UCLA

Technology Innovations in Statistics Education

Title

ZIG: Response

Permalink

https://escholarship.org/uc/item/8gq9t3c3

Journal

Technology Innovations in Statistics Education, 7(3)

Authors

Isaak, Rebekah Joan, Garfield Zieffler, Andrew

Publication Date

2013

DOI

10.5070/T573020093

Copyright Information

Copyright 2013 by the author(s). All rights reserved unless otherwise indicated. Contact the author(s) for any necessary permissions. Learn more at https://escholarship.org/terms

Peer reviewed

ZIG: Response

We thank our colleagues for their thoughtful comments on the three papers and their reflections on the future of the statistics textbook. Since a common theme among the commentaries was that a commercial publisher offers many benefits with few drawbacks, we chose to focus our response on the role of a publisher in producing a statistics textbook

We agree with the commentators that a publisher can offer a great deal of support in the development of a text and the production of ancillary materials, which often leads to a high-quality, finished product appealing to a broad audience of teachers. However, we also believe that the pursuit of a larger audience, which is inevitably covariant with working with a commercial publisher, generally implies a loss, or at the very least a compromise, in intellectual control. This often requires the inclusion of popular, yet superfluous, content along with a myriad of exercises and problems.

As the only paper in this set that suggests a radically different curriculum in terms of content and pedagogy, we acknowledge both Cobb and Velleman's concern that the approach we endorse may be too radical for some instructors to adopt and, therefore, may not be entirely accessible to the masses. In fact, we are not trying to reach the masses. Our goal is to create a unique, high-quality textbook, based on the expertise and research of our discipline rather than a depository of all the content that is fit to print. Because we control the publishing, we can update the text, content, and assessment items as needed, resulting in continual improvement of the content and formatting.

The creation of a very large number of practice and assessment items for inclusion in a test bank, which invariably accompanies commercially published introductory statistics textbooks, is not a trivial task. Rossman and Chance point out that these exercises should use real data and also be varied in both format and difficulty, while Velleman aptly states that open-source exercises are difficult to control from a quality standpoint. In the end, however, we agree with Utts' declaration that, although challenging to some, the individual instructor should be the gatekeeper of the materials to which students are exposed. By not using a commercial publisher, we have instead focused our efforts on producing a smaller pool of higher quality assessment items. We believe it is important for instructors to work out solutions themselves so we have not had to produce answer keys that are acceptable to a large audience. We think that instructors' experiences when completing these tasks themselves help them to realize what students are being asked to do, which is important since our assessments are so closely aligned with our text materials, and so different from assessments used in other textbooks.

Technology is, more than ever, an important aspect of an introductory statistics course in today's world. We heartily agree with Rossman and Chance's comment that instructors should be able to choose the type of software to use and where/how instructions for that software appear in the textbook. This being said, self-publishing allows us the flexibility of selecting the software that we think works best not only with our materials, but also

pedagogically, rather than having to create additional versions of the textbook to entice or please other potential users.

It appears that the discussants agree that a strong argument for using electronic textbooks is that they can be provided to students for a fraction of the cost of printed textbooks. While we agree in principle with Velleman's suggestion to take cost off the table when considering an e-text because cost does not equate to quality (nor is there evidence that they are even correlated), in practice the cost of many commercial textbooks are astronomical. We believe that many of these costs are the direct result of publishers' needs to attract a broad audience (i.e., quality may not correlate with cost, but thickness certainly does) even though most commercially published introductory statistics textbooks include more content than is feasible to cover in a single course. By self-publishing a textbook, the author can keep the content limited to only what is needed in the course, thereby ensuring that the cost is affordable to students. However, quality is also important and we see the need to have statistics instructors serve as reviewers during the writing of the text, something our graduate students and colleagues have been willing to do in the past.

Decisions about content, format, and use of a publisher are all important when beginning to write a textbook. We believe that there is no one right decision for each project, and in our case we are happy to contribute to the variability in commercially available textbooks.