



# Increasing Student Evaluation of Teaching (SET) Response Rates Through Reminders

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2

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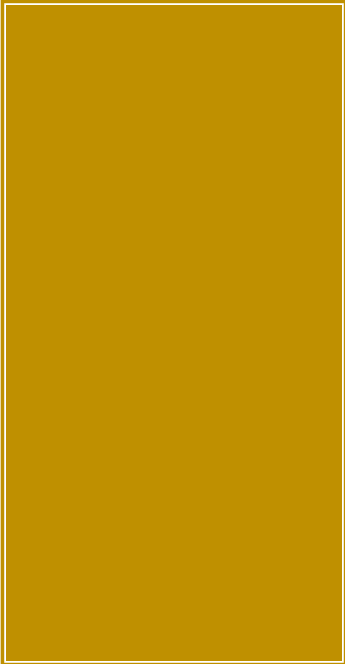
is a public research university (RUVH) located in Detroit's Midtown District, the city's Cultural Center & Historic District.

# Outline

3

- Introduction
- Method
- Results
- Threats to Validity
- Conclusion
- Future Work

# Introduction

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- Student evaluation of teaching is important.
    - Distinguishes teaching progress for tenure and promotion.
    - Helps to reward good teaching practices.
    - Student comments help suggest relevant changes to teaching approaches in a formative way.
  - Online SET is a new method to collect evaluation data.
    - Online SET offers a reduction in class time, processing time, and costs.
    - However, low response rates are the main concern. (Nulty, 2008).
    - Data quality can be improved by increasing response rates. (Nulty, 2008; Bennett, & Nair, 2009)

# Suggestions from the literature

5

- Increase time which the assessment is available.
- Ask instructors to encourage students to participate or use incentives.
- Send students selective reminders.

(Nulty, 2008; Bennett, & Nair, 2009; Nulty, 2008, 303-304)

# Theoretical Framework

- **Effect size** (Glass, McGaw, & Smith, 1981)
  - For a small effect, you need more responses to increase your likelihood of finding the relationship.
- **Sample size** (Neyman, 1934; Krejcie & Morgan; 1970, Dillman, 2000)
  - Certain sample sizes are needed to generate results which are representative of the population.
- **Application of these formulas to the SET literature** (Nulty, 2008).
  - Recommendations of certain rules of thumb to determine if a SET score is valid based upon sample size.

Table 3. Required response rates by class size.

Total no. of students on the course	'Liberal conditions'		'Stringent conditions'	
	Required no. of respondents	Response rate required (%)	Required no. of respondents	Response rate required (%)
10	7	75%	10	100%
20	12	58	19	97
30	14	48	29	96
40	16	40	38	95
50	17	35	47	93
60	18	31	55	92
70	19	28	64	91
80	20	25	72	90
90	21	23	80	88
100	21	21	87	87
150	23	15	123	82
200	23	12	155	77
250	24	10	183	73
300	24	8	209	70
500	25	5	289	58
750	25	3	358	48
1000	26	3	406	41
2000	26	1	509	25

If all students enrolled are surveyed, or if a random selection of these are surveyed, random sampling is still not achieved in practice because those who respond are not a random selection. Indeed, those who respond are systematically different from those who do not, and that those who

# Method

8

## Independent variable

- Use of a reminder
  - Number of reminders ranged from 0 to 1

## Dependent variable

- Response rates

**T Tests were used to calculate significance.**



# Comparison of Paper Versus Online

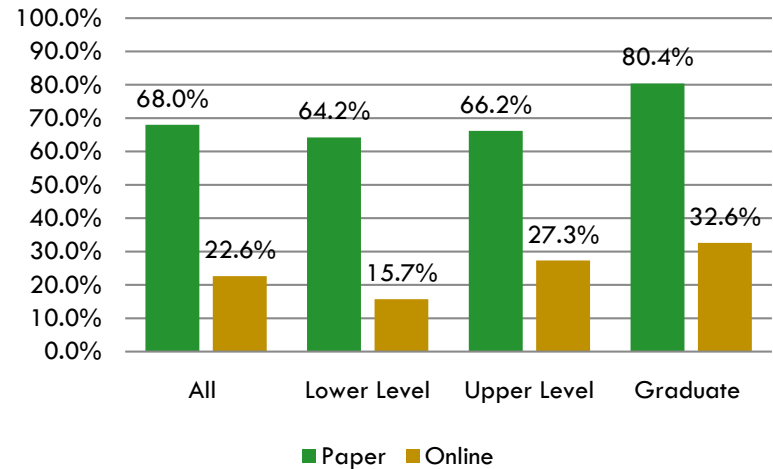
## □ Response rates

- Lower for online evaluation of teaching compared to paper.
- Higher as students progress in their academic program.

	Paper based Enrollment	Paper based Responses	Percent Response
All	44,615	30,343	68.0%
Lower Level	28,121	18,045	64.2%
Upper Level	6,799	4502	66.2%
Graduate	9,695	7796	80.4%

	Online Enrollment	Online Responses	Percent Response
All	14,239	3,212	22.6%
Lower Level	4,085	642	15.7%
Upper Level	477	130	27.3%
Graduate	5,115	1,668	32.6%

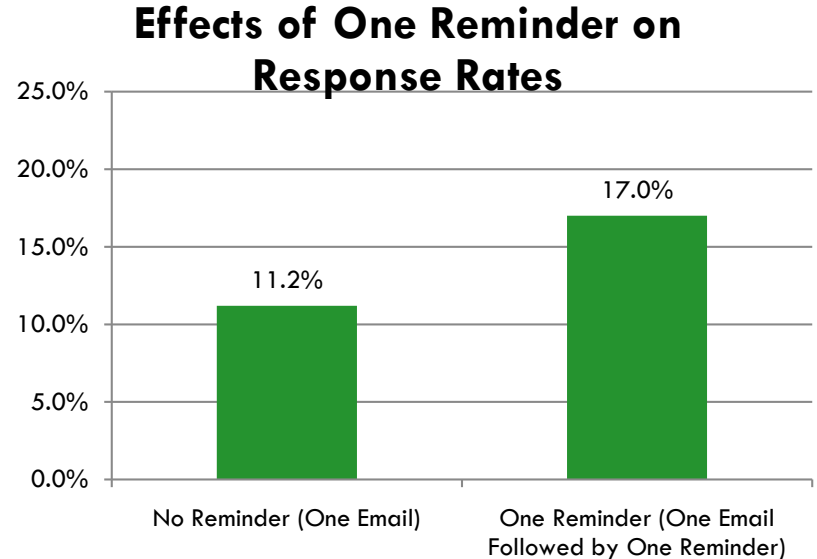
### Effects of Level in College and Evaluation Method on Response Rates



# Results

10

- Response rates were measured after one email, and later after one reminder for the same evaluation.
- A paired-samples t-test compared the response rate in the reminder and no reminder conditions.
- Response rates increased significantly with reminders.



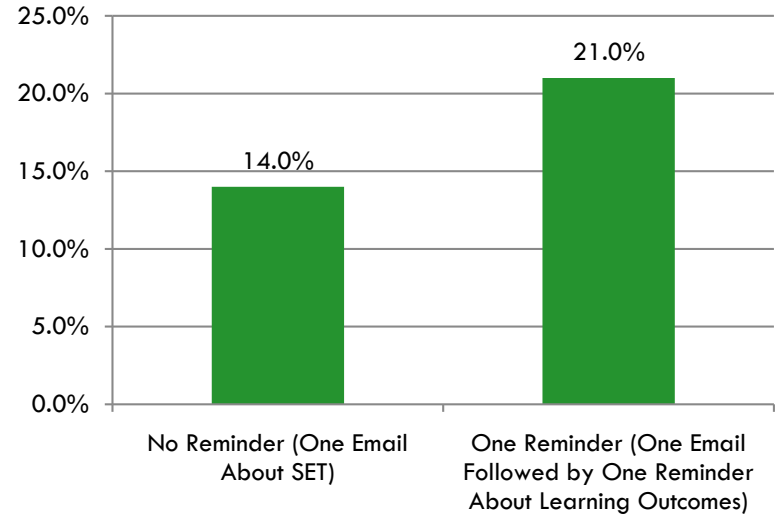
**$t(18) = 10.3, p < .001.$**

# Results

11

- Reminder ( $M=16.97$ ,  $SD=19.6$ )
- No reminder (  $M=11.9$ ,  $SD=16.1$ ) conditions.
- $t(28) = -4.0$ ,  $p<.001$ .
- $N=29$  sections
- $N=2329$  student participants
  
- Without the confounding effect of end of review period, results still suggest that response rates increase significantly if a reminder is used, although it is a smaller effect.

## Effects of One Reminder on Response Rates



# Discussion

- In evaluation, cost constraints can sometimes result in low sample sizes.
- However, by utilizing good design principles, costs can be kept low, while minimum sample sizes are maintained.

# Threats to Validity

13

- Some students are taking more than one class that has been evaluated online
  - Receives reminder for other courses
- The sample was not as big as it is suggest by Nulty 2008

# Conclusion

- The number of reminder should not be more than intended
- The reminder for evaluation increases the response rate

# Future Work

- Future research can investigate the usefulness of multiple reminders over time.
- For student registered in multiple courses, we will send one email to eliminate the negative effect of overwhelming emails.

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18

Thank you for attending!

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