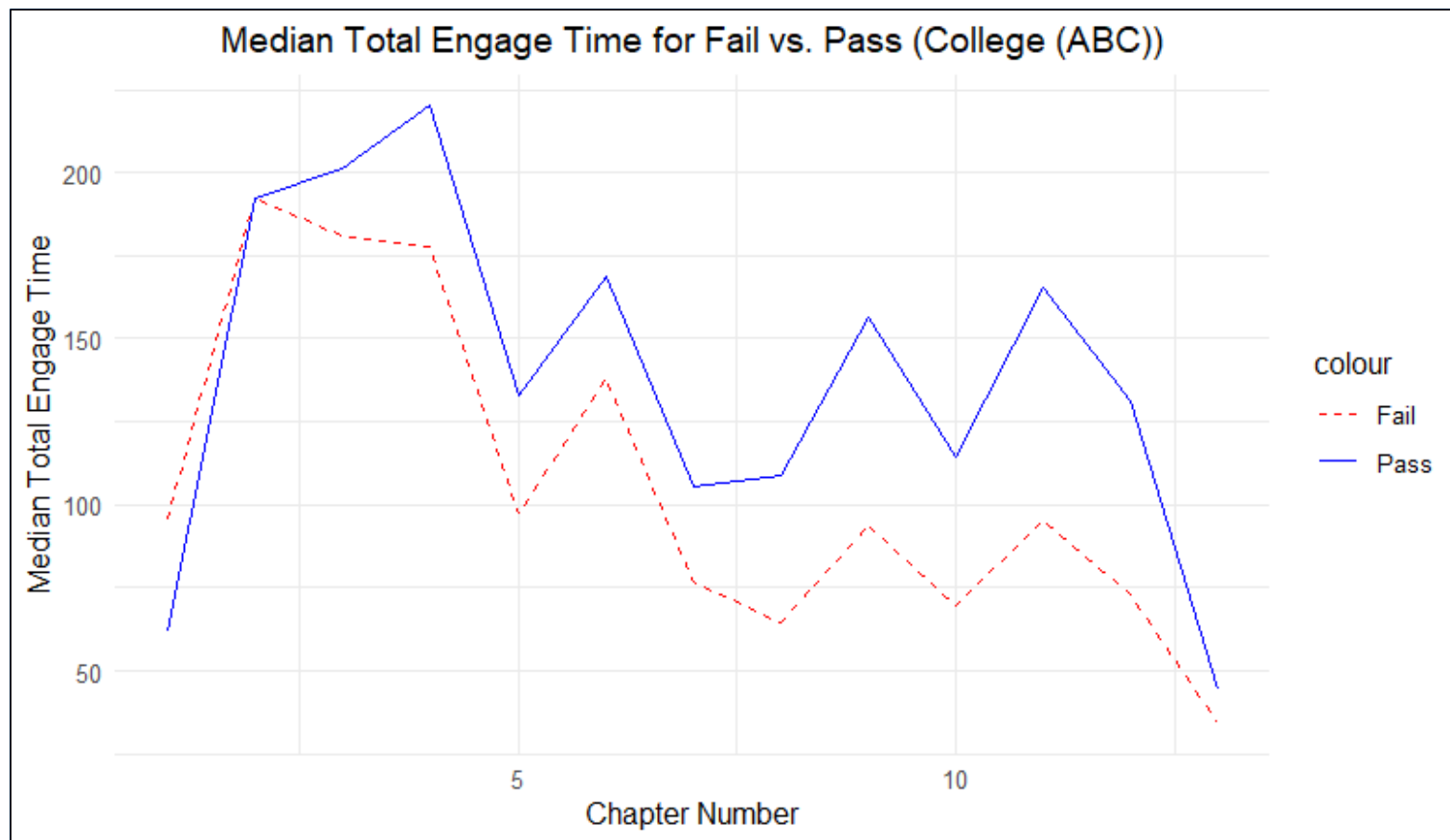| | | |
|---|---|---|
| **#2** | **Quantify Best Practices** | • Performance Metric: EOC Score (*not* comparable across books)<br>• Analyzed at class and student level. Factors determined by Random Forest |

| | | |
|---|---|---|
| **#3** | **Provide Recommendation** | • Give practical, data-driven solution to achieve end goal |

# Student Level

- Score of 70 used to determine Pass/Fail



Median Total Engage Time for Fail vs. Pass (College (ABC))
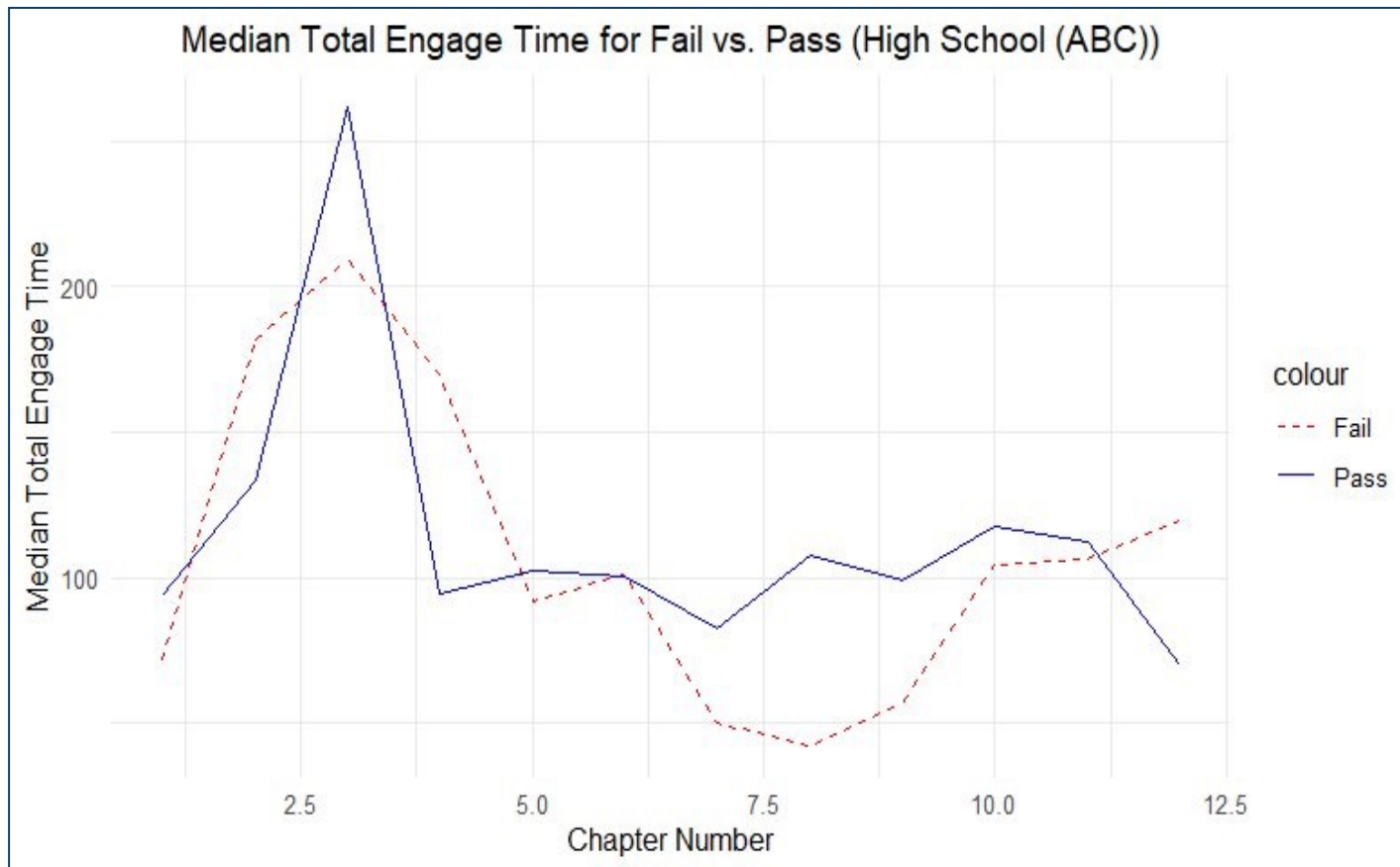
# Student Level (cont.)

■ Conclusion: Students who pass engage with material significantly more



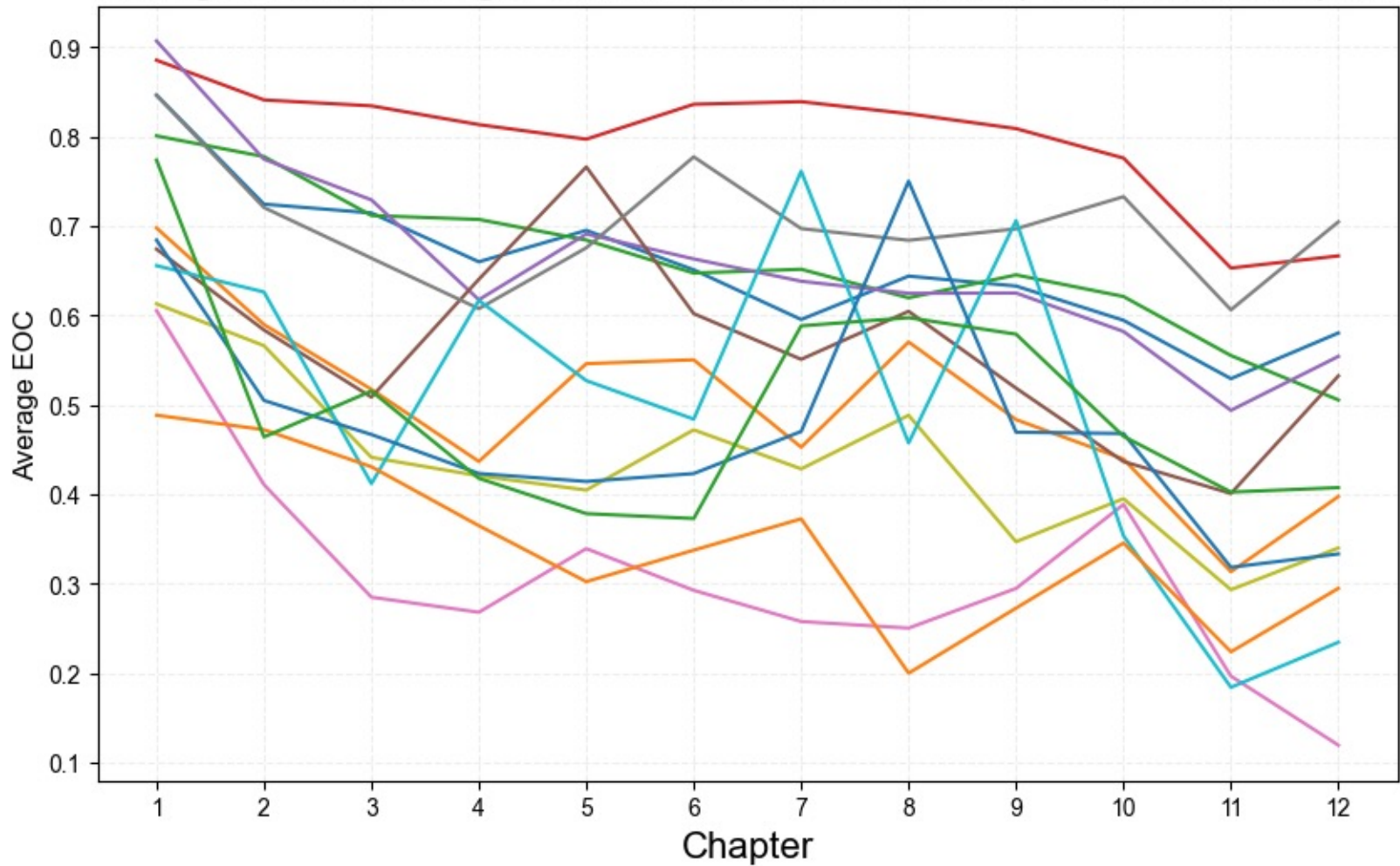Median Total Engage Time for Fail vs. Pass (College (ABCD))
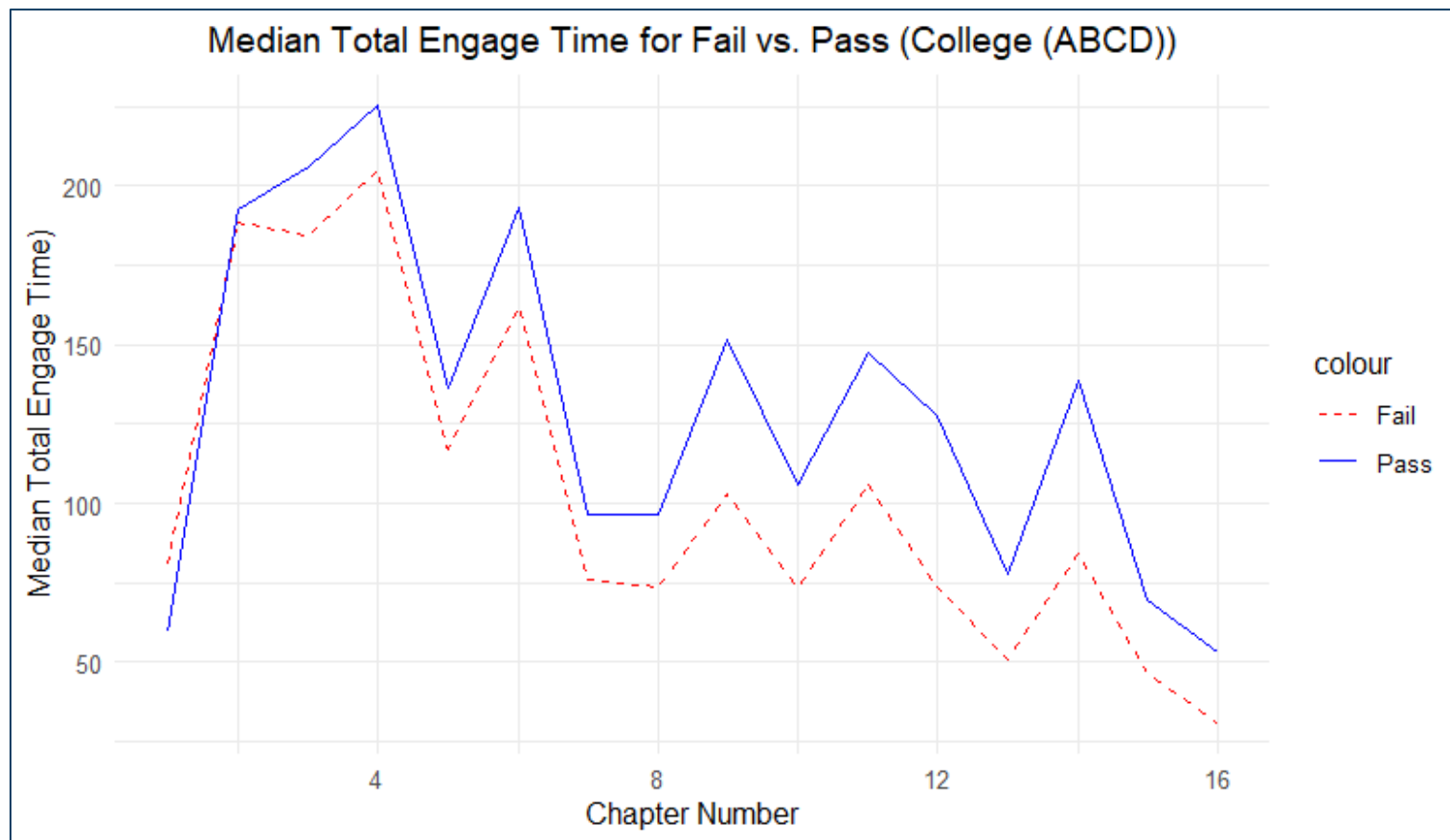
# Student Level (cont.)

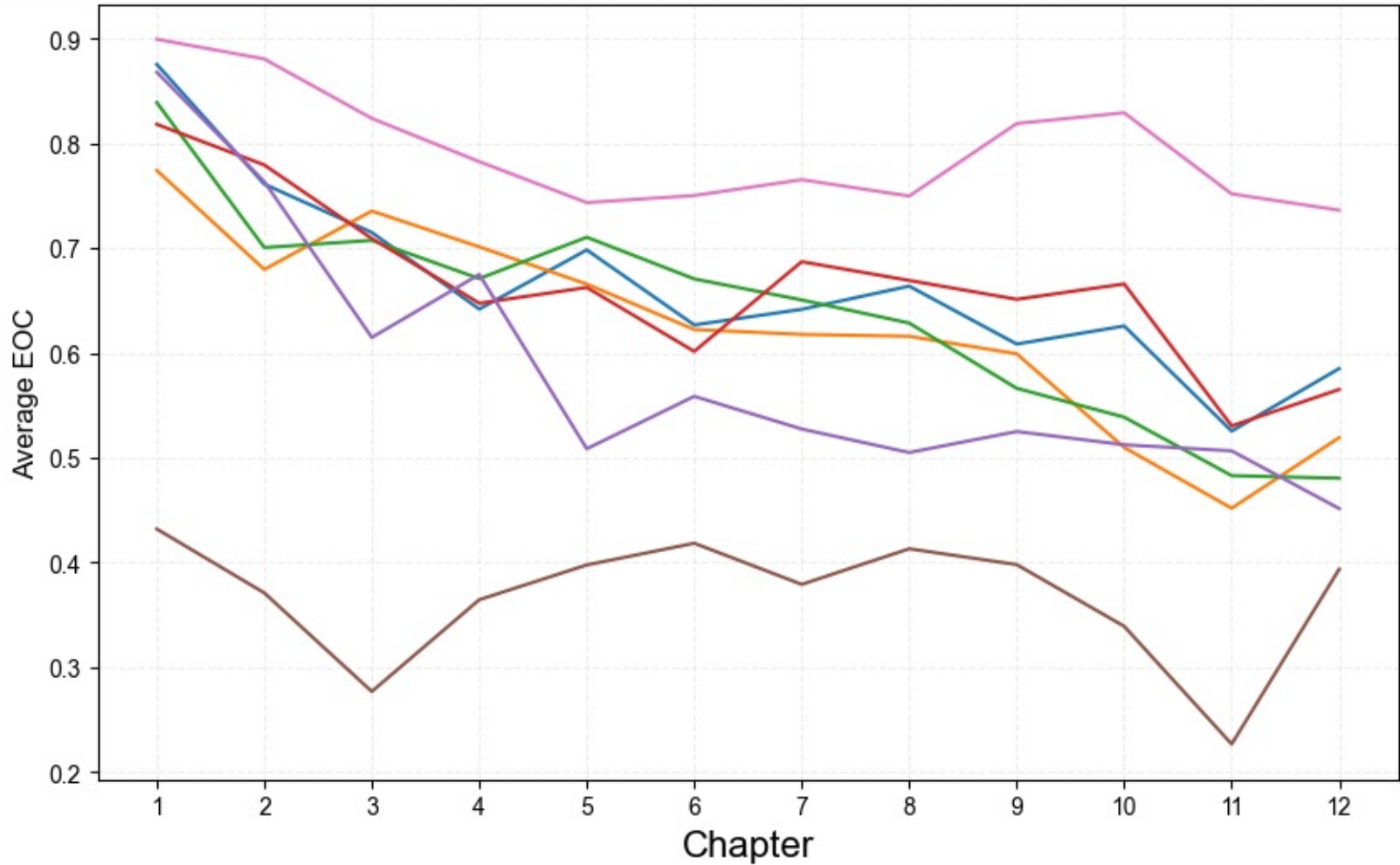- Lower engagement than other textbooks

# Class Level



Average EOC for College / Statistics and Data Science (ABC) Across Chapters

# Class Level (cont.)



Average EOC for College / Advanced Statistics and Data Science (ABCD) Across Chapters

# Final Recommendation

- Incentive structure centered around engagement

  - Example: Extra credit offered for given engagement per chapter



**Variable Importance Plot**