# Faculty Review of Open eTextbooks
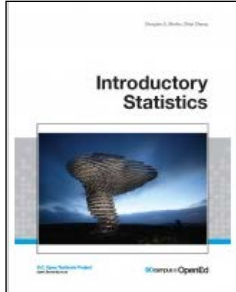
The California Open Educational Resources Council has designed and implemented a faculty review process of the free and open etextbooks showcased within the California Open Online Library for Education (www.cool4ed.org). Faculty from the California Community Colleges, the California State University, and the University of California were invited to review the selected no/low cost and open etextboks using a rubric. Faculty received a stipend for their efforts and funding was provided by the State of California, the William and Flora Hewlett Foundation, and the Bill and Melinda Gates Foundation.

Textbook Name:

## Introductory Statistics

License:

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Textbook Author(s):
Douglas S. Shafer and Zhiyi Zhang

Reviewed by:
Andrew Noymer, Ph.D.

Institution:
University of California, Irvine

Title/Position:
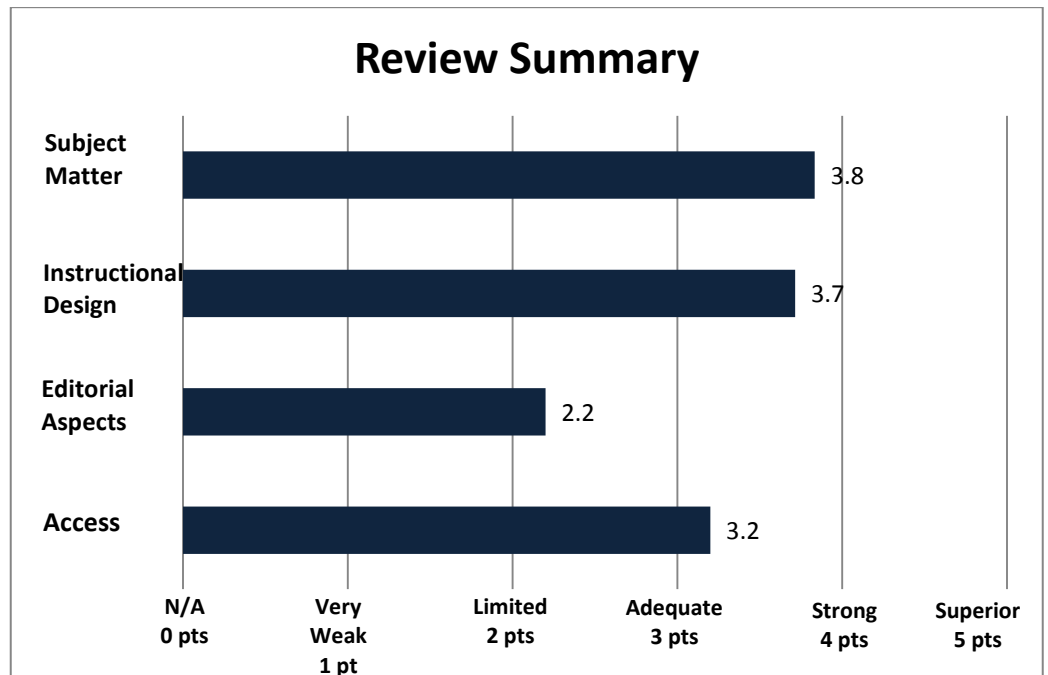Associate Professor, Population Health and Disease Prevention, Public Health

Format Reviewed:
PDF
A small fee may be associated with various formats.

Date Reviewed:
August, 2014

## Review Summary

| Category | Score |
|---|---|
| Subject Matter | 3.8 |
| Instructional Design | 3.7 |
| Editorial Aspects | 2.2 |
| Access | 3.2 |

Scale: N/A 0 pts | Very Weak 1 pt | Limited 2 pts | Adequate 3 pts | Strong 4 pts | Superior 5 pts

## California OER Council eTextbook Evaluation Rubric

### CA Course ID: MATH 110

| Subject Matter (30 possible points) | N/A (0 pts) | Very Weak (1pt) | Limited (2 pts) | Adequate (3pts) | Strong (4 pts) | Superior (5 pts) |
|---|---|---|---|---|---|---|
| Is the content accurate, error-free, and unbiased? | | | | | X | |
| Does the text adequately cover the designated course with a sufficient degree of depth and scope? | | | | X | | |
| Does the textbook use sufficient and relevant examples to present its subject matter? | | | | | X | |
| Does the textbook use a clear, consistent terminology to present its subject matter? | | | | | X | |
| Does the textbook reflect current knowledge of the | | | | | X | |

| Subject Matter (30 possible points) | N/A (0 pts) | Very Weak (1pt) | Limited (2 pts) | Adequate (3pts) | Strong (4 pts) | Superior (5 pts) |
|---|---|---|---|---|---|---|
| subject matter? | | | | | | |
| Does the textbook present its subject matter in a culturally sensitive manner? (e.g. Is the textbook free of offensive and insensitive examples?  Does it include examples that are inclusive of a variety of races, ethnicities, and backgrounds?) | | | | | X | |

Total Points:  23 out of 30

Please provide comments on any aspect of the subject matter of this textbook.

Regarding things like question (5), the subject of mathematical statistics AT THIS LEVEL OF SOPHISTICATION has not changed in 50 years or more, so the real issue as I see it is not up-to-datedness but ability to convey the material

| Instructional Design (35 possible points) | N/A (0 pts) | Very Weak (1pt) | Limited (2 pts) | Adequate (3pts) | Strong (4 pts) | Superior (5 pts) |
|---|---|---|---|---|---|---|
| Does the textbook present its subject materials at appropriate reading levels for undergrad use? | | | | | X | |
| Does the textbook reflect a consideration of different learning styles? (e.g. visual, textual?) | | | | | X | |
| Does the textbook present explicit learning outcomes aligned with the course and curriculum? | | | | | X | |
| Is a coherent organization of the textbook evident to the reader/student? | | | | | X | |
| Does the textbook reflect best practices in the instruction of the designated course? | | | | X | | |
| Does the textbook contain sufficient effective ancillary materials? (e.g. test banks, individual and/or group activities or exercises, pedagogical apparatus, etc.) | | | | X | | |
| Is the textbook searchable? | | | | | X | |

Total Points:  26 out of 35 points

Please provide comments on any aspect of the subject matter of this textbook.

This textbook, as regards instructional design, is like most of the many, many texts currently on the market.  That is not a criticism, per se.  Think of it as the "tried and true" model.

| Editorial Aspects (25 possible points) | N/A (0 pts) | Very Weak (1pt) | Limited (2 pts) | Adequate (3pts) | Strong (4 pts) | Superior (5 pts) |
|---|---|---|---|---|---|---|
| Is the language of the textbook free of grammatical, spelling, usage, and typographical errors? | | | | | X | |
| Is the textbook written in a clear, engaging style? | | | X | | | |
| Does the textbook adhere to effective principles of design? (e.g. are pages latid0out and organized to be clear and visually engaging and effective?  Are colors, font, and typography consistent and unified?) | | X | | | | |
| Does the textbook include conventional editorial features?  (e.g. a table of contents, glossary, citations and further references) | | X | | | | |
| How effective are multimedia elements of the textbook? (e.g. graphics, animations, audio) | | | | X | | |

Total Points: 11 out of 25

Please provide comments on any aspect of the subject matter of this textbook.

This is the weakest aspect of this book.  I used the PDF version.  There is no table of contents and no index.  No hyperlinks.  Not even any chapter bookmarks.  That is unacceptable in 2014.  For this reason alone, I would not assign this book.  Regarding question 3, I gave the text a "1" because the equations have been typeset in some sort of bitmapped image format which is illegible.  The quality of the math typesetting in the PDF version is UNACCEPTABLE.

| Access (30 possible points) | N/A (0 pts) | Very Weak (1pt) | Limited (2 pts) | Adequate (3pts) | Strong (4 pts) | Superior (5 pts) |
|---|---|---|---|---|---|---|
| Is the textbook compatible with standard and commonly available hardware/software in college/university campus student computer labs? | | | | X | | |
| Is the textbook accessible in a variety of different electronic formats? (e.g. .txt, .pdf, .epub, etc.) | | | | | X | |
| Can the textbook be printed easily? | | | | | X | |
| Does the user interface implicitly inform the reader how to interact with and navigate the textbook? | | | X | | | |
| How easily can the textbook be annotated by students and instructors? | | | | X | | |

Total Points: 16 out of 30

Please provide comments on any aspect of the subject matter of this textbook.

Cf. my comments in the prior section. The PDF version of this textbook has multiple problems.

| Overall Ratings (10 possible points) | Not at all (0 pts) | Very Weak (1 pt) | Limited (2 pts) | Adequate (3 pts) | Strong (4 pts) | Superior (5 pts) |
|---|---|---|---|---|---|---|
| What is your overall impression of the textbook? | | | X | | | |
| | Not at all (0 pts) | Strong reservations (1 pt) | Limited willingness (2 pts) | Willing (3 pts) | Strongly willing (4 pts) | Enthusiastically willing (5 pts) |
| How willing would you be to adopt this book? | X | | | | | |

## Overall Comments

If you were to recommend this textbook to colleagues, what merits of the textbook would you highlight?
- It covers all the standard material for a first (undergrad) course in statistics.
- It is, for the most part, clear.

What areas of this textbook require improvement in order for it to be used in your courses?
- There are a few small things that I disagree with, for example, p. 353, we don't normally say that the alternate hypothesis is "accepted as true", but that we reject the null.
- Personally, I would never use any textbook that discusses correlation that doesn't also make the point that correlation does not equal causation. This may seem like a trifling omission to some but to me is a core principle. Statistics for undergraduates should stress critical thinking skills. For most students, it is not a foundation for additional coursework in mathematical statistics, but the only formal treatment of the material that they will ever receive.
- The PDF version needs major improvements. A TOC and index. Hyperlinks. Bookmarks. Properly-typeset mathematics. Honestly, as regards the PDF, especially the typesetting, unless I encountered some platform-specific problem of which the producers of this book are unaware, I cannot fathom how this book was released in this state. I cannot imagine adopting a statistics book with unreadable math.

We invite your feedback on the textbook or the review to the textbook site in MERLOT.
(Please register in MERLOT to post your feedback.)

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For questions or more information, contact the CA Open Educational Resources Council