

Offering Statistical Literacy: Choosing and Offering

Note: Half of US college grads are in non-quantitative majors. They may not need inferential statistics.

Note: Half of US students taking statistics are taught by faculty outside the mathematics department.

Here are some short articles on choosing, offering and teaching consumer-based Statistical Literacy.

1. Dean/Administration Level:
 - a. Offering Statistical Literacy (2 pages)
www.statlit.org/pdf/2019-Schield-Implementing-Statistical-Literacy-Program.pdf
 - b. Statistical Literacy and Liberal Education ..., 2004 AAC&U *Peer Review* (4 pages).
www.statlit.org/pdf/2004SchieldAACU.pdf
 - c. Student Evaluations of Stat 102: Social Statistics for Decision Makers. 2016 ASA (4 p)
www.statlit.org/pdf/2016-Schield-ASA.pdf

2. Mathematics Department Level
 - a. Statistical Literacy Handout for Advisors (2 pages)
www.statlit.org/pdf/2020-UNM-StatLit-Advising-Handout.pdf
 - b. Confounding and Cornfield: Back to the Future. ICOTS-10 Invited Paper (5 pages)
www.statlit.org/pdf/2018-Schield-ICOTS.pdf
 - c. Statistical Literacy and Liberal Education ..., 2004 AAC&U *Peer Review* (4 pages).
www.statlit.org/pdf/2004SchieldAACU.pdf

3. Teacher Level
 - a. Statistical Literacy and Liberal Education ..., 2004 AAC&U *Peer Review* (4 pages).
www.statlit.org/pdf/2004SchieldAACU.pdf
 - b. Statistical Literacy: The Diabolical Denominator. 2021 MathFest (5 pages)
www.statlit.org/pdf/2021-Schield-MathFest.pdf
 - c. Controlling for Context by Standardizing. ECOTS May 2020 (4 pages)
www.statlit.org/pdf/2020-Schield-ECOTS.pdf

4. Background: View all of Schield's publications at www.statlit.org/Schield-Pubs.htm

5. Offering statistical literacy may involve getting it approved to satisfy a mathematics-statistics requirement in a General Education curriculum.
 - a. Statistical Literacy Approved for General Education at UNM. 2021 ASA (4 page body)
www.statlit.org/pdf/2021-Schield-ASA.pdf
 - b. Offering Statistical Literacy (2 pages)
www.statlit.org/pdf/2019-Schield-Implementing-Statistical-Literacy-Program.pdf

Offering Statistical Literacy: TEACHER TRAINING

1. Acquire, read and study the current version of the textbook
2. The fall 2021 syllabus is here: www.statlit.org/pdf/2021-Math1300-Fall-Syllabus.pdf
Notice: this class only covered five (1-4 and 7) of the eight chapters.
3. Become familiar with "Take CARE": CARE identifies the four kinds of influence on a statistic
C: Confounding. A: Assumptions. R: Randomness. E: Error/Bias.
4. View Schield's 2021 videos on each of the eight chapters (three hours each).
<https://drive.google.com/drive/folders/1-0UbYELnxQytCkaYbFIJo2QyfSa2CKCW>
5. Schedule weekly meetings with Schield to discuss various things in each chapter.
What do you like about the chapter? What questions do you have?
Why is this included or emphasized? What don't you see value in?
Schield zoom link:
<https://unm.zoom.us/j/4981892223?pwd=UFR3M2t5L1Y3SkQ4SIBLSzFSWTY4QT09>
6. Schedule Zoom meetings with Schield on analyzing news stories.
7. Decide which chapters to teach. This class is different.
You may want to start with just four chapters: 1-3 and 7.
To have time for news stories and group work, start with just 1-3. They contain all the big ideas.
8. Allow plenty of time to study new stories and to read tables and graphs.
Students enjoy this and see value in doing this.

Learn about the technical support:

9. Moodle: this is where the exercises and tests are currently housed: www.StatLit.net.
If desired you can use the same exercises and tests as all other Math 1300 students.
Or the quiz bank can be loaded into your UNM Learn so you can pick your own questions.
Hopefully, the exercises and tests will be available in Learn/Blackboard for spring 2021-22.
10. Student textbooks. I will be responsible for providing the UNM bookstore with the needed textbooks. That will be the 2021B edition. It corrects some of the mistakes noticed in teaching this fall. Students can use either the 2021 edition or the 2021B edition.
11. Course Management support. Until the course is offered by the publisher (next fall?), I will handle whatever support the teacher wants involving the exercises and the optional forum.
12. Odyssey: the online forum used for student writing. <http://odysseys2sense.com>
No free riders. Students cannot see what others wrote until they submit their writing.
Anonymous: No names; no persona. Just a transaction ID for each posting.
Peer review: Students grade each other.
User Startup guide: www.statlit.org/pdf/2015-Odysseys-Guide-Slides.pdf
Your students will participate in the same forum as all other Math 1300 students.
This writing forum is optional depending on how the teacher wants to focus the class.
An alternative is to use a Moodle forum.