Activating Archaeology in the College Classroom

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Getting hands dirty in Intro to Archaeology

Since starting at the University of Wyoming in 2020, **ANTH 1300 Introduction to Archaeology** has been one of my favorite courses to offer our students. I get to meet a cohort of 60-90 students from many majors and colleges because this course fulfils the Undergraduate Studies Program **Natural Sciences** requirement.

I have always been a fan of using **active learning** in the classroom. After all, archaeology is inherently **hands-on**. I also love to use examples from today to help students better understand the **complexities** of reconstructing what people did long ago, even when we have historical texts to draw on.

In May of 2023, I cobbled together all of the many ideas and activities I had tried out in my Intro classroom and began to take stock: **what was working and what needed some big revisions**? I came up with the following format to reinvigorate the course:

- Three overarching parts of the course
- Five defined student learning outcomes
- 12 large-scale active learning assignments
- Nine defined active learning pedagogies
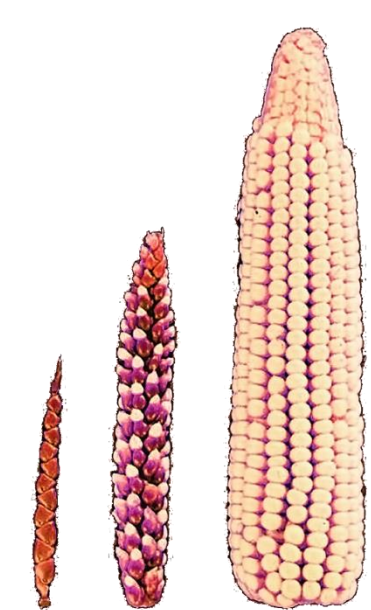
Troweling Back in Time: Three Years of Data

During the last three years, I have offered ANTH 1300 three times and recorded very similar data for each term, with a non-anonymous **Early Term Survey** (for class credit) and an anonymous **end-of-term survey** through the University's EvalKit portal. These sources provide **quantitative and qualitative data** that can be analyzed within and between terms.

- **Early Term**
  - Given week 6, after first exam
  - Asks about specific course content
  - Considers students' overall wellbeing and progress towards learning goals
- **Eval Kit**
  - Given at end of course but before finals week
  - Asks general questions about course
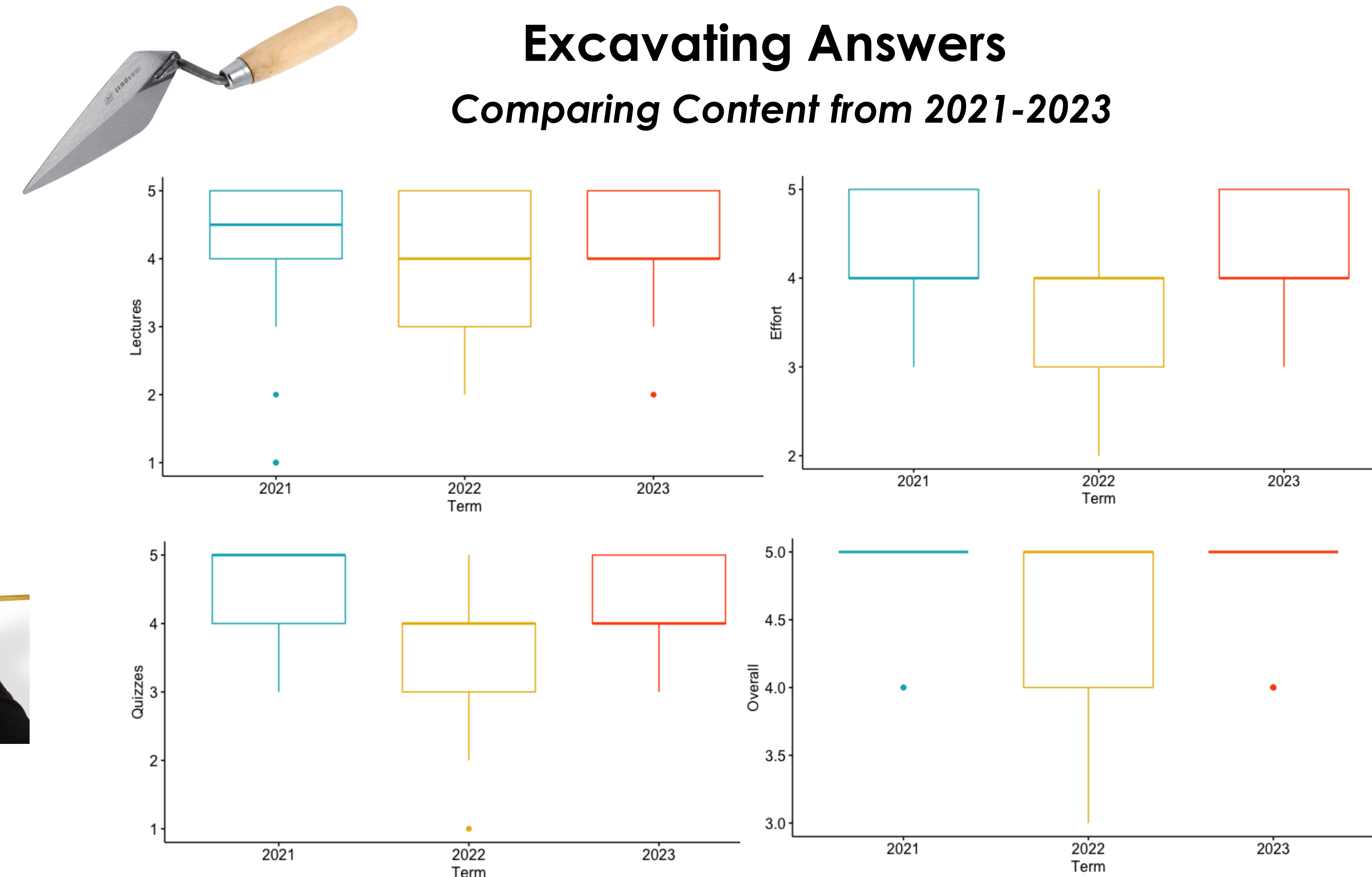 - Considers students' effort and likelihood of recommending course to others

During the last three years, I have made a few critical changes to the course that could be reflected in the evaluation data.

- **Spring 2021 (online)**
  - Three synchronous 10-15 minute "lightening" lectures per week, with recordings immediately available
  - Four individual online assignments
  - Two attempts on weekly quizzes
  - No bonus points for group evaluation completion
- **Fall 2022 (in person)**
  - Two standard 50-minute lectures per week
  - 12 individual or group assignments with online options
  - One attempt on weekly quizzes
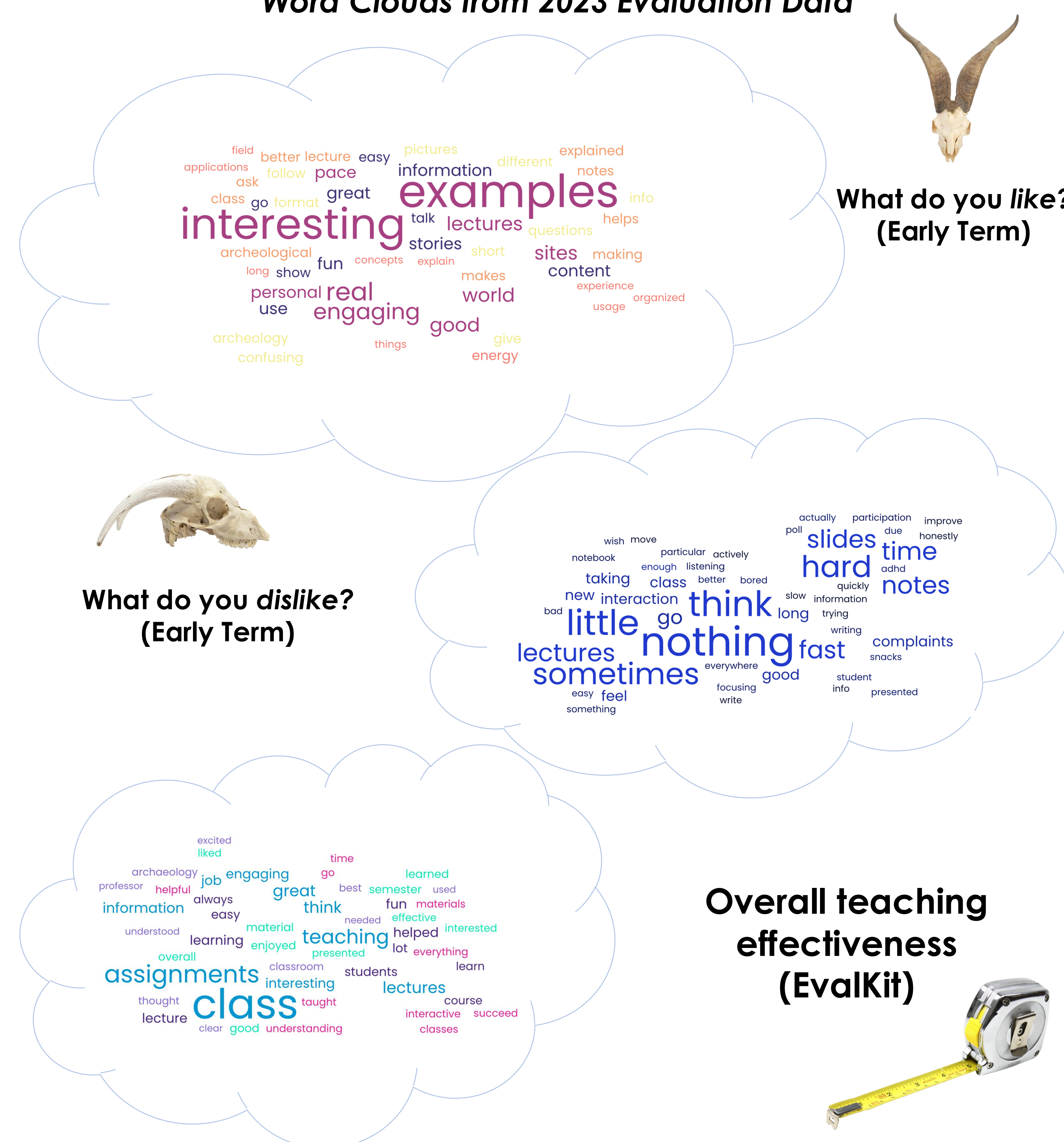 - +1% to final grade for >50% end of term completion
- **Fall 2023 (in person)**
  - Two 50-minute lectures per week with active learning components, available to students on request
  - 12 activities to be completed with *assigned* group, with online make-up option
  - Two attempts on weekly quizzes
  - +1% to final grade for >70% completion of end-of-term survey
  - Clearly defined SLOs, re-structured course

Excavating Answers
Comparing Content from 2021-2023

Word Clouds from 2023 Evaluation Data

What do you *like*?
(Early Term)

**What do you *dislike*?**
(Early Term)

Overall teaching effectiveness
(EvalKit)

What's Old is New Again

Teaching evaluations are imperfect measures of instruction. Nevertheless, data presented here show several suggestive trends. Many metrics showed no significant change over the three years of the course – time, class standing, interest in subject matter, etc. – all stayed relatively similar. To some extent, this is to be expected based on the five-point scale, similarities within the course offering, and the instructor (myself).
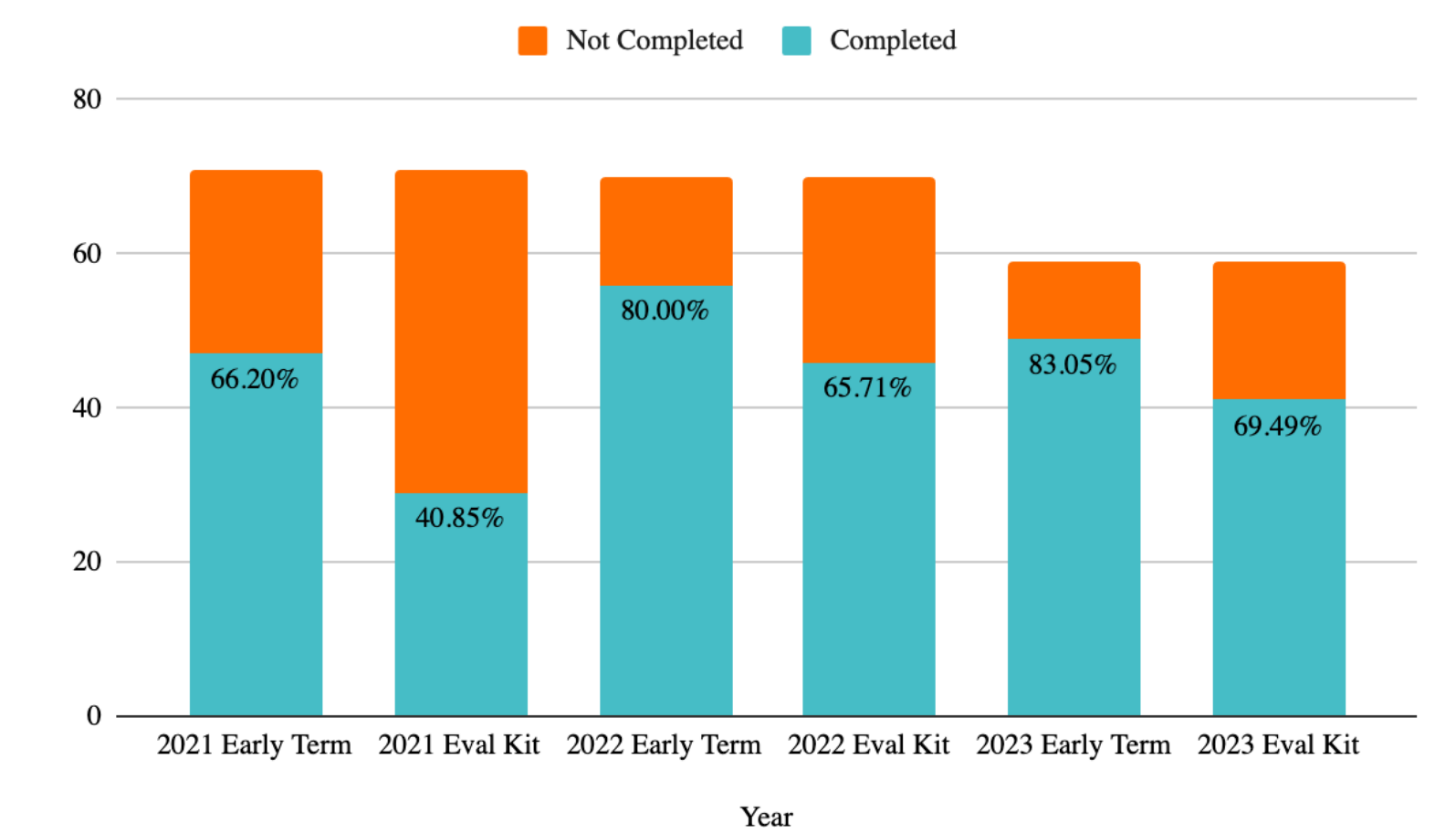
Significant shifts, confirmed with one-way ANOVA tests resulting in $p < 0.05$, were shown in Quizzes, Lectures, Overall satisfaction with the course. Interestingly, these **significant differences** were mostly between 2022 and 2023, with no significant differences between 2021 and 2023. The format of ANTH 1300 in these years was very different, with one online and the other in person. Shorter lectures and reduced assignments exposed students to less interactive content. The difference in results may relate to **survey completion**.

Completion rates have increased significantly from 2021-2023, in both Early Term and EvalKit submissions. This was spurred in part by **incentivizing** students to complete surveys. Teaching another online version of the course with this mechanism may reveal greater differences student satisfaction across courses.

Differences in student satisfaction and effort between 2022 and 2023 can be linked to **relatively small adjustments** in overall course format. Taking attendance and assigning students to groups seems to have resulted in greater investment in the course. Increasing active learning components in lecture increased student satisfaction. Providing students with additional quiz attempts resulted in improved performance and satisfaction. In 2023, I was nominated for and won a Promoting Intellectual Engagement award for the first time, reflecting students' overall impressions of the course.

Three years and 200 students is a relatively **small sample size**. Teaching this course several more times will help to show what is most effective in improving learning outcomes.

Future Archaeology

In future semesters of this course, I will use the **Canvas learning outcomes** tool to track student success in each of the five outcomes throughout the course. All of my quizzes and exams are given through Canvas and this will be a great way to track student progress, as well as remediate any issues in real time. A few of my activities (Geoarchaeology and Chronology) are well-developed but tedious to implement. Simplifying these or replacing them with new assignments will help students achieve their learning goals.

Each semester, I will continue to incorporate more active learning into my lectures. I also plan to **meet with each of my students** in office hours the next time I teach the course, but remove attendance. I will post all the lecture recordings online automatically. I will continue to assign students into groups for Friday activities but I will reassign them during each of the three sections of the course. I will also ask for an **active learning style classroom** rather than a traditional lecture classroom. This is based on student feedback and my overall impression of the effectiveness of these interventions.

Credit where it's due

My students are ultimately my best resource when it comes to improving my teaching. They provide me with excellent feedback throughout the semester, through formal and informal mechanisms. Next, I have our wonderful graduate students in Anthropology to thank for helping me to come up with 12 meaningful and engaging thematic assignments and Bri Houghton for being my excellent Fall 2023 GA. Conversations with my fellow LAMPers and faculty in Anthropology were similarly instrumental. Special thanks to Monia Haselhorst, Rachel Watson, and all of the LAMP facilitators for encouraging me and working with me to revamp this course. Finally, thanks to Mika LaVaque-Manty who was my first active learning mentor and still inspires my teaching.

"Active Learning Spectrum" LAMP, Science Initiative, University of Wyoming. May 2023. https://www.uwyo.edu/science-initiative/lamp/active-learning-spectrum/index.html
"Best Practices: Reflection and Revision" ECTL Knowledge Base, University of Wyoming. January 2023. https://www.uwyo.edu/ctl/knowledge-base/reflection-and-revision.html
Lang, James M. *Small teaching: Everyday lessons from the science of learning.* John Wiley & Sons, 2021.
Myers-Lipton, Scott. *Change!: A Guide to Teaching Social Action.* Routledge, 2022.