LVX VERITAS VIRTVS

TRACE Ad Hoc Committee

Presentation to the Faculty Senate Wednesday, 3/26/2025

Members

Steve Lustig, Chair, COE - Chemical Engineering

Amy Bryzgel, CAMD - Art + Design

Michael Gonyeau, BCHS - Pharmacy and Health Systems Sciences

Richard Herron, DMSB – Finance

Joanna Weaver, COS – Psychology

TRACE Ad Hoc Committee Activities

For all charges

- 14 committee meetings
- Discussions with Deb Franko, Senior Vice Provost for Academic Affairs
- Discussions with Devyani Anand, VP Academic Affairs, Student Government Assoc.
- Discussions with Margarita DiVall, Sr Assoc Dean Faculty Affairs, DEIB, Bouvé CHS
- Reviewed past Faculty Senate reports
- Reviewed work of COE Faculty Council (2023/24):
 - Defining & assessing "effective teaching" discussions with Michael Sweet, Director CATLR
 - Teams Library of 106 peer-reviewed publications on "Student Evaluation of Teaching" (SET) https://northeastern.sharepoint.com/sites/TeachingEffectiveness/Shared% 20Documents/Forms/AllItems.aspx
- Composed and analyzed Fall 2024 Faculty Senate survey to all Full Time Faculty
- Composed and analyzed survey to all college deans and administrators
- Produced 53-page committee report of all activities, findings, recommendations, and resolutions
- Discussions with Watermark Support Ticket # 180991, TRACE software vendor

Charge 1

The committee shall review past Faculty Senate committee reports on TRACE (APC and FDC 2019-20) and determine a method for analyzing and measuring bias in teaching evaluations

Selected Findings on Bias in Student Evaluations of Teaching (SET)

- 1. Documented negative bias in SET responses occurs particularly when there are differences between the instructor and class, but especially against instructors with different gender, race, age, geographic heritage, cultural heritage, appearances, and personality traits. Documented negative bias against faculty in under-represented groups.
- 2. Documented bias in SET responses also occurs with courses that are: either very easy or very difficult, taught at very early or very late times, part of a required core curriculum, taught in very large class sizes, taught in noisy or less aesthetic classrooms, taught online, and other circumstances beyond the instructor's control.
- 3. SET responses are further biased when survey questions are ill-posed, i.e., contain words or concepts for which there is no single common or objective definition, or when questions are imprecise, ambiguous queries, or beyond student's training in pedagogy, or when asked for subjective opinions. For example, students are given neither a definition, nor a rubric for the meaning and measurement of "effective teaching".
- 4. SET responses are biased by outdated, historical results made available on-line to students, particularly when no instructor responses are available.
- 5. Biases in SET have been documented in peer-reviewed pedagogical literature since 1984.
 - Bias can be identified but cannot be quantified.
 - There are no methods to correct or adjust SET survey data for bias.
 - > The best practice is to eliminate bias by educating students and providing well-posed queries.
 - Recommendations are embodied in our resolutions!

Charge 2

Follow up on Senate Committee APC/FDC 2019-20 recommendations to address issues of gender and racial bias inherent in the TRACE questions and how the results are weighed in the merit and promotion processes for all full-time faculty.

Selected findings on TRACE use in Merit and Promotion

- 1. APC 2019-20 report identifies these issues and recommends TRACE surveys use questions that are learning-based rather than summative. We note that the question "What is your overall rating of this instructor's teaching effectiveness?" is summative. Hence the current TRACE survey does not follow the recommendations of the APC 2019-20 report.
- 2. FDC 2019-20 recommends "All TRACE questions and resulting metrics to be used are reviewed for statistical validity and avoidance of discriminatory effects on subpopulations." However, none of the colleges that use TRACE surveys indicate that metrics are reviewed for statistical validity.
- 3. Faculty survey responses are consistent with the academic evidence of bias in SETs in pedagogical literature.
- 4. In our survey of NU college deans and administrators:
 - None of the colleges indicated to us specific safeguards used in merit, promotion, and tenure processes to address issues of gender and racial bias inherent in the TRACE survey results.
 - While several colleges use TRACE results in combination with additional teaching evaluation data, some explicitly state their strong emphasis on the question "What is your overall rating of this instructor's teaching effectiveness?".
- > 6 specific recommendations are provided in our report.
- Recommendations are embodied in our resolutions!

Charge 3

Survey faculty on using TRACE beyond the merit evaluation. For example, do the current questions help faculty improve their teaching and student interaction?

Selected Findings from Faculty Senate TRACE survey: (487 responses)

- 1. Student comments (73% response rate) are most helpful to improve teaching and interactions with students, which is far more relevant than none (21%) and the Likert scores (6%); however, the current TRACE reports are rated as 42% not helpful, 33% somewhat helpful, 19% harmful, and 7% very helpful.
- 2. Faculty were asked how qualified students are to assess the effectiveness of the teacher, 23% say all are generally qualified, 45% say some are qualified, 14% are unsure how qualified and 17% say all are generally unqualified. Gender and racial biases are the leading reasons for being unqualified.
- 3. Faculty have detected bias in their teaching evaluations based on age, disability, gender, course difficulty, under sampling, teaching style, appearance and attire, and grading rigor. Those who detected bias indicate the bias has affected them by: lowering moral, undermining confidence, planning to leave academia for industry, and preventing promotion.
- 4. When asked if their TRACE reports should be made available to students online, faculty responded NO (42%), UNSURE (33%), and YES (26%). Common reasons for NO: students use reviews to extract revenge for bad grades, the results are heavily biased and unfair, old data biases students away from courses that have been recently reformatted and improved, results are often not statistically relevant. Common reasons for YES: need for transparency and accountability, students need information to select classes.
- > 15 specific recommendations are provided in our report.
- Recommendations are embodied in our resolutions!

These resolutions aim to reduce bias and improve student and faculty outcomes by...

- Reminding students to focus on course material, instructor actions, and learning outcomes instead of instructors' personal qualities.
- Removing ambiguous concepts and jargons that are susceptible to bias (e.g., "teaching effectiveness")
- Emphasizing precise questions with actionable feedback for faculty, de-emphasizing subjective and summative queries.
- Shortening the TRACE survey and offering incentives to students who complete it
- Limit the availability to students of past TRACE survey results to two years and provide instructor responses to encourage faculty to experiment and innovate.

Some resolutions call for changing TRACE surveys using software features already available by the vendor.

Your Watermark Support Ticket # 180991 has been updated, Re: CES Questions

- 1. How would it be possible to limit students' access to historical TRACE survey data to the past two years?
 - > To restrict student access to survey data via the Student Reporting feature, navigate to the specific project and select the "Report Setup" tab. Scroll to the bottom of the page, where you can assign an access end date to determine when students will no longer have access to the survey results for that project:
- 2. How would it be possible to enable instructors optionally to provide responses to TRACE surveys about their classes, to give a balanced view of historical TRACE survey data?
 - > I recommend utilizing the 'Results Feedback' feature, which enables instructors to provide personalized comments regarding the survey results related to their courses. You can refer to this help desk article: Results Feedback
- 3. How would it be possible to provide automated incentives to students to complete TRACE surveys for each class?
 > It looks like you are using a Canvas Integration with CES, therefore, you could utilize the Canvas Gradebook to distribute points in a course to students who have completed their surveys. To learn more about this, you can go through this article: Canvas Gradebook

Let us know if you have any questions.

Best regards,
Harshita Verma
Client Support Lead



WHEREAS students are given neither a definition nor a rubric for the meaning and measurement of "effective teaching", and

WHEREAS a meaningful TRACE question must be composed as a precise and unambiguous query, appropriate for the students' training, that focuses on specific behaviors (actions) and outcomes, and seek an objective response that does not elicit bias, and

WHEREAS the TRACE question "What is your overall rating of this instructor's teaching effectiveness?" does not meet all these criteria, and

WHEREAS "effective teaching" is defined in pedagogical literature in terms of (1) the instructor using effective teaching practices (actions) and (2) the instructor enabling the achievement of the intended course learning outcomes,

BE IT RESOLVED that the TRACE question "What is your overall rating of this instructor's teaching effectiveness?" be removed from the TRACE survey, and substituted with multiple questions that query (1) the instructor using specific effective teaching practices (actions) and (2) the instructor enabling the achievement of the intended course learning outcomes, each question being composed as a precise and unambiguous query, appropriate for the students' training, and that focuses on specific behaviors (actions) and outcomes, and seek an objective response that does not elicit bias.

BE IT RESOLVED that the TRACE survey be revised to the structure and content presented as Appendix C according to the recommendations provided in this report.

You are encouraged to evaluate this class based on *its content*, *your engagement with the material*, and *your mastery of intended course outcomes*, and the *instructor's actions*, rather than any unrelated attributes. Given the intended use of the TRACE to enhance teaching, we welcome student comments that are thoughtful, professional, constructive, and considerate.

Student reflection

- 1. How often did you attend this class?
- 2. The number of hours per week I devoted to this course outside scheduled class meeting times.
- 3. What could I have done to make this course better for myself?

Course-related questions

- 4. The syllabus was accurate and helpful in delineating expectations and course outcomes.
- 5. Required and additional course materials were helpful in achieving course outcomes.

Learning-related questions

- 6. Class sessions (in person or online, or any other type of class meeting) were helpful for learning
- 7. I met the learning outcomes for the course.
- 8. My grades in this course reflect my mastery of the course learning outcomes.
- 9. This class had the expected amount of rigor in relation to the learning outcomes.
- 10. The classroom conditions (i.e., time of day, class size, exterior noise, less aesthetic environment) negatively impacted my learning and achievement of learning outcomes.

Instructor-related questions

- 11. The instructor explained how I would be graded in this course.
- 12. The instructor helped the class identify ways to master the learning outcomes.
- 13. The instructor created opportunities for me to be engaged in class.
- 14. The instructor promoted a classroom environment that enables learning.
- 15. The instructor clearly communicated ideas and information.
- 16. What did the instructor do well?
- 17. What could be improved about the course

WHEREAS student evaluations of teaching have been established to be subject to bias,

BE IT RESOLVED that TRACE survey results be used as one component in more comprehensive assessment of teaching effectiveness in faculty merit, promotion, and tenure processes that includes peer evaluations and instructors' teaching reflections.

WHEREAS recent TRACE data aids students in choosing courses and enables instructor accountability, and

WHEREAS distant TRACE data do not necessarily reflect more recent teaching and course outcomes, and

WHEREAS limiting students' access to distant TRACE data limits preconceptional bias and encourages instructors to experiment with new and improved methods,

BE IT RESOLVED that the Faculty Senate work with the TRACE vendor such that historical TRACE survey results be made available to students for 2 years prior of the current academic year, or the last 2 times the instructor has taught the course, or extend longer than 2 years.

WHEREAS recent TRACE data aids students in choosing courses and enables instructor accountability, and

WHEREAS distant TRACE data do not necessarily reflect more recent teaching and course outcomes, and

WHEREAS limiting students' access to distant TRACE data limits preconceptional bias and encourages instructors to experiment with new and improved methods, and

WHEREAS TRACE data made available to the students offer a biased perspective because the data do not include supporting response statements from the instructors,

BE IT RESOLVED that the Faculty Senate work with the TRACE vendor such that instructors have the optional opportunity to include their own response statements with the TRACE survey results made available to the students.

WHEREAS high participation rates in TRACE surveys increase statistical validity of results,

BE IT RESOLVED that the Faculty Senate work with the TRACE vendor such that university, colleges, departments, and instructors can automate incentives to students to submit complete and thoughtful TRACE surveys.

TRACE Ad Hoc Committee (2024/25)

Respectfully submitted:

Steve Lustig, Chair, COE - Chemical Engineering

Amy Bryzgel, CAMD - Art + Design

Michael Gonyeau, BCHS - Pharmacy and Health Systems Sciences

Richard Herron, DMSB – Finance

Joanna Weaver, COS – Psychology

Student Evaluation of Courses (TRACE)

Students play a critical role in the university's commitment to quality teaching and academic excellence when they participate in the evaluation of courses through TRACE (Teacher Rating And Course Evaluation), a survey developed collaboratively by the Student Government Association and the Faculty Senate. TRACE data are important in the process of course design and improvement, as well as in the process of faculty evaluation. Students are expected to participate in TRACE with constructive feedback that is relevant to teaching and course content. TRACE results from previous terms can be found on the Student Hub.

Recommendations

- Remove the "teaching effectiveness" question because it is imprecise and may be susceptible to bias
- Emphasize other questions that are precise and actionable for faculty
- Add a preamble that reminds students to evaluate the course material, presentation, and outcomes instead of the presenter
- Streamline the TRACE survey to encourage students to complete it
- Create an automatic system that releases final course grades sooner to students who complete TRACE surveys to incentivize completion, increase sample sizes, and reduce biases
- Limit the availability to students of past TRACE reports to encourage faculty to experiment and innovate
- Among others