

# CATS: A Guide for Faculty Members

## Course and Teacher Surveys (CATS) at Villanova University

Villanova uses a custom designed Course and Teacher Survey (CATS) in all courses. This guide is intended to answer some of the questions that faculty members have about student surveys. Your chair or program director can also advise you about CATS. If you have additional suggestions or questions about either this guide or the CATS process, please contact the Vice Provost for Teaching and Learning.

### Why does Villanova survey students about teaching effectiveness?

Generally, we feel that student perceptions are a useful component of understanding teaching effectiveness. The CATS results can give you, as a faculty member, an additional source of information about how students perceived your classes. They can also provide useful information to your chair who can, in turn, make useful suggestions for improving your teaching effectiveness. Ultimately the CATS results are used as one component of the overall evaluation of your teaching, which will be conducted by your colleagues, and your chair. It should be stressed, however, that the CATS results are intended to be a component of this process. Some people inaccurately describe the CATS surveys as "student evaluations." This is incorrect. *At Villanova, only faculty and administrators evaluate teaching effectiveness.* While student perceptions are considered in the process of forming those evaluations, the evaluations are made by faculty members and administrators, not by students.

### How often and in which classes are the surveys conducted?

The current policy calls for administration of CATS in most courses every semester. Classes with fewer than four students are not surveyed, and sometimes department chairs will determine that certain classes should not be surveyed.

### How are the surveys administered?

CATS are distributed to students via their Villanova email address approximately two weeks prior to the end of a full semester-length course. Note that, for shorter courses, there is a smaller window of time for students to complete CATS. Students can access the survey either by clicking on the link in the invitation email or through **Blackboard** by selecting **Tools** (on the left navigation menu) and **CATS Surveys – For Students**. Students log in using their Villanova username and password. You are required to allot 10 minutes (more if there are supplemental questions) at the start of a class session for students to complete CATS. Please ask your students to bring their laptop or other mobile device to class on the day you plan to allocate time for the completion of CATS. For survey administration in the classroom, you should not be present in the room when the surveys are being completed. Select a student who has already completed a survey to serve as a proctor. You will also receive an email containing a link to the CATS system. Using your Villanova username and password you can monitor your response rate(s) and view the 'End Date' of the survey for your course(s). Alternatively, you can also monitor your response rate(s) via **Blackboard** by selecting **Tools** (on the left navigation menu) and **CATS Surveys – For Students**. CATS will remain open until the 'End Date', after which date it will close. Once closed, CATS cannot be re-opened.

### What questions are asked?

CATS is intended to be a minimum survey, and it is assumed that faculty, departments, and colleges may want to add additional questions. A copy of the digital instrument is appended to this Guide.

### May I add questions of my own?

You are free to add your own additional questions to CATS. You may, if you wish, send your additional questions to the Office of Strategic Planning and Institutional Effectiveness by emailing [CATS-QUESTIONS@villanova.edu](mailto:CATS-QUESTIONS@villanova.edu) no later than 4 weeks prior to the end date of a full semester-length course and no later than 3 weeks prior to the end date of a shorter course. Your college or department may also have supplemental questions, so please check with your chair before adding your own questions. Additional questions will appear at the end of the survey.

### What is the relationship between the grades I give students and the ratings they give me on the CATS forms?

The relationship between student ratings and grades has been extensively studied by social scientists, and there is little evidence for the common view that students trade high student ratings for high grades or punish instructors with high standards. Indeed, the results of Villanova's study completed in 2011 are reported below and indicate grading has an inconsequential impact on CATS scores. At Villanova, some of the most lenient graders get low scores and some of the most demanding teachers get high scores. On the other hand, students do not respond well to grading practices that they perceive as arbitrary and unfair, and they will express their resentment about what they perceive as unfair grading practices when it comes time to fill out the CATS forms. Rather than trying to give high grades, new faculty members should focus on giving students greater clarity about expectations. One experienced faculty member put it this way: "Students don't expect to get all As and Bs, but they would like to think that courses are arranged so that a student who put the effort into it could get a top grade. They hate courses where it seems impossible to do well, or where they don't really understand what is expected of them."

### When and where do I get my results?

New CATS results are posted to Blackboard approximately, but no earlier than, 5 business days after the final grade deadline, in accordance with the academic calendar on which a course is offered and the official staff holiday schedule. The reports are in **Blackboard** under **Tools** (on the left navigation menu) -> **CATS Reports – For Instructors**. Once the results are posted, you and anyone authorized to see your results (as defined below) will receive an email notification from the Office of Strategic Planning and Institutional Effectiveness.

### Who else will see the results?

CATS results for your courses, excluding results for the three Diversity & Inclusion questions, are accessible to:

- The chair/program director of your department and, if other than your own, the chair/program director of the department under which the course was housed;
- The dean of your college and, if other than your own, the dean of the college under which the course was housed;

- The provost, the vice provost for academics, and the associate vice provost for teaching and learning;
- Selected administrators in the Office of Strategic Planning and Institutional Effectiveness and in UNIT; and
- Employees of eXplorance Inc., proprietor of the software used for CATS.

Deans may designate all or portions of access under their purview to relevant administrators and faculty members.

For the faculty in the College of Engineering, College of Liberal Arts and Sciences, and School of Business, results for the D&I questions are only accessible to the chair/program director of your home department. For College of Nursing faculty, D&I results are only accessible to the college's vice dean for academic affairs. For College of Professional Studies faculty, D&I results are only accessible to the college's director of teaching and learning. In addition, if you teach a course outside of your home department, your D&I results are only accessible to the chair/program director of your home department, and are not accessible to the chair/program director of the department under which the course was housed.

For rank and promotion purposes, your results are available to the rank and tenure committee.

New full-time faculty members go through a formal process of evaluation once a year, and teaching is a big part of that evaluation. Typically chairs have a faculty committee to recommend on the evaluation, and those committees usually have access to CATS reports – excluding the three diversity and inclusion questions.

### When should I consult with my chair?

After receiving your results, you might want to discuss the results with your chair or program director. The chair can tell you how your CATS surveys will be regarded by your department. Often, faculty members remark that the results they get in the first semester or two are lower than what they saw at their previous institution. After a few semesters, the results frequently improve.

### What other information will be considered when my teaching is reviewed?

Your chair can tell you what information is used by your department in evaluating teaching effectiveness. Usually departments look at syllabi, tests, peer observations, and grading patterns. Realistically, chairs and your faculty colleagues also draw on a wide range of information when they come to think about teaching effectiveness. Especially at registration time, chairs spend a great deal of time talking to students about courses, and they hear a lot about student perception of teaching effectiveness. The same is true of other colleagues. The result is that when it comes time to do a formal evaluation of teaching, a lot of factors are considered, not just CATS reports.

### What can I do to improve my ratings?

New faculty members should concentrate on teaching effectiveness rather than student survey results. The question they should ask themselves is: "What can I do to be a more effective teacher?" Trust us, the ratings will take care of themselves. There are a number of strategies for improving teaching effectiveness.

- One of the most useful steps is to draw on the resources of the Villanova Institute for Teaching and Learning ([VITAL](#)). VITAL offers a host of services ranging from confidential consultations to

public workshops.

- Generally speaking, teaching effectiveness does improve over the first few semesters, as faculty members get a clearer sense of student learning styles.
- Faculty members may also want to ask advice of recognized good teachers in the department and may ask permission to observe classes.

Having said that, we have analyzed the CATS results from a large sample of students, and we can make a few generalizations about how to improve ratings. This is based on a pretest consisting of about 800 students.

**Improving scores on overall teaching effectiveness.** There are six factors that are, in the perception of a large number of Villanova students, most closely associated with the overall rating on teaching. The results suggest that improvements in the students' perception of these factors will have the greatest impact on how they assess your overall performance as a teacher. For those who are interested in the statistics, we list them with numbers in the tables below, but the general idea is that the factors are listed in order of relevance. Remember that we are discussing student perceptions here, so that it is not enough, for example, for you to organize and plan the course effectively from your own perspective. Students must also perceive that the course is well organized and planned. Sometimes it is helpful to spend a little bit of time helping students perceive things that you yourself may be aware of.

#### **Explanation of variance of responses of overall evaluation of quality of instruction (Question 28: Quality of Instruction)**

<b>Question</b>	<b>Percentage of total cumulative variation explained by including these questions. (R square)</b>	<b>Correlation with question 28</b>
Explains course material clearly	.540	.735
Interacts effectively with students	.615	.606
I learned a great deal in this course	.649	.629
Organizes and plans the course effectively	.661	.631
Makes goals of the course clear	.667	.595
Is available for help outside the classroom	.673	.474

**Improving scores on the course itself.** The results also give some suggestions about which factors students associate with a high overall score on the value of the course itself. Some of these factors overlap with those related to high effectiveness on the part of the teacher, others are different. Again, improvements in these factors are likely to generate higher scores on the overall rating of the course.

**Explanation of variance of responses of overall evaluation of value of the course  
(Question 29: Overall Value)**

<b>Question</b>	<b>Percentage of total cumulative variation explained by including these questions. (R square)</b>	<b>Correlation with question 29</b>
I learned a great deal	.562	.750
I found the course intellectually stimulating	.597	.701
Instructor is available for help outside of class	.611	.406
Employs test and graded materials relevant to course content	.622	.521
Makes goals of the course clear	.633	.155

**Will the CATS surveys be used in determining salary?**

In most departments, salary recommendations are based on the annual evaluations, and CATS data are a component in forming the evaluations of teaching.

**Will the results be used in decisions regarding rank and tenure?**

The CATS reports figure into Rank and Tenure decisions in two ways. First, the Rank and Tenure committees will look at the past departmental annual evaluations. In so far as CATS reports are a component of past teaching evaluations, they influence this aspect of Rank and Tenure. The Rank and Tenure committees also look at a summary report of the applicant's CATS scores. Generally, the committee only looks at the results for the following five questions:

- Hard work is required to get good grades in this course.
- I found the course intellectually stimulating.
- I learned a great deal in this course.
- Rate the QUALITY OF INSTRUCTION in this course as it contributed to your learning.
- Rate the OVERALL VALUE of this course to you as it contributed to your learning.

**Who designed the instrument, can it be changed?**

A committee of faculty and administrators designed the CATS form and circulated the draft to the entire faculty for comments and revisions. Villanova began using the CATS in 1997. The CATS form has been revised three times. A committee reviewed and revised the CATS form in 2003-2004. Villanova began using the new CATS form in the fall semester of 2004. In 2017 and 2018, the Academic Policy Committee (APC), whose membership includes faculty, students and staff, oversaw the development, testing and addition of the three diversity and inclusion questions. The diversity and inclusion questions were used in all CATS beginning in Fall 2018. The three questions are excluded from the evaluation of faculty. The addition of these three questions is one-way faculty can use student feedback to help maintain or, if needed, improve the classroom experience for all

students. In the fall semester of 2022, the single opened CATS question changed to two open-ended questions. The APC also oversaw the administration of the CATS change from a paper to a digital format. The APC continues to monitor the administration and the reporting of CATS and is always looking to improve both.

### General Principles for the use of student ratings for faculty evaluation and development: (Issued November 25, 1996)

In using and interpreting student ratings, committees, department chairs and other administrators should be guided by these principles:

1. Student ratings are a valuable source of data about effective teaching. (Research shows that they are highly reliable and stable and are relatively valid against a variety of indicators).
2. Student ratings must be supplemented with other sources of information about teaching, such as: syllabi; tests; grade distributions; faculty self-evaluations; and reports of class observations by colleagues.
3. Student ratings are only one tool for helping to improve teaching. Ratings can be a valuable source of information that aids in instructional improvement. They may help to identify particular aspects of a course that merit attention (e.g., test and exams, organization, student interaction, etc.). However, while serving this "diagnostic" function, standard rating forms are not very "prescriptive" in terms of specific suggestions to the instructor for making adjustments. In this regard, the role of one's peers or chairperson, confidential interviews with students, responses to open-ended questions, and teaching workshops are probably more valuable. Faculty members should be encouraged to do their own confidential surveys during the course of the semester.
4. Administrators and peer committees who rely on student ratings have a responsibility to be educated in the interpretation of these data. Extensive research has been done on student ratings and those who use these data should be aware of the strengths and limitations of student ratings. Among other things, the research suggests the following principles:
  - Standardized procedures should be carefully developed and scrupulously followed for the administration of student rating forms. For example, the forms should be anonymous, the instructor should not be in the room when the forms are administered; the forms should be distributed toward the end of the semester; and students should not be unduly rushed when completing them.
  - When using student ratings for evaluative purposes, look primarily at data that include multiple classes or sections across several semesters, and from classes that have at least 10 raters and two-thirds of the class present. Data on a few classes or a few students are likely to be unreliable.
  - Look at the results in terms of relevant comparisons; the absolute numbers in student ratings are of only limited value. Department chairs should furnish faculty members with reports that allow faculty members to compare their own results to that of the department.
  - When using student ratings for evaluative purposes, focus primarily on "global" evaluative items about overall instructor performance and overall course satisfaction. While these questions are appropriate for evaluative purposes, they are of much less values for developmental purposes. Chairs and others who work with faculty members to help them improve their teaching should rely primarily on the more diagnostic questions, such as "organizes and plans the course effectively", "explains course material clearly," and "responds effectively to student questions."
  - Allow faculty to submit comments on their student evaluations, and consider special factors (e.g., whether the course is a new or redesigned course or is team-taught).

**In addition to the principles listed above, administrators and peer committees are required to follow the recommendations listed in the next section summarizing Villanova's study examining the effect demographic and situational variables have on CATS scores.**

### [The Effect of Demographic and Situational Variables on Undergraduate CATS Scores \(Final Report June 2012\)](#)

In 2010-2011, the Academic Policy Committee (APC), the Office of Planning and Institutional Research (OPIR) and the Office of Academic Affairs (OAA) partnered to complete a study investigating the effect of demographic and situational variables on CATS scores in undergraduate courses. APC and OPIR chose to assess the effects of 13 variables that were either suggested by Villanova faculty or have been frequently investigated in the extensive published literature on student surveys of faculty teaching.

OPIR contracted with Dr. Luke Keele, an Associate Professor of Political Science at Pennsylvania State University, and an expert in regression and semi-parametric analyses, to perform a "hierarchical linear modeling" (HLM) form of regression analysis using five years of CATS data (2005-2010). This dataset consisted of about 330,000 completed CATS forms from approximately 17,000 undergraduate course sections. Use of HLM regression allowed for the "nesting" of faculty in their departments for comparison purposes.

#### **Dependent Variable**

Question 28 (Q28) "Rate the Overall Quality of the Instructor" is featured as the dependent variable. The Departmental average score on Q28 ranges from 3.90 to 4.78 with a university wide average of 4.31 and a standard deviation of 0.92.

Dr. Keele also used Question 29 "Rate the Overall Value of the Course" as a dependent variable and found the results consistent with the results for Question 28, so his report featured Question 28 only.

#### **Independent Variables**

APC asked Dr. Keele to test the influence of 13 variables on Q28:

1. The student's self-reported workload
2. Class Size (under 30 or over 30 students)
3. The student's self-reported GPA
4. The average grade given in the class
5. The ratio of self-reported GPA to class GPA
6. The student's class rank (freshman, sophomore, junior or senior)
7. The age of the faculty member
8. The time of day when the course was scheduled
9. The type of course (required or elective)
10. The type of instructor (tenured, full-time non-tenured, part-time)
11. The faculty member's number of years of teaching experience at Villanova
12. The gender of the student or faculty member
13. The race and ethnicity of the faculty member

### [APC and OAA's Summary of Key Findings and Recommendations for Interpreting the CATS \(October 2012\)](#)

Based on Dr. Keele's analysis, the OAA and the APC strongly recommend:

1. Faculty and administrators should always view **CATS scores as only one indicator in the evaluation of faculty teaching and, recognize that these data are based on student perceptions.** Remember Villanova's rationale for surveying students about teaching effectiveness:
2. *"Generally, we feel that student perceptions are a useful component of understanding teaching effectiveness. The CATS results can give you as a faculty member an additional source of information about how students perceived your classes. They can also give useful information to your Chair who can, in turn, make useful suggestions for improving your teaching effectiveness. Ultimately the CATS results are used as one component of the overall evaluation of your teaching, which will be conducted by your colleagues and your Chair. It should be stressed, however, that the CATS results are intended to be a component of this process. Some people inaccurately describe the CATS surveys as "student evaluations." This is incorrect. At Villanova, only faculty and administrators evaluate teaching effectiveness. While student perceptions are taken into account in the process of forming those evaluations, the evaluations are made by faculty members and administrators, not by students."*
3. In view of the substantive differences across academic departments, faculty members' scores should be compared **primarily to departmental benchmarks** (e.g., average scores).
4. **Small differences**, such as two tenths of a point, from departmental and college means on Questions 28 and 29 should be interpreted as **inconsequential** differences in order to appropriately mitigate the small differences attributed to some of the demographic and situational variables, especially the differences described in items 4 and 5 presented below in the "Detailed Results of the Statistical Analysis."
5. The class size, the rigor of grading, the time of day, the type of course, the class rank of the student and the student's GPA **do not have a consequential** impact and therefore should not be emphasized when interpreting CATS scores on Questions 28 and 29.
6. Faculty should not be concerned about asking students to spend 3 or more hours per week on course work outside of class, because **higher workload is not associated with lower CATS** scores on Questions 28 and 29.
7. The age of the instructor, the number of years of teaching experience, and the type of full-time faculty member (tenure-track, tenured, or non-tenure track) do not have a consequential impact on CATS scores on Questions 28 and 29. Department Chairs should **work with all faculty members to develop effective teaching**, especially part-time faculty m

### Detailed Results of the Statistical Analysis (October 2012)

The following eight variables had an **inconsequential** effect of 0.06 or less in either direction (higher or lower than the average score) on Q28:

1. Class Size (under 30 or over 30 students)
2. The student's self-reported GPA
3. The Student's class rank (e.g., freshman, sophomore, junior or senior)
4. The age of the faculty member
5. Time of day class is taught (e.g., before 9:00 or before 10:00)
6. The type of course (required or elective)
7. The ratio of self-reported GPA to the class GPA
8. The faculty member's number of years of teaching experience (e.g., less than 15 years and more than 25 years)

The following five variables had **small effects** around 0.1 to 0.21 in either direction (higher or lower than the average score) on Q28:

1. As students report working more than 1 to 2 hours per week outside of class, the CATS score increases by 0.13 for 3 to 4 hours, 0.11 for 5 to 6 hours, or 0.07 for 7 to 8 hours.
2. A higher average grade in the course (e.g. A-) will increase the CATS score by 0.1 and lower average grade in the course (e.g. B-) will decrease the CATS score by 0.09.
3. In comparison to tenured faculty members: the full-time, non-tenure track faculty members score 0.04 lower, the tenure-track faculty members score 0.07 lower, and part-time faculty score 0.21 lower.
4. Female faculty members have a lower CATS score than male faculty by 0.04. Male students award slightly higher CATS scores than female students (a difference of 0.08). All students tend to rate female faculty slightly lower than male faculty.
5. African American and White faculty score the same. Hispanic and Asian faculty score slightly lower; however, the gender differences within each group mainly explain the slightly lower scores.

**Appendix: [Course and Teacher Survey \(CATS\) digital form](#)**