Office of Undergraduate Research – University of Utah
UROP Learning Outcomes Report (Fall 2015)

Undergraduate Research Learning Outcomes

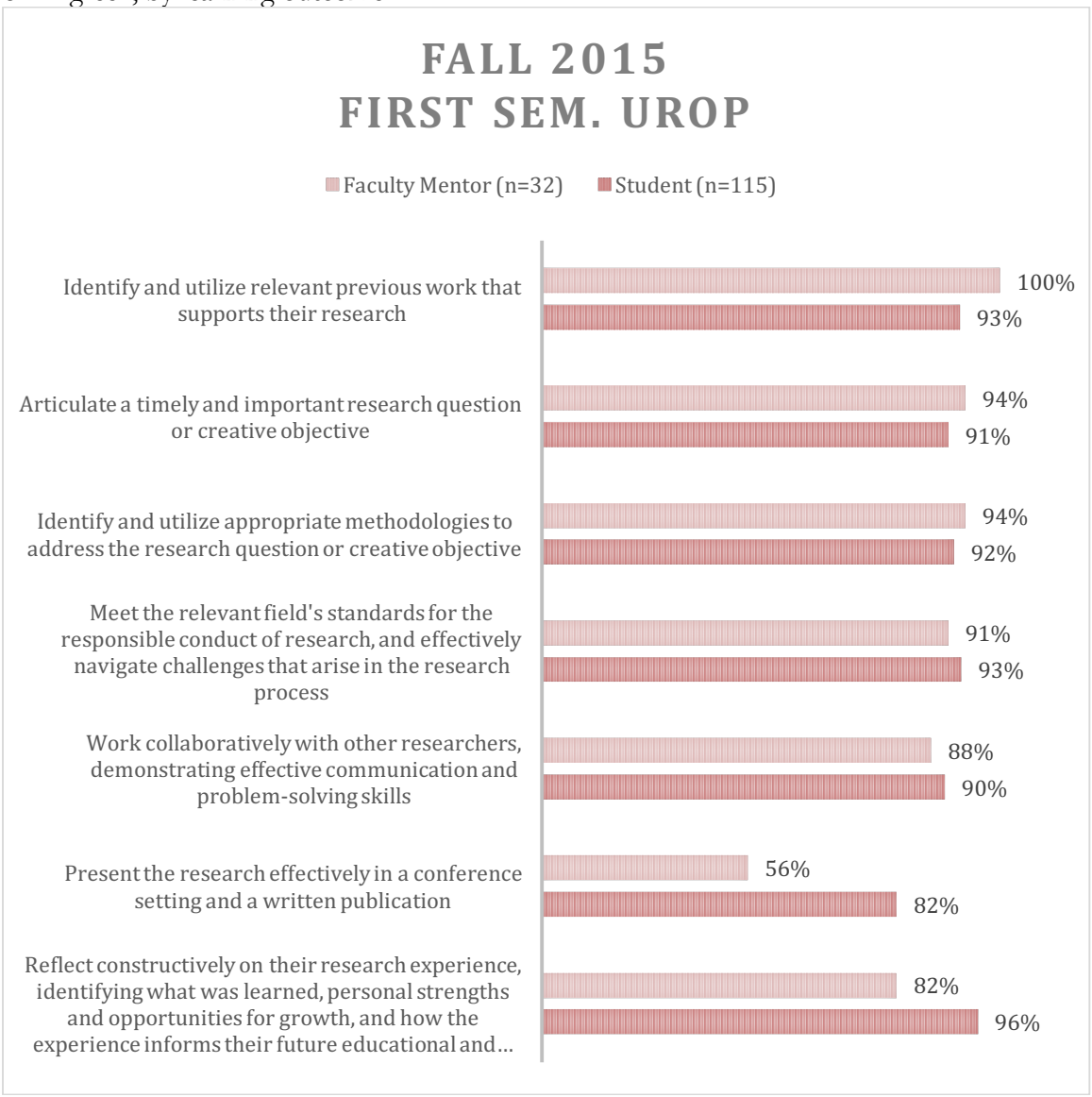
- Identify and utilize relevant previous work that supports their research
- Articulate a timely and important research question or creative objective
- Identify and utilize appropriate methodologies to address the research question or creative objective
- Meet the relevant field's standards for the responsible conduct of research, and effectively navigate challenges that arise in the research process
- Work collaboratively with other researchers, demonstrating effective communication and problem-solving skills
- Present the research effectively in a conference setting and a written publication
- Reflect constructively on their research experience, identifying what was learned, personal strengths and opportunities for growth, and how the experience informs their future educational and career goals

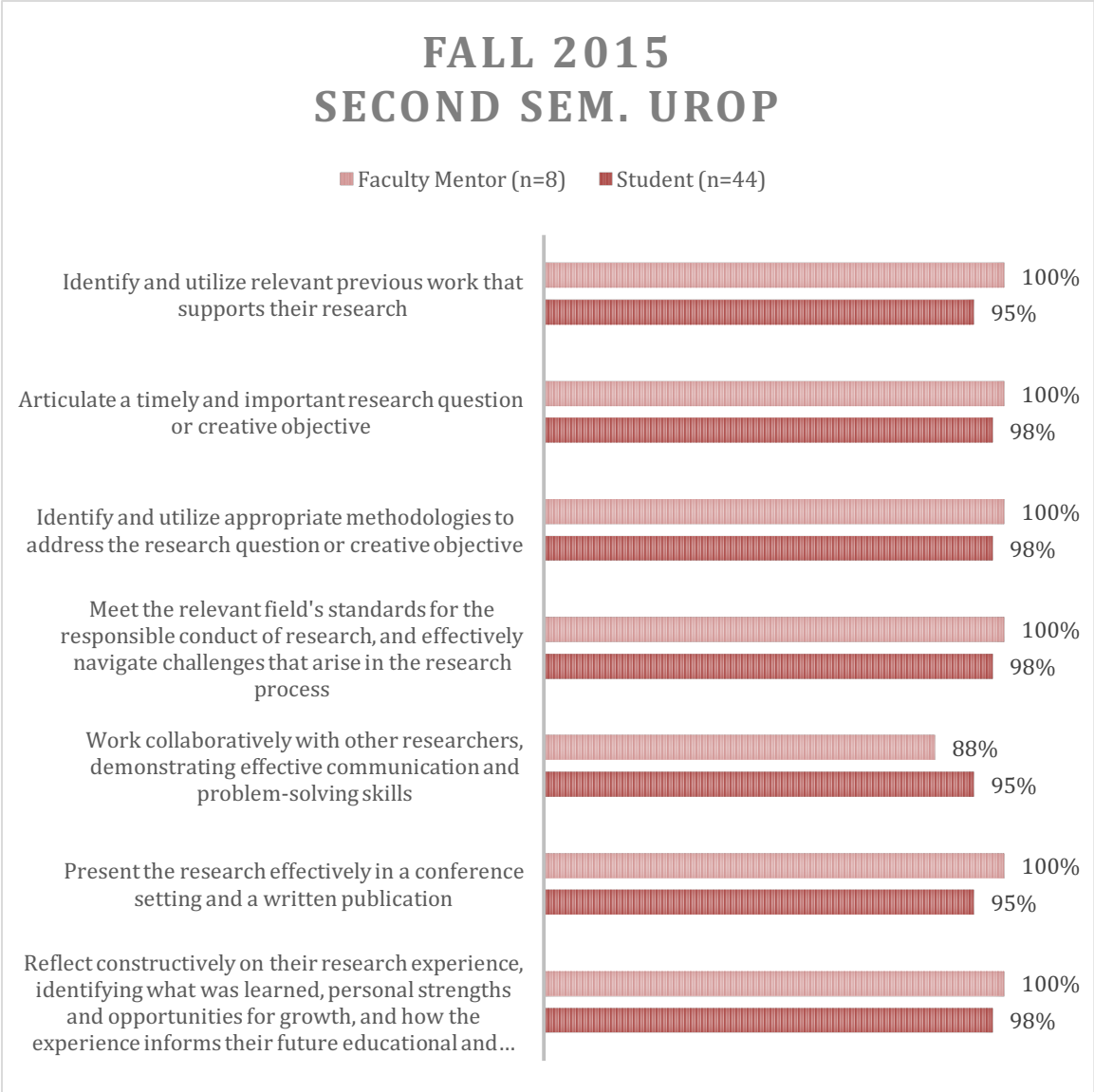
It is important to note that these learning outcomes are designed for the entirety of a student's experience in undergraduate research, up to the point of graduation. For this reason, we do not expect high agreement rates for all outcomes, in particular the outcome concerning presentation and publication, as students are unlikely to have presented or published their work by the end of the first semester of UROP participation.

Assessment Procedures: All Fall 2015 UROP students and their faculty mentors were invited to complete an online learning outcomes assessment during November and December 2015. Students complete the assessment as part of their required UROP final report; faculty participation was optional. The response rate by students was 88% for 1st-semester UROP students and 83% for 2nd-semester UROP students. The faculty response rate was 24% for 1st-semester UROP students and 15% for 2nd-semester UROP students.

For each learning outcome individually, students were asked to respond "Strongly Disagree", "Disagree", "Agree", or "Strongly Agree" to the prompt: "In my opinion, my undergraduate research experience has helped me to...[learning outcome]". Faculty were asked to respond using the same four response options to the prompt: "Through participation in UROP this semester under your mentorship, the student has learned to...[learning outcome]".

Data:
The following presents the percent of respondents who responded either "Strongly Agree" or "Agree", by learning outcome.





Observations:

- Students tend to see their UROP experience as supporting the learning outcomes. Faculty mentors and students are generally in agreement with each other.
- The lowest agreement score is associated with the presentation and publication outcome, especially in the first semester of UROP (but note the discrepancy between faculty mentor and student responses in the first semester). This is unsurprising, given that students normally are not ready to present or publish their work by the end of their first semester of UROP participation. However, by the end of the second semester, both students and their faculty mentors are at 95% or above.
- In all measures, agreement is generally higher in the second than the first semester of UROP, consistent with (1) the self-selection of students for a second semester of research and/or (2) the additional research experience afforded by the second semester of UROP funding.