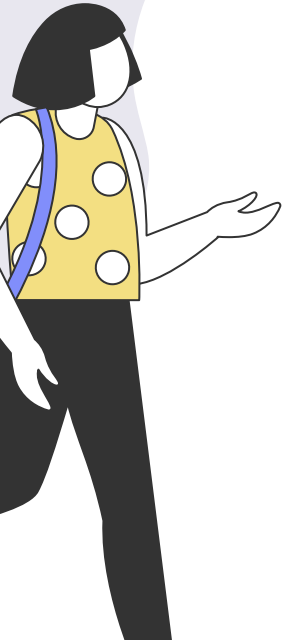
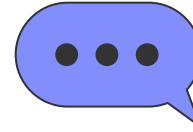


# MID Slacker Project

You have a burning question that *can't wait*:  
When should you Slack your MIDS instructor?

MIDS 241, Fall 2023 - Section 5 | Instructor: Scott Guenther

Amanda D'Alessio, Darya Likhareva, Meir Marmor, Noor-UI-Ain Ali



# Hypothesis and Direction

Aranda and Biag (2018) found a **social expectation to respond to messages within 20 minutes to a day** to maintain etiquette.

EZ Texting (2019) reported most **people read and often respond to texts within 3 to 5 minutes**, which possibly could transfer to academic contexts.

## Hypothesis:

Instructors are more likely to have a faster response time during Pacific Time working hours (9AM to 5PM) than outside of working hours.

\* we focused this study on PT working hours, since the university operates on PT

# Study Design

**Subjects:** All 62 instructors for Fall 2023 term (excluding Scott!)

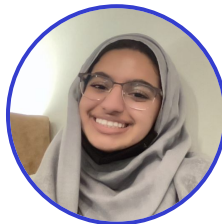
**Intervention:** 4 messages sent to all instructors by 4 different student investigators, randomized to be sent during work hours (9AM to 5PM) or after work hours (after 5PM).

**Primary Outcome:** Overall response time

**Secondary Outcome:** Response rate



# Treatment



## Message Send and Recording Schedule


Instructional Week	Monday	Tuesday	Wednesday	Thursday	Friday
Class Registration	<b>Nov 13:</b> Send Message 1		<b>Nov 15:</b> Send Message 2		
Thanksgiving Break	<b>Nov 20:</b> Record Message 1		<b>Nov 22:</b> Record Message 2		
Week 12	<b>Nov 27:</b> Send Message 3		<b>Nov 29:</b> Send Message 4		
Week 13	<b>Dec 4:</b> Record Message 3		<b>Dec 6:</b> Record Message 4		

## Message Category and Broad Theme


Message #	Message Type	Message Theme
1	Task request	I am interested in taking the course XXX, and I saw that you are one of the instructors for the course. Would you mind sharing the syllabus?
2	Life advice	Do you think this course would be good for a product data scientist?
3	Outside of their job description	Would you mind sharing the UCB Interviewing Resources doc?
4	Feedback request	Would you mind reviewing my resume? It's not urgent, but I was hoping you could take a look.

# Example Message and Outcome Measurement Units


Wednesday, November 29th ▾

 **Darya** 3:00 PM  
Hi Zona! I'm a current MIDS third term student- would you mind reviewing my resume? It's not urgent, but I was hoping you could take a look.

Thursday, November 30th ▾

 7:20 AM  
Hi, Darya. Thanks for your message. I'm not an expert with writing CVs, but I know who might be. Send me your CV and will pass it along. I can't guarantee fast feedback as our team lead is extremely busy with faculty

Friday, December 1st ▾

 **Darya** 7:50 AM  
Thank you! If it's easier, I can just reach out directly to them 😊

We recorded the message send times and the reply times. Each participant received one of 4 messages themes on a given day. Over the course of the study, each participant received each message theme, sent by a different investigator.

Outcome Measurement Units: Response Date and Time pulled from Slack

- 62 MIDS Instructors listed in random order
- Treatment assigned by alternating 1/0 along the list
- Each instructor received 4 types of messages by 4 different students over a 16 day period

Amanda

Darya

Me

Noor

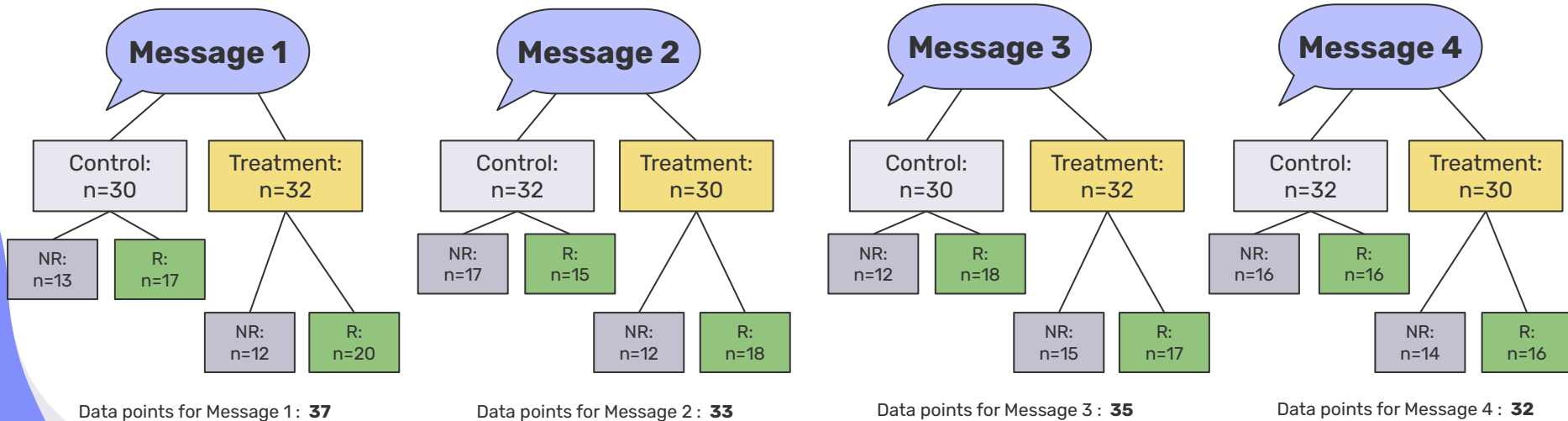
Colors refer to messages sent by individual investigators

[illegible]

# Flow Diagram

N=63 (total instructors in Fall 2023) - n=1 (exclusion: Scott)

n=62 (instructors in study)



**NR:** No Response after 48 hours  
**R:** Response after 48 hours

# ROXO grammar

$N_{\text{Amanda}}$	$R_{\text{control}}$	$O_{\text{response time}}$	$X_{\text{working hours}}$	$O_{\text{time, message type}}$
	$R_{\text{treatment}}$	$O_{\text{response time}}$	$X_{\text{non working hours}}$	$O_{\text{time, message type}}$
		$O_{\text{response time}}$		$O_{\text{time, message type}}$
		$O_{\text{response time}}$		$O_{\text{time, message type}}$
$N_{\text{Meir}}$	$R_{\text{control}}$	$O_{\text{response time}}$	$X_{\text{working hours}}$	$O_{\text{time, message type}}$
	$R_{\text{treatment}}$	$O_{\text{response time}}$	$X_{\text{non working hours}}$	$O_{\text{time, message type}}$
		$O_{\text{response time}}$		$O_{\text{time, message type}}$
		$O_{\text{response time}}$		$O_{\text{time, message type}}$
$N_{\text{Darya}}$	$R_{\text{control}}$	$O_{\text{response time}}$	$X_{\text{working hours}}$	$O_{\text{time, message type}}$
	$R_{\text{treatment}}$	$O_{\text{response time}}$	$X_{\text{non working hours}}$	$O_{\text{time, message type}}$
		$O_{\text{response time}}$		$O_{\text{time, message type}}$
		$O_{\text{response time}}$		$O_{\text{time, message type}}$
$N_{\text{Noor}}$	$R_{\text{control}}$	$O_{\text{response time}}$	$X_{\text{working hours}}$	$O_{\text{time, message type}}$
	$R_{\text{treatment}}$	$O_{\text{response time}}$	$X_{\text{non working hours}}$	$O_{\text{time, message type}}$
		$O_{\text{response time}}$		$O_{\text{time, message type}}$
		$O_{\text{response time}}$		$O_{\text{time, message type}}$



# Results and Analysis:

## OLS Regression Results for All Messages w/ Clustered SE

After establishing that 48 hours is a reasonable response time:

- Sending messages during work hours (9-5) is statistically associated with a faster response time of approximately 4.25 hours compared to outside work hours ( $p < 0.05$ ).
- Teaching a foundational course has no impact on response time

Overall Response Rate:
55%

Combined Message 1,2,3 & 4 w/ Clustered SE

Dependent variable:	
response_time	
message	-4.252** (1.760)
foundational_course	0.896 (1.804)
Constant	10.985*** (1.495)
Observations	137
R2	0.043
Adjusted R2	0.029
Residual Std. Error	10.300 (df = 134)
F Statistic	3.031* (df = 2; 134)
Note: * $p < 0.1$ ; ** $p < 0.05$ ; *** $p < 0.01$	

# Results and Analysis:

## OLS Regression Results for each Message w/ Clustered SE

After establishing that 48 hours is a reasonable response time:

- Sending a message asking for the syllabus during work hours (9-5) leads to a faster response time of approximately 5 hours ( $p < 0.05$ ).

Message #	Message Type
1	Task request
2	Life advice
3	Outside Job Description
4	Feedback request

Dependent variable:				
	message_1_response_time (1)	message_2_response_time (2)	message_3_response_time (3)	message_4_response_time (4)
message_1	-5.793** (-2.575)			
message_2		-8.283 (-16.230)		
message_3			-4.962 (-4.435)	
message_4				1.977 (-12.071)
foundational_course	-0.626 (-1.067)	-2.512 (-10.380)	4.428 (-3.461)	2.060 (-7.325)
Constant	10.215*** (3.025)	17.451 (20.011)	7.753** (3.824)	8.871 (11.758)
Observations	37	33	35	32
R2	0.193	0.118	0.149	0.013
Adjusted R2	0.146	0.059	0.096	-0.055
Residual Std. Error	6.251 (df = 34)	12.074 (df = 30)	8.176 (df = 32)	13.201 (df = 29)
F Statistic	4.074** (df = 2; 34)	2.009 (df = 2; 30)	2.808* (df = 2; 32)	0.187 (df = 2; 29)
Note: *p<0.1; **p<0.05; ***p<0.01				

Message 1 RR:	Message 2 RR:	Message 3 RR:	Message 4 RR:
60%	53%	56%	52%

# Ethical Considerations

**Concerns:** No IRB. No Consent. Deception. Harm. Discrimination.

## Respect of Persons / Autonomy

- Respectful content.
- Explaining the study by personal email before asking for demographic information.
- Could have sent a “warning email” but may have broken the design.

## Beneficence

- No direct benefit
- Potential harm to target population (MIDS instructors) is low.

## Justice

- Similar expectation of using slack among all MIDS instructors (discrimination unlikely)

### THE BELMONT REPORT

Office of the Secretary  
Ethical Principles and Guidelines for the Protection of Human  
Subjects of Research  
The National Commission for the Protection of Human Subjects of  
Biomedical and Behavioral Research  
April 18, 1979

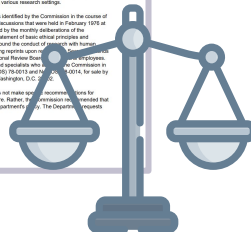
AGENCY: Department of Health, Education, and Welfare

ACTION: Notice of Report for Public Comment

**SUMMARY:** On July 12, 1979, the National Research Act (P.L. 95-602) was signed into law. Among its findings was the need for the National Commission for the Protection of Human Subjects of Biomedical and Behavioral Research. One of the charges to the Commission was to identify the basic ethical principles that should underlie the conduct of biomedical and behavioral research involving human subjects and to develop guidelines which should be followed to assure that such research is conducted in accordance with those principles. In carrying out this charge, the Commission was directed to consider (a) the boundaries between biomedical and behavioral research and the accepted and usual practice of medicine, (b) the role of assessment of the benefits versus the risks of the proposed research, (c) the requirements for research involving human subjects, (d) the requirements for the selection of human subjects for participation in such research and (e) the nature and definition of informed consent in various research settings.

The Belmont Report attempts to summarize the basic ethical principles identified by the Commission in the course of its deliberations. As the subject of an intensive two-day period of discussion that was held in February 1979 at the Smithsonian Institution's Belmont Conference Center (organized by the monthly deliberations of the Commission that were held over a period of nearly two years), it is a statement of basic ethical principles and guidelines that should be used in resolving the ethical problems that surround the conduct of research with human subjects. By publishing the Report in the Federal Register, and providing reports upon its implementation, the Commission is fulfilling its duty to the public. The two-volume document, containing the lengthy reports of experts and specialists who assisted the Commission in fulfilling this part of its charge, is available as OMB Publication No. (OS) 79-0013 and (OS) 79-0014, for sale by the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20540.

Unlike most other reports of the Commission, the Belmont Report does not make any recommendations for administrative action by the Secretary of Health, Education, and Welfare. Rather, the Commission has requested that the Belmont Report be assigned to its entity, as a document of the Department of Health, Education, and Welfare, for public comment on the recommendations.



# Help us work through our limitations!

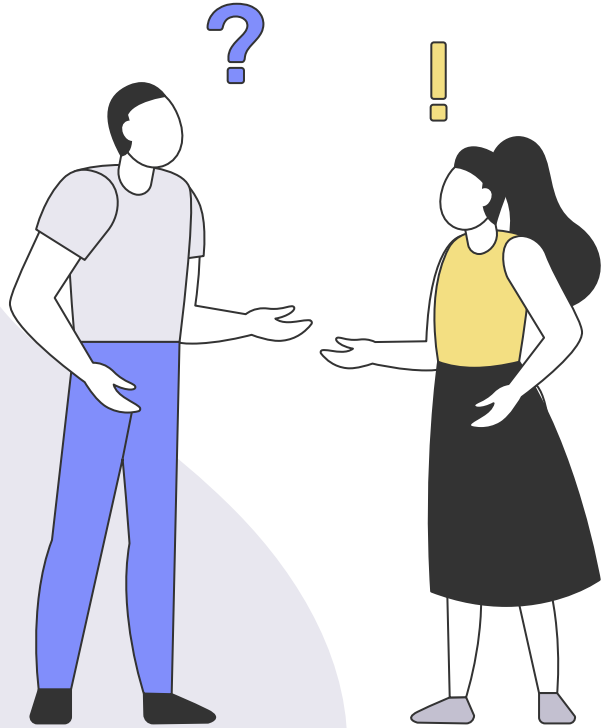
This was a super fun experiment to run - and very applicable to our day-to-day life as a students!

A few noteworthy limitations:

- Multiple confounders
- Unavoidable spillover effect (e.g., one professor told another to send syllabus)
- Message time periods are broad and overlapping (time zones/late classes)
- Significant difficulty in obtaining demographic data (like time zones)
- Small sample size of messengers
- Message content somewhat variable from each sender

When should you Slack your MIDS instructor?

**DURING WORK HOURS**



**Any  
Thoughts,  
Questions or  
Advice?**

Thank you!