

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

Common recurring questions

- 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

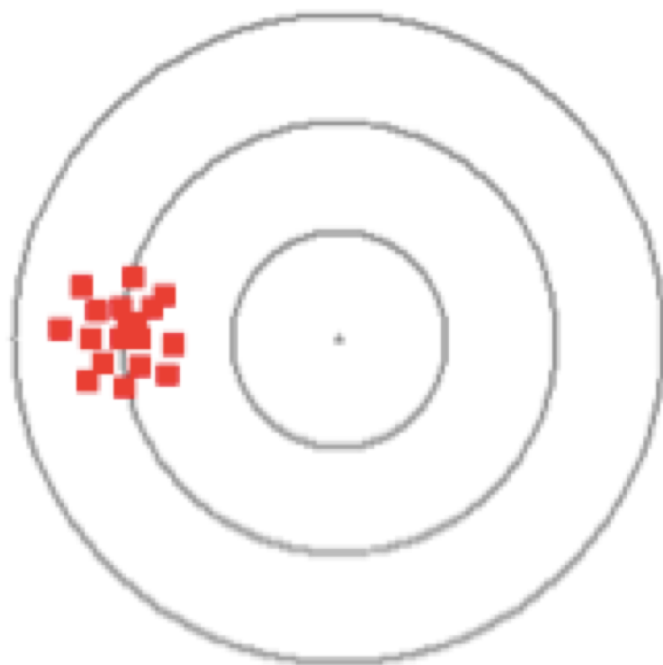
BUT

- 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 representativity & sample size

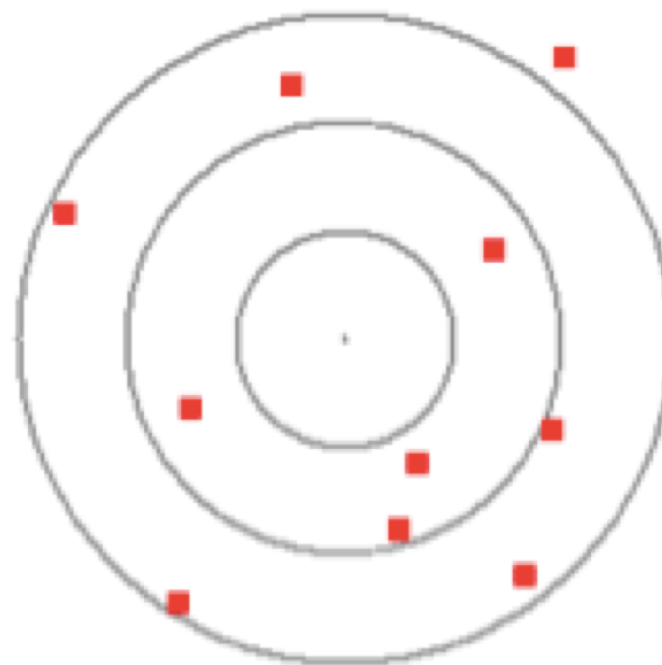
2 types of errors in results

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 - Replace the question

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

Find Confidence Interval

Confidence Level: 95% 99%

Sample Size:

Population:

Percentage:

Confidence Interval:

Example of Online Calculator

Find Confidence Interval

Confidence Level: 95% 99%

Sample Size:

Population:

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Example of Online Calculator

Find Confidence Interval

Confidence Level: 95% 99%

Sample Size:

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Percentage:

Confidence Interval:

The floor is yours!

**Thank you for your attention and
enjoy the rest of the SFDN
Conference!**

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