Acting on Student Evaluations: SET Results Flawed by Low Response Rates?

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Context of Student Evaluation of Teaching (SET)

• SET implemented since 2011

• 1 aim: to improve the learning processes and learning success of our students

  ➢ Each semester, some courses are selected
  ➢ All students enrolled in those courses are asked to respond
Acting on SET

- 2 formats of results
  - By course (end of semester)
  - By degree program (end of academic year)

- 2 kinds of decisions
  - By professors (Support the development of teaching)
  - By administrators (Control quality of teaching)

- Variable response rate by course
How can we trust a result knowing that only a small part of the students have expressed themselves?

Are we making changes on a solid, rational basis?
Examples of remarks from professors

• “What is the validity of this evaluation given that 70 out of the 200 students enrolled in the course have responded?”

• “The number of responses to this evaluation (1/3 of students, 17 out of 50) leaves one wondering how reliable it is!”
Assumptions about response rates

- High response rate = 😊 Better, more accurate results = a solid basis for decision making
- Low response rate = 😞 Flawed, inaccurate results = untrustworthy basis for decision making

BUT

- This is not true! The response rate alone is not enough to assess the quality (or accuracy) of the results.
- 2 factors are crucial: sample representativeness & sample size
2 types of errors in results

1. **Bias**: Systematic deviation from the true value because members of the sample are different from (they do not represent) non members

2. **Imprecision**: Random deviation from the true value because not all members of the population (students) are measured

— No direct impact of response rate on accuracy
  — neither on bias
  — Nor on precision
2 types of errors in results

Bias

Imprecision
Caution! Guidelines can be misleading

Guidelines about minimal response rate can be misleading and dangerous:

• “I believe that a response rate of at least 50% is adequate for analysis and reporting. A response rate of 60% is good; a response rate of 70% is very good.” Babbie (2004)

• “A response rate of 85% is minimally adequate; below 70% there is a serious chance of bias.” (Singleton & Straits, 2005)
Instead of wondering about the response rate, ask yourself these questions:

Q1. Are the respondents similar to the nonrespondents?
Q2. What is the size of the sample?
Q1: Are the respondents similar to the nonrespondents?

*Is my sample representative?*

**If yes: True (unbiased) result** use the respondents as a random sample of the whole class and go to step 2

**If no: Non-response bias** result is not representative of overall evaluation of the course but is an interesting feedback from a group of students
Q2: What is the size of the sample?

*What is the precision of the result given the number of evaluations available?*

*Compute precision...*

*... using online Sample Size Calculators*
Example of Online Calculator

![Calculator Interface]

**Find Confidence Interval**

- **Confidence Level:** 95% or 99%
- **Sample Size:**
- **Population:**
- **Percentage:** 50

[Calculate][Clear]

**Confidence Interval:**
Example of Online Calculator

Find Confidence Interval

Confidence Level: 95% 99%
Sample Size: 70
Population: 200
Percentage: 50
Confidence Interval: 9.47
Example of Online Calculator

Confidence Level: 95% 99%
Sample Size: 17
Population: 50
Percentage: 50

Confidence Interval: 19.51
The floor is yours!
Thank you for your attention and enjoy the rest of the SFDN Conference!

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Références


