

Proposed Psychometrics OER: Authoring Platform Features

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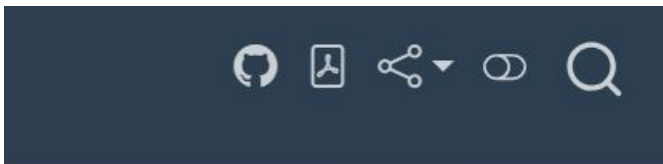
2024-03-25

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Background

This document is intended to highlight features of the [Quarto authoring platform](#), specifically focused on how this platform is uniquely appropriate for Psychometric instruction. Psychometrics is the scientific study of Psychological measurement - it has been described by some practitioners as “applied statistics” and fundamentally requires knowledgeable application of statistical concepts.



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This overview does not encompass *all* pedagogical features, so we encourage reviewers to “point and click” around this document to discover unique elements. For example, external links and alternative document formats are accessible via links in the upper right-hand toolbar.

1 Basic Features (Accessibility)

This is a book created from markdown and executable code.

See Knuth (1984) for additional discussion of literate programming.

```
1 + 1
```

①

① “Hidden” code annotation provides student support on an as-needed basis (here, the underlying platform is being asked to add the numbers “1” and “1”).

```
[1] 2
```

Check out Chapter [2](#) for some example capabilities of [books authored via Quarto](#).

2 Example capabilities

2.1 Data vizualizations

Figure 2.1 demonstrates `lightbox` capabilities for Quarto book images, whereby clicking isolates the image for closer inspection.



Figure 2.1: Oh look a cute kitty!

Figure 2.2 demonstrates some interactive components for graphical representations of data.

2.2 Geo-spatial

Figure 2.3 is another example of interactivity within the .html document.

i Browsers vs. Static PDF Readers

Note that all interactive visuals will be captured via static representation if a reader elects to download a PDF file [by accessing the button located within the toolbar]. These images are not currently optimized for static representation, so interactivity may render oddly within the example PDF.

2.3 Multi-media

Figure 2.4 shows yet another example - videos can be pulled from external sites (like this clip) or can be locally produced video files.

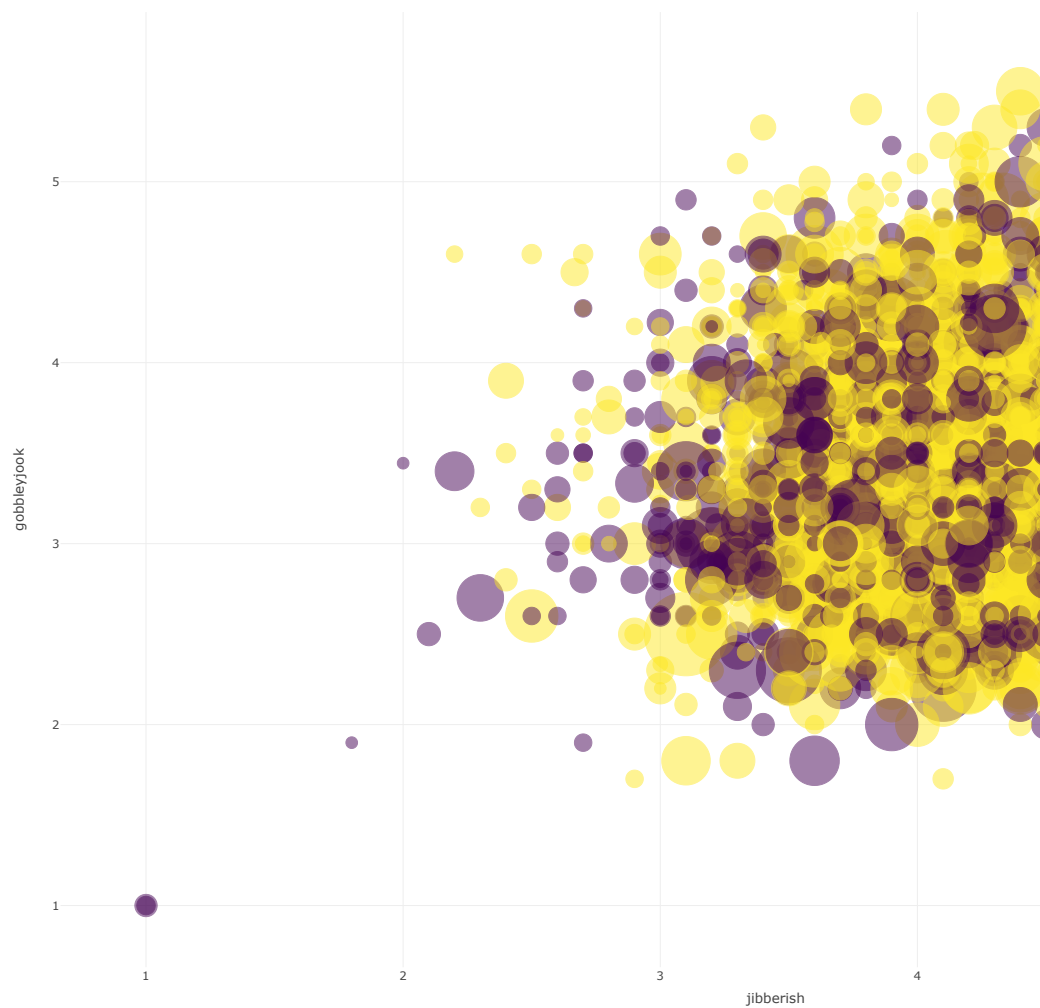


Figure 2.2: Example interactive plot

Figure 2.3: Example of interactive graph

<https://www.youtube.com/watch?v=ZI8jjbhm4OE>

Figure 2.4: A tribute to the current tutorial author

References

Knuth, Donald E. 1984. “Literate Programming.” *Comput. J.* 27 (2): 97–111. <https://doi.org/10.1093/comjnl/27.2.97>.