

Halper, L.R., Szeyller, E., Freggens, M.J., Edmunds, C., Regan, E.P. (2025) Data-driven approaches to reduce survey fatigue and enhance student engagement in surveys. *Intersection; A journal at the intersection of assessment and learning*, 6(1), 51-79.

Data-Driven Approaches to Reduce Survey Fatigue and Enhance Student Engagement in Surveys

Leah R. Halper, Ph.D., Erica Szeyller, M.S., Marjorie J. Freggens, Ph.D., Chrisse Edmunds, Ph.D., Erica P. Regan, Ph.D.

Author Note

We have no conflicts of interest to disclose

Intersection: A Journal at the Intersection of Assessment and Learning

Vol 6, Issue 1, 2025

Abstract: The ability to gather meaningful responses and valuable data in higher education is entirely dependent on students actively participating in surveys. To explore the issue of falling response rates among college students, we tested whether attention-grabbing marketing techniques or connection-oriented communication strategies would be more effective in improving survey participation among students. We found that students in the connection-oriented experimental conditions were the most likely to open and respond to the surveys. The findings contribute to understanding how different strategies can enhance survey response rates, thereby improving the quality of data collected for institutional decision-making.

Keywords: *survey research, survey experiments, survey fatigue, response rates, survey methodology, nonresponse bias*

Introduction

Survey research provides a wealth of knowledge, helping to inform decisions and policies across various fields. However, this valuable information can only be obtained if individuals respond to the surveys. For institutions of higher education, student survey responses provide vital pieces of information about student experiences, needs, and outcomes that universities can use to drive decision-making and positive change. Unfortunately, response rates among students have been falling nationwide, which poses a serious challenge to the validity and reliability of survey-based research. The ability to gather meaningful responses and valuable data is entirely dependent on students actively participating in surveys. To obtain any data from surveys, students need to be motivated to open survey emails and then click on survey links in those emails. Students get many emails a day, which means that survey emails have a lot of competition.

This paper explores the issue of falling response rates, by testing whether attention-grabbing techniques or connection-oriented communication strategies would be more effective in improving survey participation among students. This paper includes a series of experiments that manipulated email recruitment subject lines and recruitment messaging to determine what techniques might best increase survey open and response rates of students at a large, Midwestern, public institution of higher education.

Importance of Survey Research in Higher Education

Survey research serves as a powerful tool for gathering insights into individuals' perceptions and experiences. Through surveys, researchers can learn more about respondents' attitudes, opinions, perceptions of knowledge, motivation, and satisfaction (Fowler, 2013). Those insights are invaluable for enhancing understanding and improving processes in a wide range of fields such as marketing, education, and healthcare (Hulland et al., 2018; Ponto, 2015; Wells et al., 2015). The advent of online survey administration further amplifies the reach and efficiency of surveys, enabling researchers to engage a broader audience with ease (Groves, 2011).

In higher education, surveys are instrumental in capturing a wide range of student experiences and perceptions. They provide data on student achievement, needs, satisfaction, and interactions with different campus environments and cultures (Jankowski et al., 2018; Upcraft & Schuh, 1996). Findings from surveys are pivotal for university personnel as they inform efforts to enhance institutional effectiveness, refine academic programs, and boost student satisfaction (Upcraft & Schuh, 1996). Additionally, survey findings offer valuable updates for governing authorities, ensuring institutional accountability (Brittingham, 2009).

Survey Response Rates

Despite numerous advantages of using surveys as a research tool, they are not without potential sources of error. The two primary types of error in surveys are errors of nonobservation and errors of observation. Errors of nonobservation arise when survey respondents do not accurately represent the target population, meaning that the demographics of the population are not proportionally represented in the sample of survey respondents. In contrast, errors of observation occur when survey responses fail to reflect the respondents' actual experiences and perceptions. This discrepancy can result from survey questions that do not measure the intended construct or from respondents' inaccuracies in self-assessment (Geisen & Bergstrom, 2017).

Although mitigating errors of observation is important, arguably errors of nonobservation present a more significant challenge for survey researchers largely because of the persistent decline in survey response rates over time. The effectiveness of survey research hinges on participants seeing, opening, and responding to surveys. Despite technological advancements in survey administration, response rates in the social sciences have widely declined over time (Brick & Williams, 2013; National Research Council, 2013). Though this trend may not affect other fields or certain sub-disciplines (Wilson et al., 2024; Wu et al., 2022), evidence suggests declining response rates in higher education. For example, the response rate for a major national survey by the American Council on Education declined from 60% in the 1960s to 21% in 1991 (Fosnacht et al., 2017). More recently, the average institutional response rate for the National Survey of Student Engagement (NSSE) dropped from 42% in 2000 to 30% in 2013, continuing to decline by about 3% per year thereafter (Sarraf, 2019). At our institution, the NSSE response rate further reflected this trend, dropping to approximately 9% in 2022. Falling response rates pose a serious problem for researchers as they can lead to smaller sample sizes. Smaller sample sizes often result in a less diverse group of respondents that do not accurately represent the target populations, which hinders a researcher's ability to find generalizable results (Collier & Bienstock, 2007; Fulton, 2018; Geisen & Bergstrom, 2017).

The pattern of declining response rates in higher education can be attributed to several factors. Survey invitations are often sent via email or other digital communications channels. There are benefits to this, allowing students to take surveys at convenient times and in comfortable spaces. However, students receive numerous emails daily, which can lead to email overload and subsequent email avoidance (Ha et al., 2018). These behaviors reduce the likelihood that students will interact with their email and notice survey invitations. Even if a student does see the survey invitation, they must still open the email and decide to participate. However, the increasing volume of survey requests can lead to survey fatigue, causing students to lose interest in completing surveys (Fass-Holmes, 2022; Porter et al., 2004). Students may also opt out of taking a survey if the perceived benefits or importance do not outweigh the time and effort required to complete it, especially given their busy schedules filled with classes, cocurricular activities, and employment (Cropanzano & Mitchell, 2005; Groves et al., 2000). Additionally, students from underrepresented or minoritized backgrounds may hesitate to participate in surveys due to privacy concerns or institutional mistrust (Akintobi, 2021). When students do decide to take a survey, various factors can influence whether they finish it. These factors include survey length, overall design of the survey, question wording, or technological issues (Geisen & Bergstrom, 2017).

Improving Response Rates on Surveys Amongst Students

Given the declining student response rates, institutions must leverage effective strategies to improve survey open rates and response rates. Theories in marketing and psychology suggest several techniques that fall into two main categories: attention-grabbing messaging and connection-oriented messaging. Understanding these theories helps explain why these techniques could be effective at persuading students to click on survey links and take surveys sent to them by institutions.

Attention-Grabbing Techniques in Marketing and Persuasion

Students are inundated with emails daily and often skim through their inboxes quickly, making it crucial to craft messages that can appeal to this audience in just a few seconds. In 2023, individuals of all ages, including college-aged students, were expected to receive over 100 emails a day, on average (The Radicati Group, 2022). Due to the number of emails that students likely receive each day, an email that grabs their attention may be an effective way to increase the chances a student will click on a survey link and therefore, respond to a survey. Attention-grabbing strategies focus on capturing the recipient's immediate interest, ensuring they notice and engage with the content of a message. Research in the field of marketing and consumer psychology posits that appealing to consumers' senses and sensory processing, like visual or auditory stimuli, is an effective way to persuade individuals to purchase goods and services (Alba & Williams, 2022). Other research on neurological underpinnings of this idea found that brain scans and eye tracking indicate catching consumers' attention is effective (Cherubino et al., 2019), but also may depend on the consumer's task or goal when looking at advertisements or other texts (Resnick & Albert, 2013). In the current study, we employed two types of attention-grabbing techniques, or theories, in separate survey experiments to test their effectiveness: visual stimuli and humor. Utilizing theories regarding visual and graphical elements, we tested if eye-catching visuals or infographics can make surveys more likely to be opened

and/or taken. Utilizing marketing theories regarding humor, we investigated whether creating humorous email subject lines would affect survey open and response rates.

Visual Stimuli

Visual stimuli are highly effective at capturing attention due to the Dual Coding Theory, which posits that people process visual and verbal information through independent, but interconnected channels. This leads to better comprehension and recall (Paivio, 1991). By encoding a message using both verbal and visual processing, the message is more likely to be remembered, because it is stored in two places. When both channels are activated, as is the case with imagery and accompanying text, comprehension and recall are enhanced, thus leading to a stronger impact on behavior than imagery or text alone (Paivio, 1991).

This theory has been widely applied in education, advertising, and communication research to understand how multimodal content improves engagement and cognitive retention. For example, a best practice in education is to utilize multimedia presentations, such as PowerPoint (Mayer, 2009). One study examined whether animations accompanied by narrations enhanced student learning. The study found that learners had a deeper understanding and retention of the material when animations were paired with narrations (Mayer & Anderson, 1991).

Eye-catching images and infographics have also been successfully utilized in marketing research to convince individuals to do something or buy a product. In one study, tourists were more likely to indicate intention to travel and visit destinations where eye-catching visual stimuli were used as advertising (Filieri et al., 2021). Imagery has also been shown to impact product purchasing decisions, with higher quality images, measured by vividness, having greater impact (Vazquez et al., 2023). In addition to enhancing recall and intention, visuals can shape emotions, which can in turn shape behavior. Studies have indicated that images evoking strong emotions, whether positive or negative, tend to leave a lasting impression, further supporting their utility in persuasion (Berger & Milkman, 2012). By leveraging these principles, survey recruitment strategies that incorporate compelling visuals may benefit from increased student engagement.

Humor

Another way of grabbing attention is humor, as humor can make messages more memorable. Theories such as the Incongruity-Resolution Theory suggest that humor works because it involves surprising the audience (Ritchie, 1999).

The Incongruity-Resolution Theory is a concept in psychology and humor research that explains why certain things are funny (Ritchie, 1999). According to this theory, humor arises when there is a discrepancy between what we expect and what happens. When individuals encounter something that does not fit with usual patterns or expectations, the human brain recognizes the incongruity and attempts to resolve it. The resolution of this incongruity produces a sense of amusement or laughter (Ritchie, 1999). Researchers describe this phenomenon as “surprise followed by appreciation” (Chan et al., 2023).

For instance, in the context of a joke, the punchline often introduces an unexpected twist that contrasts with the initial setup. The initial interpretation of the setup guides the audience in one direction, but the punchline disrupts this expectation. When the audience comprehends how the punchline coherently fits with the setup in an unforeseen manner, the incongruity is resolved, and this cognitive process triggers a humorous response. Incongruity-Resolution Theory is fundamental to understanding the underlying principles of various forms of humor, ranging from wordplay and puns to more complex comedic narratives (Attardo & Raskin, 1991).

Instructional Humor Processing Theory (IHPT) utilizes Incongruity-Resolution Theory to explain how humor can facilitate student learning. According to IHPT, instructional humor creates an initial incongruity by presenting information in a way that is unexpected or surprising to students. This incongruity captures students' attention and stimulates cognitive engagement as they work to resolve the discrepancy between their existing knowledge and the humorous content. This process not only aids in comprehension and retention of the material but also makes the learning experience more enjoyable (Wanzer et al., 2010).

We posited that incorporating eye-catching images, infographics, or emotive pictures in survey invitations can draw students' attention and lead them to be more likely to open and take a survey. We attempted to use visual elements to make the message stand out in a cluttered inbox and convey the survey's importance or relevance in a more engaging way. We also experimented with using humor in survey invitations. By using humor in survey invitations, we aimed to make the survey request more engaging for students by surprising them and grabbing their attention.

Connection-Oriented Techniques

Connection-oriented messaging, which focuses on establishing a sense of similarity and belonging between the message sender and the recipient, can be a highly effective persuasion strategy (Bekkers & Wiepking, 2010). This approach leverages the social psychology principle that people are more likely to be influenced by those they perceive as like themselves (Brown & Reingen, 1987). When individuals see themselves reflected in a message or feel a connection to the sender, they are more likely to engage and respond positively. In marketing and persuasion, connection-oriented messaging can be highly effective by making communications feel more personal and relevant to the recipient. By emphasizing shared characteristics or common experiences, there is an increased likelihood of positive responses. Personalized elements, such as addressing the recipient by name or referencing their specific interests, can make the message stand out in a crowded communication landscape. This approach not only captures attention but also fosters a deeper emotional connection, encouraging engagement. If recipients feel understood and valued, messages may be more persuasive. In the current study, we employed two types of connection-oriented messaging in separate survey experiments to test their effectiveness: including first names in the email subject lines and using language in the survey invitation that appeals to individuals' connections to other students.

Connection-Oriented Technique: Including first names

The Name Similarity Effect is a psychological phenomenon where individuals are more likely to respond positively to messages that include their own names or names like theirs (Howard & Kerin, 2014). This

effect occurs because seeing one's name creates a sense of personalization, making the message feel more directly tailored and special, as if the message is being sent directly to the recipient rather than many individuals at once. Individuals who see their names are more likely to feel positive emotions as a result, and thus are more likely to engage with and pay attention to such messages (Burger et al., 2004; Pelham et al., 2002). This effect is often used in marketing and communication strategies to increase the likelihood of a purchase. Research has shown that incorporating a recipient's name in communications can significantly enhance compliance on tasks (Burger et al., 2004). The Name Similarity Effect taps into the human need for recognition and personal relevance, making it a powerful tool in persuasive communication and marketing efforts. In one study, individuals with personalized sticky notes on a survey were more likely to complete a long paper survey than those who received a non-personalized note or no note (Garner, 2005). Similarly, households who received personalized notes from energy companies were more likely to follow through on an energy audit (Gillingham & Tsvetanov, 2018).

The Name Similarity Effect is a prime example of connection-oriented messaging, which focuses on creating a sense of personal relevance and emotional connection between the communicator and the recipient. We posit that when people see their name, it evokes a psychological response that makes them feel acknowledged and valued, enhancing their sense of connection to the message. This personalized approach aligns with the broader goals of connection-oriented messaging, which aims to build rapport and trust by making communication feel more direct and tailored to the individual.

We experimented with using personalized email subject lines in survey invitations. By using students' chosen/preferred first names in email subject lines, we wanted to determine if the Name Similarity Effect would increase college students' engagement with a survey in the digital age.

Connection-Oriented Technique: Appealing to peer connections

Character-Recipient Similarity Theory posits that individuals are more likely to respond positively to messages from sources they perceive as like themselves. This theory suggests that similarity in demographic, biographic, psychological, and behavioral attributes between the message sender and recipient enhances message effectiveness. Research indicates that similarity leads to stronger identification and self-referencing, which are critical for effective persuasion (Brown & Reingen, 1987; Lazarsfeld & Merton, 1954). For example, when individuals perceive shared characteristics, such as occupation or living place, they are more likely to identify with the message and consider it relevant to their own experiences (Brown & Reingen, 1987; Lazarsfeld & Merton, 1954). The theory has been widely applied in various contexts, including health, environmental, and social issues, demonstrating its broad applicability and effectiveness in enhancing persuasive communication (Brown & Reingen, 1987).

A meta-analysis of 19 studies found that character-recipient similarity enhances narrative processing and persuasion, particularly when similarity is based on chosen demographic and biographic variables and presented from a first-person perspective. The findings suggest that similar characters foster stronger identification and self-referencing (Chen et al., 2023).

Considering messaging from formal sources, like universities, there are multiple ways to operationalize the idea of Character-Recipient Similarity Theory. According to the theory, students may be more likely to respond to messages from individuals they see as similar to themselves. One possible operationalization is to send a message to students that they are representing fellow, similar students. In this case, the message emphasizes the student's role in representing their peers, creating a sense of shared identity with other students. Students may feel connected to similar peers, which motivates them to participate in the survey.

Another way to operationalize Character-Recipient Similarity Theory in a message to students is to emphasize how the data could be used to make their experiences and the experiences of their fellow students better. Presenting results from previous surveys in messaging highlights the shared experiences and collective impact of the student body. It creates a narrative that students are part of an ongoing, collaborative effort to improve their institution.

Taking Character-Recipient Similarity Theory, we experimented with using two different types of messages in survey invitations to evaluate their impact on student participation. The first was a call to action, emphasizing that recipients of the invitation were representing their fellow students by responding to the survey ("few represent the many"). The second was an emphasis on the results of such representation, emphasizing what the recipients could do and change for fellow students by responding to the survey ("tangible outcomes").

Research Aims

To explore the issue of falling response rates, we tested whether attention-grabbing techniques or connection-oriented strategies would be more effective in improving survey open rates. Four experiments were conducted to explore different techniques for improving student survey response rates. Attention-grabbing techniques were tested using a branded email banner and humorous subject lines. Connection-oriented strategies were tested with personalized name use in email subject lines, and various persuasive messages like a direct "call to action" versus including tangible results within the body of the message to assess which messaging approach resonated more effectively. By testing these contrasting approaches, we aimed to determine which strategy would most effectively enhance survey participation among students at a large, Midwestern, public institution of higher education.

Methods

For all four experiments, survey open rate and the survey completion rate (i.e., response rate) were the two main outcomes. The survey open rate represents the success of the email grabbing the recipients' attention. Data for the survey open rate is taken from the uncleaned survey data and includes any student who clicked to open the survey, regardless of survey completion.

In contrast, the response rate is defined as the percentage of respondents who completed the survey. Data for the response rate is taken from the cleaned survey data. Data were cleaned by first removing duplicate responders then by removing mischievous responders. Inclusion criteria included answering more than one question on the survey. Mischievous responders were given a three-strike rule for exclusion, such that three instances of mischief excluded them from the survey data (Hillygus &

LaChapelle, 2022). Instances of mischief include straight lining responses (e.g., only choosing Strongly Agree; Herzog & Bachman, 1981), answering open-ended questions in a rude or inappropriate way (Kennedy et al., 2020) and over-selection of multiple select questions.

We used chi-square testing to compare group results for both open and response rates in all experiments. Chi-square testing is used to determine whether categorical variables (e.g., experimental groups) follow a hypothetical distribution (Greenwood & Nikulin, 1996). For all experiments, we hypothesized that our manipulations would cause a significant increase in the proportion of students who opened and responded to the survey. Invitees were categorized into groups based on their assigned recruitment condition and the rate of email open and survey responses were tracked. Thus, using a chi-square test tells us whether groups had significantly different proportions of open and response rates.

Experiment 1: Branded Email Banner

The purpose of this experiment was to boost survey open and response rates, specifically by using a university-branded graphic to catch the attention of students. The Dual Coding Theory states that a quick route of processing is through visual graphics; this is the principle behind the effectiveness of roadside billboards for advertising (Gawronski et al., 2024). Viewing an official, university-branded graphic should access the quick processing route to catch attention of recipients, which should increase their likelihood of opening the survey. Experimenters hypothesized that students should be more likely to open a survey featuring an eye-catching university-sponsored graphic, and in so doing, would be more likely to respond to the survey.

Study Participants

We invited 15,267 students enrolled and living on campus in the autumn 2022 semester to take the Residential Survey, and 7,194 students completed the survey, for an overall response rate of 47.1%. Students were unaware of the different recruitment conditions when receiving invitations. Most of the respondents were living in the main campus' residence halls (95.5%, $n = 6,868$), because the regional campuses have fewer residence halls available (4.6%, $n = 326$). Due to the on-campus living requirement, most respondents were first-year (56.5%, $n = 4,067$) and second-year (38.9%, $n = 2,801$) undergraduate students. Of the students who answered the optional demographic questions ($n = 5,385$), almost three-quarters of respondents identified as White or European American (69.7%, $n = 3,756$), 18.7% identified as Asian/Asian American, Pacific Islander, Desi American and/or Native Hawai'ian ($n = 1,005$), 8.0% as Black and/or African American, and 5.5% as Hispanic or Latine. More self-identified women (59.8%, $n = 3,227$) responded to the survey than men (34.3%, $n = 1,852$), with 2.9% transgender ($n = 158$) and 6.6% ($n = 357$) various other identities.

Instrument

The Residential Survey is an annual survey sent to all students living in the residence halls at the university, across multiple campuses. The Residential Survey is open every autumn and collects responses for three weeks. Incentives for the Residential Survey total around \$6,000, in a mix of cash deposits and physical prizes. Incentives did not differ by group. Due in large part to incentives, the

Residential Survey is a survey with a high response rate, typically around 50%, including about 7,500 students (2021: 43.8%, $n = 6,694$; 2019: 49.6%, $n = 7,820$).

Procedure

The university's marketing department created a graphic for the Residential Survey, using branded colors, designs, and text. This official graphic was designed to catch the eye of residential students and was placed at the top of the email invitation (so that it showed up on the email preview). We randomly assigned all 15,267 invited students to one of two experimental conditions: the Banner Group had the graphic included with the email text ($n = 7,618$), while the No Banner group only saw the email text ($n = 7,648$). The content of the email text was the same for both groups. Distribution of emails and the survey was done via Qualtrics (Qualtrics, Provo, UT). This survey was open from November 2 to November 22, 2022. We also sent 4 reminder emails spaced over 3 weeks to invitees who had not responded or opted out, each with the banner or no banner, depending on the experimental group.

Results

Of the 15,267 students invited to take the Residential Survey in 2022, 7,455 students opened the survey, for an overall survey open rate of 48.8%. We hypothesized that the Banner group should have a higher survey open rate than the No Banner group, because the branded graphic would grab invitees' attention in the email and legitimize the survey as an official university-supported survey. Percents were calculated as the percentage of invitees who opened the survey divided by the total invited students within each group. Table 1 shows the survey opening rates by group: the Banner group (48.1%, $n = 3,664$) had a slightly lower open rate than the No Banner group (49.6%, $n = 3,791$). There was no significant difference in open rate by group ($X^2 = 2.16$, $p = .14$). This implies that the banners were ineffective at raising the survey open rate for the 2022 Residential Survey.

Table 1

Survey Open Rates for Experiment 1: Banner

	<i>n</i>	Percent of Invited	Sig.
Banner Group	3,664	48.1%	<i>n.s.</i>
No Banner Group	3,791	49.6%	
Total	7,455		

Note. * $p < .05$, ** $p < .01$, *** $p < .001$

In addition, the response rate was calculated and compared for each group: 7,194 students completed the survey, for an overall response rate of 47.1%. We hypothesized that the Banner group should have a higher survey response rate than the No Banner group, because the branded graphic would grab invitees' attention and legitimize the survey. Table 2 shows the survey response rates by group: the Banner group (46.6%, $n = 3,552$) had a slightly lower response rate than the No Banner group (47.6%, $n = 3,642$). There was no significant difference in response rate by group ($X^2 = 1.13$, $p = .29$), therefore the banner was ineffective at raising the response rate for the 2022 Residential Survey.

Table 2*Survey Response Rates for Experiment 1: Banner*

	<i>n</i>	Percent of Invited	Sig.
Banner Group	3,552	46.6%	
No Banner Group	3,642	47.6%	<i>n.s.</i>
Total	7,194		

Note. * $p < .05$, ** $p < .01$, *** $p < .001$

The results indicate that the banners were ineffective at increasing the survey open rate and response rate. This indicates that the banner did not work to catch invitee's attention, maybe due to it being partially hidden in the body of the email. Alternatively, perhaps grabbing an invitee's attention is not a tactic that would impact an invitee's likelihood to open or respond to a survey. To test these competing explanations, in Experiment 2, a different tactic to grab invitees' attention was used: humorous subject lines.

Experiment 2: Humorous subject lines

This experiment's purpose was to boost survey open and response rates, specifically by using humorous subject lines to catch students' attention. Experimenters hypothesized that students should be more likely to notice and open an email that had a humorous subject line, due to the Incongruity-Resolution Theory, and consequently be more likely to respond to the survey. Students will not expect official university communications to have humor, thus seeing humor in the subject lines will grab their attention. This subject line tactic is distinct from the banner experiment described above, and taken together, results can inform the effectiveness of attention-grabbing strategies on survey responding.

Study Participants

For this experiment, we invited 3,051 students graduating in the autumn 2022 semester to take the Graduation Survey. The response rate was calculated and compared for each group: 1,713 students completed the survey, for an overall response rate of 56.1%. Students were unaware of the different recruitment conditions when receiving invitations. Demographic data were accessed from the student information system. More than half of respondents identified as White (62.3%, $n = 1,068$), 7.8% identified as Asian ($n = 133$), 7.9% as Black or African American ($n = 136$), and 4.3% as Hispanic ($n = 73$). More males (51.7%, $n = 886$) responded to the survey than females (46.7%, $n = 800$), with 1.6% undisclosed respondents ($n = 27$).

Instrument

The Graduation Survey is a survey sent to all graduating students at the end of each semester, including undergraduate, graduate, and professional students. The survey is open every May, August, and December, and collects responses for three weeks. The Graduation Survey aims to gather data about graduating students' experiences during their time at the university, and their plans after graduation. There are no incentives for completing the Graduation Survey. The Graduation Survey has

a high response rate, typically around 55%, and includes about 15,700 students per year (2018-2019: 58.7%, $n = 9,303$; 2019-2020: 58.3%, $n = 9,547$; 2020-2021: 52.6%, $n = 8,065$).

Procedure

We created a series of humorous subject lines for the Graduation Survey, using university-specific terms and catch-phrases. In comparison, the other subject lines were created to be informative of the survey timeline (refer to Appendix A for the specific text). All invited students were randomly assigned to one of two experimental conditions: the Humor Group saw emails with the humorous subject lines ($n = 1,523$), while the Non-Humor Group saw emails with the informative subject lines ($n = 1,528$). The content of the email text and the survey itself were the same for both groups. Distribution of emails and the survey was done via Qualtrics (Qualtrics, Provo, UT). This survey was open for students to take from November 28th to December 20th, 2022. Each student was sent an initial email with information about the survey and links to either take the survey or opt out. There were also six reminder emails spaced across three weeks, sent to those who had not yet responded or had not opted out.

Results

Of the 3,051 students invited to take the Graduation Survey in Autumn 2022, 2,010 students opened the survey, for an overall open rate of 65.9%. We hypothesized that the Humor Group should have higher open and response rates than the Non-Humor Group, because the humorous subject line would be unexpected from official university communications, and thus would attract invitees' attention to the emails. Table 3 shows the survey open rates between the Humor and Non-Humor Groups: invitees who saw the non-humorous subject lines were slightly more likely to open the survey (67.2%), compared to invitees who saw humorous subject lines (64.5%). A chi-square test indicated that this difference was not significant ($\chi^2 = 1.0$, $p = .33$).

Table 3

Survey Open Rates for Experiment 2: Humorous Subject Lines

	n	Percent	Sig.
Humor Group	983	64.5%	<i>n.s.</i>
Non-Humor Group	1,027	67.2%	
Total	2,010		

Note. * $p < .05$, ** $p < .01$, *** $p < .001$

In addition, the response rate was calculated and compared for each group: 1,713 students completed the survey, for an overall response rate of 56.1%. Table 4 shows the survey response rates between the groups: the Non-Humor Group completed the survey at a higher rate (58.4%) than the Humor Group (53.9%). A chi-square test indicated that this difference was not significant ($\chi^2 = 2.9$, $p = .086$). Both survey open and completion rates were slightly higher when invitees did not see humorous subject lines.

Table 4

Survey Response Rates for Experiment 2: Humorous Subject Lines

	<i>n</i>	Percent	Sig.
Humor Group	821	53.9%	
Non-Humor Group	892	58.4%	<i>n.s.</i>
Total	1,713		

Note. * $p < .05$, ** $p < .01$, *** $p < .001$

The results indicate that the addition of humorous subject lines failed to boost the open and response rates of invitees. Students opened and responded slightly more to non-humorous subject lines than humorous subject lines, though this pattern did not reach significance. This indicates that at best, humorous subject lines have no effect, and at worst they can make students less likely to respond to surveys. It is also possible that students opened some of the non-humorous subject line emails more frequently because they perceived them as important graduation-related communications due to these subject lines referencing the Graduation Survey.

Both attention-grabbing experiments, visual graphics and humorous subject lines, failed to increase the likelihood of students opening and completing surveys. Each tactic used different mechanisms to grab students' attention. As two different attention-grabbing tactics were used, it is less likely that failure to pay attention to the invitations is driving the survey fatigue discussed in the introduction. It is more likely that there is another reason that students are declining to participate. The next series of experiments examine whether emphasizing students' connection to the university can increase response rates.

Experiment 3: Personalized Subject Line

The purpose of this experiment was to test one tactic of emphasizing students' perceived connection to the university, personalized subject lines. The Name Similarity Effect posits that when people see their name in communications, it creates a feeling of belonging. The communication (an email in this case) appears to be speaking directly to them, not to a group of people. This personal touch makes it more likely that invitees will respond to the survey in the email. The purpose of this experiment was to test the effectiveness of personalized subject lines, specifically using the Name Similarity Effect to increase survey responses (McMillan & Chavis, 1986; Pelham et al., 2002).

Study Participants

For this experiment, we invited 15,274 residence hall students in the autumn 2021 semester to take the Residential Survey, which had an overall response rate of 44.0%. Students were unaware of the different recruitment conditions when receiving invitations. Demographics were gathered via self-reported, optional questions in the survey. More than half of the respondents were first-year undergraduate students (57.3%, $n = 3,834$), followed by second-year undergraduates (39.2%, $n = 2,623$). Respondents mostly self-identified as women (58.6%, $n = 3,402$) followed by men (33.9%, $n = 1,968$), and "Prefer not to disclose" (4.6%, $n = 266$), with the remainder identifying as various other identities (2.4%, $n = 141$). Respondents identified their race as White or European American (64.4%, $n =$

3,742), Asian/Asian American (12.6%, $n = 729$), Multiple Races (7.3%, $n = 425$), “Prefer not to answer” (6.0%, $n = 350$), or African American/Black or African Descent (5.9%, $n = 344$). Less than 5% of respondents identified as Hispanic and/or Latinx (2.3%, $n = 134$), Middle Eastern/Arab American (0.8%, $n = 45$), or Other (0.7%, $n = 40$).

Instrument

As in Experiment 1, this experiment was completed with the administration of the Residential Survey. Details about the Residential Survey can be found in the “Instrument” section of Experiment 1.

Procedure

All invited students were randomly assigned to one of two experimental conditions: the Personalized Name Group had their chosen/preferred name referenced in the email subject lines ($n = 7,638$), and the No Name Group had no names in their subject lines ($n = 7,636$). See Appendix B for the subject line text. The content of the email text was the same for both groups. Distribution of emails and the survey was done via Qualtrics (Qualtrics, Provo, UT). This survey was open for students to take from November 7 to November 22, 2021. Each invitee was sent an initial email with information about the survey, incentives for participation, and links to take the survey or opt out. There were also three reminder emails that were spaced across a period of three weeks, sent to invitees who had not responded or had not opted out.

Results

Of the 15,274 students invited to take the Residential Survey in 2021, 6,733 students opened the survey, for an overall open rate of 44.0%. We hypothesized that invitees shown the personalized subject title should have a higher open rate than those shown the impersonal subject title, because seeing one’s name should increase their sense of belonging, creating a feeling of being directly ‘called into’ participation. Table 5 shows the survey opening rates by group: the invitees that were sent invitations with their name in the subject lines opened the survey significantly more than those sent emails with no names in the subject lines ($\chi^2 = 6.0$, $p = .013$).

Table 5

Survey Open Rates for Experiment 3: Personalized Subject Line

	<i>n</i>	Percent of Invited	Sig.
Personalized Name Group	3,467	45.4%	*
No Name Group	3,266	42.8%	
Total	6,733		

Note. * $p < .05$, ** $p < .01$, *** $p < .001$

Table 6 shows that this effect was also found for response rates, that invitees in the Personalized Name Group had a significantly higher response rate than those in the No Name Group ($\chi^2 = 6.0$, $p = .015$).

Table 6*Survey Response Rates for Experiment 3: Personalized Subject Line*

	<i>n</i>	Percent of Invited	Sig.
Personalized Name Group	3,447	45.1%	*
No Name Group	3,247	42.5%	
Total	6,694		

Note. * $p < .05$, ** $p < .01$, *** $p < .001$

The results of Experiment 3 indicate that including recipients' names in the subject line of the recruitment email is an effective way to boost the survey open and response rates for a survey. The Name Similarity Effect posits that seeing one's name creates a feeling of connection and meaningful communication. It is likely that recipients who saw emails addressed directly to them felt valued and personally selected, causing more engagement with both the email and survey, as seen in the increased open and completion rates.

Experiment 4: Messaging Strategies

To better understand how messaging and phrasing can impact a student's choice to participate in a survey, a messaging experiment was conducted where students were given one of three messages in the email body of their survey invitations. A third of students saw a normal survey invitation based on the messaging historically used for this survey (Simple Invite Group). Another third of students saw a message that emphasized tangible takeaways from previous student surveys, highlighting actionable changes that were made based on student feedback via surveys (Tangible Outcome Group). The final group of students saw a message that focused on the importance of their voice and opinion, as they are only a small subset of students receiving the survey (Representative Invite Group). It was hypothesized that, according to the Character-Recipient Similarity Theory, both the Tangible Outcome and Representative Invite Groups would boost response rates compared to the control messaging.

Study Participants

In the January 2022 administration of the Student Life Survey, a total of 7,000 students were invited to take the survey and 1,099 students responded for an overall response rate of 15.7%. All participants were eligible to receive one of twenty-five \$25 cash deposits into their student ID account. Students did not know about the different recruitment conditions. Over half of the respondents were undergraduate students (59.0%, $n = 649$), followed by graduate students (33.0%, $n = 370$) and then professional students (7.4%, $n = 81$). Most respondents self-identified as women (62.4%, $n = 685$), followed by men (34.2%, $n = 375$) and then those who selected another identity or preferred not to answer (3.4%, $n = 37$). Respondents identified their race as White or European American (66.9%, $n = 730$), Asian or Asian American (18.6%, $n = 203$), African American or Black (5.2%, $n = 57$), Hispanic and/or Latinx (3.4%, $n = 37$), Middle Eastern or Arab American (1.6%, $n = 17$) or selected another identity not listed or preferred not to answer (4.3%, $n = 47$).

Instrument

The Student Life Survey is an annual survey sent to a random sample of undergraduate, graduate and professional students using the survey platform Qualtrics (Qualtrics, Provo, UT). This survey opens at the beginning of the spring semester and includes questions about sense of belonging and the overall student experience. Incentives included cash deposits into their student ID accounts. Historically, the response rate to the survey is between 18-20%, but in recent years it has dropped to 13-15%, on average. Thus, efforts to examine strategies that boost response rate are essential to the long-term success of this survey.

Procedure

The 7,000 students invited to participate in the study were randomly assigned to one of three recruitment conditions. Each student only saw one email invitation, and each of the three experimental conditions utilized a different messaging technique; messages can be found in Appendix C. The message sent to students in the Simple Invite Group was based on a typical Student Life Survey invitation. The invitation asked students to participate in an important survey and said that their responses would be valuable. Students in the Tangible Outcome Group received a message that focused on the tangible changes that have happened at the university because of feedback that leadership received from student survey responses. The students in Representative Invite Group received a message that emphasized that their voice and opinion are important because only a small number of students at the university were invited to provide feedback in this way. The Tangible Outcome and Representative Invite groups applied the Character-Recipient Similarity Theory in two different operationalized forms, both examining how students seeing themselves as connected to others impacts their willingness to participate. Students received their group-specific messaging in the initial survey invitation as well as three reminder emails. Survey open rate and survey response rate were collected and analyzed to explore how these various messages impacted student participation in the survey.

Results

While 7,000 students were invited to take the Student Life Survey in January 2022, only 15.8% of students opened the survey. The Tangible Outcomes Group had the lowest survey open rate (14.2%). Meanwhile, the Representative Invite Group had a 17.6% open rate and the Simple Invite Group had a 15.7% open rate (see Table 7). A chi-square test indicated that this difference in survey open rates was statistically significant by group ($\chi^2 = 1.0, p < .01$).

Table 7*Survey Open Rates for Experiment 4: Recruitment Messages*

	<i>n</i>	Percent of Invited	Sig.
Simple Invite Group	367	15.7%	
Tangible Outcomes Group	331	14.2%	**
Representative Invite Group	410	17.6%	
Total	7,000		

Note. * $p < .05$, ** $p < .01$, *** $p < .001$

Although the overall response rate for the survey was 15.7%, the response rates for the three experimental groups had significant variation (see Table 8). Overall, the differences in response rate between the three groups were statistically significant ($X^2 = 11.4$, $p < .01$). The Representative Invite Group had the highest open rates and response rates, while the Tangible Outcomes Group had the lowest open and response rates.

Table 8*Survey Response Rates for Experiment 4: Recruitment Messages*

	<i>n</i>	Percent of Invited	Sig.
Simple Invite Group	365	15.6%	
Tangible Outcomes Group	325	13.9%	**
Representative Invite Group	409	17.6%	
Total	1,099		

Note. * $p < .05$, ** $p < .01$, *** $p < .001$

The findings of this study suggest that students are particularly moved by messaging that emphasizes the importance of their unique voice in representing their peers. When students understand that they have been selected as one of only a few students to provide feedback, they feel motivated to participate in the survey. Thus, one way to boost recruitment efforts and increase response rates is to adopt “the few represent the many” messaging (i.e., Representative Invite Group in this study) in recruitment emails. This finding is supported by the Character-Recipient Similarity Theory, as students see themselves as representing their peers, creating a sense of shared identity and similarity with their fellow students. This connection may help survey responders feel important as well as connected to their peers, ultimately motivating them to participate in the survey.

Discussion

The decline in student survey response rates presents a pressing issue for higher education institutions reliant on student data for decision-making. In response, this study examined several approaches to

improve both survey open and response rates, which we call survey engagement, drawing on theories from social psychology, marketing, and attention-capture research.

Across four experiments (two focused on attention and two with a connection-oriented approach), the research team found that university students were more likely to open and respond to a survey invitation with connection-oriented approaches. This study further supports research completed on Character-Recipient Similarity Theory and the Name Similarity Effect and broadens the impact of these theories to apply to student survey-taking behavior. When students see themselves represented in survey invitations, survey engagement increases. Results from these connection-oriented studies are well-aligned with the literature on connection and persuasion. The attention-seeking approaches did not show statistically significant differences when compared to a control group, and in some cases had lower open and response rates than the control group.

It can be just as important to know what *does not* work when it comes to survey recruitment as it is to know what does work. For example, we anticipated that the experiment's humorous subject messages would be reinforced by Instructional Humor Processing Theory, but instead found no effect. By identifying spaces where well-established theories such as Instructional Humor Processing Theory do not impact certain outcomes, we further add to the literature in this space. With the results from these experiments, researchers, including ourselves, can continue to hone their recruitment messages away from attention-seeking approaches and instead focus on connection-oriented approaches, particularly with college student populations.

Limitations

Theories in marketing suggest that humor and distinctive visuals can quickly capture a reader's attention. Yet, while such tactics may encourage initial engagement, they do not necessarily guarantee sustained interest or response. Specifically, we posited that students would be more likely to engage with survey invitations that included visual elements or humor. This is based on Dual Coding Theory and Instructional Humor Processing Theory which suggest retention and recall are enhanced by processing material through two cognitive pathways or through humor, respectively. Students may have recalled or retained the information in the invitations, but the recall did not generalize to further survey engagement. The failure of these methods to boost response rates, despite attention-grabbing efforts, underscores the complexity of student motivation. The sheer volume of emails that students receive demands that these strategies be both efficient and meaningful to cut through the clutter of daily communications (Cho, 1996).

Another potential reason that the attention-grabbing methods were not effective is email length. If students are already overwhelmed with the volume of their inboxes, longer emails are more likely to be ignored. Adding banners to emails inherently makes the email longer and thus adds extra effort for students to navigate to the survey link. Email length may have also influenced the results found with the connection-oriented recruitment messaging experiment. The Tangible Outcomes Group, which described the survey results' impact on students, had the longest email body and subsequently the lowest student engagement.

Another possibility behind the null effect for the humor specifically is that the humor from an official institutional entity was either unwelcome or not humorous enough. One goal of the humorous subject lines study was to balance attention-catching humor with professional, respectful language typical of the University Registrar. This balance may have been too difficult to obtain, as “professional” humor is not fully attention-grabbing, or funny, for students. Humor may have also decreased the perceived importance of the message itself.

Further Research

Future research should determine if email length is a significant factor in survey open and response rates. Additionally, utilizing humor on surveys administered by less official campus entities (i.e., the Graduation Survey recruitment signed by the University Registrar) may be helpful in determining why the humor did not work in this experiment.

This research identified multiple connection-oriented strategies that were effective in promoting student survey engagement and several attention-grabbing strategies that were not effective. To allow for more variety in messaging, future research should focus on what other, if any, connection-oriented messaging strategies may also promote survey engagement. Additionally, exploring the interplay between connection-oriented and other motivational techniques (e.g., incentives, time scarcity, or perception of urgency) could provide valuable insights. By broadening the scope of inquiry, researchers and practitioners may uncover a more nuanced understanding of how to sustain engagement while minimizing survey fatigue.

Conclusions

The Name Similarity Effect (Pelham et al., 2002) suggests that personalized messaging, such as including a student's name in the subject line, fosters a sense of connection and belonging, which in turn encourages higher response rates. Similarly, Character-Recipient Similarity Theory highlights how messaging that emphasizes a shared identity between the sender and the recipient can increase engagement. This was evident when we used the messaging approach “few represent the many” (i.e., Representative Invite Group), as it created a sense of belonging by positioning students as important representatives of their peers.

Overall, this research bolsters connection-oriented approaches to reaching students and persuading them to share their experiences and opinions via surveys. As response rates on major national and institutional surveys continue to decline, connection-oriented recruitment methods may help to advance respondent connection and positively impact the likelihood of invitee response.

Importantly, the effective interventions we studied are simple to implement and cost-effective. It requires a few minutes of a researcher's time to ensure that a survey is personalized with a potential respondent's preferred first name, and crafting language focused on “the few represent the many” can be built into invitation messaging easily.

One of the most important takeaways from this research and these experiments is the importance of interdisciplinary perspectives in honing and maximizing the effect of survey research recruitment. Research in marketing, communications, and psychology all informed this work.

A focus on effective recruitment methods for survey research is essential for the continued success of this research methodology, particularly as interest in responding to surveys has declined over the past decade or more. Continuing to remind potential participants of the wide-ranging impacts of their involvement in these survey-based studies using a connection-oriented approach will be a useful way to enhance buy-in and commitment from respondents. Ultimately, by embracing these data-driven strategies, higher education researchers and administrators can transform survey design and administration to engage more participants, reduce fatigue and elevate response rates, ensuring that every voice is heard.

References

- Akintobi, H. T., Sheikhattari, P., Shaffer, E., Evans, C. L., Braun, K. L., Sy, A. U., Mancera, B., Campa, A., Miller, S. T., Sarpong, D., Holliday, R., Jimenez-Chavez, J., Khan, S., Hinton, C., Sellars-Bates, K., Ajewole, V., Teufel-Shone, N. I., McMullin, J., Suther, S., ... Tchounwou, P. B. (2021). Community engagement practices at research centers in U.S. minority institutions: Priority populations and innovative approaches to advancing health disparities research. *International Journal of Environmental Research and Public Health*, 18(12), 66-75. <https://doi.org/10.3390/ijerph18126675>
- Alba, J. W., & Williams, E. F. (2022). Attention to distraction: The neglect of dispositional inferences. *Journal of Consumer Psychology*, 32(4), 512–525. <https://doi.org/10.1002/icpy.1257>
- Attardo, S., & Raskin, V. (1991). Script theory revis(it)ed: Joke similarity and joke representation model. *Humor: International Journal of Humor Research*, 4(3–4), 293–347. <https://doi.org/10.1515/humr.1991.4.3-4.293>
- Bekkers, R., & Wiepking, P. (2010). A literature review of empirical studies of philanthropy: Eight mechanisms that drive charitable giving. *Nonprofit and Voluntary Sector Quarterly*, 40(5), 924–973. <https://doi.org/10.1177/0899764010380927>
- Berger, J., & Milkman, K. L. (2012). What makes online content viral?. *Journal of Marketing Research*, 49(2), 192-205. <https://doi.org/10.1509/jmr.10.0353>
- Brick, J. M., & Williams, D. (2013). Explaining Rising Nonresponse Rates in Cross-Sectional Surveys. *The ANNALS of the American Academy of Political and Social Science*, 645(1), 36-59. <https://doi.org/10.1177/0002716212456834>
- Brittingham, B. (2009). Accreditation in the United States: How did we get to where we are?. *New Directions for Higher Education*, 2009(145), 7-27. <https://doi.org/10.1002/he.331>
- Brown, J. J., & Reingen, P. H. (1987). Social ties and word-of-mouth referral behavior. *Journal of Consumer Research*, 14(3), 350–362. <https://doi.org/10.1086/209118>
- Burger, J. M., Messian, N., Patel, S., del Prado, A., & Anderson, C. (2004). What a coincidence! The effects of incidental similarity on compliance. *Personality and Social Psychology Bulletin*, 30(1), 35–43. <https://doi.org/10.1177/0146167203258838>
- Chan, H. S., Zeitlen, A. L., & Beaty, R. E. (2023). Creativity and mood disorders: A meta-analysis of shared mechanisms. *Journal of Abnormal Psychology*, 132(2), 249–263.

- <https://doi.org/10.1037/abn0000625>
- Chen, L., Dong, Z., & Wang, Y. (2023). Brand anthropomorphism: A meta-analytic review of consumer responses to humanlike brands. *Journal of Marketing Research*, 60(3), 484–500. <https://doi.org/10.1177/00222437221119942>
- Cherubino, P., Martinez-Levy, A. C., Caratù, M., Cartocci, G., Di Flumeri, G., Trettel, A., & Babiloni, F. (2019). Consumer behaviour through the eyes of neurophysiological measures: State-of-the-art and future trends. *Computational Intelligence and Neuroscience*, 2019, 1–22. <https://doi.org/10.1155/2019/1976847>
- Cho, V. (1996). A study on email overload. *Communication Research*, 24(5), 635–656. <https://doi.org/10.1177/009365096023005005>
- Collier, J. E., & Bienstock, C. C. (2007). An analysis of how nonresponse error is assessed in academic marketing research. *Marketing Theory*, 7(2), 163–183. <https://doi.org/10.1177/1470593107076865>
- Cropanzano, R., & Mitchell, M. S. (2005). Social exchange theory: An interdisciplinary review. *Journal of Management*, 31(6), 874–900. <https://doi.org/10.1177/0149206305279602>
- Fass-Holmes, B. (2022). Survey fatigue—What is its role in undergraduates’ survey participation and response rates? *Journal of Interdisciplinary Studies in Education*, 11(1), 56–73. <https://eric.ed.gov/?id=EJ1344904>
- Filieri, R., Lin, Z., Pino, G., Alguezaui, S., & Inversini, A. (2021). A dyadic model of value co-creation in peer-to-peer accommodation: The role of smart tourism technologies. *Tourism Management*, 82, 104187. <https://doi.org/10.1016/j.tourman.2020.104187>
- Fosnacht, K., Sarraf, S., Howe, E., & Peck, L. K. (2017). How important are high response rates for college surveys?. *The Review of Higher Education*, 40(2), 245–265. <https://doi.org/10.1353/rhe.2017.0003>
- Fowler Jr, F. J. (2013). *Survey research methods* (5th edition). Sage Publications.
- Fulton, B. R. (2018). Organizations and survey research: Implementing response enhancing strategies and conducting nonresponse analyses. *Sociological Methods & Research*, 47(2), 240–276. <https://doi.org/10.1177/0049124115626169>
- Garner, R. L. (2005). Post-it note persuasion: A sticky influence. *Journal of Consumer Psychology*, 15(3), 230–237. https://doi.org/10.1207/s15327663jcp1503_8
- Gawronski, B., Luke, D. M. & Creighton, L. A. (2024). Dual-process theories. In D. E. Carlston, K. Hugenberg & K. L. Johnson (Eds.) *The Oxford handbook of social cognition* (2nd edition, pp. 319–353). Oxford University Press.
- Geisen, E., & Bergstrom, J. R. (2017). *Usability testing for survey research*. Morgan Kaufmann.
- Gillingham, K., & Tsvetanov, T. (2018). Nudging energy efficiency investments: Evidence from a field experiment. *American Economic Journal: Economic Policy*, 10(4), 222–238. <https://doi.org/10.1257/pol.20170031>
- Greenwood, P. E., & Nikulin, M. S. (1996). *A guide to chi-squared testing* (Vol. 280). John Wiley & Sons.
- Groves, R. M. (2011). Three eras of survey research. *Public Opinion Quarterly*, 75(5), 861–871. <https://doi.org/10.1093/poq/nfr057>
- Groves, R. M., Singer, E., & Corning, A. (2000). Leverage-saliency theory of survey participation: Description and an illustration. *The Public Opinion Quarterly*, 64(3), 299–308. <https://doi.org/10.1086/317990>

- Ha, L., Joa, C. Y., Gabay, I., & Kim, K. (2018). Does college students' social media use affect school e-mail avoidance and campus involvement?. *Internet Research*, 28(1), 213-231. <https://doi.org/10.1108/IntR-11-2016-0346>
- Hillygus, D. S., & LaChapelle, T. (2022). Diagnosing survey response quality. *Handbook on Politics and Public Opinion*, 10-25. <https://doi.org/10.4337/9781800379619.00011>
- Herzog, A. R., & Bachman, J. G. (1981). Effects of questionnaire length on response quality. *Public opinion quarterly*, 45(4), 549-559. <https://doi.org/10.1086/268687>
- Howard, D. J., & Kerin, R. A. (2014). Individual differences in the name similarity effect: The role of self-monitoring. *Journal of Individual Differences*, 35(2), 111-118. <https://doi.org/10.1027/1614-0001/a000133>
- Hulland, J., Baumgartner, H., & Smith, K. M. (2018). Marketing survey research best practices: Evidence and recommendations from a review of JAMS articles. *Journal of the Academy of Marketing Science*, 46, 92-108. <https://doi.org/10.1007/s11747-017-0532-y>
- Jankowski, N. A., Timmer, J. D., Kinzie, J., & Kuh, G. D. (2018). Assessment that matters: Trending toward practices that document authentic student learning. *National Institute for Learning Outcomes Assessment*. <https://eric.ed.gov/?id=ED590514>
- Kennedy, C., Hatley, N., Lau, A., Mercer, A., Keeter, S., Ferno, J., & Asare-Marfo, D. (2020). Assessing the risks to online polls from bogus respondents. *Pew Research Center*, 18. <https://www.pewresearch.org/methods/2020/02/18/assessing-the-risks-to-online-polls-from-bogus-respondents/>
- Lazarsfeld, P. F., & Merton, R. K. (1954). Friendship as a social process: A substantive and methodological analysis. In M. Berger, T. Abel, & C. Page (Eds.), *Freedom and control in modern society* (pp. 18-66). Van Nostrand.
- Mayer, R. E. (2009). *Multimedia learning* (2nd ed.). Cambridge University Press.
- Mayer, R. E., & Anderson, R. B. (1991). Animations need narrations: An experimental test of a dual coding hypothesis. *Journal of Educational Psychology*, 83, 484-490. <https://psycnet.apa.org/doi/10.1037/0022-0663.83.4.484>
- McMillan, D. W., & Chavis, D. M. (1986). Sense of community: A definition and theory. *Journal of Community Psychology*, 14(1), 6-23. [https://doi.org/10.1002/1520-6629\(198601\)14:1<6::AID-JCOP2290140103>3.0.CO;2-I](https://doi.org/10.1002/1520-6629(198601)14:1<6::AID-JCOP2290140103>3.0.CO;2-I)
- National Research Council. (2013). *Nonresponse in social science surveys: A research agenda*. The National Academies Press.
- Paivio, A. (1991). Dual coding theory: Retrospect and current status. *Canadian Journal of Psychology*, 45(3), 255-287. <https://doi.org/10.1037/h0084295>
- Pelham, B. W., Mirenberg, M. C., & Jones, J. T. (2002). Why Susie sells seashells by the seashore: Implicit egotism and major life decisions. *Journal of Personality and Social Psychology*, 82(4), 469-487. <https://doi.org/10.1037/0022-3514.82.4.469>
- Ponto, J. (2015). Understanding and evaluating survey research. *Journal of the Advanced Practitioner in Oncology*, 6(2), 168. <https://doi.org/10.6004/jadpro.2015.6.2.9>
- Porter, S. R., Whitcomb, M. E., & Weitzer, W. H. (2004). Multiple surveys of students and survey fatigue. *New Directions for Institutional Research*, 2004(121), 63-73. <https://doi.org/10.1002/ir.101>
- Qualtrics. (2025). *Qualtrics* (Version: February, 2025) [Survey software]. <https://www.qualtrics.com>

- Resnick, L., & Albert, M. (2013). Examining consumer purchase behavior: Implications for market research. *Marketing Science*, 32(4), 587–601. <https://doi.org/10.1287/mksc.2013.0798>
- Ritchie, G. (1999). Developing the Incongruity-Resolution Theory. *Proceedings of the AISB Symposium on Creative Language: Stories and Humour*, Scotland, 78–85.
- Sarraf, S. (2019, May). *How are survey response rates changing? Findings from NSSE*. Association for Institutional Research Annual Forum. Denver, CO. <https://hdl.handle.net/2022/24059>
- The Radicati Group. (2022). Email statistics report, 2022-2026. The Radicati Group, Inc.
- Upcraft, M. L., & Schuh, J. H. (1996). *Assessment in Student Affairs: A Guide for Practitioners*. Jossey-Bass Inc.
- Vazquez, A. L., Patel, R. S., Alvidrez, J., & Siliceo, A. (2023). Consumer perceptions of virtual shopping assistants. *Journal of Consumer Psychology*, 33(1), 104–122. <https://doi.org/10.1002/jcpy.1265>
- Wanzer, M. B., Frymier, A. B., & Irwin, J. (2010). The role of perceived instructor humor on student learning outcomes. *Communication Education*, 59(1), 1–18. <https://doi.org/10.1080/03634520903367238>
- Wells, R. S., Kolek, E. A., Williams, E. A., & Saunders, D. B. (2015). “How we know what we know”: A systematic comparison of research methods employed in higher education journals, 1996–2000 v. 2006–2010. *The Journal of Higher Education*, 86(2), 171-198. <https://doi.org/10.1080/00221546.2015.11777361>
- Wilson, A. B., Brooks, W. S., Edwards, D. N., Deaver, J., Surd, J. A., Pirlo, O. J., Byrd, W. A., Meyer, E. R., Beresheim, A., Cuskey, S. L., Tsintolas, J. G., Norrell, E. S., Fisher, H. C., Skaggs, C. W., Mysak, D., Levin, S. R., Escutia Rosas, C. E., Cale, A. S., Karim, M. N., Pollock, J., Kakos, N. J., O'Brien, M. S., & Lufner, R. S. (2024). Survey response rates in health sciences education research: A 10-year meta-analysis. *Anatomical Sciences Education*, 17(1), 11-23. <https://doi.org/10.1002/ase.2345>
- Wu, M. J., Zhao, K., & Fils-Aime, F. (2022). Response rates of online surveys in published research: A meta-analysis. *Computers in Human Behavior Reports*, 7, 100206. <https://doi.org/10.1016/j.chbr.2022.100206>

About the Authors

Leah R. Halper, Center for the Study of Student Life, The Ohio State University, halper.4@osu.edu

Erica Szeyller, Center for the Study of Student Life, The Ohio State University, szeyller.1@osu.edu

Marjorie J. Freggens, Center for the Study of Student Life, The Ohio State University, freggens.1@osu.edu

Chrisse Edmunds, Center for the Study of Student Life, The Ohio State University, Edmunds.32@osu.edu

Erica P. Regan, Center for the Study of Student Life, The Ohio State University, regan.136@osu.edu

Appendices

Appendix A: Experiment 2: Humorous Subject Lines

Wording of the subject lines for each group of invitees, with university specific text redacted for anonymity.

Humor Group

Invitation

- [Students] understand the assignment: Take Grad Survey

2 weeks before commencement

- Try not to take the Grad Survey Challenge (impossible)

1 week before commencement

- Roses are red, Violets are blue, take the Grad Survey, you will be glad if you do

3 days before commencement

- It's the final countdown (to graduation)

2 days before commencement

- Grad Survey? More like Grad Sur-Yay!

1 day before commencement

- Want to flip the script [state]? Take the Grad Survey!

Commencement Day

- Take your diploma... and the Grad Survey today.

Non-Humor Group

Invitation

- Take the Graduation Survey

2 weeks before commencement

- Reminder to take the Grad Survey

1 week before commencement

- One week until commencement

3 days before commencement

- Three days until commencement

2 days before commencement

- Don't forget the Grad Survey

1 day before commencement

- Take the Grad Survey before you leave [University]

Commencement Day

- Today is Graduation!

Appendix B: Experiment 3: Personalized Subject Lines

Wording of the subject lines for each group of invitees, with university specific text redacted for anonymity.

No Name Group

Invitation

- Survey on your [University] experience

Reminder 1

- Reminder: Tell student affairs about your experiences

Reminder 2

- Complete the Residential Survey

Reminder 3

- Reminder: Last chance to tell [University] about your experiences

Personalized Name Group

Invitation

- [Preferred first name], please take this survey on your [University] experience

Reminder 1

- [Preferred first name]: Tell student affairs about your experiences

Reminder 2

- [Preferred first name], complete the Residential Survey

Reminder 3

- Reminder: Last chance to tell [University] about your experiences, [Preferred first name]

Appendix C: Experiment 4: Messaging Strategies

Exact messages that students in each group received in their email invites and reminders.

Simple Invite Group

Subject line: Short survey on your [University] experience

Hi [preferred first name],

Tell us about your experience as an [university] student!

I am writing on behalf of [the Vice President of the Office of Student Affairs], to invite you to take the annual Student Life Survey. This brief survey will give you the chance to provide us with feedback about your experiences and improve the services offered to our community.

Your input is incredibly valuable, and your responses are confidential. If you choose to participate, you will be entered into a raffle to win one of 20 \$25 deposits.

The survey takes just 10 minutes or less. Please select the link below to participate.

Simple Invite Group - First Reminder

Subject line: Reminder: Tell Student Affairs about your experiences

Hi [preferred first name],

I hope you received my earlier message about participating in our annual Student Life Survey. We have received a lot of responses from your fellow students, but we would like to make sure that we also hear from you.

If you participate, you will be entered in a raffle to receive one of 20 \$25 deposits. The survey should take 10 minutes or less to complete, and your response is confidential. Click the link below to participate:

Simple Invite Group - Second Reminder

Subject line: Complete the Student Life Survey

Hi [preferred first name],

There is still time for you to help us improve services for future [students] by completing the Student Life Survey. Your response is confidential, and the survey should take less than 10 minutes to complete. You will be entered into a raffle with the chance to win one of 20 \$25 deposits if you participate in the survey.

If we do not hear from you in a few days, we will send you another reminder. We understand that you are busy right now, and we want to make sure that you have an opportunity to participate.

To participate now and avoid receiving the reminder emails, click here:

Simple Invite Group - Third Reminder

Subject line: Reminder: Last chance to tell [university] about your experiences

Hi [preferred first name],

[University]'s Student Life Survey is about to close, but there's still time for you to participate. Many of your peers have already completed the survey, but we haven't heard one of the most important voices – yours! If you choose to participate, you will be entered into a raffle with the chance to win one of 20 \$25 deposits.

Your response is confidential, and the survey should take approximately 10 minutes or less to complete. To participate, please click the link below:

Tangible Outcome Group

Subject line: Make a difference with this short survey

Hi [preferred first name],

Tell us about your experience as an [university] student!

This brief survey will give you the chance to provide us with feedback about your [university] experiences and improve the services offered to our [student] community.

Your response to this survey will help make real, observable differences on campus. Here are just a couple of examples of real changes made based on responses from surveys like this:

- When Dining surveyed students about what they most wanted from dining operations during the pandemic in 2020, students asked for the salad bars to open up again in the facilities. Dining brought the salad bars back thanks to the student feedback.
- [Student] Careers is now offering Grad Expos, which is an opportunity to meet with and learn about graduate and professional programs all over the country, in both autumn and spring semesters thanks to feedback from last year's Student Life Survey.

Your input is incredibly valuable, and your response is confidential. If you choose to participate, you will be entered into a raffle to win one of 20 \$25 deposits.

The survey takes just 10 minutes or less. Please select the link below to help make a difference at [university]!

Tangible Outcome Group - First Reminder

Subject line: Reminder: Make a difference with this short survey

Hi [preferred first name],

I hope you received my earlier message about participating in our annual Student Life Survey. We have received a lot of responses from your fellow students, but we would like to make sure that we also hear from you.

If you participate, you will be entered in a raffle to receive one of 20 \$25 deposits. The survey should take 10 minutes or less to complete, and your response is confidential. Click the link below to participate:

[link]

Your response to this survey will help make real, observable differences on campus. Here are just a couple of examples of real changes made based on responses from surveys like this one:

- When Dining surveyed students about what they most wanted from dining operations during the pandemic in 2020, students asked for the salad bars to open up again in the facilities. Dining brought the salad bars back thanks to the student feedback.
- [Student] Careers is now offering Grad Expos, which is an opportunity to meet with and learn about graduate and professional programs all over the country, in both autumn and spring semesters thanks to feedback from last year's Student Life Survey.

Tangible Outcome Group - Second Reminder

Subject line: Complete the Student Life Survey and help make a difference at [university]

Hi [preferred first name],

There is still time for you to help us improve services for future [students] by completing the Student Life Survey. Your response is confidential, and the survey should take less than 10 minutes to complete. You will be entered into a raffle with the chance to win one of 20 \$25 deposits if you participate in the survey.

If we do not hear from you in a few days, we will send you another reminder. We understand that you are busy right now, and we want to make sure that you have an opportunity to participate.

To participate now and avoid receiving the reminder emails, click here:

[Survey link]

Your response to this survey will help make real, observable differences on campus. Here are just a couple of examples of real changes made based on responses from surveys like this one:

- When Dining surveyed students about what they most wanted from dining operations during the pandemic in 2020, students asked for the salad bars to open up again in the facilities. Dining brought the salad bars back thanks to the student feedback.
- [Student] Careers is now offering Grad Expos, which is an opportunity to meet with and learn about graduate and professional programs all over the country, in both autumn and spring semesters thanks to feedback from last year's Student Life Survey.

Tangible Outcome Group - Third Reminder

Subject line: Reminder: Last chance to make a difference at [university]

Hi [preferred first name],

[University]'s Student Life Survey is about to close, but there's still time for you to participate. Many of your peers have already completed the survey, but we haven't heard one of the most important voices – yours! If you choose to participate, you will be entered into a raffle with the chance to win one of 20 \$25 deposits.

Your response is confidential, and the survey should take approximately 10 minutes or less to complete. To participate, please click the link below:

[link]

Your response to this survey will help make real, observable differences on campus. Here are just a couple of examples of real changes made based on responses from surveys like this one:

- When Dining surveyed students about what they most wanted from dining operations during the pandemic in 2020, students asked for the salad bars to open up again in the facilities. Dining brought the salad bars back thanks to the student feedback.
- [Student] Careers is now offering Grad Expos, which is an opportunity to meet with and learn about graduate and professional programs all over the country, in both autumn and spring semesters thanks to feedback from last year's Student Life Survey.

Representative Invite Group

Subject line: Make your voice heard about the student experience at [university] with this short survey

Hi [preferred first name],

Tell us about your experience as an [university] student!

Each year, we send out the Student Life Survey to just 10% of [university]'s student body. By taking part in this brief survey, you are serving as a representative for your fellow students. Your feedback will

help inform us about students' experiences at [university] and help improve the services we offer to our [student] community.

Your input is incredibly valuable, and your response is confidential. If you choose to participate, you will be entered into a raffle to win one of 20 \$25 deposits.

The survey takes just 10 minutes or less. Please click the link below and use your voice to make a difference.

Representative Invite Group - First Reminder

Subject line: Reminder: Make your voice heard at [university]

Hi [preferred first name],

I hope you received my earlier message about participating in our annual Student Life Survey. We have received a lot of responses from your fellow students, but we would like to make sure that we also hear from you.

You are one of just 10% of [university]'s students receiving this survey. By taking part, you are serving as a representative for your fellow students. Your feedback will help inform us about students' experiences at [university] and help improve the services we offer to our [student] community.

If you participate, you will be entered in a raffle to receive one of 20 \$25 deposits. The survey should take 10 minutes or less to complete, and your response is confidential. Click the link below to participate:

Representative Invite Group - Second Reminder

Subject line: Reminder: Make your voice heard by completing the Student Life Survey!

Hi [preferred first name],

There is still time for you to help us improve services for future [students] by completing the Student Life Survey. Your response is confidential, and the survey should take less than 10 minutes to complete. You will be entered into a raffle with the chance to win one of 20 \$25 deposits if you participate in the survey.

As just 10% of [university]'s student body receives this survey, you are serving as a representative for your fellow students. Your feedback will help inform us about students' experiences at [university] and help improve the services we offer to our [student] community.

If we do not hear from you in a few days, we will send you another reminder. We understand that you are busy right now, and we want to make sure that you have an opportunity to participate.

To participate now and avoid receiving the reminder emails, click here:

Representative Invite Group - Third Reminder

Subject line: Reminder: Last chance to make your voice heard by telling [university] about your experiences

Hi [preferred first name],

[university]'s Student Life Survey is about to close, but there's still time for you to participate. Many of your peers have already completed the survey, but we haven't heard one of the most important voices – yours!

As just 10% of [university]'s student body gets this survey, you are serving as a representative for your fellow students. Your feedback will help inform us about students' experiences and help improve the services we offer to our [student] community.

If you choose to participate, you will be entered into a raffle with the chance to win one of 20 \$25 deposits.

Your response is confidential, and the survey should take approximately 10 minutes or less to complete. To participate, please click the link below: