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EYE TRACKING DATA REPORT

COMMUNICATING MEDIA INSIGHTS

Prepared by: Anna McCloskey
Data Analyst

Prepared for: Sarah Bunnell
Elon CATL Director

EXECUTIVE SUMMARY

This report presents findings from an eye-tracking study assessing how different syllabus formats impact student attention and engagement. Students who viewed the high-design syllabus demonstrated more eye fixations than those who received the text-only format, while total reading time remained consistent across both formats. These results indicate that incorporating visual design elements may enhance cognitive processing of syllabi, supporting better comprehension and navigation of course expectations.

INTRODUCTION

To address concerns that students often overlook key details in syllabi, Elon's Center for the Advancement of Teaching and Learning (CATL) initiated this study to examine how design impacts syllabi comprehension. To assess this, a sample of students were asked to read two syllabi differing in level of design while being monitored by eye-tracking tools.

KEY TERMS

High-Design: A syllabus that incorporates colors, visuals, and advanced design

Low-Design: A traditional syllabus with black and white text, formatted in paragraphs and bullet points

Fixation Point: When the eye stops and fixates on a point of the page, allowing them to process visual information

Gaze Plot Video: Recordings displaying where and how long students fixate on specific parts of a syllabus

F Pattern: A common pattern of eye movement resembling the letter “F” when reading a page with lots of text

METHODS

Each participant was randomly assigned to one of two syllabi conditions:

CONDITION 0 - LOW-DESIGN

- Traditional
- Text-only syllabus
- Black and white

CONDITION 1 - HIGH-DESIGN

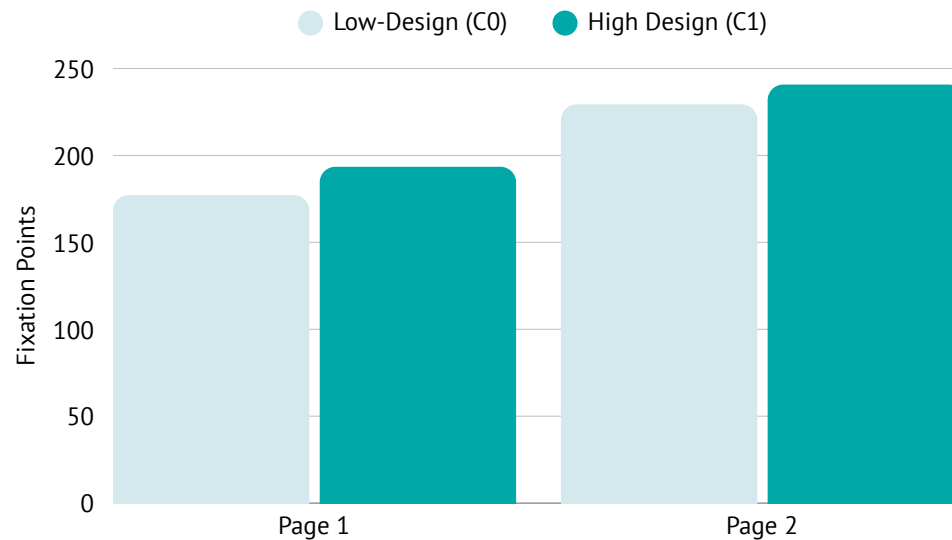
- Visually rich syllabus
- Graphic icons and a visual hierarchy
- Color

Once the information was collected, it was imported into excel and organized by condition type. The averages were then taken of time and fixation points per page. The results are shown in the graphs on page 4.



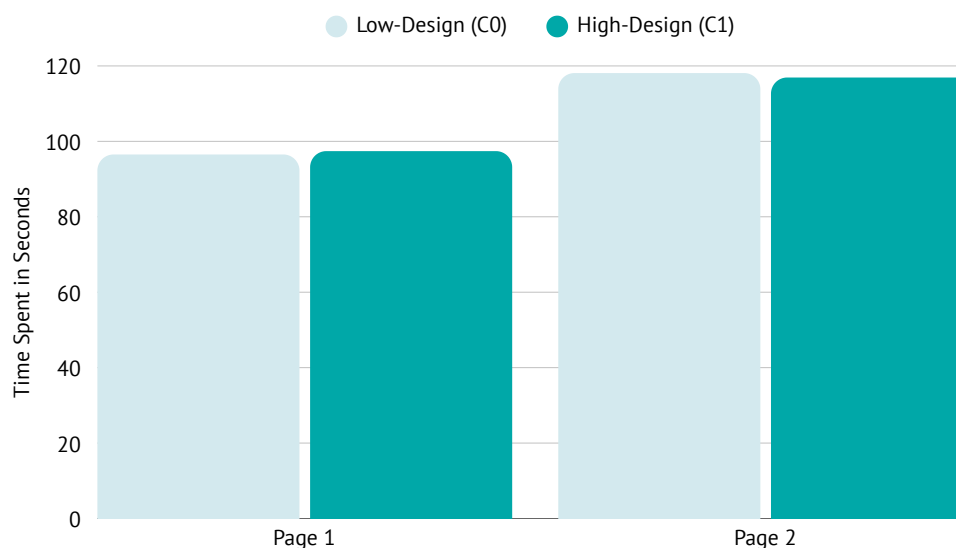
DATA HIGHLIGHTS

GRAPH 1: AVERAGE FIXATION POINTS PER SYLLABUS PAGE



This graph shows that high-design syllabi have more fixation points than low-design syllabi on both pages.

GRAPH 2: AVERAGE TIME SPENT PER SYLLABUS PAGE



This graph shows that regardless of syllabus design level, the same amount of time is spent reading per page.

DATA INSIGHTS

Participants who received high-design syllabi showed a higher number of eye fixations compared to those with traditional low-design syllabi. On page one, the high-design syllabus had an average of about 193 fixations, while the low-design syllabus had an average of about 177 fixations. Page two followed a similar pattern, suggesting more thorough scanning and deeper processing of information with more fixations when a rich visual design is used.

Despite the increase in fixations, the time spent reading the syllabi remained consistent between conditions. On page one, participants in both groups spent about 97 seconds. On page two, there was about a one second difference between conditions. This indicates that design improvements can boost comprehension without increasing reading time.

In the gaze plot videos, the visual elements appear to aid document navigation. Features like icons, color, contrast and clear layout seemed to help participants quickly locate important information. It also appears they were able to read quicker and even re-read some information for better comprehension. The increased fixations support the idea that students interacted more effectively with the high-design syllabi.

In the future, these findings could be better supported by heat map data that visually the intensity of fixations on a page.



RECOMMENDATIONS

1. Encourage Visually Rich Syllabi Designs

CATL should promote best practices in syllabus design through workshops or template creation.

2. Offer Faculty Support

Develop design guides or offer workshops on transforming existing low-design syllabi into visually rich syllabi.

3. Partnerships

Train incoming students to read and use syllabi effectively through orientation, Elon 1010 classes, and Academic Advising programs.

LIMITATIONS

- This study is based on the assumption that the information looked at the longest has been processed more.
- The study tracks eye movements but not necessarily direct comprehension
- The study was conducted in a controlled environment, not taking into account how students may interact with the content in real-world settings.

CONCLUSION

Eye-tracking data supports the use of visual design to drive more meaningful interaction with course materials. CATL has the opportunity to lead faculty and student development through strategic improvements in syllabus communication.