



A Guide to Using “Student Experience of Teaching” (SET) Survey Data

Student Experience of Teaching (SET) surveys, like other surveys, provide users with information that can help them better understand and make informed decisions about a topic of interest—here, teaching and learning on the UCSC campus. However, the information that emerges from the SET survey needs to be organized, analyzed, and summarized before it can be made useful. This document provides faculty with guidance on how to use quantitative and qualitative SET data, which may be employed as evidence of teaching effectiveness (and growth as a teacher) during the personnel review process. For example, SET results are usually referenced and contextualized in a personal statement written by a faculty member or in a merit or promotion letter written by a personnel committee, department chair, or dean.

It is important to note that SETs reveal only one perspective of teaching and learning—the student perspective. The Center for Innovations in Teaching and Learning (CITL) strongly advises against over-reliance on any one source of data to assess teaching effectiveness. Faculty are encouraged to present a holistic portrait of their teaching by providing review committees with multiple measures of teaching effectiveness. (Per [APM 210-1.d.1](#), a minimum of two are required.) Faculty are encouraged to consult CITL’s [“A Guide to Providing Evidence of Excellence in Teaching”](#) for additional guidance on using “other measures” to document their teaching record.

We recognize that SETs are not perfect instruments. The presence of bias in SET results is well documented (see section below). Given that SETs are universally used as part of the evaluation of teaching by UCSC faculty during personnel reviews, bias in SETs has implications for equity in promotion and tenure. Informed by this research on bias in SETs, the CITL, the Committee on Teaching (COT), and the Committee on Affirmative Action and Diversity (CAAD), in consultation with the Chair of the Committee on Academic Personnel and the Vice Provost for Academic Affairs, have been working together to improve the survey instrument itself, as well as to support better interpretation and application of survey data.

Our purpose in sharing this guide is threefold: (1) to inform you of the research on bias in SETs, to help you identify bias, and to give you steps for addressing bias; (2) to guide you in analyzing and presenting quantitative SET results (i.e. data presented as numbers); and (3) to guide you in analyzing and presenting qualitative SET results (i.e. student comments). For more information on documenting your teaching, please feel free to reach out to the staff of the CITL.

Bias in SETs

How do we know there's bias in SETs? There are a significant number of important studies going back 40 years and continuing today establishing that bias in SETs not only exists but is widespread. Most scholarly attention within this literature has been paid to gender bias, and specifically how gender influences students' expectations for and criticisms of teaching performance.¹ One leading study showed that when two instructors in an online course disguised their gender, with each instructor operating under two different gender identities, students rated the "male" identity significantly higher than the "female" identity, regardless of the instructor's actual gender (Macnell et al., 2015). Northeastern Professor Ben Schmidt developed a tool to analyze the "gender splits" in words used to describe faculty in over four million ratemyprofessor.com reviews, showing, for instance, that men are more likely to be described as brilliant, a star, awesome or the best professor, while women are more likely to be described as bossy, disorganized, and annoying as well as nice or rude, beautiful or ugly (<http://benschmidt.org/profGender/#>, 2015). A third approach finds that such role expectations have special relevance in particular classroom contexts. Female instructors face less bias in small classes where individual interaction with students is the norm, but are at a disadvantage in larger, more impersonal classes. Significantly, women instructors who receive the highest ratings are perceived as both sensitive and effective; men only need to be perceived as effective to receive high scores (Johnson et al., 2008). Overall, the research suggests that "people tend to think more highly of men than women in professional settings, praise men for the same things they criticize women for, and are more likely to focus on a woman's appearance or personality and on a man's skills and intelligence" (Miller, 2015).

How can we identify bias in our own SETs, or in SETs we review? We recommend thinking on two levels about this issue. Some SET bias is overt, as in direct reference to an instructor's appearance or presumed identity. Much, however, is implicit. Here we recommend looking for patterns. For instance, be attuned to patterns of gendered language across different courses taught by the same instructor, and see if you find disparities in scores and comments for large lectures vs small seminars. If in doubt, bring the SETs in question for an outside opinion. This could be from a faculty mentor or senior colleague, the department personnel committee or chair, or from faculty and staff working in the CITL.

What should we do if we find bias? If cases of overt bias or patterns of implicit bias are found, this might be factored in to the department's assessment and evaluation of teaching and flagged for consideration at higher levels of review. Faculty need not feel obliged to reference bias in their own letters. Faculty should ideally be informed in advance if the Chair or personnel committee decides to discuss the presence of biased survey results in a personnel letter. Since SETs are also used formatively to improve teaching, faculty should be supported in disregarding biased reviews, particularly when a pattern of bias is found.

¹ For bibliographies and literature reviews race- based and other forms of bias in SET's, see "Implicit Bias in Teaching Evaluations - <https://caad.sites.ucsc.edu/implicit-bias/>"

What can we do to prevent bias? CITL, COT, and CAAD, in consultation with the VPAA and the CAP Chair, have been working to improve the interpretation and application of survey data in SETs, and to minimize bias. Language will be available with the new SETs to help inform students about the ways SETs are used and the importance of answering the questions so as to address the qualities of the course design and teaching rather than the personality of the instructor. As an instructor, you may choose to share information about bias in SETs with your students and to encourage students to reflect on their role and responsibilities as a SET survey respondent, especially as pertains to equity. CITL also advocates using multiple measures of teaching effectiveness, which may provide reviewers with a more holistic view of your teaching, and can attenuate the impact of bias in SETs in personnel reviews.

Representing SET Quantitative Data

Bearing in mind the drawbacks of SETs in general, the best practice from a statistical standpoint is to present numerical results for each course in the manner recommended by CAP--that is, in tables that record the percentage of 1s, 2s, 3s, 4s, and 5s for each course. Doing so may still fail to adequately convey useful information about specific dimensions of instruction for a particular course, but that shortcoming can be addressed by consulting the SETs themselves. Attempting to condense or aggregate results can be misleading and is discouraged by both CAP and the Division of Academic Affairs.

When discussing quantitative data for individual courses in a personal statement or a department letter, some context should be provided. Even the same class under a slightly different set of circumstances can produce noticeably different SET results, quite apart from the quality of instruction (which is part of the issue with attempting to aggregate). Give specific information about the particular class. What was the class size? Is this a required class, a lower-division course primarily for non-majors, or an upper-division elective taken by advanced majors? Was this the instructor's first time teaching this class? What was the rate of return of SETs? Was the class taught at a time of day many students find challenging, such as 8 am? Instructors may briefly provide such contextualizing information and address any relevant structural issues for the course or courses in question.

If looking outside of contextualized individual courses, look only for robust patterns or trends in the goals of the class and its teaching. For example, are course expectations and learning goals made clear? Does the instructor make themselves readily available to help students? It is also possible to ask whether the same instructor has taught the same course under the same conditions a number of times with a *marked* improvement in the returns, but again be attuned to the ways different contexts may produce variable outcomes.

In future years, when instructors have the opportunity to craft their own questions regarding the learning outcomes in their courses, it should be easier to ensure that responses directly address student learning rather than instructor likeability. We also recommend that instructors

include at least one question asking students to reflect on the percentage of the course requirements they completed, and/or the amount of effort they put into the course. These measures can be helpful in attempting to make productive use of student feedback.

Using SET Qualitative Data (Student Comments)

The comments section of SETs can provide valuable descriptive information about individual student's course experiences—it can clarify quantitative ratings, reveal previously unconsidered perspectives, and individualize survey respondents. However, analyzing student comments can present challenges. For example, students' comments can appear contradictory, off-topic, or biased, giving instructors a sense that the data are unreliable. The [CITL website](#) contains guidelines for faculty, particularly those newer to teaching, on "[Preparing to Read Student Comments](#)." The guidance below addresses some of the challenges of using qualitative data in personnel reviews.

Organizing and Summarizing Student Comments

The following three techniques can help you summarize student comments and show patterns, which you may want to include in personal statements and department personnel letters. This advice has been collected from multiple sources on reading SET data in particular and on using qualitative data in general (CTL Stanford, 2012; Lewis, 2001, p. 27-29; Frechtling, Westat, and Katzenmeyer, 1997). Please note: quoting individual statements from SETs is not recommended, as it is neither concise nor necessarily representative of the overall student experience. See [CAP's Tips for Chairs](#) and [CAP's Top 10 List of Tips for Faculty Preparing Personnel Files](#).

Tip #1: Look for patterns and common themes. Identify patterns by reading all responses to a particular question on its own. This will help you compare and contrast student responses on a specific topic, and find patterns within a particular question/category. You can also identify patterns by sorting responses by student group. For example, how did majors experience the class differently from non-majors? Did students who rated the course highly and poorly have similar complaints? This will help you see which experiences were shared across groups, and which were unique to specific groups.

Tip #2: Compare and corroborate student responses against quantitative data. "After reviewing trends in your quantitative data, look to the written comments for elaboration and specific suggestions. For example, one professor received low overall number ratings in the categories of [organization and clarity]. Written comments revealed concerns that the instructor assigned homework in a rushed manner during the last few seconds of class, confusing and frustrating students" (CTL Stanford).

Tip #3: Identify deviations from patterns and interesting stories. Student comments that contradict patterns may provide insight into non-dominant student experiences that are important to be aware of. If you refer to this unique comment, identify it as unique and explain why you are including it.

Documenting Findings and Future Plans in the Personal Statement

Once you have organized and assessed the usefulness of your data for discerning the current patterns in your teaching, you will see areas of strength and areas for improvement. If you are using SETs as a measure of teaching effectiveness in a personal statement, consider addressing the following attributes by documenting the finding and developing a plan of action. Faculty are encouraged to consult CITL's "[A Guide to Providing Evidence of Excellence in Teaching](#)" for additional guidance on writing personal statements and using "other measures" to document their teaching record.

Strengths Document your strengths and make a plan of action for continuing to implement successful techniques. What worked and why? What plans do you have for continuing to implement this successful technique, and how can you expand its use in different parts of the same course, or in other courses?

Areas in Need of Improvement Document areas in need of improvement and make a plan of action for correcting limitations. What didn't work and why? How will you modify your techniques? For example, are you able to make homework more relevant to the exam questions? Can you more clearly align assignments with course objectives? How will you develop new skills and perspectives? Will you seek advice? Be sure to include these responses to perceived areas of weakness in your personal statement.

Innovation Document pedagogical innovation. What was the innovation? Why did you implement it? Was it successful? What have you learned from it? How, going forward, might you change and/or improve your implementation of this innovation?

Improvement Document growth and improvement over time. Have you demonstrated improvement over time? What actions have you taken to realize those changes? What will you do to continue developing as a teacher?