

BEST PRACTICES FOR COMMUNICATING CRITICAL MESSAGES
FROM A REGISTRAR'S OFFICE TO TRADITIONAL-AGED COLLEGE STUDENTS

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DOCTOR OF PHILOSOPHY

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ABSTRACT

The purpose of this study was to determine what strategies are most effective for communicating critical messages to traditional-aged undergraduate college students and best practices in evaluating critical messages. A brief history of the function and organizational structure of a registrar's office was explored. The characteristics of Millennials, the uses of technology among college students and in higher education settings, student engagement theory and social media, communication concepts, trends and strategies, and legal compliance and accessibility issues are also examined. Semi-structured telephone interviews were conducted with four registrar professionals. The results of the telephone interviews led to the development of constructs and statements for a Delphi survey. Three rounds of Delphi surveys were used to gather feedback and to gain consensus from a panel of registrar experts to answer the research questions. The 26 Delphi experts were from 24 unique institutions; 17 different states were represented. The researcher summarized communication guidelines and best practices for registrar professionals. Suggestions for future research were also presented.

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To my loving husband, Travis, and children, Carson and Grace – all my love to each of you! Thank you for your countless sacrifices, unconditional love, and for being my biggest cheerleaders. I love you all to the moon and back! ♥

DEDICATION

I would like to dedicate this dissertation to my beloved miracles, Carson and Grace,
and my treasured Grandma Gladys Brager.

Carson and Grace – you have defied countless medical odds and overcome more obstacles than most people experience in a lifetime. I am proud and humbled to be your Mommy. Never lose your compassion, your fighting spirit, and your desire to learn.

To my Grandma – your lifelong love of learning and independence as a woman, educator, wife, mother, and friend inspire me daily. I miss you dearly, and I love you back.

TABLE OF CONTENTS

ABSTRACT	iii
ACKNOWLEDGEMENTS	iv
DEDICATION	v
LIST OF TABLES	xi
LIST OF FIGURES	xiv
CHAPTER 1. INTRODUCTION	1
Background of the Study.....	1
Statement of the Problem	6
Purpose of the Study	7
Research Questions and Conceptual Framework.....	7
Significance of the Study	8
Limitations of the Study	9
Definition of Terms.....	9
Organization of the Study	11
Chapter Summary.....	11
CHAPTER 2. LITERATURE REVIEW	12
Introduction	12
Registrar’s Office History, Function, and Organizational Structure.....	13
Millennials.....	15

Characteristics of Millennials.....	16
Uses of Technology among Millennial College Students.....	19
Student Engagement Theory and Social Media	21
Communication Concepts	24
Communication Trends and Strategies	26
Changing Technologies.....	31
Legal Compliance and Accessibility Issues	34
Chapter Summary.....	36
CHAPTER 3. METHODOLOGY AND PROCEDURES.....	37
Introduction.....	37
Research Design.....	37
Research Process and Timeline.....	39
Population of the Study.....	41
Telephone-Interview Protocol.....	42
Procedure for Selecting Experts.....	42
Instrumentation	43
Data-Collection Procedures	43
Data-Analysis Procedures.....	44
Delphi-Survey Protocol.....	44
Procedure for Selecting Experts.....	44

Instrumentation	46
Data-Collection Procedures	47
Data-Analysis Procedures.....	48
Chapter Summary.....	50
CHAPTER 4. RESULTS	51
Introduction	51
Detailed Findings of the Telephone Interviews	51
Detailed Findings of the Delphi Study.....	52
Defining Critical Messages.....	53
Determining Effective Ways to Communicate Critical Messages	64
Communication Strategies	72
Communication Mechanics in Emails	81
Registrar’s Office Communication Staffing.....	86
Legal/FERPA Issues	96
Evaluating Critical Messages.....	98
Chapter Summary.....	105
CHAPTER 5. SUMMARY OF FINDINGS AND RESEARCH CONCLUSIONS	108
Restatement of the Problem	108
Methods and Procedures	109
Major Study Findings.....	110

Research Question 1	110
Research Question 2	115
Limitations	116
Recommendations for Further Studies	117
Conclusions	119
REFERENCES	121
APPENDIX A. IRB LETTER OF APPROVAL	129
APPENDIX B. TELEPHONE INTERVIEW EXPERT INVITATION EMAIL.....	130
APPENDIX C. TELEPHONE INTERVIEW CONSENT FORM.....	131
APPENDIX D. TELEPHONE INTERVIEW QUESTIONS	133
APPENDIX E. IRB PROTOCOL AMENDMENT REQUEST.....	135
APPENDIX F. DELPHI SURVEY EXPERT INVITATION EMAIL	138
APPENDIX G. DELPHI SURVEY CONSENT FORM.....	139
APPENDIX H. DELPHI SURVEY ROUND ONE EMAIL.....	141
APPENDIX I. DELPHI SURVEY ROUND ONE.....	142
APPENDIX J. DELPHI SURVEY ROUND ONE REMINDER EMAIL	158
APPENDIX K. DELPHI SURVEY ROUND TWO	159
APPENDIX L. DELPHI SURVEY ROUND THREE.....	174
APPENDIX M. DELPHI SURVEY STATEMENT CROSSWALK.....	184

APPENDIX N. BEST PRACTICES FOR COMMUNICATING CRITICAL MESSAGES
TO TRADITIONAL-AGED COLLEGE STUDENTS FROM A REGISTRAR'S OFFICE.....190

Defining Critical Messages 190

Determining Effective Ways to Communicate Critical Messages 190

Communication Strategies 190

Communication Mechanics in Emails..... 190

Registrar Office Communication Staffing 191

Legal/FERPA Issues 191

Evaluating Critical Messages 191

LIST OF TABLES

<u>Table</u>	<u>Page</u>
1. Characteristics of Millennials.....	18
2. Potential Messages from a Registrar’s Office.....	29
3. Research Timeline.....	40
4. Items by Survey Construct Defining Critical Messages – Consensus to Agree, Including Means and Standard Deviations.....	54
5. Items by Survey Construct Defining Critical Messages – Consensus to Agree, Qualitative Responses.....	55
6. Items by Survey Construct Defining Critical Messages – No Consensus, Including Means and Standard Deviations.....	57
7. Items by Survey Construct Defining Critical Messages – No Consensus, Agreement Themes, Qualitative Responses.....	59
8. Items by Survey Construct Defining Critical Messages – No Consensus, Disagreement Themes, Qualitative Responses.....	61
9. Items by Survey Construct Determining Effective Ways to Communicate Critical Messages – Consensus to Agree, Including Means and Standard Deviations.....	65
10. Items by Survey Construct Determining Effective Ways to Communicate Critical Messages – Consensus to Agree, Qualitative Responses.....	66
11. Items by Survey Construct Determining Effective Ways to Communicate Critical Messages – No Consensus, Including Means and Standard Deviations.....	67
12. Items by Survey Construct Determining Effective Ways to Communicate Critical Messages – No Consensus, Agreement Themes, Qualitative Responses.....	69
13. Items by Survey Construct Determining Effective Ways to Communicate Critical Messages – No Consensus, Disagreement Themes, Qualitative Responses.....	71
14. Items by Survey Construct Communication Strategies – Consensus to Agree, Including Means and Standard Deviations.....	73
15. Items by Survey Construct Communication Strategies – Consensus to Agree, Qualitative Responses.....	75

16.	Items by Survey Construct Communication Strategies – No Consensus, Including Means and Standard Deviations.....	76
17.	Items by Survey Construct Communication Strategies – No Consensus, Agreement Themes, Qualitative Responses.....	78
18.	Items by Survey Construct Communication Strategies – No Consensus, Disagreement Themes, Qualitative Responses.....	80
19.	Items by Survey Construct Communication Mechanics in Emails – Consensus to Agree, Including Means and Standard Deviations.....	82
20.	Items by Survey Construct Communication Mechanics in Emails – Consensus to Agree, Qualitative Responses.....	83
21.	Items by Survey Construct Communication Mechanics in Emails – No Consensus, Including Means and Standard Deviations.....	84
22.	Items by Survey Construct Communication Mechanics in Emails – No Consensus, Agreement Themes, Qualitative Responses.....	85
23.	Items by Survey Construct Communication Mechanics in Emails – No Consensus, Disagreement Themes, Qualitative Responses.....	86
24.	Items by Survey Construct Registrar Office Communication Staffing – Consensus to Agree, Including Means and Standard Deviations.....	88
25.	Items by Survey Construct Registrar Office Communication Staffing – Consensus to Agree, Qualitative Responses.....	89
26.	Items by Survey Construct Registrar Office Communication Staffing – No Consensus, Including Means and Standard Deviations.....	90
27.	Items by Survey Construct Registrar Office Communication Staffing – No Consensus, Agreement Themes, Qualitative Responses.....	93
28.	Items by Survey Construct Registrar Office Communication Staffing – No Consensus, Disagreement Themes, Qualitative Responses.....	95
29.	Items by Survey Construct Legal/FERPA Issues – Consensus to Agree, Including Means and Standard Deviations.....	97
30.	Items by Survey Construct Legal/FERPA Issues – Consensus to Agree, Qualitative Responses.....	98

31.	Items by Survey Construct Evaluating Critical Messages – Consensus to Agree, Including Means and Standard Deviations.....	100
32.	Items by Survey Construct Evaluating Critical Messages – Consensus to Agree, Qualitative Responses.....	101
33.	Items by Survey Construct Evaluating Critical Messages – No Consensus, Including Means and Standard Deviations.....	103
34.	Items by Survey Construct Evaluating Critical Messages – No Consensus, Agreement Themes, Qualitative Responses.....	104
35.	Items by Survey Construct Evaluating Critical Messages – No Consensus, Disagreement Themes, Qualitative Responses.....	104

LIST OF FIGURES

<u>Figure</u>	<u>Page</u>
1. Research conceptual framework.....	8
2. Research process.....	41

CHAPTER 1. INTRODUCTION

Background of the Study

What is the most effective way to communicate with college students? Communication is essential, but simply having the desire to effectively communicate and connect with college students is not sufficient. An effective communication strategy identifies what needs to be communicated as well as how it is relayed. The effort is ever changing and increasingly co-created with students as an instrumental part of the dialogue. How can higher-education practitioners best utilize communication strategies, technology, and social media to connect with students? This study was initiated to determine and evaluate effective means of communicating messages from a university registrar's office to traditional-aged college students.

Social-networking platforms allow someone to connect in ways that were not possible before their development. As a result, there is a focus on how users build and maintain relationships, both interpersonally and in social-network worlds. Social-media volume is explosive: Facebook has more than one billion monthly users worldwide (Van Sack, 2013); Twitter has 218 million monthly users, 163 million monthly mobile users, 100 million daily users, and 500 million daily tweets (Protalinski, 2013). Both platforms have an extensive international presence: 77% of Twitter users (Protalinski, 2013) and 75% of Facebook users ("Facebook Statistics," 2013) are outside the United States.

Heiberger and Harper (2008) researched technology and student involvement. They stated:

Students today network with each other using technology as much as, if not more than, face-to-face communication. College administrators must not only recognize this phenomenon, but learn to use the variety of electronic media available in positive ways:

to stay connected to college social networks, promote relevant events, and help students feel safe and at home on campus. (p. 19)

Social media and technology have changed rapidly in recent decades and even years. In 1969, CompuServe became the first commercial internet service provider within the United States. While the first email was sent in 1971, email and the internet did not become mainstream until at least 1994. Google launched in 1998, and within two years, there were 70 million computers connected to the internet. Friendster, an early social-networking site, began in 2002. Facebook joined the social-networking world in 2004, and the iPhone was launched in 2007 (Curtis, n.d.).

Millennial college students, often labeled as *digital natives*, are technologically connected. College students are viewed as pioneers in digital consumption while faculty and staff are learning to adapt and to incorporate new technologies as *digital immigrants*. Annually, the Educause Center for Applied Research (ECAR) surveys undergraduate students regarding their experiences with and expectations about technology in their academic and personal lives (Dahlstrom, Walker, & Dziuban, 2013). The 2013 survey gathered responses from more than 113,000 students attending 251 institutions, of which 221 institutions were located in the United States. Researchers used a stratified, random sample to proportionally match undergraduate demographics per the Integrated Postsecondary Educational Data System (IPEDS), with a 1% margin of error. Critical findings from 2013 included the following statistics (Dahlstrom et al., 2013):

- Over half of students (58%) of students owned three or more internet-capable devices. Ownership of smartphones and tablets jumped the most from the 2012 to the 2013 study;
- Most students (89%) owned laptops, and 43% owned desktop computers;

- Seventy-six percent of the students owned smartphones; and
- Thirty-one percent of the students owned a tablet.

Technology is highly integrated into students' lives, as indicated in the ECAR survey. Dahlstrom et al. (2013) indicated that, while technology connects us, engaging students inside and outside the classroom via technology continues to be a challenge. Students who took the ECAR survey said that technology could help them feel more connected with the institution (64%), professors (60%), and other students (53%). Sixty percent of the students specified the desire to keep their social and academic lives separate, and often strove to maintain those boundaries when using technology.

The power of social media cannot be underestimated. During the 2008 U.S. presidential race, Barack Obama and Ron Paul both worked for weeks to capture one million followers for their Facebook groups while Comedy Central's Stephen Colbert gathered over one million followers in three days during his faux race for the presidency (Workman, 2008). Lewis and Rush (2013) contended that, to be effective in the role of a digital (technology) steward, "a person needs on the one hand to be capable with the technology, experimenting with innovations to explore their utility, whilst also aware of the various ways in which those innovations may be brought into the practice of the community" (p. 3). Furthermore, the steward/practitioner should connect with others in similar roles at other institutions, resulting in a network of committed professionals who have intentionality with their communication practices.

A variety of offices have critical, essential messages to communicate to college students. How, what, and when they communicate these messages can have a significant impact on the recipient's action or inaction. The registrar's office is one university unit that routinely communicates with students. The modern office of the registrar has an extensive history, dating

back to at least the fifteenth century at Oxford (Young, 2006). Through the centuries, the office has diversified and grown, and it is “charged with upholding the value of courses taken and degrees conferred by superintending the accuracy, integrity, and delivery of data” (p. 1).

Van Voorhis and Falkner (2006) observed, “the registrar’s office should think of communication in the broadest terms: as a means of participating in, and conveying the work of, the efforts of the multiple constituencies which make up any college or university” (p. 121). In addition, “numerous key communication pieces—calendars, catalogues, directories, and web sites—fall in the realm of the registrar’s responsibilities” (p. 121). Researching the communication practices of registrar offices is a challenge; offices do not post their communication plans on their websites, and best practices have not been published, strengthening the necessity for this research study.

As would be expected, registrar offices rely on a comprehensive website with information for new, transfer, current, and former students as well as other interested constituents. While specific communication may still be communicated via postal mail, email tends to be the predominant form of communication for degree audits, dates and deadlines, registration information, Family Educational Rights and Privacy Act (FERPA) notifications, academic deficiencies, graduation progress, and other forms of academic record tracking. Van Voorhis and Falkner discussed email strategies for communication from a registrar’s office. Van Voorhis and Falkner stated, “email is efficient and effective, but students may come to view it as spam if it is overused. The registrar’s office therefore should make sure that only high-priority matters are directed to student accounts via email; this will ensure that its impact is not diluted” (p. 127). In addition, “forthcoming deadlines, scholarship opportunities, and course schedule

changes—important matters that are time-sensitive—are good candidates for notification to student accounts by email” (p. 127).

Specific research regarding registrar offices integrating social media, including YouTube, Facebook, and Twitter, into their communication strategies is lacking. Smartphone applications to add and drop classes, view class schedules and grades, and request transcripts are increasing in popularity but have not been researched.

The transformation of student information systems significantly influenced how students access their academic information as well as how registrar offices communicate updates to students about their academic record. Legacy student systems, often-outdated computer systems due to a lack of updates and support, typically did not allow students to add and drop classes, to print unofficial transcripts, or to view degree-audit progress. Typically, students had to physically go to the registrar’s office to perform transactional updates. The legacy system allowed for administrative and staff access, with limited access for students. The implementation and transition to robust student information systems, such as PeopleSoft/Oracle, Banner, and Colleague, transformed how transactions occur. Students have 24/7 access to biodemographic, academic record, financial aid, and student account information and updates; students can self-manage countless business processes. The transition to comprehensive student information systems coincided with increased technology access for students. Access to email, student information systems, learning-management systems, and social media provided multiple communication points for registrar’s offices, beyond the antiquated postal mailed letter which can be returned to the registrar’s office due to “no forwarding address.”

Registrar offices have been “entrusted with the responsibility to convey critical information to multiple constituencies—information ranging from the academic calendar and

catalogue, to the final examination schedule, student directories, institutional reports, and many forms of electronic communication, including a registrar's Web page" (Van Voorhis & Falkner, 2006, p. 121). It is imperative for communication to be intentional and meaningful. As stated previously, the necessity of effective communication strengthens the necessity for this research.

Statement of the Problem

As data from the ECAR survey indicated, millennial students are digital (Dahlstrom et al., 2013). These students are connected. They expect immediate results. While email is consistently an official method of communication on most campuses, institutions struggle to effectively communicate with their student body using email. Registrar-office professionals send critical messages and are challenged to have a comprehensive communication plan, to keep up with the latest social-media craze, to navigate the variety of ways to expand the office's virtual presence, and to generate messages that will prompt students to take the appropriate action. Critical messages from a registrar's office can relate to registration, deadlines, and, ultimately, graduation. Messages related to campus events are typically not considered critical. Research is needed to determine effective communication strategies to best ensure that students receive information and take appropriate action to stay on track for degree progress and, ultimately, degree attainment. While some critical messages are relayed for informational purposes only, others intend to prompt students to take action, such as applying for their degree during their final semester. It is essential to determine the best method for communicating critical messages, the ideal timing to deliver the critical message, and how to best ensure that the student will take action. Student responsibility, including reading and acting upon university email messages, awareness of university dates and deadlines, and overall tracking for academic progress, is also a critical aspect. Students, ultimately, are responsible for their registration, account charges, and

university activity. However, the absence of student responses, increased postal charges, a lack of updated contact (mailing) information within the student information system, increased staff workload if additional student follow-up is necessary, and the demand for efficiency and accessibility are all factors that contribute to the necessity of this research.

Purpose of the Study

The purpose of this doctoral study was to develop communication guidelines and best practices for registrar-office professionals communicating critical messages to undergraduate college students. First, semi-structured telephone interviews were conducted to formulate constructs and statements. The results of the telephone interviews led to the development of constructs for a Delphi survey method. Three rounds of Delphi surveys were used to gather feedback and to gain consensus from a panel of registrar communication experts.

Research Questions and Conceptual Framework

The following research questions guided the study:

1. What strategies are most effective for communicating critical messages to students?
2. How should critical messages be evaluated for effectiveness?

To answer the research questions, telephone interviews and a Delphi-method research study were used. Figure 1 outlines the study's conceptual framework. The researcher utilized the Literature Review's structure and exploration to guide the development of the research questions.

Telephone interviews and the Delphi research method were employed to, ultimately, answer the research questions.

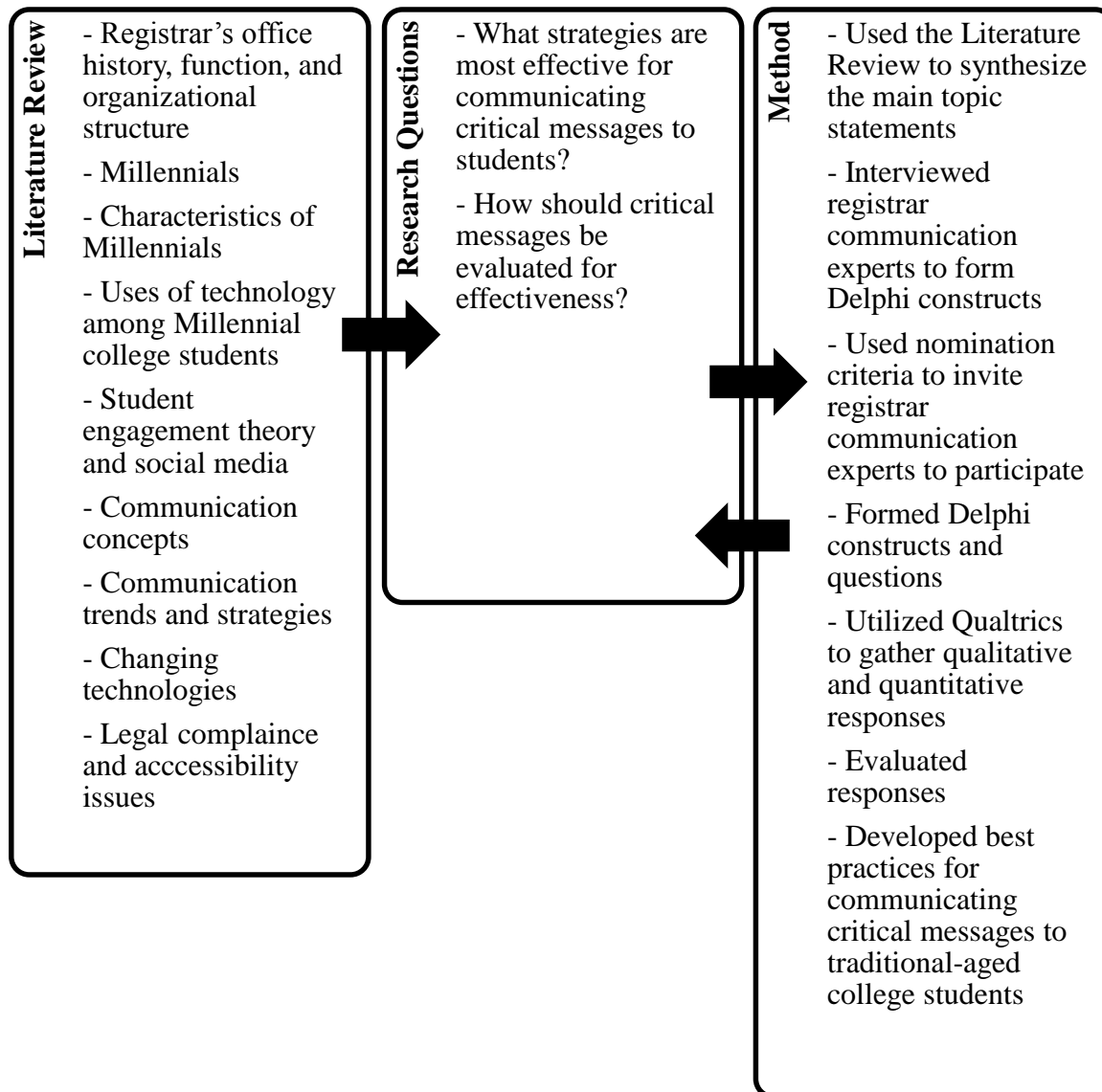


Figure 1. Research conceptual framework.

Significance of the Study

Registrar professionals regularly have critical messages to communicate to undergraduate students. Often, students need to take specific action based on the message. How and what registrar professionals communicate are key. There is little research about best-practice communication strategies for critical messages that are sent to undergraduate students, and no

research is specific to registrar activities. The research results are practical and beneficial for registrar professionals throughout the United States.

Limitations of the Study

One limitation of the study is that the results are restricted to this panel of registrar experts and may not be generalizable to all registrar professionals. Another limitation is the ever-changing nature of communication methods and social-media outlets. Within the qualitative responses, experts referred to specific communication conduits that could be obsolete within a few years. Additionally, the results of this study may not be applicable to non-traditional aged college students. Finally, while the percentage of college-age students who use technology and social media is high, it is critical to continue to be aware that there are differences with gender, race, and socioeconomic status regarding technology implementation and use. These differences are often referred to as the *digital divide* (Junco, 2012).

Definition of Terms

Critical Messages: Important messages conveyed from, for the purposes of this study, the registrar's office. Different from an emergency or informational message, critical messages, as defined by the experts in this study, are related to registration information, academic progress, and graduation procedures. Students need to take action upon receipt of a critical message.

Digital Divide: The gaps in access to technology and technology-related activities within a population. The factors often studied are race, gender, or socio-economic status.

Digital Immigrants: Individuals already socialized in pre-digital ways when digital technology arrives on the scene. Digital immigrants often struggle with their own limitations and anxieties about using the new technologies.

Digital Natives: Individuals who have grown up with a variety of digital technologies, including the internet, email, and cell-phone usage, and live in a wired world. These people are known as being very technology savvy and are immersed in emerging technologies.

Emergency Messages: Important messages sent via phone, text, or email to the campus community related to safety and emergencies.

Informational Messages: Messages relayed via email, social media, or other communication methods, to share informational updates with students and the campus community. Messages may be related to deadlines, events, or federally mandated notifications.

Millennial (Generation Y, Echo Boomers, or Generation Me/GenMe): Individuals born between 1980 and 2000. These individuals are currently traditional-aged college students.

Registrar's Office: The university office that maintains and preserves academic records for all students, upholds the institution's academic policies, and coordinates registration for each academic term. The registrar's office mentions in this research include any offices relating to registration and academic records.

Social Media or Social Networking: A collection of internet websites, services, and practices that support collaboration, community building, participation, and sharing. Examples include Facebook, Twitter, LinkedIn, Google+, Flickr, YouTube, Instagram, and Pinterest.

Traditional-Aged College Students: Traditional-aged college students characteristically enroll in post-secondary education immediately following high school graduation, enroll on a continuous full-time basis, and complete a baccalaureate degree within four to five years. Typical age range of traditional-aged college students ranges from 18 – 23.

Organization of the Study

Chapter 1 provides an overview of the study, illustrating the dynamic communication trends and challenges for registrar offices. Registrar offices need to communicate, via email, websites, and/or social-media platforms, a variety of critical messages. This study identifies the best communication practices for registrar professionals. Chapter 1 includes a Background of the Study, a Statement of the Problem, the Purpose of the Study, a conceptual framework of the research plan, research questions, definitions, the Significance of the Study, and Limitations of the Study. Chapter 2 examines the related literature, including a brief exploration about the history and function of the registrar's office as well as the office's organizational structure, a discussion about Millennials, characteristics and norms of Millennials, uses of technology among college students and in higher-education settings, Student Engagement Theory and Social Media, Communication Concepts, Communication Trends and Strategies, Changing Technologies, and Legal Compliance and Accessibility Issues. Chapter 3 describes the Delphi method process that is used to conduct this study. Chapter 4 details the Results of the study. Chapter 5 outlines discussions and conclusions, including future recommendations for research.

Chapter Summary

Developing effective communication strategies is essential within a registrar's office. It could be argued that the majority of registrar-office communications could be considered critical. Determining how to best communicate the critical messages from a registrar's office to traditional-aged college students will be a meaningful contribution to the profession. It is the researcher's expectation that this study's results would be relevant and applicable when developing best practices for other offices, such as financial aid and student accounts payable, that deliver critical messages.

CHAPTER 2. LITERATURE REVIEW

Introduction

As each generation of college students enter post-secondary education, higher education institutions adapt to students' developmental needs, both academically and socially. Millennials (18 to 22 year-olds) are the traditional students at colleges and universities in 2014. They are "more numerous, more affluent, better educated, and more ethnically diverse" than previous generations of college students (Howe & Strauss, 2000, p. 4). Many historical, political, and social events, as well as now-outdated technologies, are distant or unknown to Millennials. For example, Millennials have only known one Germany; their lifetime has always included AIDS; the compact disc (CD) was introduced in 1981 and the Walkman in 1980, both prior to many Millennials' births; and they do not have the memory that Americans were held hostage in Iran or that Czechoslovakia was a country (Howe & Strauss, 2000). Previous generations need to keep the vast variety of historical events in context when considering Millennials' perspectives. The Millennial generation cycle is not expected to account for events occurring during their lifetime but, rather, to explain how the generation is likely to respond to historical events during their era.

This chapter investigates a brief history of the registrar's office as well as the function and organizational structure of a registrar's office. Millennials, the characteristics and norms of Millennials, the uses of technology among college students and in higher education settings, Student Engagement Theory and Social Media, Communication Concepts, Communication Trends and Strategies, Changing Technologies, and Legal Compliance and Accessibility Issues are also discussed.

Registrar's Office History, Function, and Organizational Structure

The registrar is one of the oldest administrative positions in higher education, dating back to the medieval universities of Bologna, Paris, and Oxford (Schipporeit, 2006). In the American Association of Collegiate Registrars and Admissions Officers' (AACRAO) *Academic Record and Transcript Guide* (2011), it was noted that the first academic officer with the "registrar" title was hired at Oxford in 1446. That officer's duties were "to give form and permanence to the university's public acts, to draft its letters, to make copies of its documents, and to register the names of its graduates and their expository sermons" (p. 7). By 1920, over 90% of higher-education institutions in the United States retained full-time registrars.

AACRAO, a non-profit, voluntary association for records and admission professionals, was established in 1910, with the initial idea promoted to colleagues by Alfred H. Parrott, the registrar of then-North Dakota Agricultural College (AACRAO, n.d.b). In 2014, more than 11,000 higher-education admission and registration professionals were AACRAO members, and membership represented more than 2,600 institutions and agencies in the United States and from over 40 countries around the world (AACRAO, n.d.a).

Nearly all functions in a registrar's office revolve around the student (Young, 2006). A successful registrar's office is accessible, efficient, and attentive; it "serves the entire community, both within and without the academy" (p. 5). Young (2006) wrote:

In addition to responding in a timely and friendly manner to student requests for enrollment verification and academic transcripts, the registrar is charged with upholding the value of courses taken and degrees conferred by superintending the accuracy, integrity, and delivery of such data. (p. 5)

While technology has increased the range of essential skills in a registrar's office, the core functions of a registrar's office have not significantly changed throughout the decades. Academic record integrity and record keeping, registration, and managing systems are constant themes. However, it is expected that technological advances will continue to be reflected in higher education. In addition, societal expectations have increased the need to have additional training for faculty and staff to work to meet prospective and current students' expectations. Lanier (2006) stated that technology is not replacing the registrar; rather, it is changing the role that the position and office have within the university. Lanier also contended that one of the countless roles of a registrar is that of communication chief. As technology and communication blend, "the goal is for technology to become ubiquitous and invisible, but the registrar's goal remains a very visible one—communicating, collaborating, and coordinating with people" (p. 19). According to Lanier, with the aid of technology, the registrar's office is more accessible, efficient, and attentive in 2014 than it was 5, 10, 25, or 50 years ago.

The registrar's office could be organizationally structured in a variety of divisions or units, most commonly academic affairs, student affairs, or enrollment management. It is a unique office because, regardless of arrangement, the office will serve students and work with academic policies and procedures. According to Schipporeit (2006):

Because the position of registrar grew out of the faculty, it stands to reason that this administrative officer should be closely aligned with the academic units of the campus. As the role of colleges and universities changed following World War II, the registrar's office diversified and adopted more of a student services approach. In ensuing years, the organizational structure of higher education itself expanded to include a student services division and/or a vice chancellor for student affairs. The registrar's office, in many cases,

was assigned to the student affairs domain to unify the services provided to students. Regardless of an institution's organizational reporting structure, the registrar must be a functional part of the academic policy process. (p. 10)

Millennials

Millennials were born between 1980 and 2000 (Zemke, 2001). Members of this generation continue to be defined as they transition into the workforce. Millennials have experienced events of significant societal impact and change, such as internet chat, school violence (e.g., Columbine), O.J. Simpson's trial, the Oklahoma City bombing, 9/11, Princess Diana's death, the Columbia shuttle disaster, multiculturalism, and reality TV. They find significance in confidence, civic duty, achievement, diversity, and morality. Millennials have been defined as "the children their parents wanted to have" (Grabinski, 1998, p. 81) and are the first true natives of the digital and information age (Ricketts, 2009). Personal computers have always been a part of a Millennial's world. In comparison, previous generations have been labeled digital immigrants and often "lack Millennials' natural and almost instinctual relationship with technology" (p. 8).

Millennials are the largest generational group in history and approximately 33% larger than the Boomer generation. In addition, they are the most racially and ethnically diverse generation. More than 75% of college freshmen project that they intend to earn a graduate degree, indicating that, to date, this generation is the most educationally ambitious (Coomes & DeBard, 2004). Howe and Strauss (2003) stated:

Through the coming decade, they [Millennials] will transform the university world as profoundly as the Boomers did in the 1960s—but in very different, even opposite, ways.

As happened in the '60s, some universities will figure out the new generation, deal with it correctly, and rise in reputation—and others will not. (p. 4)

Applying the cyclical model of generations, Millennials tend to split with the youth culture that Gen Xers (born between 1960 and 1980) displayed. Millennials have shown preferences toward values of personal growth, wellness, and involvement. Millennials may also favor civic-mindedness, teamwork, and optimism, which are characteristics of previous generations (Rickes, 2009).

Characteristics of Millennials

Various researchers have identified the characteristics and norms that can be identified in the Millennial Generation. Tapscott (2009) identified values and behaviors that are widespread and unique to the Millennial Generation. They include freedom, customization, scrutinizing, integrity, collaboration, entertainment, speed, and innovation. Millennials expect to have the freedom to choose: from media to technology to the workplace environment. Given the vast variety of technology that is readily available, they have the ability to obtain the media and information they want, when and where they want it, and to modify it to fit their wants and needs. With the strong consumerism attitude, Millennials are often scrutinizers; they seek specific services and materials based upon information found on the internet. In the workplace setting, Millennials place a high level of importance on a company's integrity and ensure that the company's values match their personal values.

Another Millennial characteristic is collaboration (Tapscott, 2009). Millennials connect with others, primarily through media, including chat rooms, multi-user video games, email, and file sharing. Entertainment is a core element for Millennials and is woven into work, education, and their social lives. Workplaces must be enjoyable because work, learning, collaboration, and

entertainment are interwoven. Millennials expect and need speed, particularly for the delivery of services. Based on the speed of information transmission through various technologies, Millennials have come to expect that all services should be delivered in a similar–instant–manner. Finally, Tapscott identified Millennials as seekers of innovation for nearly all aspects of their lives.

Howe and Strauss (2003) identified seven core traits that members of the Millennial generation possess: special, sheltered, confident, conventional, team-oriented, archiving, and pressured. The first trait, “special,” was derived from Millennials’ parents (often Baby Boomers) emphasizing the Millennials’ uniqueness. DeBard (2004) pointed out that Millennials have been given trophies for participation rather than for victories. Millennials were defined as “sheltered” because their parents diligently worked to keep them safe and secure (Howe & Strauss, 2003). Child-safety rules, post-Columbine name tags, and lockdowns at school are examples of this generation’s sheltered-ness. Millennials’ confident behavior was linked to their specialness. They are described as a happy generation and are optimistic regarding the future: they will succeed.

Millennials’ conventional behavior is not an indicator that they are necessarily conservative. Rather, they

have come to accept the social rules that have been imposed upon them because the Boomer authority figures who have defined the rules also have the power and resources to support such good behavior by supporting those who follow convention. (DeBard, 2004, p. 36)

Millennials have a “do as we say, not as we did” relationship with their Baby Boomer parents, and are willing to follow and respect established social rules. Millennials are team-oriented and

seek to congregate—in person or via technology—to connect with each other. They often enjoy academic team projects as a result of their team-oriented preferences. DeBard (2004) and Howe and Strauss (2003) agree that one of the primary Millennial characteristics is the need for achievement. Millennials are often goal-oriented and have mapped specific short- and long-term goals. Millennials feel extraordinary levels of pressure. Howe and Strauss (2003, p. 61) indicate “success in life is the reward for effort plus planning.” Millennials are the over-scheduled, highly organized generation; they feel stressed and pressured in ways previous generations have never experienced.

Jonas-Dwyer and Pospisil (2004) synthesized Brown (2000), Frand (2000), Oblinger (2003), and Raines’ (2002) research. Jonas-Dwyer and Pospisil (2004) described similar characteristics for the Millennial generation (Table 1).

Table 1.

Characteristics of Millennials (Jonas-Dwyer & Pospisil, 2004, p. 196)

Values Forming Messages	General Characteristics	Learning Preferences	Communication Preferences
Be smart – you are special	Confident “Computers aren’t technology”	Technology	Electronic
Leave no one behind (equitable and diverse)	Hopeful – optimistic “Reality no longer real”	Entertainment and excitement	Positive
Connect 24/7 interdependent on family, friends and teachers	Inclusive (team oriented) “Staying connected,” “Zero tolerance for delays”	Teamwork	Respectable
Achieve now!	Goal-and-achievement-oriented (achievers) “Doing rather than knowing”	Structure	Motivational and goal focused
Serve your community (volunteer)	Civic-minded	Experiential activities	Respectful

Uses of Technology among Millennial College Students

Millennials are digital natives; they were born into and have been raised in the digital world (Palfrey & Gasser, 2008). Previous generations were introduced to information through print; Millennials have and are learning through print and digital methods. Baby Boomers and Gen Xers watched television, listened to music, and did homework. Millennials do those same activities, but also surf the web, play video games, and instant and text message their friends, often simultaneously. Alsop (2008) asserted that the most distinctive attributes of the Millennial generation are confidence with technology and quickness in juggling multiple pursuits simultaneously. Research summarized that Millennials seek to be connected to technology 24/7, but they also want to be concurrently connected with multiple forms of media. Their ability to multitask was apparent. A national study of over 2,000 students, ages 8-18, found that participants were able to press 8.5 hours of electronic media into six chronological hours due to their ability to multitask (Tapscott, 2009). Tapscott (1998) noted:

It appears that by using the digital media, children become more able to ignore inappropriate sources of information and concentrate on the information which is essential for doing something, such as completing a task. Central to attention is adaptability—the ability to adapt their attention to the particular requirements of the situation. Another is planfulness—the ability to allocate attention according to a goal and sequence acts ahead of time. (p. 109)

Utilizing technology as part of the college-selection process is customary for Millennials. Prospective college students seek a variety of information from an institution's website (Noel-Levitz, Inc., 2007). The most important actions include completing a financial-aid estimator form, completing a tuition-cost calculator form, completing an admission application, requesting

a campus visit or RSVP'ing for a campus event, and exchanging instant messages with an admission counselor or student worker. College admission offices utilize multiple e-marketing techniques, including the web, email, iPods, and text messaging. Blogs, chat rooms, one-to-one chats or instant messaging, e-newsletters, podcasting, Really Simple Syndication (RSS) feeds, and social-networking sites are various forms of electronic communication and communication deliveries that can be used to connect with prospective students. A consideration for admission officers is to rethink recruitment strategies for first-generation college students and students from disadvantaged backgrounds (Elam, Stratton, & Gibson, 2007). These populations may or may not have the same access to media and technologies, and the college decision-making process may be unfamiliar to their families.

Noel-Levitz, Inc. (2007) research concluded that Millennial, college-bound students are heavily influenced by their family. In 2006, 61% of prospective college students indicated that their parents or family members were a significant part of the college research and application process. In addition, 51% of students identified that their parents or family members had visited a college campus with them.

College-bound Millennials continue to stay well connected with their Boomer parents through a variety of technological forms. Most frequently, communication is via a cell phone. In 2006, students communicated with their parents an average of 8.8 times per week via phone, email, text messaging, or other forms of media (Howe & Strauss, 2008).

Millennials view technology as transparent: "they don't think in terms of technology; they think in terms of the activity technology enables" (Oblinger & Oblinger, 2005, p. 2.10). According to Tapscott (2009), for Millennials, technology is "like the air" (p. 20). Students expect technology to enhance and to enrich teaching and learning, not being added for the sake

of having technology. One example of technology improving learning is the incorporation of online quizzes; students can receive instant feedback and seek material to improve their understanding of concepts (Wilson, 2004). Because the web has always been a resource for Millennials, they naturally gravitate to the internet for research. One cautionary note is that students may need faculty guidance to evaluate and critique the credibility of online resources.

When surveyed regarding their technology needs and expectations, Millennials had two consistent themes (Oblinger & Oblinger, 2005):

1. The definition of technology is not confined to computers or the internet. Technology is viewed as any electronically based application or piece of equipment that meets a need for access to information or communication.
2. Customization is central to the definition of technology for Millennials. Technology is something that adapts to their needs, not something that requires them to change. (p. 3.2)

Students expect faculty members to do more than just disseminate information, even if information is only publicized through the utilization of technology (Oblinger & Oblinger, 2005). Students want faculty to integrate technology to enhance and communicate expert knowledge. Students' learning style preferences, however, indicate an inclination for a balanced use of technology, with half of the course time spent lecturing and the other half as an interactive learning environment.

Student Engagement Theory and Social Media

Astin's (1984) theory of student involvement is frequently used with student-affairs work. His theory has five tenets that can be utilized to measure the level of a student's involvement or engagement. Astin's theory can also be applied to student engagement within social media. Astin's theory includes the following principles:

- Involvement requires physical and psychological energy.
- Involvement occurs along a continuum.
- Involvement has both quantitative and qualitative features.
- Development is proportional to the quantity and quality of the involvement.
- Educational effectiveness is related to the capacity to increase involvement.

Email continues to be the most frequently used form of communication for higher-education professionals (Osborne, 2011). Students, on the other hand, have embraced Facebook messages/chat, text messages, and related tools (for example, InstantMessenger, BlackBerryMessenger, FaceTime, and Skype). It is essential for higher-education professionals to establish communication expectations with incoming and current students. As Osborne states, “students need to know which channels they are required to use (likely to include email) and which channels are optional (such as a course Facebook group)” (para. 11). Creating communication expectations, hopefully, results in better student support and engagement.

Social-networking sites, including Facebook, LinkedIn, and Twitter, are places where Millennials develop and sustain relationships (Gray, Vitak, Easton, & Ellison, 2013). Consequently, relationship development is a critical aspect of Millennial values. Social media may, in fact, assist students with their transition from high school to higher education by providing critical information as well as peer support when they connect with other incoming students. Barnes (2009) reports that “this group does not understand the basics of successful relationship development because the social patterns for modeling relationship behavior have been disrupted . . . a course on relationship building could help both the Millennials and older generations better understand each other” (p. 737). Facebook has been the most popular social-networking site for college students (Junco, Heiberger, & Loken, 2010). However, educators

seeking alternative ways to motivate and engage their students have begun to integrate Twitter because Twitter is a better fit for an ongoing, public dialogue than Facebook due to Twitter's format as a microblogging platform.

Facebook is a blend of multiple, internet-based communication tools, integrating personal pages, instant messaging, wall posts, photo uploading, group formation, event hosting, dynamic searches, news feeds, blogs, mass and individual messaging, and email, all through networks and friends. Heiberger and Harper (2008) contend, "Facebook puts a massive amount of information and communication power at a student's fingertips, making it possibly the ultimate synthesis of student-relevant data" (p. 20). Facebook programmers seem to have a strong understanding of Astin's involvement theory, and as Heiberger and Harper state "effective educators will want to explore, create, and use positive, educational, engaging Facebook activities" (p. 24). Heiberger and Harper maintain that Facebook allows college students to learn about and self-select into programs and services that are helpful for them. Ultimately, Facebook is simply one tool for maximizing communication with college students.

There is little research about the relationship between social media and student engagement in higher education, but several studies have found relationships between technology use and engagement. Junco et al. (2010) found that Twitter can be utilized to engage students in ways that are significant for their academic and psychosocial development. The researchers determined that Twitter increased contact between faculty and students, facilitated cooperation and dialogue among students, promoted active learning, allowed for prompt feedback, and gave an opportunity for students who otherwise may not have been active within a classroom to participate. Ultimately, students in the classes that integrated Twitter exhibited

significantly increased engagement and higher overall semester grade point averages than the control group, which did not incorporate Twitter usage in the classroom.

Additional results from the 2013 Educause Center for Applied Research (ECAR) survey specified students' preferences for communication with instructors (Dahlstrom et al., 2013). According to the results, 68% of the students wanted more face-to-face interaction with faculty, and 66% sought additional email communication. Significantly fewer students indicated that they want their instructors to utilize Facebook (24%), Twitter (15%), or other social-networking sites (15%). It was critical for university administration, faculty, and staff to "respect students' boundaries for privacy by being aware that technology has its limitations for engaging students and making them feel connected to the institution, to their professors, and to other students" (p. 41). While students expected faculty to integrate technology into the classroom, the 2013 ECAR survey results illustrated students' preferences for face-to-face interaction along with opportunities for email communication. Students seemed to be seeking boundaries for social media and the classroom. Because most forms of social media have an "opt-in" structure, students can determine how as well as how much they engage with their institution, professors, and others.

Communication Concepts

Despite Mark Zuckerberg's announcement in November 2010 that he did not think email would be the modern messaging system, email continues to be the primary communication tool for the masses on college campuses (Kolowich, 2011). There are a number of ways in which professionals select a form of communication media and utilize media to communicate critical messages. Those options and theories are explored in this section.

Daniel et al. (2009) researched the varying frequency of intentional communication between student-affairs personnel and first-year students. The researchers concluded that receiving more emails did not improve the capability of first-year students to accurately recall the number of email messages received or to correctly identify the email content. Daniel et al. (2009) noted that, with a high-volume assault of email messages, students tended to lose sensitivity to critical messages. Adding to the communication challenge that student-affairs and university personnel face, students reported that they did not read most of the email messages from university personnel, assuming “if it is important, I will hear about it from others or they will send another one” (p. 296). Sending more emails about the same topic was to heighten students’ prospect of ignoring messages. As much as possible, Savolainen (2007) recommended creating threaded networks that permit contact only to those individuals who need to acquire specific content.

Dato-on and Dahlstrom (2003) stressed the importance of *priming* to improve message salience. For example, university personnel could establish initial expectations that email is an official means of communication on the campus and that it will be used to communicate critical university business and information. The institution would need to not over-saturate student email accounts and to determine which emails are critical for the student body’s listerv.

Communicating via email as well as various social-media platforms takes skill to artfully craft messages and communication timelines. Using Lengel and Daft’s (1988) choice of media selection theory, the “information-carrying capacity of media to communication needs (is) based on a matching characteristic called *richness*. The premise is that the richness of medium should be matched to the needs of the message for effective communication” (p. 225). In order of highest to lowest richness, the media categories were face-to-face; telephone; personal

documents, including letters; impersonal written documents; and numeric documents. When Daft and Lengel (1986) developed their media-richness theory, email was an unknown. Applying Daft and Lengel's theory to email is a potential. While email is not as *rich* as face-to-face communication, it is an effective form of media for routine, straightforward, and logical messages. Daft and Lengel contended that, when the media matches the message, performance and responses improve.

Patterson, Grenny, Maxfield, McMillan, and Switzler (2013) identified content, pattern, and relationships as essential tools for communication, particularly regarding a crucial or critical conversation. Content will identify the "here and now" details of the situation; pattern will illustrate if there are frequencies and violations; and relationship will describe the accountability factors, including consequences and intentions. For example, a critical-message email from a registrar's office, identifying content, pattern, and relationship, may indicate: *Your application for graduation is due by March 1st. Failure to submit your application on time may result in not receiving commencement-participation information; your name may not be printed in the commencement program; your degree may not post for the intended term; and other graduation-related delays may occur.* In this example, the content is the application-for-graduation deadline; the pattern is that a failure to submit an application may result in omissions and delays; and the relationship is the potential for a student to not receive commencement-participation information, a student's name not being included in a commencement program, a delay in degree posting, and/or other graduation-related delays.

Communication Trends and Strategies

A variety of strategies can be utilized to communicate with college students, and attention is given to university communication plans and strategy. Chase (2008) asserts, "After deciding

what will be delivered and how it will be delivered, institutions must also determine the timing of communication—when will it be delivered. What works for one student may not work for another” (p. 33).

Moneta (1997) stated, “No form of communication has had more impact on the college campus than electronic-mail (email)” (p. 9). While email remains an official method of communication on most campuses, colleges are escalating their presence in the social-media world. Mangan (2012) suggested, “Without careful planning, that can lead to a scattershot approach as new platforms keep popping up and students’ attention becomes increasingly dispersed” (para. 5). According to Osborne (2011):

Social media literally means media spaces that are sociable in some sense and therefore encompasses many Web 2.0 spaces. Web 2.0 is a “read write” medium, where users can contribute their own material and creativity as opposed to the “read only” web where users engage passively with others’ content. Like Web 2.0, social media tools are collaborative and include some form of user generated content, personalization, and some form of social interaction that leads to creative, playful qualities with huge potential for use in academia. (para. 2)

The vast variety of social-media platforms, as well as the rapid addition of new forms of social media, reinforces the essential need to be intentional with social-media communication efforts. In addition, the interactive dynamic of social media presents considerable possibilities for integration with higher education, both inside and outside the classroom.

While many of the most significant social-media sites are newcomers, the general concepts of social networking, online videos, and blogging began with the onset of the internet. Facebook launched an integrated messaging platform in November 2010 (Kolowich, 2011). The

design incorporated electronic communication as short, informal bursts without subject lines and mirrored the familiar format of text messaging. Technology experts theorized that, for Millennials, email was quickly fading in popularity. Campus-information technology experts struggled with email's future as a means of connecting colleges with their students. While some professionals felt that email was passé, others contended that there were "certain types of communication—such as formal notices from financial aid, student affairs, and health officials—that might be too formal and detailed to convey effectively in a pithy text message" (para. 7). Undoubtedly, email remained the most reliable and persistent form of communication within the university setting. Furthermore, "students are increasingly using different mediums for different kinds of communications—text messages for discrete dispatches to friends; Twitter and Facebook for sharing links and photos and organizing events; wikis and discussion boards for collaborating with classmates" (para. 10). Higher-education professionals are challenged to find ways to "integrate the communications that go between students and faculty into some coherent stream so there's not ten places to go for contact" (para. 11). While email tends to be the most reliable and consistent form of communication in higher education, practitioners must evaluate the most appropriate form of media to convey a specific message.

There are various types of critical messages that a registrar's office may communicate. While some messages are for informational purposes, others require student action or follow-up. Based on the researcher's over 10 years of experience in a registrar's office, she identified potential messages that are part of the registrar's communication plan. Table 2 outlines various messages that a registrar's office may send.

Table 2.

Potential Messages from a Registrar's Office

Type of Message	Characteristics	Potential Forms of Delivery
Academic deficiencies	Impact student academic standing/status; potential student action may be necessary	Email to individual student; mailed letter
Academic record updates	Impact student academic status	Email to individual student
Dates and deadlines/ academic calendar	Informational	Email to enrolled student listserv, social media
Degree progress (degree audit, graduation information)	Requires student action	Email to enrolled student listserv and/or individual student; social media if not student specific
FERPA notification	Informational/potential action	Email to enrolled student listserv; social media
Mid-or-end-of-term grade notification	Impact student academic status	Email to enrolled student listserv and/or individual student; social media if not student specific
Registration information	Requires student action	Email to enrolled student listserv; social media

Daniel et al. (2009) determined that there is a divide between first-year students receiving emails from college personnel and students accurately recognizing the content and information in those emails. College officials often flag email messages with varying levels of urgency in an effort to increase effectiveness and receptivity. Students, faced with email overload, have been desensitized to the bombardment of “very important” messages and, ultimately, may read few messages from the institution.

Savolainen (2007) differentiated between filtering and withdrawal responses to email overload. When filtering, an individual selectively weeds out unusable material while, when using withdrawal, there is an emotional need to shut out incoming messages. To improve filtering efforts, it is recommended that practitioners create threaded networks, which restrict interaction to only those individuals who need to obtain specific information (Daniel et al.,

2009). Other researchers (Dato-on & Dahlstrom, 2003; Stafford, 2000) found that priming will enhance message importance. As an example, university faculty and staff could establish initial expectations that email will be used to communicate with students, but email will be limited to critical messages. It is essential to provide examples of critical messages. This methodology results in fewer messages, but those messages have increased precision.

Research about communicating and connecting with students via social media is becoming more widespread. Fuller and Pittarese (2012) investigated student preferences, tendencies, and experiences with social media. The authors determined that students would be more likely to join a social-media site if advisers, professors, or other students invited them. Female students were significantly more likely to interact with instructors via social media. Additionally, over 30% of students indicated that they would seek additional information about other courses and electives if provided by a social-media platform. The researchers identified a variety of best practices for universities seeking to connect with students via social media. The researchers encouraged online activities at the departmental level (versus the institutional level) because students will better relate to interactions at the department level. The researchers concluded that regular involvement with social media by university staff and faculty will increase student engagement. The findings also stressed the importance of providing a channel for students to submit questions via social media because students may be more willing to interact online versus in person.

Duke University's registrar's office began using Twitter in August 2011 as another way to connect with students as well as faculty and staff (AACRAO, 2013). The office's goal was to communicate critical information, including new academic policies and upcoming deadlines. The office has been intentional about not inundating followers' feeds with too many Tweets.

Through the use of tagging other offices and hashtags, the registrar's staff members are connecting with specific populations and reaching individuals who would not be contacted otherwise. The staff has introduced #TranscriptTuesday as a popular weekly hashtag to provide information about ordering transcripts, a very popular registrar's office transaction, and can interact with a Twitter follower's transcript questions. In addition, the office often posts #ThrowbackThursday photos and shares archived university photos, illustrating a human and fun aspect to communicating with and connecting with the followers. Duke University's registrar's Office has been utilizing Twitter as another means of connecting with and updating students regarding general information, but has been intentional about incorporating non-academic Tweets and photos as an additional way to engage followers.

Changing Technologies

During the lifetime of Millennials, a personal computer has become universal and highly accessible, transforming the university experience from researching and writing in addition to staying connected with family and friends. Interestingly, industrial developments typically add to the variety of options we can access and utilize, creating various layers of technology.

Prior to the mid-1990s, students did not have widespread access to email, cell phones, instant messaging, social media, or the internet (Kleeman, 2005). Various university services, ranging from registration to fee payment to library access and research to career services, were delivered by the student physically going to the office. Particularly during high-volume times of the semester, the typical result was long lines and high frustration. Desktop computers significantly changed processing, including the increased efficiencies for admission, registration, financial aid, student financial accounts, and residence life data, considerably changing the delivery of student services.

As discussed previously, technology is a way of life for students in 2015. Technology “changes the way students live, learn, and interact with their colleges and universities” (Shier, 2005, p. 85). Technological developments may have decreased face-to-face contact in some aspects of university life, but savvy faculty and staff are utilizing technology to increase student-staff and student-faculty contact as well as to construct communities through innovative methods. One of social media’s strengths is the dispersed model of connecting, posting, and various activity feeds, which facilitate associations with others through minimal risk participation (Osborne, 2011).

Students’ experiences with and use of technology have created higher expectations for the delivery and support of university services (Moneta, 2005). An added complexity is the technological proficiency of student-affairs practitioners. Moneta stated that student-affairs professionals are often “ill equipped to identify optimal applications to meet [students’] needs” (p. 13) and must become “competent in analyzing and understanding the business processes associated with our various practices and in identifying appropriate technological applications that are best suited to improving the transactions associated with each of those practices” (p. 13). Moneta concluded, “Technology is seductive. On any given day, one can expect to encounter yet another novel application, web site, or device. The pressure to succumb to the latest and greatest technology can be overwhelming—and expensive!” (p. 13).

Kleinglass (2005) explored the technology skill levels that student-affairs professionals should have. Proficiency is critical, but it is not the only important characteristic. The author indicated:

Professionals today must have the courage to step forward. Courage means having the nerve to overcome fears around technology and do what needs to be done. Courage

means having the willingness to do things differently, to accept that resistance comes with change, and to stay committed. Being a courageous leader means accepting responsibility and having the fortitude to reach goals and accept change. Consistency and focus on goals and values are important, as is the appreciation of others. Courageous leaders are caring yet able to articulate a clear vision and expectation. Communication is paramount and requires opportunity to share knowledge, provide feedback, and accept thought processes and differences in people. A courageous leader is optimistic, able to build trust, set examples, and address issues. (pp. 34-35)

Junco and Cole-Avent (2008) modified Agee and Zenelis' (2002) factors to consider when incorporating technology in higher education. Junco and Cole-Avent (2008) specifically adapted the recommendations to better align with the work of student-affairs practitioners.

These elements are essential to consider when incorporating ever-changing technologies:

- Technology initiatives should flow from and be a seamless part of the division's mission.
- Be open-minded when considering the adoption of newer technologies. Technology is a tool and has the potential for both productive and unproductive uses.
- When considering implementing new technologies, ask whether the technology has an educational goal. The educational goal may not be apparent at first, as we have discovered with the research on technology use and psychological well-being.
- Talk to students about how they are using technology and how they would like their institution to interact with them using technology.
- Assess your staff's professional development needs and your current technology infrastructure, and plan accordingly.

- Continually assess your technology efforts to determine whether the technology is value added in that it improves student developmental and educational outcomes. (p. 13)

Student-affairs practitioners as well as faculty can review and integrate these recommendations as new technology proposals are organized and implemented. The points are straightforward and incorporate planning, gathering feedback from students, as well as considering evaluations.

Legal Compliance and Accessibility Issues

The internet and countless social-medial platforms are simply too immense to monitor students' comments and activity. Electronic communication, in all its variety of forms, serves as a channel for free speech in uncharted ways. Institutions can employ multiple strategies when considering how to integrate social medial on their campus and to ensure they are meeting legal requirements. Institutions also need to safeguard for accessibility, making certain that technology is obtainable for all diverse learners.

The University of Delaware (n.d) has developed extensive social-media guidelines and policies, including best practices, content-creation checklists, crisis-management information, administrator guidelines, and branding. In addition, the University of Delaware has created a Social Media Ambassador program, providing students with the opportunity to gain professional social-media experience and to tell their student story. The university also has a comprehensive Social Media Intern team, allowing students to manage official university Facebook and Twitter accounts through content manager, multimedia manager, blog coordinator, videographer, outreach coordinator, and special projects coordinator positions. The University of Delaware's approach not only provides guidelines and policies for students, but also allows peer role modeling of positive social-media behavior.

Historically, faculty and staff considered their responsibilities under FERPA (Family Educational Rights and Privacy Act) in relation to students' personal information and grades, most often in paper and pencil formats. With increased digital communication as well as the integration of social-media platforms inside and outside the classroom, clarification was critical. Rodriguez (2011) indicated, "Even though social media tools being used do not collect enough personally identifiable data to threaten FERPA laws in most cases, the issue of student privacy in the broader context is still one that should be strongly considered" (p. 543). Experts recommended that faculty and staff discuss online conduct and privacy expectations as well as including information with course syllabi or student organization/activity documentation.

It is essential to ensure access to accommodate students' diverse learning needs, including accessibility as defined by the Americans with Disabilities Act (ADA) and the Vocational Rehabilitation Act. Faculty and staff are typically most familiar with the reasonable accommodation requirement from section 504 of the ADA. Rodriguez (2011) states, "It is notable that the law does not go into detail as what is considered 'reasonable,' leaving this up for interpretation" (p. 544). University professionals should be aware that the integration of new social-media platforms has likely not reached a high enough level of saturation inside and outside the classroom to be included in large-scale lawsuits. When incorporating new technological methodologies, it is imperative for faculty and staff to be conscientious about accessibility and compliance issues.

Regardless of the communication medium, the adaptive student-services professional will need to "stay fully informed about emerging technologies, recruit staff invested in using technology" (Moneta, 1997, p. 15). Institutions are strongly encouraged to not only educate students about acceptable online practices, but also to get involved with social media through

official institution pages to connect and communicate with students and to be role models for desirable online behavior.

Chapter Summary

This chapter explored research regarding the Registrar's Office History, Function, and Organizational Structure; Millennials; the Characteristics of Millennials; the Uses of Technology Among Millennial College Students; Student Engagement Theory and Social Media; Communication Concepts; Communication Trends and Strategies; Changing Technologies; and Legal Compliance and Accessibility Issues. Technology is woven into the lives of digital natives, and it is unlikely that they view the various devices and social-media platforms as technology. Email remains the predominant means of communicating with college students, but various social-media platforms are increasing in popularity. Research has shown positive correlations between student engagement and social-media use. This Literature Review provides the background and establishes the necessity for conducting this research. Registrar professionals regularly have critical messages to communicate to undergraduate students and students need to frequently take action to be successful. There is little research about best-practice communication strategies for critical messages that are sent to undergraduate students, and no research is specific to registrar activities. The research results are practical and beneficial for registrar professionals throughout the United States. The research from the literature review provided a framework to respond to the research questions:

1. What strategies are most effective for communicating critical messages to students?
2. How should critical messages be evaluated for effectiveness?

CHAPTER 3. METHODOLOGY AND PROCEDURES

Introduction

Chapter 3 outlines the Methodology and Procedures that were used to execute the study. The chapter is organized with the following subheadings: Research Design, Research Process, Population of the Study, Procedure for Selecting Experts, Instrumentation, Data-Collection Procedures, and Data-Analysis Procedures. The following research questions guided the study:

3. What strategies are most effective for communicating critical messages to students?
4. How should critical messages be evaluated for effectiveness?

Research Design

Telephone interviews and a three-round Delphi study were completed to answer the research questions. The Delphi method “may be characterized as a method for structuring a group communication process so that the process is effective in allowing a group of individuals, as a whole, to deal with a complex problem” (Linstone & Turoff, 1975, p. 3). The Delphi method was frequently used as a forecasting procedure. Von der Gracht (2012) identified the Delphi technique as an efficient method to facilitate a cost-effective group dynamic process. Linstone and Turoff (1975) identified characteristics that positively complement the Delphi method and correspond with this research on critical messages from a registrar’s office (p. 4):

1. The problem does not lend itself to precise analytical techniques but can benefit from subjective judgments on a collective basis;
2. More individuals are needed than can effectively interact in a face-to-face exchange;
3. Time and cost make frequent group meetings infeasible;

4. The heterogeneity of the participants must be preserved to assure validity of the results, i.e., avoidance of domination by quantify or by strength of personality (“bandwagon effect”).

A Delphi-method study facilitates a discussion about various constructs and is an efficient means of gathering knowledge from a group of experts (Dalkey, 1969). The study utilizes a multiple-round Delphi survey instrument, designed by the researcher, to attain consensus among the experts based on their multiple responses. Since this study is researching emerging concepts, few individuals would have comprehensive knowledge regarding all constructs and topics. In addition, not all concepts are well understood within the profession, and the ability to gather consensus to agree or disagree is beneficial. Determination of consensus levels will be described in the data analysis procedures section of this chapter.

Overall, the Delphi process has three steps: planning, carrying out the survey, and follow-up (Witkin & Altschuld, 1995). Witkin and Altschuld identified an overview outline for the Delphi technique:

- Plan the Delphi.
 - Determine the purpose for which information is required.
 - Identify a panel of respondents that could produce that information.
 - Contact the panel members and solicit their participation.
- Carry out the survey.
 - Develop initial open-ended statements for the first survey (Q1).
 - Send Q1 to panelists and collect completed forms.
 - Analyze the results of Q1 and structure a scaled survey (Q2) from emergent ideas based on Q1 responses.

- Send Q2 to respondents and collect completed Q2s.
 - Analyze Q2 and then send the results (Q3) to respondents showing three types of information for each item: the group median, a group measure of spread (Q), and the individual responses to each item. Respondents re-rate each item.
 - Analyze Q3 and consider the option of repeating (iterating) the process by means of Q4.
- Summarize and report the findings of the Delphi process. (p. 194)

Research Process and Timeline

The study's research process followed sequential steps. Through the examination of related studies in the Literature Review, the research questions were developed, and nomination criteria for selecting the panel of experts were established. The researcher created questions for telephone interviews with four registrar professionals. The interview questions were developed from the research questions and the Literature Review's main themes and issues.

The researcher developed informed consent and confidentiality statements, and submitted a request for Institutional Review Board (IRB) review and approval (Appendix A. IRB Letter of Approval). All the protocols used for this study were reviewed and approved by the IRB on May 13, 2014. Next, the researcher contacted registrar experts, verified that they met the nomination criteria, and conducted the phone interviews. After the telephone interviews, the researcher summarized the data and asked the telephone-interview experts to review the responses for accuracy and validation.

The qualitative data from the interviews and the Literature Review guided the main subject constructs and open-ended statements for the first round of the Delphi survey. Registrar experts were invited to participate and verified that they met the study's nomination criteria.

Selected experts were sent an email that outlined the purpose of the study, conditions for informed consent, and a timeline for the survey series. A link for the first Delphi survey was subsequently emailed to the experts. Upon completing each round of the Delphi survey, responses were collated and summarized; the answers were returned to the participants with instructions for completing the next round of the survey. Three Delphi rounds were conducted during this study. Finally, best practices for the registrar’s office to communicate critical messages were summarized. Table 3 outlines the research timeline. Figure 2 provides an overview of the research process.

Table 3.

Research Timeline

Activity	Date
Proposal meeting	April 16, 2014
IRB approval	May 13, 2014
Telephone interview pilot test	June 3, 2014
Telephone interview invite emails sent	June 30, 2014
Telephone interview consent forms received	July 2014 (dates vary)
Telephone interviews conducted	July 10 – 25, 2014
Amended IRB approval	September 15, 2014
Delphi survey invite emails sent	September 2014 (dates vary)
Delphi survey consent forms received	September 2014 (dates vary)
Delphi Round 1 survey open	October 1, 2014
Delphi Round 1 survey email reminder	October 8, 2014
Delphi Round 1 survey closes	October 15, 2014
Delphi Round 2 survey open	November 3, 2014
Delphi Round 2 survey email reminder	November 10, 2014
Delphi Round 2 survey closes	November 17, 2014
Delphi Round 3 survey open	December 1, 2014
Delphi Round 3 survey email reminder	December 8, 2014
Delphi Round 3 survey closes	December 15, 2014
Data analysis	December 2014 – January 2015
Chapter 4 meeting	February 23, 2015
Final defense meeting	March 30, 2015

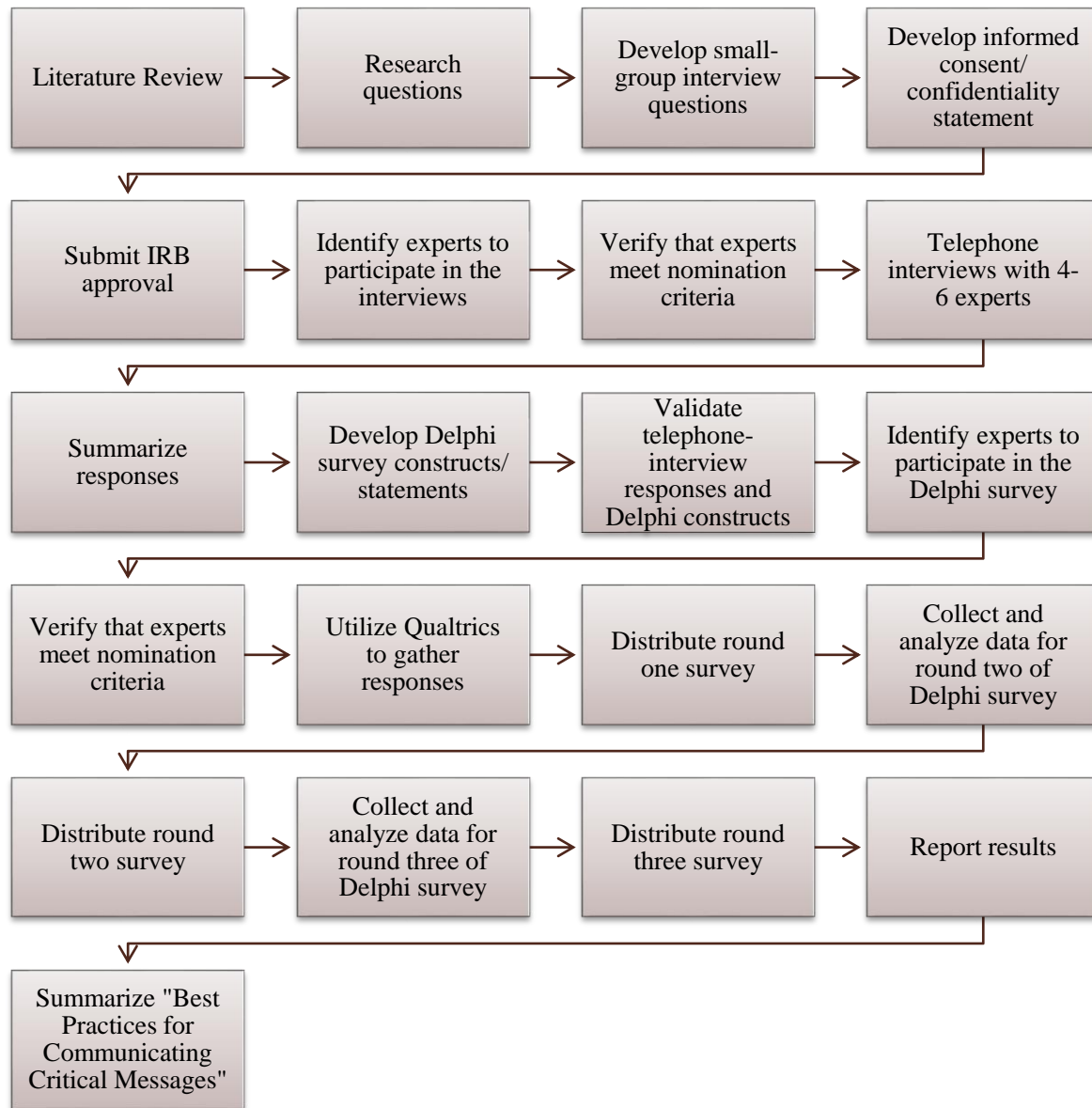


Figure 2. Research process.

Population of the Study

This study investigated opinions from a panel of experts who represented university registrar offices. The experts were asked about best practices for communicating critical messages to traditional-age undergraduate students. The participants were mid- or director-level professionals from four-year public or private universities in the United States. Experts were employed at institutions with an undergraduate enrollment of at least 5,000 students. Experts

self-identified to have at least three years of experience in their respective profession; and have extensive knowledge about the communication strategies and techniques used within their office.

Telephone-Interview Protocol

Procedure for Selecting Experts

The criteria to select participants for the personal telephone interview were based on the individuals' employment, qualifications, knowledge about communicating critical messages to students, and their years of experience in the profession.

The nominee criteria used for selection included:

- Experts were chosen from registrar offices at four-year, public or private institutions in the United States;
- Experts were employed at institutions that had an undergraduate enrollment of at least 5,000 students;
- Experts had at least three years of experience in their respective profession; and
- Experts had extensive knowledge about the communication strategies and techniques used within their offices (based on their self-reports).

Experts were invited to participate via email (Appendix B. Telephone-Interview Expert-Invitation Email). The experts completed and returned a consent form (Appendix C. Telephone-Interview Consent Form). The following professionals were selected and indicated a willingness to participate in a telephone interview:

Char Hulsebus
Program Coordinator
Iowa State University
Ames, IA

Kess Knight
Communications Coordinator
University of Minnesota–Twin Cities
Minneapolis, MN

Julia Pomerenk
University Registrar
Washington State University
Pullman, WA

Kristin Schuette
Associate Registrar for Technology
Michigan State University
East Lansing, MI

Instrumentation

The researcher developed interview questions for the telephone interviews. The questions were written using major themes and research discovered during the review of literature. The questions are detailed in Appendix D. Telephone-Interview Questions. The researcher contacted a local registrar professional and pilot tested the telephone interview questions. Next, the researcher conducted phone interviews with four registrar professionals.

Data-Collection Procedures

The researcher emailed the registrar communication experts and invited them to participate in the telephone-interview portion of the study. Follow-up included inviting participation in the telephone interview and giving them statements about Informed Consent; IRB approval information; and a Request for Permission to publish the name, title, institution, and position of participants for the research study as needed by the Delphi study's protocol. Invited experts acknowledged, via email, that they met the nomination criteria determined by the researcher and indicated their consent to participate. Four telephone interviews were conducted by the researcher between the dates of July 10-25, 2014, and were recorded for data-collection purposes. Results were not personally identifiable when reported in the research's findings. Each telephone-interview expert was invited to participate in the Delphi survey.

Post-telephone-interview review and Delphi survey preparation. The summarization of the telephone interviews was shared and reviewed electronically with each telephone-interview expert. The intent for this step in the process was to validate responses as well as to determine that responses were accurately reported and that the experts agreed with the

researcher's summarization. The research questions were shared with the experts to determine if the proposed constructs and statements were on target.

Data-Analysis Procedures

This research contains both qualitative and quantitative data. The qualitative data gathered during the telephone interviews were analyzed and summarized into major themes or constructs. These constructs as well as research from the Literature Review were utilized to develop the first round of the Delphi survey.

Delphi-Survey Protocol

Procedure for Selecting Experts

The criteria to select participants for the Delphi survey were identical to the telephone survey. The researcher intended to capture a geographic representation by sampling from throughout the United States with experts from at least 20 different institutions. Due to challenges in expert recruitment, the researcher filed an IRB Protocol Amendment Request form (Appendix E. IRB Protocol Amendment Request) and received approval on September 15, 2014. Given the size and scope of some registrar offices, in two instances there was more than one interested expert per institution. Overall, 24 different institutions from 17 different states were represented. The four telephone interview experts were invited to participate in the Delphi survey. The four telephone interview experts accepted the invitation.

Experts were invited to participate via email (Appendix F. Delphi Survey Expert Invitation Email). Linstone and Turoff (1975) determined that an ideal Delphi panel size is between 10 and 50 individuals. Additional experts did not significantly increase reliability. The researcher pursued 25 experts for survey participation. The selected experts completed a consent form (Appendix G. Delphi Survey Consent Form). The following 26 professionals were selected

and indicated a willingness to participate in the Delphi survey. An additional professional completed the first two survey rounds, but not the final round.

Cindy Baccar
Registrar
Portland State University
Portland, OR

Heather Chermak
University Registrar
University of Idaho
Moscow, ID

Susan Eveland
University Registrar
University of Oregon
Eugene, OR

Steve Grenus
Associate University Registrar
University of Kansas
Lawrence, KS

Theresa Jaccques
Registrar
Michigan Technological University
Houghton, MI

Robert Kubat
University Registrar
Pennsylvania State University
State College, PA

Rebecca Mathern
University Registrar
Oregon State University
Corvallis, OR

Celeste Nguyen, Ed.D.
Associate University Registrar
Stanford University
Sanford, CA

Leesa Beck
University Registrar
University of California, Santa Barbara
Santa Barbara, CA

Tim Ebner
University Registrar
The University of Utah
Salt Lake City, UT

James Feigert, Ed.D.
Assistant Registrar
University of Southern California
Los Angeles, CA

Char Hulsebus
Program Coordinator
Iowa State University
Ames, IA

Kess Knight
Communications Coordinator
University of Minnesota–Twin Cities
Minneapolis, MN

Jennifer Love
Associate Director
Columbia University
New York, NY

JoAnn McKenzie
University Registrar
Emory University
Atlanta, GA

Ingrid Nuttall
Director of Academic Records
University of Minnesota–Twin Cities
Minneapolis, MN

John Pappinchak
University Registrar
Carnegie Mellon University
Pittsburgh, PA

Julia Pomerenk
University Registrar
Washington State University
Pullman, WA

Cindy Sanders
Assistant Vice Provost for Enrollment
Management and University Registrar
University of Kansas
Lawrence, KS

Christina Shell
Registrar
Eastern Michigan University
Ypsilanti, MI

Kristin Schuette
Associate Registrar for Technology
Michigan State University
East Lansing, MI

Brenda Selman
University Registrar
University of Missouri
Columbia, MO

Jackie Vander Velden
Associate Registrar
University of Maryland, College Park
College Park, MD

Jeffrey von Munkwitz-Smith, Ph.D.
Assistant Vice President and University
Registrar
Boston University
Boston, MA

Nonie Wainwright
Communications Manager
University of Colorado Boulder
Boulder, CO

Rayanne Williams
Registrar
San Diego State University
San Diego, CA

Instrumentation

The qualitative data responses from the telephone interviews and the Literature Review material guided the main subject constructs and open-ended statements when developing the first round of the Delphi survey. The 48 statements were organized around seven main subject constructs: Defining Critical Messages, Determining Effective Ways to Communicate Critical Messages, Communication Strategies, Communication Mechanics in Emails, Registrar Office Communication Staffing, Legal/FERPA Issues, and Evaluating Critical Messages. The respondents had the opportunity to respond to statements with the following response choices: *Strongly Agree*, *Agree*, *Disagree*, *Strongly Disagree*, and *No Judgment*. Experts also had the opportunity to comment in essay form after each statement and to offer new construct statements

for potential successive survey consideration. Upon completing each round of the Delphi survey, the results were summarized and the next survey round developed. The survey rounds were repeated until the researcher determined, through data analysis, that consensus had been reached among the experts. The surveys were created and maintained by the researcher in collaboration with North Dakota State University's Group Decision Center and Qualtrics software.

Data-Collection Procedures

Delphi-survey invitation process. The Delphi survey statements were placed online via Qualtrics. Emails, inviting participation in the study, were sent in September 2014 (Appendix F. Delphi Survey Expert Invitation Email). Follow-up emails to interested experts included a statement of Informed Consent (Appendix G. Delphi Survey Consent Form); IRB approval information; a timeline of the research; and a Request for Permission to publish the name, title, institution, and position of experts in the research study as needed by the Delphi study's protocol. Invited experts acknowledged, via email, by September 30, 2014, that they met the nomination criteria determined by the researcher and indicated their consent to participate in the research.

Delphi survey round one. Experts received an email with instructions and a web link to the survey on October 1, 2014 (Appendix H. Delphi Survey Round-One Email). The experts were invited to complete the survey at their earliest convenience and to submit the results via Qualtrics (Appendix I. Delphi Survey Round One). The survey was open for two weeks. One week prior to closure, a reminder email (Appendix J. Delphi Survey Round-One Reminder Email) was sent to participants who had not yet responded. Twenty-seven participants completed the first round.

Delphi survey round two. Results from the first survey round were analyzed, including the additional topic responses suggested by the experts. Items that indicated statistical consensus to agree or disagree were removed from the survey, and several statements were refined. The percent response to each level of opinion (*Strongly Agree/Agree, Disagree/Strongly Disagree, and No Judgment*) and a summary of the experts' responses from round one were also added to each topic statement.

On November 3, 2014, participants were emailed the survey's Qualtrics link (Appendix K. Delphi Survey Round Two). A reminder email to non-response participants occurred one week prior to closing the second round of the survey. Twenty-six participants completed the second round.

Delphi survey round three. Results from the second survey round were analyzed, including the additional topic responses suggested by the experts. Items that indicated statistical consensus to agree or disagree were removed from the survey, and several statements were refined. The percent response to each level of opinion (*Strongly Agree/Agree, Disagree/Strongly Disagree, and No Judgment*) and a summary of the experts' responses from round one were also added to each topic statement.

On December 1, 2014, participants were emailed the final survey's Qualtrics link (Appendix L. Delphi Survey Round Three). A reminder email to non-response participants occurred one week prior to closing the third and final round of the survey. Twenty-six participants completed the third round.

Data-Analysis Procedures

Data were summarized and incorporated within each successive round of the Delphi process. The qualitative data were evaluated and sorted into broad subject themes by using the

open-coding process. Responses were examined for similarities and differences. The quantitative data were analyzed using descriptive statistics, including the percentage of responses for each level of agreement, frequencies, mean, and standard deviation. Results were not personally identifiable when reported in the findings.

Each round of the Delphi surveys contained the opportunity for experts to respond in essay form and allowed the following options for responses to statements: *Strongly Agree*, *Agree*, *Disagree*, *Strongly Disagree*, and *No Judgment*. The responses were coded to a numeric scale ranging from 4 to 1. *Strongly Agree* was coded as a 4; *Agree* was 3; *Disagree* was 2; *Strongly Disagree* was 1; and *No Judgment* was null.

The Delphi method determines agreement or disagreement with a statement as well as agreement or disagreement with the other experts. Within the Delphi method, determining consensus to agree or consensus to disagree is determined through several calculations, including percentage of opinion to agree or disagree and statistical consensus. Consensus for each statement was determined through the mean, standard deviation, and a percentage of agreement. The percentage of opinion to agree was calculated by dividing the number of *Strongly Agree* and *Agree* responses by the total number of responses for a statement; the percentages were reported for each statement in Delphi rounds two and three. The percentage of opinion to disagree was calculated by dividing the number of *Strongly Disagree* and *Disagree* responses by the total number of responses for a statement; the percentages were reported for each statement in Delphi rounds two and three. *No Judgment* responses were also reported for each statement in Delphi rounds two and three.

Von der Gracht (2012) researched consensus measurement. The researcher reported standards for Delphi research consensus have not been thoroughly established, and determination

of descriptive statistical levels is often chosen arbitrarily. Von der Gracht summarized via a comprehensive literature review of consensus measurements that a specific level of agreement could be determined by multiple criteria. The criteria for consensus to agree include at least 51% agreement among respondents or 80% or higher of the top two measures of a 5-point Likert scale. Conversely, the criteria for consensus to disagree would include at least 51% disagreement among respondents or 80% or more in the bottom two measures of a 5-point Likert scale.

The mean and standard deviation for each topic statement were calculated to determine statistical consensus and if there is variance in the responses. A mean greater than 3.00 with a standard deviation less than 1.00 and an agreement of 80% or higher indicated a consensus to agree. A mean less than 2.00 with a standard deviation less than 1.00 and a disagreement of 80% or higher indicated a consensus to disagree. Calculations for each statement were determined at the conclusion of each survey round. Once consensus to agree or disagree was reached, the statement was removed from the next round of survey distribution.

The tables summarizing the data are detailed in Chapter 4, and they include a summary of data for each construct and statement. A copy of each survey round is included in Appendices I, K, and L. A crosswalk of the constructs and survey statements is included in Appendix M.

Chapter Summary

Chapter 3 outlined the Methodology and Procedures that were used to execute the study. The chapter detailed the Research Design, the Research Process, the Population of the Study, the Telephone-Interview Protocol and the Delphi-Survey Protocol. The Procedure for Selecting Experts, Instrumentation, Data-Collection Procedures, and Data-Analysis Procedures were described for each protocol.

CHAPTER 4. RESULTS

Introduction

The purpose of this Delphi study was to determine the most effective strategies for communicating critical messages to students and how these critical messages should be evaluated for effectiveness. The review of literature gave background for telephone-interview questions. The telephone-interview responses provided a foundation for the constructs and statements used with the initial Delphi survey.

Four individuals agreed to participate in the telephone interviews. A total of 28 individuals agreed to participate in the Delphi-survey portion of the study. Twenty-seven participants completed the first round of the survey, and 26 people completed the second and third rounds.

Detailed Findings of the Telephone Interviews

The researcher arranged for each individual telephone interview from July 10-25, 2014. Interviewees met the nomination criteria: chosen from registrar offices at four-year, public or private institutions in the United States; employed at institutions that had an undergraduate enrollment of at least 5,000 students; had at least three years of experience in their respective profession; and had extensive knowledge about the communication strategies and techniques used within their offices (based on their self-reports). The interviews were recorded. Appendix D details the telephone-interview questions.

Respondents discussed the types of messages sent from their registrar's office, their definition of a critical message, communication philosophy and staffing, various communication tools and software utilized by their office, social-media usage, and practices regarding accessibility and collaboration. Responses were summarized and emailed to each respondent to

ensure that data were accurately captured. The researcher utilized the responses to generate the overall themes and constructs for the first round of the Delphi survey.

Detailed Findings of the Delphi Study

The researcher evaluated the qualitative and quantitative responses after each Delphi survey round. Qualitative responses were organized into broad subject themes by using the open-coding process. Responses were studied for similarities and differences. The answers were analyzed from a quantitative perspective, too. The analysis of mean responses determined the consensus to agree or disagree, and if a statement would be excluded from the subsequent round.

The Delphi Study had seven subject constructs with topic statements in each construct: Defining Critical Messages, Determining Effective Ways to Communicate Critical Messages, Communication Strategies, Communication Mechanics in Emails, Registrar Office Communication Staffing, Legal/FERPA Issues, and Evaluating Critical Messages. Responses to the topic statements were converted to a numeric data scale that ranged from 4 to 1. *Strongly Agree* was coded as a 4; *Agree* was a 3; *Disagree* was a 2; *Strongly Disagree* was a 1, and *No Judgment* was null. The mean and standard deviation for each topic statement were calculated to determine the statistical consensus to agree or disagree. A mean greater than 3.00 with a standard deviation less than 1.00 and an agreement of 80% or higher indicated a consensus to agree. A mean less than 2.00 with a standard deviation less than 1.00 and a disagreement of 80% or higher indicated a consensus to disagree. Calculations for each statement were determined at the conclusion of each survey round. Once the consensus to agree or disagree was reached, the statement was removed from the next round of survey distribution. Results for each statement

will be detailed by construct and organized by survey statements determined to statistically reach the consensus to agree, consensus to disagree, and no consensus reached.

Defining Critical Messages

Twenty statements were presented throughout the three surveys to define critical messages. Several statements were refined and further defined in the second and third rounds. Tables 4 and 6 show the descriptive statistics for individual statements within the Defining Critical Messages construct. Tables 5, 7, and 8 detail the qualitative responses by consensus category.

Consensus to agree. The experts reached a consensus to agree for six statements. The statements reached a high percentage of agreement, with a range of 88% to 100% agreement. The experts agreed that messages about academic status, academic standing, and the graduation process would be considered critical messages. The experts also agreed students need to take action on a critical message, thus differentiating critical messages from informational messages. Survey participants also reached a consensus to agree on statements relating to critical messages about academic record updates, academic degree progress, and the connection to students' need to take action for those specific record types. Table 4 details the survey round, statement number, topic statement, number of experts, mean, standard deviation, *Strongly Agree/Agree* percentage, *Strongly Disagree/Disagree* percentage, and *No Judgment* percentage for the Defining Critical Messages construct – Consensus to Agree.

Table 4.

Items by Survey Construct Defining Critical Messages – Consensus to Agree, Including Means and Standard Deviations

Round	Statement	Topic	n	Mean	SD	SA/A%	SD/D%	NJ%
1	1	A critical message from a registrar's office is a message that is important to a student's academic status.	27	3.56	.64	93	7	-
1	3	A message about academic standing (academic warning, probation, suspension) would be considered a critical message.	27	3.89	.32	100	-	-
1	9	A message about the graduation process (i.e., application for degree, commencement participation information, diploma updates) would be considered a critical message.	27	3.56	.58	96	4	-
2	1	Students need to take action on a critical message.	26	3.31	.55	96	4	-
3	1	A message about academic record updates that requires action by a student would be considered a critical message.	26	3.58	.58	96	4	-
3	6	A personalized message about degree progress (degree audit) would be considered a critical message if the student needs to take action or be made aware of a specific issue related to their academic progress	26	3.19	.63	88	12	-

Note. n = number of experts responding to statement. Mean = calculated average for statement. SD = calculated Standard Deviation for statement. SA/A% = The percentage of opinion to agree was calculated by dividing the number of *Strongly Agree* and *Agree* responses by the total number of responses for a statement. SD/D% = The percentage of opinion to disagree was calculated by dividing the number of *Strongly Disagree* and *Disagree* responses by the total number of responses for a statement. NJ% = *No Judgment* response percentage.

Qualitative responses were provided after all statements, giving context and additional detail from the experts' experiences. The experts indicated that critical messages contribute to a student's academic success and progress, including graduation, and typically require action from the student. Table 5 details the survey round, statement number, theme, and representative comments for the Defining Critical Messages construct – Consensus to Agree.

Table 5.

Items by Survey Construct Defining Critical Messages – Consensus to Agree, Qualitative Responses

Round	Statement	Theme	Representative Comments
1	1	Critical messages can contribute to a student's academic success.	<ul style="list-style-type: none"> • A critical message can be any message that contributes to a successful experience for the student. • Registrar functions are essential to satisfactory academic progress, eligibility issues, and time to completion. As such, clear and efficient communication with students is essential. • The Office of the Registrar information is pertinent to every student on campus. Deadlines and information dispersed from the registrar often affect many other departments on campus and directly affect the success of the student. An informed student can lead to a successful student. • I strongly agree with this statement. I would like students to strongly agree--that critical messages from a registrar's office are important to their academic status.
1	3	Critical messages about academic standing are essential if there is a potential disruption to academic journey.	<ul style="list-style-type: none"> • Information contributes to a student's successful experience. • Academic standing is critical especially if there are processes a student must complete to continue their academic career, e.g. probation and suspension. • At my institution, these messages do not come from the University Registrar, but rather from the college or school in which the student is enrolled.

Table 5. *Items by Survey Construct Defining Critical Messages – Consensus to Agree, Qualitative Responses* (continued)

Round	Statement	Theme	Representative Comments
1	9	Critical messages regarding the graduation process can ensure students complete graduation requirements.	<ul style="list-style-type: none"> • Messaging about graduation and commencement come at a time when the student is pulled in many directions. Messaging regarding this is critical to keeping the student informed. • Many students do not realize all that needs to be in place to get out the door!
2	1	Critical messages from a registrar’s office typically require action from the student.	<ul style="list-style-type: none"> • Typically students do not realize what is important until it is too late- and because we work with these students each day, we know what is important- but in the lives of students- it is hard to get the message across. • Critical messages are informational as well as actionable. These messages are only sent when it is vital to the student.
3	1	A message about an academic record update requiring action from the student is considered a critical message.	<ul style="list-style-type: none"> • I believe that students should be “conditioned” to know that an email from the Registrar's Office should be deemed “critical” and read by the students. • I think an additional qualifier to "required action" would also be if the update/change to the record would have an impact on student's eligibility for some benefit or would change a status in a way that would impact the student's access to some benefit or privilege. Example: if a grade change was submitted that change the cumulative GPA in such a way as to put the student on Academic Warning/Probation/Dismissal.
3	6	A personalized message about degree progress is a critical message.	<ul style="list-style-type: none"> • It is vital to the success of a student to be communicated these messages. • I could envision cases for this; for example, if a student had applied to graduate and the degree audit showed a missing course or requirement, then it would be critical to tell the student.

No consensus. No consensus was reached on 14 statements. It is important to note that several of the first- and second-round statements were further defined and, ultimately, reached the consensus-to-agree status. Experts did not reach consensus on statements identifying informative critical messages, such as messages about dates and deadlines, registration, mid- or final grades. Several statements sought consensus regarding personalized messages about

registration, mid-term and final grades, and degree progress. These messages did not reach a consensus to agree or disagree. Table 6 details the survey round, statement number, topic statement, number of experts, mean, standard deviation, *Strongly Agree/Agree* percentage, *Strongly Disagree/Disagree* percentage, and *No Judgment* percentage for the Defining Critical Messages construct – No Consensus.

Table 6.

Items by Survey Construct Defining Critical Messages – No Consensus, Including Means and Standard Deviations

Round	Statement	Topic	n	Mean	SD	SA/A%	SD/D%	NJ%
1	5	A message about dates and deadlines would be considered a critical message.	27	2.41	1.42	56	26	18
1	6	A message about registration would be considered a critical message.	27	2.56	1.37	70	11	19
1	7	A message about mid- or final grades would be considered a critical message.	27	2.22	1.34	51	30	19
1	8	A message about degree progress (degree audit) would be considered a critical message.	27	2.63	1.33	70	15	15
1	10	A message about annual federal compliance notification would be considered a critical message.	27	2.48	1.40	56	30	14
2	2	A message about academic records updates would be considered a critical message.	26	2.77	.95	81	11	8
2	3	An email message about dates and deadlines would be considered a critical message.	26	2.31	.97	50	42	8

Table 6. *Items by Survey Construct Defining Critical Messages – No Consensus, Including Means and Standard Deviations (continued)*

Round	Statement	Topic	n	Mean	SD	SA/A%	SD/D%	NJ%
2	4	A personalized email message about registration would be considered a critical message.	26	2.65	.98	69	23	8
2	5	A personalized message about mid-term grades would be considered a critical message.	26	2.58	1.06	62	30	8
2	6	A personalized message about final grades would be considered a critical message.	26	2.38	.75	46	54	-
2	7	A personalized message about degree progress (degree audit) would be considered a critical message.	26	2.69	.97	73	19	8
3	2	An email message about dates and deadlines would be considered a critical message only if the student needs to take action.	26	2.92	1.06	81	11	8
3	3	A personalized email message, including detailed information about a student's specific registration time, would be considered a critical message.	26	2.81	.75	62	38	-
3	4	A personalized message about deficient mid-term grades would be considered a critical message, since the student may need to take action due to the deficiency.	26	2.65	1.35	66	19	15

Note. n = number of experts responding to statement. Mean = calculated average for statement. SD = calculated Standard Deviation for statement. SA/A% = The percentage of opinion to agree was calculated by dividing the number of *Strongly Agree* and *Agree* responses by the total number of responses for a statement. SD/D% = The percentage of opinion to disagree was calculated by dividing the number of *Strongly Disagree* and *Disagree* responses by the total number of responses for a statement. NJ% = *No Judgment* response percentage.

Qualitative responses were provided after most statements, giving a perspective from the experts' experiences. The experts indicated that non-personalized messages about dates and deadlines for registration, grades, degree progress, and academic record updates are informational, rather than critical. Discussion also surrounded statements about federal-compliance messages, and experts concluded that, while the messages are mandatory, they would not be considered critical messages for students. Table 7 details the survey round, statement number, theme, and representative comments for the Defining Critical Messages construct – No Consensus, Agreement Themes.

Table 7.

Items by Survey Construct Defining Critical Messages – No Consensus, Agreement Themes, Qualitative Responses

Round	Statement	Theme	Representative Comments
1	5	A message about dates and deadlines is generally considered informational, unless the student needs to take action.	<ul style="list-style-type: none"> • Action MAY be required, but the student is the only one who knows that. So, if he/she is considering dropping a course, knowing the deadline is approaching is critical. • I would call this an example of preventive critical messaging. It is critical that students are aware of deadlines before they occur. • A message about dates and deadlines would be considered a critical message--IF the student needed to do something. If the date or deadline didn't pertain to the particular student, then she would not consider it critical and would not need to do anything. This is one of the reasons to focus our messages on those students who do need to take action.
1	6	A non-personalized message regarding registration is generally considered informational.	<ul style="list-style-type: none"> • Despite hearing that students do not read their emails, they expect the registration email sent each semester (stating date, time, etc.). So in this case, it's critical. • I would only agree with this statement if the message was targeted to each student about their specific registration time. A blanket statement about registration would not be critical in my opinion.

Table 7. *Items by Survey Construct Defining Critical Messages – No Consensus, Agreement Themes, Qualitative Responses* (continued)

Round	Statement	Theme	Representative Comments
1	7	A non-personalized message about grades is generally considered informational.	<ul style="list-style-type: none"> I think this depends on whether the message is personalized or not. If it is a notice that there is a grade the student should check (and sent for certain grades like D, F or C perhaps) and then be a call to action then yes it would be critical. If it is just a generic "grades have been posted" then I consider it less critical and more informational. This is tough. I'm not sure what perspective the message would be coming from or addressing. I said that I disagree, because our notes would be that the grades are there . . . go check. However, if the message from the institution is something to the effect of, "You are at risk of failing this class" at mid-terms or, "You failed a required course and must repeat it," at the end of the term, that is quite a different issue.
1	8	A non-personalized message about degree progress is considered informational.	<ul style="list-style-type: none"> I think this depends on whether the message is personalized or not. If there is a problem and is asking the student to take action then yes, I would consider it critical. If it is a generic message (e.g. Check your degree progress report) then I would consider it helpful and informational but not critical.
1	10	Federal compliance messages are mandatory, but may not be considered critical by students.	<ul style="list-style-type: none"> It's critical so that we are in compliance. It likely prompts little student action. It's critical that we send it, not that they read it.
2	2	A message about academic record updates should be critical for students.	<ul style="list-style-type: none"> Students should be aware of their academic record and any updates to that record. Similar to a bank statement, students should monitor their academic record and review for errors.
2	3	-----	<ul style="list-style-type: none"> No comments provided
2	4	A message about dates and deadlines is generally considered informational.	<ul style="list-style-type: none"> I agree that dates should be published on web sites and other areas. I support that a reminder is not a bad idea.
2	5	-----	<ul style="list-style-type: none"> No comments provided
2	6	-----	<ul style="list-style-type: none"> No comments provided

Table 7. *Items by Survey Construct Defining Critical Messages – No Consensus, Agreement Themes, Qualitative Responses* (continued)

Round	Statement	Theme	Representative Comments
2	7	A personalized message about a student's degree progress/degree audit is critical.	<ul style="list-style-type: none"> • Yes, because if we send a personalized message then that means that there is a problem with their degree progress or the student needs to take action.
3	2	-----	<ul style="list-style-type: none"> • No comments provided
3	3	-----	<ul style="list-style-type: none"> • No comments provided
3	4	-----	<ul style="list-style-type: none"> • No comments provided

Experts provided qualitative responses after most statements. The experts indicated that non-personalized messages about dates and deadlines for registration, grades, degree progress, and academic record updates are informational, rather than critical. Federal-compliance messages were affirmed to be required but were not considered critical for a student's academic success. Table 8 details the survey round, statement number, theme, and representative comments for the Defining Critical Messages construct – No Consensus, Disagreement Themes.

Table 8.

Items by Survey Construct Defining Critical Messages – No Consensus, Disagreement Themes, Qualitative Responses

Round	Statement	Theme	Representative Comments
1	5	A message about dates and deadlines is generally considered informational.	<ul style="list-style-type: none"> • Depends on what the message is. These shouldn't necessarily be sent via email, but should be available on other mediums, such as websites and social media. It is the responsibility of the student to know the dates and deadlines. • While helpful this information is also posted elsewhere so I would not consider it to be a critical message.

Table 8. *Items by Survey Construct Defining Critical Messages – No Consensus, Disagreement Themes, Qualitative Responses* (continued)

Round	Statement	Theme	Representative Comments
1	6	A message about registration is generally considered informational.	<ul style="list-style-type: none"> • Registration dates and times can be found through other avenues. I would consider this type of message as information. However, if the message is about system issues that would be critical. • Students don't need a message from the registrar to know when to register. Again, if this is referring to email, I would even say strongly disagree. Students are checking online/their portal to see when they're supposed to register.
1	7	A message about grades is not considered critical.	<ul style="list-style-type: none"> • We do not contact students regarding mid- or final grades, since they can log into their portal and see them for themselves, so I'm having trouble picturing a communication about mid- or final grades that would seem "critical" to me. • Students should be able to find this information within the student portal. To limit the number of communications that students receive, this is not critical.
1	8	A general message about degree progress is not considered critical.	<ul style="list-style-type: none"> • Students should be checking their degree audit regularly to monitor their progress and prepare for advising. However, there is some education to show the student how important this tool is to them.
1	10	Federal compliance messages are required, but not critical.	<ul style="list-style-type: none"> • Although required, I would prefer this information be found on an online resource. Targeted, student specific emails should be considered critical, not blanket statements.
2	2	A message about academic record updates would generally be considered informational, not critical.	<ul style="list-style-type: none"> • It depends, actually. If we say that a critical message is something that a student needs to take action on, then not all changes to academic history would apply. A grade change might be critical if it means that the student is no longer on the suspension list and is, therefore, eligible to register for the coming semester, but a grade change that does not trigger any other status changes is not a critical message.
2	3	-----	<ul style="list-style-type: none"> • No comments provided

Table 8. *Items by Survey Construct Defining Critical Messages – No Consensus, Disagreement Themes, Qualitative Responses* (continued)

Round	Statement	Theme	Representative Comments
2	4	A message about registration is generally considered informational.	<ul style="list-style-type: none"> It really depends. I agree that emailing about registration dates and deadlines can become clutter and ineffective. I think saving the "critical" email for things that have more serious consequences is important. Example: if you do not pay your account balance by X date, all of your courses will be dropped for next term.....is more critical than don't forget, tomorrow is the last day to drop without a W.
2	5	A message about grades is not considered critical.	<ul style="list-style-type: none"> No, all students should intuitively know how to receive or get their grades. We only send messages to students who did not perform well and need to take action to continue with their studies. It is critical to the student since they need to make a decision on whether to continue with their studies or not.
2	6	-----	<ul style="list-style-type: none"> No comments provided
2	7	A general message about degree progress is not considered critical.	<ul style="list-style-type: none"> Not all registration related items should be considered critical. (We should be teaching personal responsibility to some degree). If the information is not timely (in a sense of days), it shouldn't be critical. A message from a student's adviser about their audit might be critical at my institution. We would not be emailing students degree audit messages - that is all done through the colleges.
3	2	A message about dates and deadlines is generally considered informational.	<ul style="list-style-type: none"> For more seasoned students, routine reminders about dates and deadlines might be considered spam or clutter.
3	3	A personalized message about registration is generally considered informational.	<ul style="list-style-type: none"> Nice to do, but should not be considered critical. There should be other more general sources for reminding students to check their registration times such as advisors, campus electronic signs, reminder on the registrar's website, etc. Registration is a basic responsibility. Students need to take responsibility for something.
3	4	A personalized message about grades is not considered critical.	<ul style="list-style-type: none"> Students know when to expect grades to be available, and since no actions need be taken (except for those who are facing probation or dismissal) it should not be considered a critical message.

Determining Effective Ways to Communicate Critical Messages

Ten statements were presented throughout the three surveys to determine effective ways to communicate critical messages. Several statements were refined and further defined in the second and third survey rounds. Tables 9 and 11 show descriptive statistics for the individual statements within the *Determining Effective Ways to Communicate Critical Messages* construct. Tables 10, 12, and 13 feature qualitative responses by consensus category.

Consensus to agree. Consensus to agree was statistically achieved for three statements in the Determining Effective Ways to Communicate Critical Messages construct. Statements within this construct reached a high percentage of agreement, with a range of 88% to 96% agreement. The experts agreed that university email was an effective method to communicate critical messages to college students. The experts also established agreement for social-media use when communicating global/informational information to students that is combined with other forms of communication. A consensus to agree was also reached for a statement supporting opt-in communication for global messages. Most forms of social media support an “opt-in” action. Table 9 details the survey round, statement number, topic statement, number of experts, mean, standard deviation, Strongly Agree/Agree percentage, Strongly Disagree/Disagree percentage, and No Judgment percentage for the Determining Effective Ways to Communicate Critical Messages construct – Consensus to Agree.

Table 9.

Item by Survey Construct Determining Effective Ways to Communicate Critical Messages – Consensus to Agree, Including Means and Standard Deviations

Round	Statement	Topic	n	Mean	SD	SA/A%	SD/D%	NJ%
2	9	University email is an effective way to communicate critical messages.	26	3.12	.59	88	12	-
3	7	When used to complement other forms of communication, social media can be an effective way to communicate certain messages, such as dates and deadlines and other global information.	26	3.35	.56	96	4	-
3	9	Messaging via other methods, are effective ways to communicate global messages, when combined with other forms of communication and used on an opt-in basis.	26	3.15	.83	92	4	4

Note. n = number of experts responding to statement. Mean = calculated average for statement. SD = calculated Standard Deviation for statement. SA/A% = The percentage of opinion to agree was calculated by dividing the number of *Strongly Agree* and *Agree* responses by the total number of responses for a statement. SD/D% = The percentage of opinion to disagree was calculated by dividing the number of *Strongly Disagree* and *Disagree* responses by the total number of responses for a statement. NJ% = *No Judgment* response percentage.

Qualitative responses gave additional detail of the experts’ experiences. The experts indicated that social media, texting, and other forms of opt-in communication can be effective ways to communicate global and general information. Table 10 details the survey round, statement number, theme, and representative comments for the Determining Effective Ways to Communicate Critical Messages construct – Consensus to Agree.

Table 10.

Items by Survey Construct Determining Effective Ways to Communicate Critical Messages – Consensus to Agree, Qualitative Responses

Round	Statement	Theme	Representative Comments
2	9	-----	<ul style="list-style-type: none"> No comments provided
3	7	Social media can be utilized to communicate general information.	<ul style="list-style-type: none"> Social media is a great complimentary tool for getting information out to students. It also serves a useful customer service tool if you can stay on top of it and respond to inquiries.
3	9	Texting and other opt-in forms of communication can be effective ways to communicate global information.	<ul style="list-style-type: none"> Agree - only if it is limited in its use and is used to complement other communication. Not all students opt-in to receive text messages from the University.

No consensus. No consensus was reached for seven statements within the *Determining Effective Ways to Communicate Critical Messages* construct. The experts did not reach a consensus on statements identifying social media as an effective way to communicate critical or global messages. The experts did not reach a consensus about messaging, including personalized messages when action is required by a student, via a student information system. Consensus was not reached for a statement regarding mobile-app usage and the ability to communicate with students via the mobile app. It is important to note the high percentage of No Judgment responses for the statement “Social media is an effective way to communicate certain critical messages, such as dates and deadlines and other global information.” The experts may not have experience and exposure with social media to have made a determination. This item was statement 12 in the first round and was slightly refined in the second round (statement 10). The mean and percentage of agreement did increase, but not to the level of statistical consensus to agree. Table 11 details the survey round, statement number, topic statement, number of experts, mean, standard deviation, *Strongly Agree/Agree* percentage, *Strongly Disagree/Disagree*

percentage, and *No Judgment* percentage for the Determining Effective Ways to Communicate Critical Messages construct – No Consensus.

Table 11.

Items by Survey Construct Determining Effective Ways to Communicate Critical Messages – No Consensus, Including Means and Standard Deviations

Round	Statement	Topic	n	Mean	SD	SA/A%	SD/D%	NJ%
1	12	Social media is an effective way to communicate certain critical messages, such as dates and deadlines and other global information.	27	2.37	1.39	67	11	22
1	14	Messaging via other methods (secure system, texting, etc.) are effective ways to communicate critical messages.	27	2.85	1.13	85	4	11
2	10	Social media can be an effective way to communicate certain messages, such as dates and deadlines and other global information.	26	2.92	.98	88	4	8
2	11	Messaging via a student information system (SIS) is an effective way to communicate critical messages.	26	2.27	1.22	58	27	15
2	12	Messaging via other methods, such as texting, is an effective way to communicate global messages.	26	2.65	1.16	77	12	11
3	8	Private messaging via a student information system (SIS) can be an effective way to communicate critical messages when action is required by a student.	26	2.77	.99	77	15	8

Table 11. *Items by Survey Construct Determining Effective Ways to Communicate Critical Messages – No Consensus, Including Means and Standard Deviations* (continued)

Round	Statement	Topic	n	Mean	SD	SA/A%	SD/D%	NJ%
3	11	Mobile apps can be another effective tool to communicate with students.	26	2.69	1.01	69	23	8

Note. n = number of experts responding to statement. Mean = calculated average for statement. SD = calculated Standard Deviation for statement. SA/A% = The percentage of opinion to agree was calculated by dividing the number of *Strongly Agree* and *Agree* responses by the total number of responses for a statement. SD/D% = The percentage of opinion to disagree was calculated by dividing the number of *Strongly Disagree* and *Disagree* responses by the total number of responses for a statement. NJ% = *No Judgment* response percentage.

The experts provided comments after all statements. The qualitative data provided additional context and information. The experts indicated that social media, texting, and other forms of opt-in communication can be effective ways to communicate global and general information. Communication via a student information system (SIS) can be an effective way to communicate with specific populations and targeted messages. While mobile apps have the potential for communication options, institutions are still working to incorporate mobile-app options into their communication plans. Table 12 details the survey round, statement number, theme, and representative comments for the Determining Effective Ways to Communicate Critical Messages construct – No Consensus, Agreement Themes.

Table 12.

Items by Survey Construct Determining Effective Ways to Communicate Critical Messages – No Consensus, Agreement Themes, Qualitative Responses

Round	Statement	Theme	Representative Comments
1	12	Social media can be utilized to communicate general information.	<ul style="list-style-type: none"> • If the message is generic, such as the approach of deadlines, social media can be helpful. However, it is dependent upon who is "following" you. So, it cannot be your only way of communicating as you will likely miss a chunk of your intended audience. Social media messages require redundancy. • I suspect this is true, but I am simply not up to speed on social media. I should be more savvy in this area. • Social media CAN be an effective way. I'm interested to know what best practices make social media as effective as possible. And what are the people/attention costs to make that so.
1	14	Texting and other opt-in forms of communication can be effective ways to communicate global information.	<ul style="list-style-type: none"> • Our current student body seems very involved in their devices and texting has been voiced as the chosen communication path.
2	10	Social media can be utilized to communicate general information.	<ul style="list-style-type: none"> • I agree, but you have to do a lot of leg work to build your social media base- by using other office and departments to build it. • It might be far-reaching, but it doesn't hurt to stream communication in multiple channels including social media.
2	11	Communicating via the SIS can be an effective way to target certain information to students.	<ul style="list-style-type: none"> • Especially if it is put in the right location for the specific message. i.e. things that might affect registration is put immediately before the access.
2	12	Texting and other opt-in forms of communication can be effective ways to communicate global information.	<ul style="list-style-type: none"> • It's what the students say they want. I think we have to be careful of everything or we'll have the same problem we do with email. • Texting could be really effective for critical messages.
3	8	Communicating via the SIS can be an effective way to target certain information to students.	<ul style="list-style-type: none"> • We have had some success with messaging to students through the registration portal, but since they only seem to access it during registration and after grades come in, it's very limited.

Table 12. *Items by Survey Construct Determining Effective Ways to Communicate Critical Messages – No Consensus, Agreement Themes, Qualitative Responses* (continued)

Round	Statement	Theme	Representative Comments
3	11	Mobile apps expand potential communication options.	<ul style="list-style-type: none"> This would be a very beneficial and technology advanced way to reach students. Students use their phones for many non-academic transactions, this would be a great place to communicate with them.

Qualitative responses were provided after all statements. The experts conveyed that students may seek to have social-media boundaries and may not be interested in connecting and communicating with the registrar’s office via social media. Concern was also raised about if students were inundated with text messages, resulting in potential ineffectiveness with the communication form. While social media may be effective to communicate general information, an expert reinforced that it cannot replace other forms of communication. While communication via SIS can be effective, some students may only log into the SIS at the start of a term, for registration, and after grades are posted, limiting the timeliness of students viewing the critical messages. Some SIS do not have the capability of communication generation. The experts indicated that they need more information about mobile apps before adding that technology to their communication strategies. Table 13 details the survey round, statement number, theme, and representative comments for the Determining Effective Ways to Communicate Critical Messages construct – No Consensus, Disagreement Themes.

Table 13.

Items by Survey Construct Determining Effective Ways to Communicate Critical Messages – No Consensus, Disagreement Themes, Qualitative Responses

Round	Statement	Theme	Representative Comments
1	12	Students may not be interested in communicating with a registrar's office via social media.	<ul style="list-style-type: none"> • Social media is used for different purposes by our student body. I don't think our current students would appreciate us breaking into their "social" circles with this type of information. • I just don't know, as we have not used this avenue in the past.
1	14	Over-texting students may dilute the effectiveness of the communication.	<ul style="list-style-type: none"> • I think this should only be used for campus emergencies. • I can't say for certain as we have not done this before, but we do sometimes get students asking us to send texts instead of emails. In a survey we did of students a couple of years ago, we also had many who said they absolutely did NOT want us sending them texts. So maybe it's effective for certain populations.
2	10	Social media can be utilized to communicate general information.	<ul style="list-style-type: none"> • But should only be used as one of many methods of communication; you won't hit everyone by just utilizing social media.
2	11	Communicating via the SIS can be a challenge due to students' lack of use as well as overall outdated campus technologies.	<ul style="list-style-type: none"> • Students don't come to the SIS/Portal to read; they come to transact business and can't be expected to read ANYTHING! • We are just transitioning to utilizing this more, so will learn more in the coming months/years. But I don't think it will be highly effective; I think students will glance over it. • We cannot use ours here, so it is not a helpful statement.
2	12	Over-texting students may dilute the effectiveness of the communication.	<ul style="list-style-type: none"> • Students change phone numbers, so it is not a secure method to communicate critical messages. Emergencies, yes, but not private information. • Not enough reach yet . . . no effective tools to collect opt-ins in our SIS's which were built last century when texting was unheard of.
3	8	Communicating via the SIS can be a challenge due to students' lack of use as well as overall outdated campus technologies.	<ul style="list-style-type: none"> • You can't depend on a student to check the SIS for messages . . . it's just one more place they have to look, and if they don't log in, they are not going to see it.

Table 13. *Items by Survey Construct Determining Effective Ways to Communicate Critical Messages – No Consensus, Disagreement Themes, Qualitative Responses* (continued)

Round	Statement	Theme	Representative Comments
3	11	Mobile apps may expand potential communication options.	<ul style="list-style-type: none"> • Mobile apps might be effective if students have the app, but if they don't have it then it doesn't matter. • Not sure. My office needs to know more about this.

Communication Strategies

In order to define communication strategies, 16 statements were presented throughout the 3 surveys. Several statements were refined and further defined in the second and third survey rounds. Tables 14 and 16 show descriptive statistics for the individual statements within the *Communication Strategies* construct. Tables 15, 17, and 18 highlight the qualitative responses by consensus category.

Consensus to agree. The experts reached a consensus to agree with five statements. The statements had a high percentage of agreement, with a range of 92% to 100% agreement. The experts agreed that registrar offices should have a documented communication plan along with a communication calendar. The experts reached a consensus to agree regarding the practice to specifically focus on a student population when communicating critical messages, rather than sending global messages to the entire student body. The experts agreed that critical messages are most effective when sent via email or posted on social media 3-5 days before a deadline, supporting lead-time variation based on the action or planning required by students. The experts also indicated that, while consistent messaging is essential, various social-media messages should be tailored for the appropriate platform. Table 14 details the survey round, statement number, topic statement, number of experts, mean, standard deviation, *Strongly Agree/Agree* percentage, *Strongly Disagree/Disagree* percentage, and *No Judgment* percentage for the Communication Strategies construct – Consensus to Agree.

Table 14.

Items by Survey Construct Communication Strategies – Consensus to Agree, Including Means and Standard Deviations

Round	Statement	Topic	n	Mean	SD	SA/A%	SD/D%	NJ%
1	15	Registrar offices should have a documented communication plan.	27	3.63	.49	100	-	-
1	16	Registrar offices should have a communication calendar, which is a centralized source to plan, schedule, create, publish, monitor, and update communication, including websites, email, and social media.	27	3.56	.51	100	-	-
1	22	Registrar office staff should segment and specifically target a focus population when possible in an effort to transmit critical messages only to the student population needing the message (i.e., degree audit, graduation updates, academic standing).	27	3.81	.48	93	7	-
3	12	Critical messages (sent via email and/or social media) requiring action and planning are most effective when sent/posted a minimum of 3-5 days before deadline; lead time is dependent on action/planning required.	26	3.15	.54	92	8	-

Table 14. *Items by Survey Construct Communication Strategies – Consensus to Agree, Including Means and Standard Deviations* (continued)

Round	Statement	Topic	n	Mean	SD	SA/A%	SD/D%	NJ%
3	13	Registrar office staff should provide an overall consistent message when delivering messages via social media, but tailor the message for each social media platform.	26	3.38	.57	96	4	-

Note. n = number of experts responding to statement. Mean = calculated average for statement. SD = calculated Standard Deviation for statement. SA/A% = The percentage of opinion to agree was calculated by dividing the number of *Strongly Agree* and *Agree* responses by the total number of responses for a statement. SD/D% = The percentage of opinion to disagree was calculated by dividing the number of *Strongly Disagree* and *Disagree* responses by the total number of responses for a statement. NJ% = *No Judgment* response percentage.

Qualitative responses were provided after statements, giving additional detail from the experts’ practices. The experts illustrated that a registrar’s office should have a detailed communication plan and calendar. Segmenting critical messages to specific populations was also supported. The experts determined that critical messages requiring action are most effective when sent 3-5 days before a deadline, giving students time to plan and respond. The experts also said that consistent, but not identical, messages are important when communicating via email, social media, and websites. Table 15 details the survey round, statement number, theme, and representative comments for the Communication Strategies construct – Consensus to Agree.

Table 15.

Items by Survey Construct Communication Strategies – Consensus to Agree, Qualitative Responses

Round	Statement	Theme	Representative Comments
1	15	A registrar's office should have a detailed communication plan.	<ul style="list-style-type: none"> Plans are good; they ensure messages are sent in a timely manner and assign the task to a particular person. Plans give managers a change to vet messages for tone, call to action, etc. Canned messages are good for routine communication (we got your application for graduation, we articulated some transfer credit for you). This is important so that you can follow the plan with regularity. All too often we use an ad hoc, reactive approach. With CRM (Customer Relationship Management) tools we are beginning to automate and regularize important communication. That plan needs to be broken into specific plans for certain purposes. Candidates for graduation, registration, Leave of Absence, Grading/Academic Standing, etc.
1	16	A registrar's office should have a detailed communication calendar.	<ul style="list-style-type: none"> Yes! Important to be thoughtful about communications, as students are bombarded with emails from throughout the university. Timely, succinct communications are key. Do as I say, not as I do . . . need to work on this. We only do about 50% of this listed.
1	22	Targeting communication to specific student populations can be effective.	<ul style="list-style-type: none"> It's important to segment, but it's also important to realize that the message is going to hit everyone (especially on social media), whether they are part of that segment or not. So it's a hard balance. Issues arise concerning confidentiality and it's possible to miss someone in the "group" if messages are restricted to a target audience.
3	12	Critical messages requiring action are most effective when communicated 3-5 days before a deadline.	<ul style="list-style-type: none"> As demonstrated in this survey, providing a deadline and/or requiring immediate action is the most productive.
3	13	Consistent, but not identical, messages are important when using email, websites, and social media.	<ul style="list-style-type: none"> Yes, the consistency is good, and trustworthy.

No consensus. No consensus was reached for 11 statements within the *Communication Strategies* construct. The experts did not reach a consensus on statements regarding the timing of critical messages sent via email or posted via social media, including the number of days as well as the time of day for sending messages. The experts did not reach a consensus regarding the necessity of utilizing more than one form of social media and the use of hashtags with social media. The mean for several statements that related to when critical messages should be sent during the day was low, and in one instance, Round 2, Statement 15, the mean was below 1.0. The standard deviation for that statement did not meet the requirement to reach the Consensus to Disagree classification. Several statements, including ones on the topic of timing of when to send/post critical messages and the ones regarding hashtags in social media, had a high percentage of *No Judgment*, ranging from 42% to 62%. Table 16 details the survey round, statement number, topic statement, number of experts, mean, standard deviation, *Strongly Agree/Agree* percentage, *Strongly Disagree/Disagree* percentage, and *No Judgment* percentage for the Communication Strategies construct – No Consensus.

Table 16.

Items by Survey Construct Communication Strategies – No Consensus, Including Means and Standard Deviations

Round	Statement	Topic	n	Mean	SD	SA/A%	SD/D%	NJ%
1	17	Critical messages (sent via email and/or social media) are most effective when sent/posted 1-2 days before action is needed.	27	2.37	1.15	59	26	15
1	18	Critical messages (sent via email and/or social media) are most effective when sent/posted 3+ days before action is needed.	27	1.85	1.26	26	52	22
1	19	Critical messages (sent via email and/or social media) are most effective when sent/posted in the morning.	27	1.07	1.11	8	44	48

Table 16. *Items by Survey Construct Communication Strategies – No Consensus, Including Means and Standard Deviations* (continued)

Round	Statement	Topic	n	Mean	SD	SA/A%	SD/D%	NJ%
2	13	Critical messages (sent via email and/or social media) requiring action and planning are most effective when sent/posted 1-2 days before action is needed.	26	2.50	1.03	69	19	12
2	14	Critical messages (sent via email and/or other social media) requiring action and planning are most effective when sent/posted 3+ days before action is needed.	26	2.31	1.38	46	35	19
2	15	Critical messages (sent via email and/or social media) are most effective when sent/posted in the afternoon.	26	.96	1.34	19	19	62
2	16	Critical messages (sent via email and/or social media) are most effective when sent/posted in the evening.	26	1.54	1.45	39	19	42
2	17	Registrar office staff should be consistent with critical messages and deliver the same message regardless of media, such as website, email, social medial.	26	2.96	.87	69	31	-
2	18	Registrar staff should utilize more than one form of social media.	26	2.81	1.33	81	4	15
2	19	Registrar office staff should implement hashtags into social media.	26	1.27	1.48	35	11	54
3	14	Registrar office staff should utilize more than one form of social media, in addition to other forms of media, to communicate messages to students.	26	2.69	1.35	70	15	15

Note. n = number of experts responding to statement. Mean = calculated average for statement. SD = calculated Standard Deviation for statement. SA/A% = The percentage of opinion to agree was calculated by dividing the number of *Strongly Agree* and *Agree* responses by the total number of responses for a statement. SD/D% = The percentage of opinion to disagree was calculated by dividing the number of *Strongly Disagree* and *Disagree* responses by the total number of responses for a statement. NJ% = *No Judgment* response percentage.

Qualitative responses were provided after most statements. The experts' comments illustrated that, depending on the type of action required, critical messages are best sent 1-2 days or 3-5 days before a deadline. Discussion regarding the time of day when critical messages should be sent varied, but general support indicated that the afternoon or evening was best. Support for consistent messages across all forms of media continued, as well as substantiation to incorporate social-media into a registrar's office communication plan. The experts also conveyed support for utilizing hashtags with social media messages. Table 17 details the survey round, statement number, theme, and representative comments for the Communication Strategies construct – No Consensus, Agreement Themes.

Table 17.

Items by Survey Construct Communication Strategies – No Consensus, Agreement Themes, Qualitative Responses

Round	Statement	Theme	Representative Comments
1	17	Critical messages requiring action are most effective when communicated more than 1-2 days before a deadline.	<ul style="list-style-type: none"> • I agree, but for some messages, I might give more time. Example: It may be time to apply for graduation - please schedule an appointment with your academic advisor. • I would love to know the answer to this. We tend to use this framework, perhaps more like 3-4 . . . but it is just guess work. Is there any research on this?
1	18	Critical messages requiring action are most effective when communicated 3-5 days before a deadline.	<ul style="list-style-type: none"> • If action is required I would say three to five days is the latest. Informational could be sent out earlier.
1	19	-----	<ul style="list-style-type: none"> • No comments provided

Table 17. *Items by Survey Construct Communication Strategies – No Consensus, Agreement Themes, Qualitative Responses* (continued)

Round	Statement	Theme	Representative Comments
2	13	Critical messages requiring action are most effective when communicated more than 1-2 days before a deadline.	<ul style="list-style-type: none"> I agree in general, but as other responders have noted, certain actions do require more time. For example, the state residency for tuition purposes application is extensive and potentially requires significant documentation. We send out the initial personalized notices a couple weeks before the deadline but then send another wave of notices 2-3 days before deadline.
2	14	Critical messages requiring action are most effective when communicated 3-5 days before a deadline.	<ul style="list-style-type: none"> I think it is helpful for those people who plan to know ahead of time, and for the late comers, something a little more immediate can be helpful too.
2	15	Critical messages are most effective when sent/posted in the afternoon.	<ul style="list-style-type: none"> Agreed - late afternoon or evening is better.
2	16	Critical messages are most effective when sent/posted in the evening.	<ul style="list-style-type: none"> IF the student can take action without reaching someone, evening is good. However, if they may panic or have questions it needs to be sent when they can reach someone for assistance.
2	17	Consistent, but not identical, messages are important when using email, websites and social media.	<ul style="list-style-type: none"> The beauty of social media is that you CAN customize the messages to take advantage of each of their unique properties. Different media means different constraints . . . call to action can be the same; how you get the student to that call to action is different depending on the medium.
2	18	Social media should be a part of a registrar's office communication plan.	<ul style="list-style-type: none"> Most social media costs nothing but time; it's better to be in multiple places as much as possible. We should utilize all the tools available to us.
2	19	Registrar office staff should implement hashtags into social media messages.	<ul style="list-style-type: none"> Why not? I'd be open to it, but don't really know how we could make it effective.
3	14	Social media should be a part of a registrar's office communication plan.	<ul style="list-style-type: none"> We probably should be doing this, but have not yet built capacity to do so. If institution provides multiple social media platforms. We are often restricted on technologies available to us.

Experts provided comments after most statements. The qualitative data provided additional context and information. The experts debated the effectiveness of when to send/post critical messages, including the number of days prior to a deadline as well as the time of day. Some experts also indicated that they did not have the expertise and experience to comment on certain social-media trends or the specific timing of critical messages. Table 17 details the survey round, statement number, theme, and representative comments for the Communication Strategies construct – No Consensus, Disagreement Themes.

Table 18.

Items by Survey Construct Communication Strategies – No Consensus, Disagreement Themes, Qualitative Responses

Round	Statement	Theme	Representative Comments
1	17	Critical messages requiring action are most effective when communicated more than 1-2 days before a deadline.	<ul style="list-style-type: none"> I think this depends a lot on the nature of the message and the action needed. Some actions require more planning by the student, and need to be sent earlier, often with subsequent reminders. Others are better off being sent 1-2 days out, so that students don't have too much time to forget. Perhaps 3-5 days . . . ? Not sure.
1	18	More knowledge and information needed.	<ul style="list-style-type: none"> I'm really not sure.
1	19	More knowledge and information needed, but various populations may prefer different times of day.	<ul style="list-style-type: none"> Don't think it matters. Not sure what the best time of day is. Morning is effective for faculty and staff messages, but not for students. Students tend to be more responsive in the afternoon and evening and online most at night.
2	13	Critical messages requiring action are most effective when communicated more than 1-2 days before a deadline.	<ul style="list-style-type: none"> It really depends on the nature of the action being requested and the amount of lead time needed. Each message must be gauged for the optimum amount of lead time.
2	14	Critical messages requiring action are most effective when communicated more than 3 days before a deadline.	<ul style="list-style-type: none"> Three plus days maybe a better time frame to allow students who need to meet with individuals the time to do so.

Table 18. *Items by Survey Construct Communication Strategies – No Consensus, Disagreement Themes, Qualitative Responses* (continued)

Round	Statement	Theme	Representative Comments
2	15	More knowledge and information needed.	<ul style="list-style-type: none"> • I have no clue. It doesn't matter when we post; it matters when the student reads their stuff. 25,000 students = 25,000 possibilities for that! • I have no experience with this so difficult to comment on.
2	16	While sending/posting messages in the evening may be when students are accessing email and social media, staff may not be available to assist if students have questions.	<ul style="list-style-type: none"> • Effective but more difficult to implement. • When we ask students to take an action, it is good to have assistance available if they have questions.
2	17	-----	<ul style="list-style-type: none"> • No comments provided
2	18	-----	<ul style="list-style-type: none"> • No comments provided
2	19	More knowledge and information needed.	<ul style="list-style-type: none"> • Hashtags seems weird and trendy to me . . . seem unnecessary for our communication. • We have not had luck with hashtags. The few times that we have used a "clever" hashtag, it was quickly associated with something inappropriate. It's a touchy subject.
3	14	-----	<ul style="list-style-type: none"> • No comments provided

Communication Mechanics in Emails

To define communication mechanics for emails, seven statements were presented throughout the three surveys. One statement was refined and further defined in the second round. Tables 19 and 21 show the descriptive statistics for individual statements within the *Communication Mechanics in Emails* construct. Tables 20, 22, and 23 detail the qualitative responses by consensus category.

Consensus to agree. The experts reached a consensus to agree for three statements within the *Communication Mechanics in Emails* construct. The statements had a high percentage of agreement, with a range of 85% to 96% agreement. The experts agreed that multiple staff members should review the subject line of a critical-message email before transmission. The

experts also agreed that critical-message emails should be formatted with and contain hyperlinks and bullet points, when appropriate. The statement “Critical message emails from a registrar’s office should contain bullet points.” did reach the statistical level for the mean to be considered consensus to agree. The standard deviation was slightly above the threshold level, but the researcher chose to include in the consensus to agree reporting due to the percentage of agreement. Table 19 details the survey round, statement number, topic statement, number of experts, mean, standard deviation, *Strongly Agree/Agree* percentage, *Strongly Disagree/Disagree* percentage, and *No Judgment* percentage for the Communication Mechanics in Emails construct – Consensus to Agree.

Table 19.

Items by Survey Construct Communication Mechanics in Emails – Consensus to Agree, Including Means and Standard Deviations

Round	Statement	Topic	n	Mean	SD	SA/A%	SD/D%	NJ%
1	26	Multiple registrar office staff should review the subject line of a critical message email prior to transmission.	27	3.26	.71	85	15	-
2	20	Critical message emails from a registrar’s office should contain hyperlinks, when appropriate.	26	3.23	.82	96	4	-
2	21	Critical message emails from a registrar’s office should contain bullet points.	26	3.23	1.07	92	8	-

Note. n = number of experts responding to statement. Mean = calculated average for statement. SD = calculated Standard Deviation for statement. SA/A% = The percentage of opinion to agree was calculated by dividing the number of *Strongly Agree* and *Agree* responses by the total number of responses for a statement. SD/D% = The percentage of opinion to disagree was calculated by dividing the number of *Strongly Disagree* and *Disagree* responses by the total number of responses for a statement. NJ% = *No Judgment* response percentage.

Qualitative responses were provided after each statement, giving supplementary details. The experts agreed that multiple registrar’s office staff members should review the subject line for a critical-message email. In addition, critical messages should contain hyperlinks and bullet points to be most effective. Table 20 details the survey round, statement number, theme, and representative comments for the Communication Mechanics in Email construct – Consensus to Agree.

Table 20.

Items by Survey Construct Communication Mechanics in Email – Consensus to Agree, Qualitative Responses

Round	Statement	Theme	Representative Comments
1	26	Multiple registrar office staff should review the subject line of a critical message email prior to transmission.	<ul style="list-style-type: none"> • Sometimes it's the only thing a student will read. It's make-or-break time. • Not having multiple eyes review something is just asking for a problem!
2	20	Critical message emails should contain hyperlinks, when appropriate.	<ul style="list-style-type: none"> • I agree. Short is important. Links can add context or details for those who need it. Be aware that if the link does not take the reader to a site that is consistent in look, feel, "voice," etc. it may be perceived to be a spamming effort.
2	21	Critical message emails should contain bullet points.	<ul style="list-style-type: none"> • People don't read long text. Bulleted points can help immensely in getting folks to get the message.

No consensus. No consensus was reached with four statements. The experts did not reach a consensus about statements detailing the mechanics of an email, including images, videos, or paragraph formatting. A statement regarding the use of hyperlinks was refined for the second survey round, where the consensus-to-agree status was reached. Table 21 details the survey round, statement number, topic statement, number of experts, mean, standard deviation, *Strongly Agree/Agree* percentage, *Strongly Disagree/Disagree* percentage, and *No Judgment* percentage for the Communication Mechanics in Emails construct – No Consensus.

Table 21.

Items by Survey Construct Communication Mechanics in Emails – No Consensus, Including Means and Standard Deviations

Round	Statement	Topic	n	Mean	SD	SA/A%	SD/D%	NJ%
1	27	Critical message emails from a registrar’s office should contain images.	27	1.11	1.12	12	44	44
1	28	Critical message emails from a registrar’s office should contain hyperlinks.	27	2.59	1.34	78	4	18
1	30	Critical message emails from a registrar’s office should contain videos (i.e. YouTube clips).	27	1.15	1.17	15	41	44
1	31	Critical message emails from a registrar’s office should be formatted in paragraph form.	27	1.48	1.22	19	48	33

Note. n = number of experts responding to statement. Mean = calculated average for statement. SD = calculated Standard Deviation for statement. SA/A% = The percentage of opinion to agree was calculated by dividing the number of *Strongly Agree* and *Agree* responses by the total number of responses for a statement. SD/D% = The percentage of opinion to disagree was calculated by dividing the number of *Strongly Disagree* and *Disagree* responses by the total number of responses for a statement. NJ% = *No Judgment* response percentage.

Experts offered qualitative responses after each statement. The experts’ comments identified themes for critical-message emails, indicating that images, hyperlinks, and bullet points should be used when appropriate. Table 22 details the survey round, statement number, theme, and representative comments for the Communication Mechanics in Emails construct – No Consensus, Agreement Themes.

Table 22.

Items by Survey Construct Communication Mechanics in Emails – No Consensus, Agreement Themes, Qualitative Responses

Round	Statement	Theme	Representative Comments
1	27	Critical message emails may contain images, when appropriate.	<ul style="list-style-type: none"> I think it's fine if they do, but I don't think they have to.
1	28	Critical message emails should contain hyperlinks, when appropriate.	<ul style="list-style-type: none"> Yes, limit the content of the message and provide links for additional information for those that need it.
1	30	-----	<ul style="list-style-type: none"> No comments provided
1	31	Critical message emails should contain bullet points.	<ul style="list-style-type: none"> Often messaging from the Registrar's Office is formal notification. Although current students do not recognize the formality of correspondence it is an area we can teach students through our messaging. I believe a mix of paragraph and bullet points work well for concise messaging.

Qualitative responses were provided after all statements. Response themes raised awareness and considerations for constructing and sending critical messages. The experts indicated that images may provide accessibility challenges while hyperlinks may have certain security repercussions. Caution was also urged for the utilization of videos and bullet points. Table 23 details the survey round, statement number, theme, and representative comments for the *Communication Mechanics in Emails* construct – No Consensus, Disagreement Themes.

Table 23.

Items by Survey Construct Communication Mechanics in Emails – No Consensus, Disagreement Themes, Qualitative Responses

Round	Statement	Theme	Representative Comments
1	27	Critical message emails containing images may be not be accessible by all.	<ul style="list-style-type: none"> • Anyone who is visually impaired will not get the same message as the rest of the group.
1	28	Critical message emails containing hyperlinks may have security implications.	<ul style="list-style-type: none"> • We have moved away from this based on security, and now spell out the links.
1	30	Critical message emails may contain videos.	<ul style="list-style-type: none"> • Only use videos if they add value to the message. Video links are helpful if a student needs to be stepped through a process or shown how to find something that is not easy to find. But, video for the sake of video is terrible. In addition, do not make it more than 3 min. or they won't finish it.
1	31	Critical message emails should contain bullet points.	<ul style="list-style-type: none"> • This would depend on the length and nature of the message, but offhand they probably should not be so long as to warrant paragraph form. • Messages should be short and concise. Bullets points are easier for students to scan over a paragraph.

Registrar’s Office Communication Staffing

Seventeen statements from the three surveys defined the Registrar Office Communication Staffing construct. Several statements were refined and further defined in the second and third rounds. Tables 24 and 26 show descriptive statistics for the individual statements within the *Registrar Office Communication Staffing* construct. Tables 25, 27, and 28 illustrate the qualitative responses by consensus category.

Consensus to agree. The experts reached a consensus to agree on five statements. The statements had a high percentage of agreement, with a range of 88% to 94% agreement. Registrar’s office experts agreed that they collaborated with other campus departments and should work with university communication experts to develop critical messages. The experts

agreed that it is challenging for staff to stay up-to-date with changing technologies. A consensus to agree was reached for the practice of students/student workers assisting with managing social-media sites, but a qualifier within the statement included that the work would be directed by an office staff member. The statement “Registrar office staff who work with communication strategies should have familiarity with social media use and trends.” did reach the statistical level for the mean to be considered consensus to agree. The standard deviation was slightly above the threshold level, but the researcher chose to report in the consensus to agree due to the percentage of agreement. Table 24 details the survey round, statement number, topic statement, number of experts, mean, standard deviation, *Strongly Agree/Agree* percentage, *Strongly Disagree/Disagree* percentage, and *No Judgment* percentage for the Registrar Office Communication Staffing construct – Consensus to Agree.

Table 24.

Items by Survey Construct Registrar Office Communication Staffing – Consensus to Agree, Including Means and Standard Deviations

Round	Statement	Topic	n	Mean	SD	SA/A%	SD/D%	NJ%
1	37	Our registrar’s office collaborates with other campus departments to develop critical messages.	27	3.37	.88	94	3	3
2	28	It is challenging for registrar staff to stay current with emerging sites and technologies.	26	3.04	.87	85	11	4
3	16	Registrar office staff should consult with University communication experts while developing critical messages.	26	3.19	.63	88	12	-
3	18	Registrar offices should have students/student workers assist with managing social media sites, but the work is directed by a registrar office staff member.	26	3.19	.90	88	8	4
3	21	Registrar office staff who work with communication strategies should have familiarity with social media use and trends.	26	3.19	1.06	92	0	8

Note. n = number of experts responding to statement. Mean = calculated average for statement. SD = calculated Standard Deviation for statement. SA/A% = The percentage of opinion to agree was calculated by dividing the number of *Strongly Agree* and *Agree* responses by the total number of responses for a statement. SD/D% = The percentage of opinion to disagree was calculated by dividing the number of *Strongly Disagree* and *Disagree* responses by the total number of responses for a statement. NJ% = *No Judgment* response percentage.

Qualitative responses were provided after all statements. The experts agreed that collaboration with other campus departments and university communication experts was important when developing and planning critical messages. Support for employing students to manage social media was evident, but experts agreed that the communication needed to be

coordinated and approved by a registrar’s office staffer. While experts agreed that it is challenging for staff to stay apprised of trends and new technologies, the need to be familiar with social media was evident, given the dynamics and demands of student bodies. Table 25 details the survey round, statement number, theme, and representative comments for the Registrar Office Communication Staffing construct – Consensus to Agree.

Table 25.

Items by Survey Construct Registrar Office Communication Staffing – Consensus to Agree, Qualitative Responses

Round	Statement	Theme	Representative Comments
1	37	Registrar office staff should collaborate with other campus departments to develop critical messages.	<ul style="list-style-type: none"> • To make the messages as effective as possible, it's important to work together to ensure the information is not duplicative. • We don't do this as much as we could. More collaboration would be better.
2	28	It is challenging for registrar staff to stay current with emerging trends and technologies.	<ul style="list-style-type: none"> • Honestly, people just don't take the time. It's simply not that complicated. • This is our challenge. We are often hampered by costs, and technical support on our campuses and cannot always adopt as quickly as we would like.
3	16	Registrar staff should consult with university communication experts when developing critical messages.	<ul style="list-style-type: none"> • If the office does not have their own communications professional working with university communication is a great alternative. • So long as this does not bottle-neck the process to the point of delaying the critical messages.
3	18	Registrar staff should have student employees assist with managing social media sites, but the work should be coordinated by a registrar office staff member.	<ul style="list-style-type: none"> • I would have the student create the message(s) but have the full time employee approve/send. • Agree, but this is difficult due to the sensitivity of some of the communications.
3	21	Registrar staff working with communication should be familiar with social media use and trends.	<ul style="list-style-type: none"> • It is constantly changing and universities can't afford to keep up with the technology. • It is difficult to keep up! Anyone else on Ello?

No consensus. No consensus was reached for 12 statements within the *Registrar Office Communication Staffing* construct. It is important to note that several of the first- and second-round statements were further defined and, ultimately, reached the consensus-to-agree status. The experts did not reach a consensus on statements regarding registrar-office staff’s social-media skills, the utilization of technical writers to streamline critical messages, the need to employ a communication specialist in the registrar’s office, and collaboration efforts with information technology staff as well as main university social media and one-stop student-services staff. Table 26 details the survey round, statement number, topic statement, number of experts, mean, standard deviation, *Strongly Agree/Agree* percentage, *Strongly Disagree/Disagree* percentage, and *No Judgment* percentage for the Registrar Office Communication Staffing construct – No Consensus.

Table 26.

Items by Survey Construct Registrar Office Communication Staffing – No Consensus, Including Means and Standard Deviations

Round	Statement	Topic	n	Mean	SD	SA/A%	SD/D%	NJ%
1	40	Registrar office staff should have social media skills.	27	2.41	1.31	59	26	15
2	22	Registrar office staff should utilize technical writers to streamline critical messages.	26	2.38	1.20	46	42	12
2	23	Registrar office staff should consult with University communications experts while developing critical messages.	26	2.65	1.20	65	23	12
2	24	Registrar offices should employ a communication specialist.	26	2.69	1.26	62	27	11
2	25	Registrar offices should have students/student workers assist with managing social media sites.	26	2.73	1.31	77	8	15

Table 26. *Items by Survey Construct Registrar Office Communication Staffing – No Consensus, Including Means and Standard Deviations (continued)*

Round	Statement	Topic	n	Mean	SD	SA/A%	SD/D%	NJ%
2	26	Registrar office staff should consult at least once per semester with information technology staff on issues related to electronic message and data security.	26	2.58	1.45	73	8	19
2	27	Registrar office staff should coordinate social media efforts with other campus entities, such as main university social media or one stop student services.	26	2.38	1.44	65	12	23
2	29	Registrar office staff should have familiarity with social media use and trends.	26	2.73	.92	61	35	4
3	15	Registrar office staff should utilize technical writers to help streamline complex critical messages.	26	2.46	1.39	62	19	19
3	17	Ideally, registrar offices should employ a communication specialist.	26	3.00	1.17	81	11	8
3	19	Registrar office staff should consult with information technology staff on issues related to electronic messaging and data security multiple times per semester and more frequently as needed.	26	2.88	1.14	77	15	8

Table 26. *Items by Survey Construct Registrar Office Communication Staffing – No Consensus, Including Means and Standard Deviations (continued)*

Round	Statement	Topic	n	Mean	SD	SA/A%	SD/D%	NJ%
3	20	When appropriate and used sparingly, registrar office staff should coordinate social media efforts with other campus entities, such as main university social media or one stop student services.	26	2.96	1.00	88	4	8

Note. n = number of experts responding to statement. Mean = calculated average for statement. SD = calculated Standard Deviation for statement. SA/A% = The percentage of opinion to agree was calculated by dividing the number of *Strongly Agree* and *Agree* responses by the total number of responses for a statement. SD/D% = The percentage of opinion to disagree was calculated by dividing the number of *Strongly Disagree* and *Disagree* responses by the total number of responses for a statement. NJ% = *No Judgment* response percentage.

The experts provided qualitative responses after all statements. The experts’ comments supported the identified themes for the utilization of technical writers when developing critical messages; collaboration with university communication, information-technology experts, and other campus staff; and the incorporation of a communication specialist within the registrar’s office. The experts provided feedback that the registrar staff should have social-media skills and be aware of social media trends. The experts supported student employees assisting with social-media efforts. Table 27 details the survey round, statement number, theme, and representative comments for the Registrar Office Communication Staffing construct – No Consensus, Agreement Themes.

Table 27.

Items by Survey Construct Registrar Office Communication Staffing – No Consensus, Agreement Themes, Qualitative Responses

Round	Statement	Theme	Representative Comments
1	40	Registrar office staff should have social media skills.	<ul style="list-style-type: none"> • Yes and I think this will develop naturally as our workforce changes and develops.
2	22	Registrar office staff can utilize technical writers to develop critical messages.	<ul style="list-style-type: none"> • I would say "to help" to streamline.
2	23	Registrar staff should consult with university communication experts when developing critical messages.	<ul style="list-style-type: none"> • For some messages, yes. But often their focus is more on marketing and less on nuts and bolts.
2	24	Registrar offices should have a communication specialist.	<ul style="list-style-type: none"> • Ideally strong communication skills should be a part of nearly every job description in the Registrar's office. • It may not be a full-time position or all of the person's responsibilities, but consistency and clarity of messages do improve if there's someone involved in reviewing all messages. • Most offices do not have staff with expertise, nor do they have the skill set usually. Thus, an expert who also can be dedicated to sending social media, such as tweets, etc. can be essential to success.
2	25	Registrar staff should have student employees assist with managing social media sites, but the work should be coordinated by a registrar office staff member.	<ul style="list-style-type: none"> • They can be helpful. They do need to be supervised and I have learned that it can take almost as much time as being the expert. However, the skill set and giving the opportunity for real-life experience as well as reaching students via a student "perspective" is worth it. • Student input helps provide the perspective needed to effectively communicate with students.
2	26	Registrar staff should frequently consult with information technology staff on issues related to electronic messaging and data security.	<ul style="list-style-type: none"> • This should happen very regularly.

Table 27. *Items by Survey Construct Registrar Office Communication Staffing – No Consensus, Agreement Themes, Qualitative Responses* (continued)

Round	Statement	Theme	Representative Comments
2	27	Registrar office staff should collaborate with other campus departments to develop critical messages.	<ul style="list-style-type: none"> • Our messages follow the academic calendar which is often different from activities happening on campus. When we can align we should. • Where there are One-Stops centers it is helpful to coordinate with them.
2	29	Registrar staff working with communication should be familiar with social media use and trends.	<ul style="list-style-type: none"> • Hire, or consult with someone who does. It is too difficult to keep up with the latest trends.
3	15	Registrar office staff can utilize technical writers to develop critical messages.	<ul style="list-style-type: none"> • Technical writing expertise should be used if the RO staff does not have in-house talent for that. Even with good in-house talent, it is a good idea to have material reviewed by external experts for clarity. • So long as they are "assisting" and not doing all of the writing themselves.
3	17	Registrar offices should have a communication specialist.	<ul style="list-style-type: none"> • ROs should hire someone with the capacity to build that subject matter expertise over time.
3	19	Registrar staff should frequently consult with information technology staff on issues related to electronic messaging and data security.	<ul style="list-style-type: none"> • IT would be the experts in security and app functionality. We (registrar staff) are the experts with regard to the content of the message. • Yes, Yes, Yes!! We seem to have to remind people about the security of student data daily.
3	20	Registrar office staff should collaborate with other campus departments to develop critical messages.	<ul style="list-style-type: none"> • We can't afford to do it alone. These types of services should serve the University in its entirety. • This will provide a large audience reach rather than trying to get the students to follow both channels.

Qualitative responses were provided after most statements, giving additional details from the experts' experiences. The experts identified challenges for staying up-to-date with new technologies and trends, and given the unique nature of the information a registrar's office provides, staff may need to work independently when communicating critical messages. Rather than seeking external resources to create critical messages, front-line staff may be the most knowledgeable about students' frequently asked questions. Concerns were identified with

utilizing student staff for social-media endeavors, and a lack of financial resources may be a significant barrier when creating a communication-specialist position in the registrar’s office.

Table 28 details the survey round, statement number, theme, and representative comments for the Registrar Office Communication Staffing construct – No Consensus, Disagreement Themes.

Table 28.

Items by Survey Construct Registrar Office Communication Staffing – No Consensus, Disagreement Themes, Qualitative Responses

Round	Statement	Theme	Representative Comments
1	40	It is challenging for registrar staff to stay current with emerging trends and technologies.	<ul style="list-style-type: none"> So far, we have not employed these things, although our Admission partners have. It is probably inevitable that we will go in this direction, but I am not completely convinced that it is an appropriate medium for the nature of our communication and our purpose. However, it is very likely that my view on this is totally related to my age and the fact that I do not use social media very much. I have younger staff who do not have blind spots on this, we will certainly adopt these things if they prove useful.
2	24	Financial resources may prohibit employing a communication specialist in the registrar’s office.	<ul style="list-style-type: none"> Resources and staffing may not be available to employ a communication specialist.
2	25	Registrar staff should exercise caution if utilizing student employees in social media efforts.	<ul style="list-style-type: none"> They might know HOW to say something to their peers, but they don't know WHAT to say. No one expects the Registrar's Office to be putting out hip messages . . .
2	26	-----	<ul style="list-style-type: none"> No comments provided
2	27	Registrar office staff may need to create internal communication calendar, due to unique needs of communication plan.	<ul style="list-style-type: none"> It's OK to do our own thing. Coordination is one thing; it's likely we are the only office using social media with current students.
2	29	It is challenging for registrar staff to stay current with emerging trends and technologies.	<ul style="list-style-type: none"> Social media changes faster than any other technical media we have. It is difficult to commit time and effort in keeping track when the capability isn't available to us.

Table 28. *Items by Survey Construct Registrar Office Communication Staffing – No Consensus, Disagreement Themes, Qualitative Responses* (continued)

Round	Statement	Theme	Representative Comments
3	15	-----	<ul style="list-style-type: none"> No comments provided
3	17	Financial resources may prohibit employing a communication specialist in the registrar’s office.	<ul style="list-style-type: none"> For most of us a position dedicated solely to communications would be out of reach.
3	19	Registrar staff should frequently consult with information technology staff on issues related to electronic messaging and data security.	<ul style="list-style-type: none"> Only if technology keeps changing. I would recommend every quarter.
3	20	-----	<ul style="list-style-type: none"> No comments provided

Legal/FERPA Issues

Two statements were presented in the first survey to define legal/FERPA issues. Table 29 shows descriptive statistics for the individual statements within the *Legal/FERPA Issues* construct. Table 30 outlines the qualitative responses by consensus classification.

Consensus to agree. The experts reached a consensus to agree for both statements, with 100% agreement during the first round. The experts agreed that the registrar’s office staff needs to be aware of FERPA and privacy controls when managing social-media sites for the registrar’s office. A consensus to agree was also reached for the statement that registrar staff members need to ensure that critical messages are compliant with the Americans with Disabilities Act. Table 29 details the survey round, statement number, topic statement, number of experts, mean, standard deviation, *Strongly Agree/Agree* percentage, *Strongly Disagree/Disagree* percentage, and *No Judgment* percentage for the Legal/FERPA Issues construct – Consensus to Agree.

Table 29.

Items by Survey Construct Legal/FERPA Issues – Consensus to Agree, Including Means and Standard Deviations

Round	Statement	Topic	n	Mean	SD	SA/A%	SD/D%	NJ%
1	41	Registrar office staff members need to be aware of FERPA and privacy controls when managing social media sites on behalf of the office.	27	3.96	.19	100	-	-
1	42	Registrar offices should implement strategies to ensure critical messages are compliant with the Americans with Disabilities Act (ADA).	27	3.81	.40	100	-	-

Note. n = number of experts responding to statement. Mean = calculated average for statement. SD = calculated Standard Deviation for statement. SA/A% = The percentage of opinion to agree was calculated by dividing the number of *Strongly Agree* and *Agree* responses by the total number of responses for a statement. SD/D% = The percentage of opinion to disagree was calculated by dividing the number of *Strongly Disagree* and *Disagree* responses by the total number of responses for a statement. NJ% = *No Judgment* response percentage.

Qualitative responses were provided after both statements. The experts provided extensive feedback regarding the essential need for registrar staff to be aware of FERPA as well as the variety of privacy controls within websites, email, and social-media platforms. Office staff members also need to make certain that various accessibility standards are upheld, providing access for all. Table 30 details the survey round, statement number, theme, and representative comments for the Legal/FERPA Issues construct – Consensus to Agree.

Table 30.

Items by Survey Construct Legal/FERPA Issues – Consensus to Agree, Qualitative Responses

Round	Statement	Theme	Representative Comments
1	41	Registrar office staff need to be aware of FERPA and various privacy controls when managing email, websites, and social media sites on behalf of the office.	<ul style="list-style-type: none"> • Everything we do relates to FERPA and the protection of the student record. • This is a must. FERPA makes using social media tricky. Messages need to be generic or benign enough that if those who are not the student see them, nothing of a non-directory nature is revealed. • If there's going to be a FERPA breach, it better not happen in the registrar's office!!!! • Also, Registrar's Office should make sure to target the appropriate population of students when using social media. At our institution we have 9 schools with different dates/deadlines; this type of decentralization needs to be managed appropriately.
1	42	Registrar offices should ensure messages and websites meet and exceed accessibility standards.	<ul style="list-style-type: none"> • We are all held to these standards. Although, the technology we use may not meet these standards which is a conflict for us. We need to find ways to meet federal regulations as best we can.

Evaluating Critical Messages

To evaluate critical messages, seven statements were presented throughout the three surveys. Several statements were refined and further defined in the second and third rounds. Tables 31 and 33 show descriptive statistics for the individual statements within the *Evaluating Critical Messages* construct. Tables 32, 34, and 35 detail the qualitative responses by consensus category.

Consensus to agree. The experts reached a consensus to agree for six statements. The statements had a high percentage of agreement, with a range of 81% to 96% agreement. The experts agreed that registrar staff should evaluate the effectiveness of critical-message emails as well as messages posted via social media and other messaging systems. Consensus to agree was also reached supporting evaluation of student follow-through after a critical message is sent to

determine if action was taken. Agreement was attained for a statement about the identification of students' university email as an official form of communication. The experts also supported gathering data from students regarding preferences for social media and video tutorials. The statement "Registrar office staff should evaluate the effectiveness of critical messages transmitted via social media." did reach the statistical level for the mean to be considered consensus to agree. The standard deviation was slightly above the threshold level, but the researcher chose to include within consensus to agree reporting due to the percentage of agreement. Table 31 details the survey round, statement number, topic statement, number of experts, mean, standard deviation, *Strongly Agree/Agree* percentage, *Strongly Disagree/Disagree* percentage, and *No Judgment* percentage for the Evaluating Critical Messages construct – Consensus to Agree.

Table 31.

Items by Survey Construct Evaluating Critical Messages – Consensus to Agree, Including Means and Standard Deviations

Round	Statement	Topic	n	Mean	SD	SA/A%	SD/D%	NJ%
1	43	Registrar office staff should evaluate the effectiveness of critical message emails (read rates, unopened messages, etc.).	27	3.48	.58	96	4	-
1	44	Registrar office staff should evaluate the effectiveness of critical messages transmitted via social media.	27	3.37	1.08	93	-	7
1	45	Registrar office staff should evaluate the effectiveness of critical messages sent through other messaging systems.	27	3.41	.89	94	3	3
1	46	Registrar offices should evaluate student follow-through after a critical message is transmitted.	27	3.44	.89	94	3	3
1	47	An institution should identify student university email as an official form of communication.	27	3.59	.84	85	15	-
3	22	Registrar offices should survey students' communication preferences on targeted communication practices, such as social media, video tutorials, etc.	26	3.04	.66	81	19	-

Note. n = number of experts responding to statement. Mean = calculated average for statement. SD = calculated Standard Deviation for statement. SA/A% = The percentage of opinion to agree was calculated by dividing the number of *Strongly Agree* and *Agree* responses by the total number of responses for a statement. SD/D% = The percentage of opinion to disagree was calculated by dividing the number of *Strongly Disagree* and *Disagree* responses by the total number of responses for a statement. NJ% = *No Judgment* response percentage.

Qualitative responses were provided after all statements. The experts agreed that registrar staff should evaluate the effectiveness of critical messages; social-media communication; and communication sent via SIS, texting, or other systems. Comments also emphasized the importance of evaluating student follow-through after an “action”-critical

message was sent. The experts provided significant support for identifying email as an official form of communication in an effort to support email use. General support for surveys to ascertain students' specific communication preferences was also relayed via experts' comments. Table 32 details the survey round, statement number, theme, and representative comments for the Evaluating Critical Messages construct – Consensus to Agree.

Table 32.

Items by Survey Construct Evaluating Critical Messages – Consensus to Agree, Qualitative Responses

Round	Statement	Theme	Representative Comments
1	43	Registrar office staff should evaluate the effectiveness of critical messages, including read rates, unopened messages, etc.	<ul style="list-style-type: none"> • How else will you know what's working and what isn't? It's the only way to improve communication efforts. • We can learn a lot about our messaging from analytics. Unfortunately many of us do not have this capability.
1	44	Registrar office staff should evaluate the effectiveness of social media communication.	<ul style="list-style-type: none"> • Yes, but this is trickier than email, since you don't always know who actually saw the message on social media.
1	45	Registrar office staff should evaluate the effectiveness of communication sent via other messaging systems, including texting and via SIS.	<ul style="list-style-type: none"> • Yes - this would be great for a communications specialist position.
1	46	Registrar office staff should evaluate student follow-through after a critical message is transmitted.	<ul style="list-style-type: none"> • It would be nice if we could do so. CRM might be a way to do this if we can get the use of CRMs past the recruitment phase. • That's a great idea. Often I think with look to see if the message was opened, but don't necessarily correlate that with a follow-through action.

Table 32. *Items by Survey Construct Evaluating Critical Messages – Consensus to Agree, Qualitative Responses* (continued)

Round	Statement	Theme	Representative Comments
1	47	An institution should identify email as an official form of communication.	<ul style="list-style-type: none"> • It's the one thing we can ensure that all students have and are required to use. Also, if you send Financial Aid info (or funding info) through that medium, we know the students will read it. • This is best practice to me. A student's job is going to school, so this should be treated as their work email. • An institution should identify that communications sent to the student's university assigned ID, in whatever format, are official, and students who opt in to receive message through social media are, in essence, extending the official-ness of communications received over social media to those tools. • I'm on the fence on this one. Our institution has stated that email is indeed the official form of communication. However, I feel that it's outdated and that's not what students are utilizing anymore. Our university is moving towards utilizing PeopleSoft for most of its business functions, including much communication, which requires students to view their student account to receive important communication. I think there are just so many different forms of communication that everyone is using, it's hard to nail down one in particular. Mostly, I think it's a form of coverage so that we can say, "Well, we sent you an email" and a student has to honor that since it is our official means of communication.
3	22	Registrar offices should survey students' communication preferences on targeted communication practices, such as social media, video tutorials, etc.	<ul style="list-style-type: none"> • I agree, but think it would be even better if this could be done using an overall university approach; for example, by the marketing a communications office. • Finding out how students get their messages is good information when creating a communication strategy--whether or not we are able to use their methods. • Yes, but be careful . . . sometimes they don't mean what they say. They just throw stuff out there. We've had students say, "Yeah, you should do that. . . . but I totally wouldn't use it."

No consensus. No consensus was reached on one statement within the *Evaluating Critical Messages* construct. It is important to note that this statement was further defined and, ultimately, reached consensus-to-agree status in the third round. Table 33 details the survey round, statement number, topic statement, number of experts, mean, standard deviation, *Strongly Agree/Agree* percentage, *Strongly Disagree/Disagree* percentage, and *No Judgment* percentage for the Evaluating Critical Messages construct – No Consensus.

Table 33.

Items by Survey Construct Evaluating Critical Messages – No Consensus, Including Means and Standard Deviations

Round	Statement	Topic	n	Mean	SD	SA/A%	SD/D%	NJ%
2	31	Registrar offices should survey students' communication preferences.	26	2.58	1.10	69	19	12

Note. n = number of experts responding to statement. Mean = calculated average for statement. SD = calculated Standard Deviation for statement. SA/A% = The percentage of opinion to agree was calculated by dividing the number of *Strongly Agree* and *Agree* responses by the total number of responses for a statement. SD/D% = The percentage of opinion to disagree was calculated by dividing the number of *Strongly Disagree* and *Disagree* responses by the total number of responses for a statement. NJ% = *No Judgment* response percentage.

Qualitative responses were provided after the statement. The experts shared the importance of surveying students about various communication practices, but it should be done with specific areas, such as video tutorials, texting, social media, etc. Table 34 details the survey round, statement number, theme, and representative comments for the Evaluating Critical Messages construct – No Consensus, Agreement Themes.

Table 34.

Items by Survey Construct Evaluating Critical Messages – No Consensus, Agreement Themes, Qualitative Responses

Round	Statement	Theme	Representative Comments
2	31	Registrar offices should survey students' communication preferences on targeted communication practices, such as social media, video tutorials, etc.	<ul style="list-style-type: none"> • This could be ideal, but students may not respond, so simply being well-educated on trends, etc. can be a better route. • The marking and communications office should do this. Additionally they should be aware of trends and what is working at other institutions so as to be able to advise us. • We are just about to do this. We are at a loss if videos will be useful or not.

Experts provided qualitative responses after one statement. The experts expressed concern when surveying students about global communication practices, particularly because the registrar's office is not prepared to respond to or implement preferences. Table 35 details the survey round, statement number, theme, and representative comments for the Evaluating Critical Messages construct – No Consensus, Disagreement Themes.

Table 35.

Items by Survey Construct Evaluating Critical Messages – No Consensus, Disagreement Themes, Qualitative Responses

Round	Statement	Theme	Representative Comments
2	31	Registrar offices should survey students' communication preferences on targeted communication practices, such as social media, video tutorials, etc., rather than global communication preferences.	<ul style="list-style-type: none"> • Unless you only ask them to rank the items you have/are prepared to provide . . . you don't want to offer them opt-in text messaging if you can't deliver. • Preferences change and they also vary. Several years ago I did survey students and while most preferred email, some preferred Facebook and others Twitter. Some wanted text messages and others wanted to be called. • We do what we have to do - it's not up to the student how they are informed of things.

Chapter Summary

The purpose of this study was to develop communication guidelines and best practices for registrar's office professionals to use when communicating critical messages to traditional-aged, undergraduate college students. Telephone interviews were conducted to formulate constructs and statements, ultimately leading to the constructs for a Delphi survey. Three rounds of Delphi surveys were used to gather feedback and to gain consensus from a panel of registrar communication experts.

Statements were organized within seven constructs. Quantitative data, including mean, standard deviation, percentage of agreement, percentage of disagreement, and percentage of no judgment, were calculated and reported for each construct by consensus to agree and no consensus categories. Qualitative data, including themes and representative comments, were included in the results for each construct.

The following research questions guided the study:

1. What strategies are most effective for communicating critical messages to students?
2. How should critical messages be evaluated for effectiveness?

The experts agreed that critical messages can contribute to a student's academic success and academic progress. The experts also supported the concept that critical messages typically require a student to take action. While social media, texting, and other forms of opt-in communication can be effective ways to communicate global and general information, they are not necessarily suited for critical-message communication.

The experts said that a registrar's office should have a detailed communication plan and communication calendar. Segmenting critical messages to specific populations was also highly supported.

The experts determined that critical messages requiring action were most effective when sent 3-5 days before a deadline, giving students time to plan and respond. The experts also illustrated that consistent, but not identical, messages were important when communicating via email, social media, and websites. The experts agreed that multiple registrar's office staff members should review the subject line for a critical-message email. In addition, critical messages should contain hyperlinks and bullet points to be most effective.

The experts agreed that collaboration with other campus departments and university communication experts was important when developing and planning critical messages. Support for employing students to manage social-media efforts was agreed upon, but the experts asserted that the communication needed to be coordinated and approved by an office staffer. While the experts agreed that it was challenging for the registrar's staff to stay up-to-date with trends and new technologies, the need for office personnel to be familiar with social media was evident, given the dynamics of and demands from student bodies.

The experts provided extensive feedback regarding the essential need for the registrar's office staff to be aware of FERPA as well as the variety of privacy controls within websites, email, and social-media platforms. Staff members also need to make certain that various accessibility standards are upheld, providing access for all.

The experts agreed that registrar staff should evaluate the effectiveness of critical messages; social-media communication; and communication sent via SIS, texting, or other systems by utilizing open rates, read rates, and other technology analytics. The experts emphasized the importance of evaluating student follow-through after an "action"-critical message was sent. The experts provided significant support for identifying email as an official form of communication in an effort to reinforce email use. General support for surveying about

students' specific communication preferences regarding certain technologies, including social media, texting, and video tutorials, was also relayed via the experts' comments.

CHAPTER 5. SUMMARY OF FINDINGS AND RESEARCH CONCLUSIONS

This chapter provides a summary of the research study and focuses on identifying the best practices for communicating critical messages from a registrar's office to traditional-aged college students. A brief overview of the study is provided, followed by a summary of the major findings and the recommendations for future research.

Restatement of the Problem

The purpose of this study was to determine what strategies are most effective for communicating critical messages from a registrar's office to college students and how critical messages should be evaluated to ascertain their effectiveness. While answering these research questions, additional information about the challenges of staying current with social-media trends and social-media staffing challenges was disclosed.

To address the research questions, telephone interviews were utilized to develop the first-round Delphi-survey design. Three rounds of the Delphi survey were completed with the panel of experts. Topic statements for the Delphi survey were divided into seven main categories: Defining Critical Messages, Determining Effective Ways to Communicate Critical Messages, Communication Strategies, Communication Mechanics in Emails, Registrar Office Communication Staffing, Legal/FERPA Issues, and Evaluating Critical Messages. The findings for this study are discussed within the context of the categories in the Delphi survey and the research questions. The following research questions guided this study:

1. What strategies are most effective for communicating critical messages to students?
2. How should critical messages be evaluated for effectiveness?

Methods and Procedures

The methods used to address the research questions were three Delphi-survey rounds. The Delphi design was chosen to capture the experts' responses and to determine the level of the consensus to agree or disagree among the experts. Because the experts were geographically scattered across the United States, the Delphi model was an effective means of gathering data to answer the research questions.

The telephone-interview and Delphi-survey experts were chosen after each expert verified that he/she was a staff member who had at least three years of experience; worked in a registrar's office at a four-year, public or private institution in the United States with an undergraduate enrollment of at least 5,000 students; and self-identified that he/she possessed extensive knowledge about the communication strategies and techniques used within the office. Four experts were interviewed via telephone. The researcher sought 25 experts for the Delphi survey. While 27 professionals indicated a willingness to participate, 26 people completed three rounds of the Delphi survey. Overall, 24 different institutions in 17 states were represented in the Delphi-survey results.

The telephone-interview questions and Delphi-survey statements were developed by the researcher. The telephone-interview questions were based on issues identified within the literature review. Topic statements for the first round of the Delphi survey were developed from responses and themes in the telephone-interview responses. The number of first-round topic statements developed, which was based on the telephone interviews, was 48. Upon completion of each Delphi-process round, the experts' responses were summarized, and a new survey was developed. Within each round, the experts were asked to contribute additional comments that related to the topic statement. Within each topic statement, the survey offered five choices:

Strongly Agree, Agree, Disagree, Strongly Disagree, and No Judgment. The experts were also asked to contribute new topic statements for consideration during the subsequent round. Based upon reaching the consensus-to-agree status, the second survey had 31 topic statements, and the final round had 22 topic statements.

Major Study Findings

The study's major findings are summarized in relation to the research questions. The findings for both questions come from the Delphi-survey process. The constructs within the Delphi survey are connected to the respective research question.

Research Question 1

What strategies are most effective for communicating critical messages to students? The literature indicates that email continues to be an official means of communication on most campuses, supporting FERPA privacy concerns as well as the ability to tailor specific messages based upon the student's situation. While social-media use is increasing, some registrars seem to be hesitant to explore the options, and these individuals consider it challenging to stay informed about the various social-media platforms. Supporting the need for communication-focused research, Daniel et al. (2009) indicated, "Obviously, considerable research needs to be directed toward improving the salience of communications to students" (p. 296).

Defining critical messages. The researcher sought determination about the difference between a critical and non-critical message. Experts agreed that critical messages differ from informational messages because critical messages imply that the student needs to take action. A variety of academic-record related messages were determined to be "critical," including academic-standing and academic-record updates as well as academic degree-progress messages needing student action.

Determining effective ways to communicate critical messages. The experts reinforced the literature findings and indicated that institutional email is an effective way to communicate critical messages. Osborne (2011) stressed the importance of establishing communication expectations with incoming and current students. Through this process, students will hopefully be more engaged and take action during communication exchanges. It was also essential for the registrar staff to be mindful of boundaries with social media, as emphasized in the 2013 ECAR survey results. Because most forms of social media have an opt-in format, students can determine their level of involvement and engagement. Registrar offices should not auto-enroll students in social-media platforms, but rather promote social-media efforts and inform students how social media will be used to communicate important dates and deadlines, registration information, and more.

The experts supported social-media communication for informational messages where privacy concerns are less of an issue. Heiberger and Harper's (2008) findings about students' utilization of technology as much as, or perhaps even more than, face-to-face communication supported the need for a registrar's office to have a social-media presence. Experts reinforced the concept of global messaging via various communication methods, but only when combined with other forms of communication and on an opt-in basis. Additional messaging options may include text messaging and social media.

Communication strategies. The experts maintained the need for a communication plan within the registrar's office as well as having a communication calendar to plan, schedule, create, publish, monitor, and update communication efforts that included websites, email, and social media. Registrars can incorporate Junco and Cole-Avent's (2008) recommendation to determine the staff's professional-development needs as well as the office's current technology

infrastructure to plan for training and development as appropriate. Participants supported Daton and Dahlstrom's (2003) research about priming to improve message prominence, and determined that segmenting and targeting a focused population when sending a critical message would be considered a best practice. The timing for critical messages created considerable discussion and feedback among the experts who agreed that critical messages requiring student action are best sent via email or posted on social media a minimum of 3-5 days before a deadline. Overall, lead-time was dependent on the action and planning required by the student. The experts also established that the registrar professionals should provide consistent messaging but vary messages to ensure messages are appropriate for the social-media platform.

Experts had a high percentage (over 40%) of *No Judgment* responses for several statements related to the timing of messages that are sent via email or posted via social media, including statements related to whether messages were most effective when sent in the morning, afternoon, or evening. Consensus to agree or disagree was not reached for any of the statements, potentially indicating that the experts have not evaluated and determined the best practices related to timing. Given Aslop's (2008) research identifying Millennials' goal to be connected to technology 24/7 and to be concurrently connected with multiple media forms, the message timing may be less of an issue, but it is still a topic that needs further exploration.

Some experts were uncertain about integrating hashtags with social media; 54% indicated *No Judgment* for a statement related to hashtags. While some experts embraced hashtag use within communication, other experts seemed to be struggling with how to incorporate hashtags. Some experts may possibly be uncertain about the best practices related to social media. The high volume of *No Judgment* responses for many statements related to social media are potentially reflective of the current state of the registrar profession, indicating additional

exploration and discussion are essential. Demographic data was not collected from the registrar experts. It is unknown if age, length of time in profession, gender, or other additional factors may have influenced statements related to social media use and integration into registrar communication plans or any other statements throughout the Delphi surveys.

Communication mechanics for emails. The experts supported the best practice of having multiple staff members review the subject line for a critical message prior to transmission. In addition, the experts agreed on additional best practices for critical messages to contain bullet points and hyperlinks, as appropriate, to ensure that messages are concise. Because the goal of most critical messages is for the student to take action, intentional, meaningful, and brief messages are essential.

The experts were unable to reach consensus, and 44% of their responses were *No Judgment* for statements about including images and videos in critical messages. Once again, additional information and the establishment of best practices are necessary.

Registrar's office communication staffing. While not directly related to the research question, the researcher sought to investigate communication-staffing trends within the registrar's office. As Lanier (2006) indicated, one of the registrar's many roles is to serve as a communication chief. As such, the registrar office's communication goal is to communicate, collaborate, and coordinate with others. The experts reinforced collaboration with other campus departments, including university communication experts, when developing critical messages. The experts also reached a consensus to agree for statements about the challenges related to staff staying current with emerging technologies and trends as well as the need for staff to be familiar with social-media usage. Lewis and Rush (2013) advocated that practitioners be digital stewards and network with people at similar institutions. It is the researcher's recommendation that, due

to the ever-changing nature of social media and student communication, registrar professionals should reach out to other registrar professionals at other institutions to share and discuss communication practices. The experts favored the practice of students/student workers assisting with social-media sites but indicated that a staff member needs to provide oversight.

The practice of utilizing technical writers was not upheld, which was surprising to the researcher. Registrar offices may reach out to technical writers in an effort to streamline messages, but this concept was not supported by the experts. A statement about supporting the practice of collaborating social-media efforts with the main university or with one-stop, student-services social-media efforts was a borderline item. Eighty-eight percent of the experts *Strongly Agreed/Agreed* with a statement supporting this practice, but the item did not reach a statistical consensus level. Another statement indicating that registrar offices should employ a communication specialist was supported (*Strongly Agree/Agree*) by 81% of the experts, but once again, statistical consensus was not attained. The researcher believes that the experts champion the concept but know it will be financially challenging for many offices to implement.

Legal/FERPA issues. The experts agreed that registrar professionals need to be aware of FERPA and various privacy controls when managing social-media sites for the office. The experts strongly agreed that the office staff should implement various strategies to ensure that critical messages are compliant with the Americans with Disability Act. It is important for registrar staff to consider accessibility when sending or posting messages with hyperlinks, videos, images, and a variety of formatting options. There are many visual and auditory elements within student information systems, websites, email, social media, and other communication platforms. Ensuring access is essential, and, in many cases utilizing universal design, benefits a variety of learners. For example, captioning a video tutorial is vital for

students who are deaf or hard of hearing. Students with a variety of learning preferences may also benefit from captioning.

Research Question 2

How should critical messages be evaluated for effectiveness? Junco and Cole-Avent (2008) recommended open discussions with students about their technology usage and their preferences for how they would like to interact with their institution via various forms of technology. These preferences tie into evaluating messages for effectiveness through a practitioner's knowledge and understanding about the capabilities of technology and how to maximize those technological elements.

Evaluating critical messages. The researcher hypothesizes the experts were challenged in responding to statements regarding the evaluation of critical messages. While the Delphi method is to assist in determining consensus to agree and disagree on constructs in a future state, experts seemed to be focused on current practices, trends, and barriers. Experts had a high percentage of consensus to agree, supporting the need to evaluate the effectiveness of critical email messages, including read rates, the percentage of unopened/undelivered messages, etc. Several experts expressed challenges with the inability to track and evaluate messages, illustrating a disconnection between system functionality and the needs for communication planning. The experts also agreed that social-media efforts should be evaluated for effectiveness. In addition, any messages sent via other messaging systems, including text messaging or messaging via SIS, should also be evaluated for effectiveness.

The experts also reached a consensus to agree for the statement reinforcing the need to evaluate student follow-through after a critical message has been sent. Survey participants also agreed that the student's university email should be incorporated into policy as an official means

of communication. While this practice has been incorporated at many campuses, it is not standard practice.

The experts debated the potential of surveying students about their communication preferences. Some respondents conveyed concern about the registrar's staff asking students for their communication inclinations without having the potential to change the communication method. For example, if students indicated a preference for a different email platform, the registrar's office would not be in a position to change campus IT solutions. Rather, experts determined that obtaining students' communication preferences for targeted communication practices, such as social media, video tutorials, message timing, etc., would be more productive and beneficial.

Limitations

This study's findings and recommendations were limited by several conditions that need to be identified.

1. Results were restricted to this panel of registrar experts and may not be generalizable to all registrar professionals.
2. Experts were chosen from four-year public and private universities; results may not be applicable to community and technical colleges.
3. Study focused on traditional-aged college students; results may not be generalizable to a diverse age range of learners.
4. Due to the ever-changing nature of social media, specific platforms, such as Facebook, Twitter, and Instagram, were not discussed in the surveys.
5. Study focused on responses from registrar professionals; student input and preferences were not explored in this study.

Recommendations for Further Studies

This study's findings indicate a need for additional research, including exploration regarding the timing of email and social-media message transmission; social-media best practices; and integrating other technologies, including videos and smartphone applications, into the communication strategies. These topics would be well matched with Delphi-study research because all areas are seeking consensus information about a future desired state.

This study defined critical messages from experts' viewpoints. Registrar professionals determined a variety of messages to be critical. Students, however, may have differing opinions. Research on students' perspectives would not only supplement but also provide additional depth to best guide communication practices.

Experts had a high percentage (over 40%) of *No Judgment* responses for several statements related to the timing of messages sent via email or posted via social media, including statements about whether messages were most effective when sent in the morning, afternoon, or evening. Consensus to agree or disagree was not reached for any of the statements, potentially indicating that the experts have not evaluated and determined the best practices related to timing. The researcher recommends student feedback would be most beneficial in determining best practices associated to the timing of messages, rather than additional research with registrar professionals.

Some experts were uncertain about using hashtags with social media; 54% indicated *No Judgment* for a statement related to hashtags. While some experts embraced hashtag use within communication, other experts seemed to be struggling with how to incorporate hashtags; some experts may be uncertain about the best practices related to social media. Institutional social media guidelines, such as those developed by the University of Delaware, provide best practices

and standardization for branding and message dissemination. If an institution has not developed social-media guidelines, it is highly recommended that the university does so; departments can further tailor the guidelines to their respective communication plans. Departments that frequently send critical messages to students, including the registrar's office, financial aid, bursar, and one-stop student services, could collaborate to develop best practices for sending critical messages via various social media platforms.

Experts were not asked to provide demographic data, including age, gender, or length of time in profession. These factors may influence social media and other early adoption technology trends. Region of country and institutional characteristics may also have impacts on the research. The researcher recommends future studies collect demographic data to determine if those factors influence practices. In addition, institutional undergraduate enrollment of Delphi experts ranged from 5,621 – 40,541 (Fall 2014 enrollment data). Further refining of expert sample based upon size of institution may affect results.

The experts were unable to reach consensus, and 44% of their responses were *No Judgment* for statements related to the inclusion of images and videos in critical messages. Once again, additional information is necessary. The researcher surmises student participants would be valuable in determining these best practices, rather than relying on expert feedback.

Specific details about the best practices for integrating YouTube and specific forms of social media, including Facebook and Twitter, into registrar's office communication plans are needed. In addition, smartphone applications related to registrar transactions, including adding and dropping classes, viewing class schedules, checking degree-progress status, viewing grades, and requesting transcripts and enrollment verifications, are in the early implementation stages at some campuses, but developers continue to work to expand availability and options. This

technology integration is parallel to Oblinger and Oblinger's (2005) findings that Millennials consider technology transparent; they think in terms of what transaction or activity the technology enables rather than about the technology they are utilizing. In addition, Moneta (2005) determined that students' technology usage has created higher expectations for delivering and supporting a variety of student services, including those related to the registrar's office. While staff members are at the mercy of application development, registrar staff must ensure that privacy and accessibility needs are met with smartphone applications and that the application portals parallel the information found within the student information system. Communicating application availability and evaluating usage will be essential.

Conclusions

The purpose of this study was to determine what strategies are most effective for communicating critical messages from a registrar's office to traditional-aged college students and how critical messages should be evaluated to determine effectiveness. Registrar professionals frequently have critical messages to communicate to undergraduate college students, including messages about academic-record updates and degree progress. In many situations, students need to take action based on the message. Email and various social-media platforms are the most frequent methods of communication. Email remains the essential method when sensitive and student-specific information is sent.

Traditional-aged college students, part of the Millennial generation, are often labeled as *digital natives*. They are technologically connected. College students are viewed as pioneers in digital consumption while faculty and staff are learning to adapt and to incorporate new technologies as *digital immigrants*. It is imperative for communication to college students to be intentional and meaningful. The necessity of effective communication strengthens the need for

this research. Students are ultimately responsible for their academic success, and are obligated to review and respond to messages in a timely and appropriate manner.

Appendix N (Best Practices for Communicating Critical Messages to Traditional-Aged College Students from a Registrar's Office) summarizes the constructs that were researched and the various best practices that were supported by the experts. This guide will be beneficial for distribution to registrar office professionals and will provide practical guidance for consideration and implementation.

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APPENDIX A. IRB LETTER OF APPROVAL



May 13, 2014

FederalWide Assurance FWA00002439

Dr. Myron Eighmy
School of Education
EML 216

Re: IRB Certification of Exempt Human Subjects Research:
Protocol #HE14272, "Best Practices in Communicating Critical Messages from a Registrar's
Office to Traditional-Aged College Students"

Co-investigator(s) and research team: **Rhonda Kitch**

Certification Date: 5/13/14 Expiration Date: 5/12/17
Study site(s): **varied**
Funding: **n/a**

The above referenced human subjects research project has been certified as exempt (category # 2) in accordance with federal regulations (Code of Federal Regulations, Title 45, Part 46, *Protection of Human Subjects*). This determination is based on protocol materials (received 5/8/14).

Please also note the following:

- If you wish to continue the research after the expiration, submit a request for recertification several weeks prior to the expiration.
- Conduct the study as described in the approved protocol. If you wish to make changes, obtain approval from the IRB prior to initiating, unless the changes are necessary to eliminate an immediate hazard to subjects.
- Notify the IRB promptly of any adverse events, complaints, or unanticipated problems involving risks to subjects or others related to this project.
- Report any significant new findings that may affect the risks and benefits to the participants and the IRB.
- Research records may be subject to a random or directed audit at any time to verify compliance with IRB standard operating procedures.

Thank you for your cooperation with NDSU IRB procedures. Best wishes for a successful study.

Sincerely,

A handwritten signature in cursive script that reads "Kristy Shirley".

Kristy Shirley, CIP, Research Compliance Administrator

INSTITUTIONAL REVIEW BOARD

NDSU Dept 4000 | PO Box 6050 | Fargo ND 58108-6050 | 701.231.8995 | Fax 701.231.8098 | ndsu.edu/irb

Shipping address: Research 1, 1735 NDSU Research Park Drive, Fargo ND 58102

NDSU is an EO/AA university.

APPENDIX B. TELEPHONE INTERVIEW EXPERT INVITATION EMAIL

NDSU

NORTH DAKOTA STATE UNIVERSITY

Education Doctoral Program
School of Education

**Title of NDSU Research Study:
BEST PRACTICES IN COMMUNICATING CRITICAL MESSAGES
FROM A REGISTRAR'S OFFICE TO TRADITIONAL-AGED COLLEGE STUDENTS**

Dear Practitioner:

My name is Rhonda Kitch and I am a doctoral candidate in the School of Education at North Dakota State University in Fargo, North Dakota. I am conducting a research study to develop communication guidelines and best practices for registrar office professionals as they relate to communicating critical messages to undergraduate college students.

You have been identified as an expert in the field of registrar communication professionals. You are one of a small group of professionals being asked to participate in a telephone interview. Responses from the telephone interviews will be used to build a Delphi survey. The Delphi Survey will be used to determine consensus on individual topic statements in a variety of categories. Through this process, the panel will provide valuable data about communicating critical messages to college students.

Your participation is entirely voluntary, and you may change your mind or quit participating at any time, with no penalty; however, your assistance would be greatly appreciated in making this a meaningful study.

I anticipate the telephone interview will be about 30-45 minutes. I would schedule the interview at a time convenient for you. All responses from the telephone interview will be kept strictly confidential and names will not be linked to individual responses. The data will be reported as grouped data in the final report. Please keep in mind that it is not possible to identify all potential risks in research procedures, but I have taken reasonable precautions to minimize any known risks. If you choose to participate, your name and institutional information will be listed as one of the expert panelists along with others who choose to participate in the telephone interview. Enclosed is the participant consent form, which needs to be completed and returned by July 14, 2014 if you choose to participate in the telephone interview.

Thank you,

Rhonda Kitch
Doctoral Candidate, North Dakota State University
rhonda.k.kitch@ndsu.edu
701-231-7987

APPENDIX C. TELEPHONE INTERVIEW CONSENT FORM

NDSU

NORTH DAKOTA STATE UNIVERSITY

Education Doctoral Program
School of Education

TELEPHONE INTERVIEW CONSENT FORM

Title of Research Study: Best Practice in Communicating Critical Messages from a Registrar's Office to Traditional-Aged College Students

This study is being conducted by: Rhonda Kitch, a doctoral candidate in the School of Education, under the direction of faculty adviser, Dr. Myron Eighmy.

Why am I being asked to take part in this research study? You have been identified as an expert in the field of registrar communication professionals and are invited to participate in this research study. Please read the following document and ask any questions before you agree to participate in the study.

What is the purpose of the study? The purpose of this study is to develop communication guidelines and best practices for registrar office professionals as they relate to communicating critical messages to undergraduate college students.

What is the time commitment and timeline of the study? The telephone interview will be approximately 30-45 minutes and will be scheduled at a time convenient for you. Telephone interviews will be completed by July 24, 2014.

How do I qualify to participate? In order to meet the nomination criteria to participate in the study, you must verify have the following characteristics:

- Are at least a mid-level professional in a Registrar's office at a four-year, public land-grant university
- Your institution has an undergraduate enrollment of at least 5,000 FTE
- You have at least three years of experience in the profession
- You have extensive knowledge of communication strategies within a registrar's office

Do I have to take part in the study? Your participation is entirely voluntary, and you may change your mind or quit participating at any time, with no penalty; however, your assistance would be greatly appreciated in making this a meaningful study.

What will I be asked to do? If you agree to participate, you will be interviewed via telephone. Your responses will be recorded. You will be asked a variety of questions about communication practices in a registrar's office, including various forms of media used, communication timelines, and evaluation of communicating messages. Your responses to these questions will be analyzed for common themes present in other telephone interviews and used to develop a Delphi survey instrument.

Who will have access to the information I provide? Only the researcher and faculty adviser will have access to the responses. The recordings will be stored on a password protected device. All responses from the telephone interview will be kept strictly confidential and names will not be linked to individual responses. The data will be reported as grouped data in the final report. If you choose to participate, your name and institutional information will be listed as one of the expert panelists along with others who choose to participate in the telephone interview. After the research has been completed, the audio recordings will be destroyed.

What are the potential risks? Please keep in mind that it is not possible to identify all potential risks in research procedures, but I have taken reasonable precautions to minimize any known risks. No monetary compensation will be provided for your participation.

Who do I contact if I have questions or concerns? If you have any questions about this study, please contact me at 701.231.7987 or rhonda.k.kitch@ndsu.edu or contact my faculty advisor, Dr. Myron Eighmy at 701.231.5775 or myron.eighmy@ndsu.edu.

What are my rights as a research participant? You have rights as participant in research. If you have questions about the rights of human participants in research, or to report a problem, you may contact the NDSU Human Research Protection Program, at 701. 231.8908, toll-free at 855.800.6717 or via email at ndsu.irb@ndsu.edu.

Statement of Consent: I have read the above information, verify that I meet the expert qualification criteria, and I consent to participate in this study.

Signature _____ Date _____

Printed name _____

Signature of researcher _____ Date _____

Printed name of researcher _____

APPENDIX D. TELEPHONE INTERVIEW QUESTIONS

Title of NDSU Research Study:
BEST PRACTICES IN COMMUNICATING CRITICAL MESSAGES
FROM A REGISTRAR'S OFFICE TO TRADITIONAL-AGED COLLEGE STUDENTS

Hi, my name is Rhonda Kitch, North Dakota State University's Interim Registrar and a doctoral student at NDSU. We've been in contact via email and you recently provided consent to participate in a telephone interview about best practices in communication within a registrar's office. Is this still a good time for the telephone interview?

As a reminder, I will be recording the interview. I'll later evaluate responses from all telephone interviews for overall themes and form items for a Delphi survey.

Do you have any questions about the telephone interview or the study before we begin?

Let's get started.

1. What are your areas of responsibility as related to communication within the registrar's office?
2. Who on your staff is responsible for communicating the majority of critical messages to students?
3. How would you define a "critical message"?
4. Describe the messages (via email, social media, etc.) that your office sends to students. These messages could be sent to all students, a specific population of students, or an individual student.
5. Which of the messages you send to students would you specifically identify as "critical messages"?
6. Provide an overview of the various communication tools and methods your office uses to communicate critical messages to students.
 - a. What communication tools do you feel are most effective for communicating critical messages?
 - b. Can you provide some examples of ways your office utilizes technology to enhance communication?
 - c. What specific software(s) and/or platforms do you use to facilitate communication with students?
7. Does your office have a formalized communication plan? If yes, provide an overview of your communication plan.
8. Discuss the communication cycle you use to convey critical messages (for example, priming, planning, forming message, evaluation and assessment, etc.).
 - a. What do you do at each stage of the cycle? What is most important within each step of the cycle/process?
9. How do you structure a critical message to best ensure students will take action, if needed or necessary?
10. How do you evaluate which form of media to use to communicate a critical message?
11. Do you have a formal plan to measure the effectiveness of your communication?

12. Have you evaluated students' preferences for communication?
 - a. If so, what were your findings?
13. What internal and external barriers or obstacles do you have in communicating critical messages to students?
14. Do you have communication strategies you want to implement in order to better communicate critical messages?
 - a. Describe the strategies.
 - b. What is preventing you from implementing these strategies?
15. How do you ensure you are meeting accessibility recommendations and requirements when you communicate critical messages?
16. Describe any policies or procedures that guide your communication.
17. Discuss your collaboration with other departments in your effort to communicate critical messages to students.
18. Any other thoughts you would like to share to contribute to the research?
19. Would you be willing to brainstorm other land grant registrar office professionals that work with communication strategies in their office? I'm seeking participants for my Delphi survey.
20. Would you potentially be interested in participating in the Delphi survey? If so, I will forward you an invitation letter later this summer/early fall.
21. Thank you again for your assistance. I truly appreciate your participation in this study. Have a great day!

APPENDIX E. IRB PROTOCOL AMENDMENT REQUEST



INSTITUTIONAL REVIEW BOARD
office: Research 1, 1735 NDSU Research Park Drive, Fargo, ND 58102
mail: NDSU Dept. #4000, PO Box 6050, Fargo, ND 58108-6050
p: 701.231.8995 f: 701 231 8098 e: ndsuirb@ndsuh.edu w: www.ndsu.edu/irb

Date Received

9/11/14

IRB Protocol #:

HE14272

Protocol Amendment Request Form

Changes to approved research may not be initiated without prior IRB review and approval, except where necessary to eliminate apparent immediate hazards to participants Reference: SOP 7.5 Protocol Amendments.

Examples of changes requiring IRB review include, but are not limited to changes in: investigators or research team members, purpose/scope of research, recruitment procedures, compensation strategy, participant population, research setting, interventions involving participants, data collection procedures, or surveys, measures or other data forms.

Protocol Information:


Protocol #: HE14272 Title: Best Practices in Communicating Critical Messages from a Registrar's Office to Traditional-Aged College Student

Review category: Exempt Expedited Full board

Principal investigator: Dr. Myron Eighmy Email address: myron.eighmy@ndsuh.edu
Dept: School of Education

Co-investigator: Rhonda Kitch Email address: rhonda.k.kitch@ndsuh.edu
Dept: Graduate student

Principal investigator signature, Date: Myron A. Eighmy 9/9/14

 In lieu of a written signature, submission via the Principal Investigator's NDSU email constitutes an acceptable electronic signature.

Description of proposed changes:

1. Date of proposed implementation of change(s)*: 09/09/2014
* Cannot be implemented prior to IRB approval unless the IRB Chair has determined that the change is necessary to eliminate apparent immediate hazards to participants.
2. Describe proposed change(s), including justification:
Previously experts will at least a mid-level professional in a Registrar's office at a four-year, public land-grant university. Proposed change: experts at least a mid-level professional in a Registrar's office at a four-year institution. Justification: expand the pool of experts; researchers have determined that institutional status (land-grant) is not a relevant factor for determining expert status. It is more important to have a vast pool of experts who are knowledgeable about the subject.

Protocol Amendment Request Form
NDSU Institutional Review Board
Form revised May 2003

Page 2 of 2
UNIVERSITY OF NORTH DAKOTA
INSTITUTIONAL REVIEW BOARD

3. Will the change involve a change in principal or co- investigator?

No - skip to Question 4

Yes:

- *Include an Investigator's Assurance (last page of protocol form), signed by the new PI or co-investigator*
- *Conflict of Interest disclosure* Does any investigator responsible for the design, conduct or reporting of the project (including their immediate family members) have a financial, personal or political interest that may conflict with their responsibility for protecting human participants in NDSU research? (SOP 6 2 *Conflict of Interest in Human Research, Investigator and Research Team*)

No - As PI, I attest that I have conferred with my co-investigators and key personnel and confirmed that no financial, personal or political interests currently exist related to this research.

Yes - Describe the related financial, personal or political interests, and **attach documentation of COI disclosure and review (as applicable)**

Financial, personal or political interests related to the research (the sponsor, product or service being tested, or a competing product or service) may include:

- compensation (e.g., salary, payment for services, consulting fees)
- intellectual property rights or equity interests
- board memberships or executive positions
- enrollment or recruitment bonus payments

(Refer to NDSU Policy 151 1, *External Activities and Conflicts of Interest*, and NDSU Policy 823, *Financial Disclosure - Sponsored Projects* for specific disclosure requirements.)

Note: If the change is limited to addition/change in research team members, skip the rest of this form.

4. Will the change(s) increase any risks, or present new risks (*physical, economic, psychological, or sociological*) to participants?

No

Yes: *In the appropriate section of the protocol form, describe new or altered risks and how they will be minimized*

5. Does the proposed change involve the addition of a vulnerable group of participants?

Children: no yes - include the *Children in Research* attachment form

Prisoners: no yes - include the *Prisoners in Research* attachment form

Cognitively impaired individuals: no yes*

Economically or educationally disadvantaged individuals: no yes*

**Provide additional information where applicable in the revised protocol form*

6. Does the proposed change involve a request to waive some or all the elements of informed consent or documentation of consent?

no

yes - **Attach the *Informed Consent Waiver or Alteration Request***

7. Does the proposed change involve a new research site?

Protocol Form and Attachment
NDSU Institutional Review Board
Form IRB-100-1 (10/10)

Form IRB-100-1
Revised 08/08/2014

- no
- yes

C If information in your previously approved protocol has changed, or additional information is being added, incorporate the changes into relevant section(s) of the protocol. Highlight (e.g. print and highlight the hard copy, or indicate changes using all caps, asterisks, etc) the changed section(s) and attach a copy of the revised protocol to this form. (If the changes are limited to addition/change in research team members, a revised protocol form is not needed.)

Impact for Participants (future, current, or prior):

1. Will the change(s) alter information on previously approved versions of the recruitment materials, informed consent, or other documents, or require new documents?
 - No
 - Yes - attach revised/new document(s)

2. Could the change(s) affect the willingness of *currently* enrolled participants to continue in the research?
 - No
 - Yes - describe procedures that will be used to inform current participants, and re-consent, if necessary:

3. Will the change(s) have any impact to *previously* enrolled participants?
 - No
 - Yes - describe impact, and any procedures that will be taken to protect the rights and welfare of participants:

-----FOR IRB OFFICE USE ONLY-----

Request is: <input checked="" type="checkbox"/> Approved <input type="checkbox"/> Not Approved	
Review: <input checked="" type="checkbox"/> Exempt, category #: <u>2</u> <input type="checkbox"/> Expedited method, category # <u> </u> <input type="checkbox"/> Convened meeting, date: <u> </u>	
<input type="checkbox"/> Expedited review of minor change	
IRB Signature: <u>Kristy Shiley</u>	Date: <u>9/15/14</u>
Comments:	

APPENDIX F. DELPHI SURVEY EXPERT INVITATION EMAIL

NDSU **NORTH DAKOTA STATE UNIVERSITY**
Education Doctoral Program
School of Education

Title of NDSU Research Study:
**BEST PRACTICES IN COMMUNICATING CRITICAL MESSAGES
FROM A REGISTRAR'S OFFICE TO TRADITIONAL-AGED COLLEGE STUDENTS**

Dear Practitioner:

My name is Rhonda Kitch and I am North Dakota State University's Registrar as well as a doctoral candidate in the School of Education at NDSU in Fargo, North Dakota. I am conducting a research study to develop communication guidelines and best practices for registrar office professionals as they relate to communicating critical messages to undergraduate college students. A three-phase Delphi survey process will be used to determine consensus on individual topic statements in a variety of primary categories. Through this process, the panel will provide valuable data about communicating critical messages to college students.

I am requesting your assistance in developing a high quality pool of experts for this study. Your knowledge of the subject matter and professional experience would be extremely helpful in this process. Please nominate panelists you feel would be able to contribute valuable insight to this process. Note the nomination criteria for panelists:

- Mid-level professional in a Registrar's office at a four-year university (enrollment 5,000+)
- At least three years of experience in the profession
- Extensive knowledge of communication strategies within a registrar's office

If you are unsure of a potential panelist's characteristics, I will verify that they meet the nomination criteria before inviting the panelist to participate.

I would appreciate your response within the next week. Please note, panelist participation is entirely voluntary, and panelists may choose to quit participating at any time, with no penalty.

If you choose not to participate in this nomination process, please contact me as soon as possible so arrangements can be made with alternative practitioners. If you choose to participate, your name will be cited in the study as one of the practitioners who nominated expert panelists in this Delphi study. I appreciate your assistance.

Thank you,

Rhonda Kitch
Doctoral Candidate, North Dakota State University
rhonda.k.kitch@ndsu.edu, 701-231-7987

APPENDIX G. DELPHI SURVEY CONSENT FORM

NDSU

NORTH DAKOTA STATE UNIVERSITY

Education Doctoral Program
School of Education

DELPHI SURVEY CONSENT FORM

Title of Research Study: Best Practices in Communicating Critical Messages from a Registrar's Office to Traditional-Aged College Students

This study is being conducted by: Rhonda Kitch, a doctoral candidate in the North Dakota State University School of Education, under the direction of faculty adviser, Dr. Myron Eighmy.

Why am I being asked to take part in this research study? You have been identified as an expert in the field of registrar communication professionals and are invited to participate in this research study. Please read the following document and ask any questions before you agree to participate in the study.

What is the purpose of the study? The purpose of this study is to develop communication guidelines and best practices for registrar office professionals as they relate to communicating critical messages to undergraduate college students.

What is the time commitment and timeline of the study? The first round instrument in this Delphi study contains 51 topic statements for you to review and provide responses and comments. This process will take approximately 30 minutes and will be administered online via Qualtrics. In the second and third rounds of the instrument, topic statements will be removed when consensus is reached. The time commitment for these rounds should be less than 30 minutes. The first round of the Delphi survey will open by Wednesday, October 1st, 2014. It is anticipated the final round of the Delphi survey will be completed by late December, 2014.

How do I qualify to participate? In order to participate in the study, you must verify you satisfy the following criteria:

- Are at least a mid-level professional in a Registrar's office at a four-year institution
- Your institution has an undergraduate enrollment of at least 5,000 FTE
- You have at least three years of experience in the profession
- You have extensive knowledge of communication strategies within a registrar's office

Do I have to take part in the study? Your participation is entirely voluntary, and you may change your mind or quit participating at any time, with no penalty; however, your assistance would be greatly appreciated in making this a meaningful study. Should you choose to participate, we would appreciate your participation in all three rounds to provide the most accurate and comprehensive data for the study.

What will I be asked to do? If you agree to participate, we would ask that you be a part of a three-round Delphi study to express your opinions and ideas concerning communication

practices within a registrar’s office. During the first round, you will be asked to respond to 51 topic statements using a Likert scale for levels of agreement. You will also have the opportunity to include comments and suggestions for future topic statements. Responses with statistical consensus (to agree or disagree) will be removed from the instrument and topics contributed by panelists will be added to the next survey round. The mean response, standard deviation, percent response to each level of opinion, and a summary of panelists’ explanations will also be added to the related topic statement on the instrument. A list of items removed based on statistical consensus will also be provided for the panelists’ information. If you choose to participate, you will receive an introductory email explaining the nature of the questions and the next step in accessing the survey instrument.

Who will have access to the information I provide? Only the researcher and faculty adviser will have access to the responses. All responses from the survey instrument will be kept strictly confidential and names will not be linked to individual responses during the data collection or reporting process. In the final published research results, your name will only be listed as one of the expert panelists along with others who participate in this Delphi study, but identities will not be linked to individual responses. All research records will be accessed via a password protected storage device and the researcher’s access to the survey instrument is also password protected. Records will be retained until the conclusion of the study, at which point they will be purged.

What are the potential risks? Please keep in mind that it is not possible to identify all potential risks in research procedures, but I have taken reasonable precautions to minimize any known risks. If you choose to participate, this study will provide you with the opportunity to share your views with your colleagues and compare the similarities and differences in your communication practices. Your shared expertise may result in improved communication practices within your professional environment. No monetary compensation will be provided for your participation.

Who do I contact if I have questions or concerns? If you have any questions about this study, please contact me at 701.231.7987 or rhonda.k.kitch@ndsu.edu or contact my faculty advisor, Dr. Myron Eighmy at 701.231.5775 or myron.eighmy@ndsu.edu.

What are my rights as a research participant? You have rights as participant in research. If you have questions about the rights of human participants in research, or to report a problem, you may contact the NDSU Human Research Protection Program, at 701. 231.8908, toll-free at 855.800.6717 or via email at ndsu.irb@ndsu.edu.

Statement of Consent: I have read the above information, verify that I meet the expert qualification criteria, and I consent to participate in this study.

Signature _____ Date _____
Printed name _____
Signature of researcher _____ Date _____
Printed name of researcher _____

APPENDIX H. DELPHI SURVEY ROUND ONE EMAIL

Greetings:

Thank you for agreeing to participate in this research study. The purpose of this study is to develop communication guidelines and best practices for registrar office professionals as they relate to communicating critical messages to undergraduate college students. A Delphi survey process will be used to determine consensus on individual topic statements in a variety of categories. Through this process, the panel of experts will provide valuable data about communication practices.

This study will provide you with the opportunity to share your views with your colleagues and compare the similarities and differences. It is very important that you complete all three rounds of the Delphi survey process. The first round instrument has 48 topic statements, which will take approximately 30 minutes to complete. Please use link below to access the survey.

Follow this link to the Survey: (Qualtrics link)

Or copy and paste the URL below into your internet browser: (Qualtrics link)

All responses in the instrument will be kept strictly confidential and names will not be linked to individual responses. The data will be reported as grouped data in my dissertation. Please keep in mind that it is not possible to identify all potential risks in research procedures, but I have taken reasonable precautions to minimize any known risks.

Please complete the first round survey by Wednesday, October 15th, 2014.

Thank you,

Rhonda Kitch
Registrar
Doctoral Candidate, North Dakota State University
rhonda.k.kitch@ndsu.edu
701-231-7987

APPENDIX I. DELPHI SURVEY ROUND ONE

Introduction and Instructions

Best practices in communicating critical messages from a university's registrar's office

What is the most effective way to communicate with college students? Communication is essential, but simply the desire to effectively communicate and connect with college students is not sufficient. The goals for this study are to (a) determine which strategies are most effective for communicating critical messages to students and (b) determine how critical messages should be evaluated for effectiveness.

The statements below are Round 1 of the Delphi survey. Please read each statement carefully and select the response that indicates your level of agreement, ranging from Strongly Disagree, Disagree, Agree, Strongly Agree or No Judgment. Please provide commentary following any statement. These statements will be anonymously summarized and shared in the second round of the survey. The explanation allows others to try to understand your point of view and allows you to reflect and comment on other opinions and determine your level of agreement.

A comment area is also provided at the end of each section; please contribute additional statements you feel the panel of experts should address in future rounds. You may also provide general suggestions at the end of the survey. This will direct future survey evolution.

Your participation is completely voluntary and you may withdraw from participating at any time without penalty. The first survey may take up to 30 minutes to complete. Please complete this survey within 14 days. By completing and submitting the survey, you are consenting to participate in this research study. Thank you for your time and input! If you have any questions, please contact Rhonda Kitch at rhonda.k.kitch@ndsu.edu.

Survey Statements

Please read the statements below and indicate how strongly you agree or disagree with each statement. There are no right or wrong responses. Following each statement, you are invited to provide additional comments related to your response to assist with determining best practices.

Section 1 of 7 - Defining critical messages

1. A critical message from a registrar's office is a message that is important to a student's academic status.

	Strongly Agree (4)	Agree (3)	Disagree (2)	Strongly Disagree (1)	No Judgment (-)
My level of agreement with this statement is (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Comments in response to statement.

2. Students need to take action on a critical message.

	Strongly Agree (4)	Agree (3)	Disagree (2)	Strongly Disagree (1)	No Judgment (-)
My level of agreement with this statement is (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Comments in response to statement.

3. A message about academic standing (academic warning, probation, suspension) would be considered a critical message.

	Strongly Agree (4)	Agree (3)	Disagree (2)	Strongly Disagree (1)	No Judgment (-)
My level of agreement with this statement is (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Comments in response to statement.

4. A message about academic record updates would be considered a critical message.

	Strongly Agree (4)	Agree (3)	Disagree (2)	Strongly Disagree (1)	No Judgment (-)
My level of agreement with this statement is (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Comments in response to statement.

5. A message about dates and deadlines would be considered a critical message.

	Strongly Agree (4)	Agree (3)	Disagree (2)	Strongly Disagree (1)	No Judgment (-)
My level of agreement with this statement is (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Comments in response to statement.

6. A message about registration would be considered a critical message.

	Strongly Agree (4)	Agree (3)	Disagree (2)	Strongly Disagree (1)	No Judgment (-)
My level of agreement with this statement is (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Comments in response to statement.

7. A message about mid- or final grades would be considered a critical message.

	Strongly Agree (4)	Agree (3)	Disagree (2)	Strongly Disagree (1)	No Judgment (-)
My level of agreement with this statement is (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Comments in response to statement.

8. A message about degree progress (degree audit) would be considered a critical message.

	Strongly Agree (4)	Agree (3)	Disagree (2)	Strongly Disagree (1)	No Judgment (-)
My level of agreement with this statement is (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Comments in response to statement.

9. A message about the graduation process (i.e. application for degree, commencement participation information, diploma updates) would be considered a critical message.

	Strongly Agree (4)	Agree (3)	Disagree (2)	Strongly Disagree (1)	No Judgment (-)
My level of agreement with this statement is (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Comments in response to statement.

10. A message about annual federal compliance notification would be considered a critical message.

	Strongly Agree (4)	Agree (3)	Disagree (2)	Strongly Disagree (1)	No Judgment (-)
My level of agreement with this statement is (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Comments in response to statement.

Overall comments regarding defining critical messages or additional statements the panel should address for this section.

Section 2 of 7 - Determining effective ways to communicate critical messages

11. University email is an effective way to communicate critical messages.

	Strongly Agree (4)	Agree (3)	Disagree (2)	Strongly Disagree (1)	No Judgment (-)
My level of agreement with this statement is (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Comments in response to statement.

12. Social media is an effective way to communicate certain critical messages, such as dates and deadlines and other global information.

	Strongly Agree (4)	Agree (3)	Disagree (2)	Strongly Disagree (1)	No Judgment (-)
My level of agreement with this statement is (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Comments in response to statement.

13. Messaging via a student information system (SIS) is an effective way to communicate critical messages.

	Strongly Agree (4)	Agree (3)	Disagree (2)	Strongly Disagree (1)	No Judgment (-)
My level of agreement with this statement is (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Comments in response to statement.

14. Messaging via other methods (secure system, texting...) are effective ways to communicate critical messages.

	Strongly Agree (4)	Agree (3)	Disagree (2)	Strongly Disagree (1)	No Judgment (-)
My level of agreement with this statement is (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Comments in response to statement.

Overall comments regarding determining effective ways to communicate critical messages or additional statements the panel should address for this section.

Section 3 of 7 - Communication strategies

15. Registrar offices should have a documented communication plan.

	Strongly Agree (4)	Agree (3)	Disagree (2)	Strongly Disagree (1)	No Judgment (-)
My level of agreement with this statement is (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Comments in response to statement.

16. Registrar offices should have a communication calendar, which is a centralized source to plan, schedule, create, publish, monitor and update communication, including websites, email, and social media.

	Strongly Agree (4)	Agree (3)	Disagree (2)	Strongly Disagree (1)	No Judgment (-)
My level of agreement with this statement is (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Comments in response to statement.

17. Critical messages (sent via email and/or social media) are most effective when sent/posted 1-2 days before action is needed.

	Strongly Agree (4)	Agree (3)	Disagree (2)	Strongly Disagree (1)	No Judgment (-)
My level of agreement with this statement is (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Comments in response to statement.

18. Critical messages (sent via email and/or social media) are most effective when sent/posted 3+ days before action is needed.

	Strongly Agree (4)	Agree (3)	Disagree (2)	Strongly Disagree (1)	No Judgment (-)
My level of agreement with this statement is (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Comments in response to statement.

19. Critical messages (sent via email and/or social media) are most effective when sent/posted in the morning.

	Strongly Agree (4)	Agree (3)	Disagree (2)	Strongly Disagree (1)	No Judgment (-)
My level of agreement with this statement is (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Comments in response to statement.

20. Critical messages (sent via email and/or social media) are most effective when sent/posted in the afternoon.

	Strongly Agree (4)	Agree (3)	Disagree (2)	Strongly Disagree (1)	No Judgment (-)
My level of agreement with this statement is (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Comments in response to statement.

21. Critical messages (sent via email and/or social media) are most effective when sent/posted in the evening.

	Strongly Agree (4)	Agree (3)	Disagree (2)	Strongly Disagree (1)	No Judgment (-)
My level of agreement with this statement is (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Comments in response to statement.

22. Registrar office staff should segment and specifically target a focus population when possible in an effort to transmit critical messages only to the student population needing the message (i.e. degree audit, graduation updates, academic standing).

	Strongly Agree (4)	Agree (3)	Disagree (2)	Strongly Disagree (1)	No Judgment (-)
My level of agreement with this statement is (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Comments in response to statement.

23. Registrar office staff should be consistent with critical messages and deliver the same message regardless of media, such as website, email, social media.

	Strongly Agree (4)	Agree (3)	Disagree (2)	Strongly Disagree (1)	No Judgment (-)
My level of agreement with this statement is (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Comments in response to statement.

24. Registrar office staff should utilize more than one form of social media.

	Strongly Agree (4)	Agree (3)	Disagree (2)	Strongly Disagree (1)	No Judgment (-)
My level of agreement with this statement is (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Comments in response to statement.

25. Registrar office staff should implement hashtags into social media.

	Strongly Agree (4)	Agree (3)	Disagree (2)	Strongly Disagree (1)	No Judgment (-)
My level of agreement with this statement is (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Comments in response to statement.

Overall comments regarding determining effective communication strategies or additional statements the panel should address for this section.

Section 4 of 7 - Communication mechanics in emails

26. Multiple registrar office staff should review the subject line of a critical message email prior to transmission.

	Strongly Agree (4)	Agree (3)	Disagree (2)	Strongly Disagree (1)	No Judgment (-)
My level of agreement with this statement is (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Comments in response to statement.

27. Critical message emails from a registrar's office should contain images.

	Strongly Agree (4)	Agree (3)	Disagree (2)	Strongly Disagree (1)	No Judgment (-)
My level of agreement with this statement is (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Comments in response to statement.

28. Critical message emails from a registrar's office should contain hyperlinks.

	Strongly Agree (4)	Agree (3)	Disagree (2)	Strongly Disagree (1)	No Judgment (-)
My level of agreement with this statement is (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Comments in response to statement.

29. Critical message emails from a registrar's office should contain bullet points.

	Strongly Agree (4)	Agree (3)	Disagree (2)	Strongly Disagree (1)	No Judgment (-)
My level of agreement with this statement is (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Comments in response to statement.

30. Critical message emails from a registrar's office should contain videos (i.e. YouTube).

	Strongly Agree (4)	Agree (3)	Disagree (2)	Strongly Disagree (1)	No Judgment (-)
My level of agreement with this statement is (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Comments in response to statement.

31. Critical message emails from a registrar’s office should be formatted in paragraph form.

	Strongly Agree (4)	Agree (3)	Disagree (2)	Strongly Disagree (1)	No Judgment (-)
My level of agreement with this statement is (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Comments in response to statement.

Overall comments regarding determining effective communication mechanics in emails or additional statements the panel should address for this section.

Section 5 of 7 - Registrar office communication staffing

32. Registrar office staff should utilize technical writers to streamline critical message communications.

	Strongly Agree (4)	Agree (3)	Disagree (2)	Strongly Disagree (1)	No Judgment (-)
My level of agreement with this statement is (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Comments in response to statement.

33. Registrar office staff should consult with University communication experts while developing critical messages.

	Strongly Agree (4)	Agree (3)	Disagree (2)	Strongly Disagree (1)	No Judgment (-)
My level of agreement with this statement is (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Comments in response to statement.

34. Registrar offices should employ a communication specialist.

	Strongly Agree (4)	Agree (3)	Disagree (2)	Strongly Disagree (1)	No Judgment (-)
My level of agreement with this statement is (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Comments in response to statement.

35. Registrar offices should have students/student workers assist with managing social media sites.

	Strongly Agree (4)	Agree (3)	Disagree (2)	Strongly Disagree (1)	No Judgment (-)
My level of agreement with this statement is (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Comments in response to statement.

36. Registrar office staff should consult at least once per semester with information technology staff on issues related to electronic messaging and data security.

	Strongly Agree (4)	Agree (3)	Disagree (2)	Strongly Disagree (1)	No Judgment (-)
My level of agreement with this statement is (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Comments in response to statement.

37. Our registrar's office collaborates with other campus departments to develop critical messages.

	Strongly Agree (4)	Agree (3)	Disagree (2)	Strongly Disagree (1)	No Judgment (-)
My level of agreement with this statement is (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Comments in response to statement.

38. Registrar office staff should coordinate social media efforts with other campus entities, such as main university social media or one stop student services.

	Strongly Agree (4)	Agree (3)	Disagree (2)	Strongly Disagree (1)	No Judgment (-)
My level of agreement with this statement is (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Comments in response to statement.

39. It is challenging for registrar staff to stay current with emerging sites and technologies.

	Strongly Agree (4)	Agree (3)	Disagree (2)	Strongly Disagree (1)	No Judgment (-)
My level of agreement with this statement is (1)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Comments in response to statement.

40. Registrar office staff should have social media skills.

	Strongly Agree (4)	Agree (3)	Disagree (2)	Strongly Disagree (1)	No Judgment (-)
My level of agreement with this statement is (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Comments in response to statement.

Overall comments regarding best practices in registrar office communication staffing or additional statements the panel should address for this section.

Section 6 of 7 - Legal/FERPA issues

41. Registrar office staff members need to be aware of FERPA and privacy controls when managing social media sites on behalf of the office.

	Strongly Agree (4)	Agree (3)	Disagree (2)	Strongly Disagree (1)	No Judgment (-)
My level of agreement with this statement is (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Comments in response to statement.

42. Registrar offices should implement strategies to ensure critical messages are compliant with the Americans with Disabilities Act (ADA).

	Strongly Agree (4)	Agree (3)	Disagree (2)	Strongly Disagree (1)	No Judgment (-)
My level of agreement with this statement is (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Comments in response to statement.

Overall comments regarding legal issues or additional statements the panel should address for this section.

Section 7 of 7 - Determining effective ways to evaluate critical messages

43. Registrar office staff should evaluate the effectiveness of critical message emails (read rates, unopened messages, etc.).

	Strongly Agree (4)	Agree (3)	Disagree (2)	Strongly Disagree (1)	No Judgment (-)
My level of agreement with this statement is (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Comments in response to statement.

44. Registrar office staff should evaluate the effectiveness of critical messages transmitted via social media.

	Strongly Agree (4)	Agree (3)	Disagree (2)	Strongly Disagree (1)	No Judgment (-)
My level of agreement with this statement is (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Comments in response to statement.

45. Registrar office staff should evaluate the effectiveness of critical messages sent through other messaging systems.

	Strongly Agree (4)	Agree (3)	Disagree (2)	Strongly Disagree (1)	No Judgment (-)
My level of agreement with this statement is (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Comments in response to statement.

46. Registrar offices should evaluate student follow-through after a critical message is transmitted.

	Strongly Agree (4)	Agree (3)	Disagree (2)	Strongly Disagree (1)	No Judgment (-)
My level of agreement with this statement is (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Comments in response to statement.

47. An institution should identify student university email as an official form of communication.

	Strongly Agree (4)	Agree (3)	Disagree (2)	Strongly Disagree (1)	No Judgment (-)
My level of agreement with this statement is (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Comments in response to statement.

48. Registrar offices should survey students' communication preferences.

	Strongly Agree (4)	Agree (3)	Disagree (2)	Strongly Disagree (1)	No Judgment (-)
My level of agreement with this statement is (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Comments in response to statement.

Overall comments regarding determining effective ways to evaluate critical messages or additional statements the panel should address for this section.

Please provide any additional statements you feel should be added to the survey for the next round.

Thank you for your input! You will receive information regarding the subsequent survey in several weeks.

APPENDIX J. DELPHI SURVEY ROUND ONE REMINDER EMAIL

Greetings,

According to my records, you have not yet completed the survey for the first round of the Delphi survey. This study will provide you with the opportunity to share your views with your colleagues and compare the similarities and differences. It is very important that you complete all three rounds of the Delphi survey process. The first round instrument has 48 topic statements, which will take approximately 30 minutes to complete. Please use link below to access the survey.

Follow this link to the Survey: (Qualtrics link)

Or copy and paste the URL below into your internet browser: (Qualtrics link)

All responses in the instrument will be kept strictly confidential and names will not be linked to individual responses. The data will be reported as grouped data in my dissertation. Please keep in mind that it is not possible to identify all potential risks in research procedures, but I have taken reasonable precautions to minimize any known risks.

Please complete the first round survey by Wednesday, October 15th, 2014.

I understand hectic schedules, so if you are unable to continue as an expert in my research study, please let me know.

Thank you,
Rhonda Kitch
Registrar
Doctoral Candidate, North Dakota State University
rhonda.k.kitch@ndsu.edu
701-231-7987

APPENDIX K. DELPHI SURVEY ROUND TWO

Kitch Delphi Survey - Round Two

Best practices in communicating critical messages from a university's registrar's office

The goals for this study are to (a) determine which strategies are most effective for communicating critical messages to students and (b) determine how critical messages should be evaluated for effectiveness.

The statements below are Round 2 of the Delphi survey. I have summarized statements to allow an opportunity to understand various points of view and allows you to reflect and comment on other opinions and determine your level of agreement. While agreement/disagreement for several statements is close, statistical consensus to agree/disagree has not been reached, thus statements continue to be included.

A comment area is also provided at the end of each section; please contribute additional statements you feel the panel of experts should address in the final round. You may also provide general suggestions at the end of the survey.

Several suggestions were made in the first survey round to address statements in this round. Although interest would likely be strong, I need to remain focused on the research outcomes of my dissertation and am unable to include all of the statements.

Your participation is completely voluntary and you may withdraw from participating at any time without penalty. This survey may take up to 30 minutes to complete. Please complete this survey within 14 days. By completing and submitting the survey, you are consenting to participate in this research study. Thank you for your time and input! If you have any questions, please contact Rhonda Kitch at rhonda.k.kitch@ndsu.edu.

Survey Statements

Please read the statements below and indicate how strongly you agree or disagree with each statement. There are no right or wrong responses. Following each statement, you are invited to provide additional comments related to your response to assist with determining best practices.

Section 1 of 6 - Defining critical messages

1. Students need to take action on a critical message. Previous responses - Agree 89%, Disagree 4%, No Judgment 7% Summary of comments: If the message is "critical" the student needs to know information to make decisions about their status or standing. Some

messages could be informational only. Email from a registrar's office should focus on business transactions that are important and require the attention of the student or action from the student.

	Strongly Agree (4)	Agree (3)	Disagree (2)	Strongly Disagree (1)	No Judgment (-)
My level of agreement with this statement is (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Comments in response to statement.

2. A message about academic record updates would be considered a critical message. Previous responses - Agree 78%, Disagree 22% Summary of comments: I think it's only critical if it has an immediate impact on the student (e.g., they are waiting for the change so they can register). Otherwise, it's more good-to-know information. This depends on the update. The fact that an Incomplete has changed to an F due to the time limit is critical. The fact that a faculty member entered a grade is not.

	Strongly Agree (4)	Agree (3)	Disagree (2)	Strongly Disagree (1)	No Judgment (-)
My level of agreement with this statement is (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Comments in response to statement.

3. Previous statement: A message about dates and deadlines would be considered a critical message. Previous responses - Agree 56%, Disagree 26%, No Judgment 18% Summary of comments: These shouldn't necessarily be sent via email, but should be available on other mediums, such as websites and social media. It is the responsibility of the student to know the dates and deadlines. Dates and deadlines are probably clutter. Most students can find this in other ways. An exception would be alerting freshmen to registration dates or alerting seniors of the deadline to apply for graduation. I would call this an example of preventative critical messaging. It is critical that students are aware of deadlines before they occur. A message about dates and deadlines would be considered a critical message - IF the student needed to do something. If the date or deadline didn't pertain to the particular student, then s/he would not consider it critical and would not need to do anything. This is one of the reasons to focus our

messages on those students who do need to take action. Updated statement: An email message about dates and deadlines would be considered a critical message.

	Strongly Agree (4)	Agree (3)	Disagree (2)	Strongly Disagree (1)	No Judgment (-)
My level of agreement with this statement is (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Comments in response to statement.

4. Previous statement: A message about registration would be considered a critical message. Previous responses - Agree 71%, Disagree 11%, No Judgment 18% Summary of comments: Even though students do not often read their emails, they expect the registration email sent each semester (starting date, time, etc.). So in this case, it is critical. Registration dates and times can be found through other avenues. I would consider this type of message as informational. However, if the message is about system issues, that would be critical. I think this depends on if the message is personalized or not. If it is "Student Smith your enrollment appointment is on (date) at (time) and is a call to action, I would consider it critical. If it is "registration begins on (date)", then I would consider it informational but not critical. Students don't need a message from the registrar to know when to register. If this message is emailed, I strongly disagree. Students are checking on line/their portal to see when they are eligible to register. 4. Updated statement: A personalized email message about registration would be considered a critical message.

	Strongly Agree (4)	Agree (3)	Disagree (2)	Strongly Disagree (1)	No Judgment (-)
My level of agreement with this statement is (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Comments in response to statement.

5. Previous statement: A message about mid- or final grades would be considered a critical message. Previous responses - Agree 52%, Disagree 30%, No Judgment 18% Summary of comments: I wouldn't say "critical" unless the student is failing a class (mid-terms). Otherwise, it is the responsibility of the student to view their own grades. If it is a notice that there is a grade the student should check (and sent for certain grades like D, F or C perhaps) and then be a call to action, then yes, it would be critical. If it is just a generic grades have been posted then I would consider it less critical and more informational. Mid-term grades might be more critical than final grades. Mid-term grades can inform actions that the student might need to take to be more successful. Final grades are more informative, and not likely to surprise the

student. 5. Updated statement: A personalized message about mid-term grades would be considered a critical message.

	Strongly Agree (4)	Agree (3)	Disagree (2)	Strongly Disagree (1)	No Judgment (-)
My level of agreement with this statement is (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Comments in response to statement.

6. Previous statement: A message about mid- or final grades would be considered a critical message. Previous responses - Agree 52%, Disagree 30%, No Judgment 18% Statement has been split to determine level of agreement. 6. Updated statement: A personalized message about final grades would be considered a critical message.

	Strongly Agree (4)	Agree (3)	Disagree (2)	Strongly Disagree (1)	No Judgment (-)
My level of agreement with this statement is (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Comments in response to statement.

7. Previous statement: A message about degree progress (degree audit) would be considered a critical message. Previous responses - Agree 70%, Disagree 15%, No Judgment 15% Summary of comments: I think this depends on if the message is personalized or not. If there is a problem and is asking the student to take action, then yes, I would consider it critical. If it is a generic message (e.g. "check your degree progress report"), then I would consider it helpful and informational but not critical. It's more critical if the student ought to be prompted to action. If the degree progress is on track, then it's a "nice to get" message - but not necessarily critical. If degree progress is off track or doesn't match an anticipated graduation date, then it is more of a critical message. 7. Updated statement: A personalized message about degree progress (degree audit) would be considered a critical message.

	Strongly Agree (4)	Agree (3)	Disagree (2)	Strongly Disagree (1)	No Judgment (-)
My level of agreement with this statement is (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Comments in response to statement.

8. In your opinion, Registrar's Offices send messages to students (via email, social media, etc.) that are: (Check all that apply)

- Critical (1)
- Important (2)
- Helpful (3)
- Legally required (4)
- Other (please indicate) (5) _____

How would you define the difference between critical, important, helpful, legally required, etc. in terms of communicating to students?

Describe other forms of media that may be used to communicate messages to students:

Overall comments regarding defining critical messages or additional statements the panel should address for this section.

Section 2 of 6 - Determining effective ways to communicate critical messages

9. University email is an effective way to communicate critical messages. Previous responses - Agree 74%, Disagree 19%, No Judgment - 7% Summary of comments: E-mail can be the default, but should be used in combination with another method or methods. While the preferred method of contact for many universities, it is outdated and there are other ways of communicating on a larger scale that would reach more audiences. Length is always a negative factor - students seem to want things short and sweet; most emails aren't. Email is the mail tool available to us. Our systems are not capable of handling other methods. If you have a policy about email being the official means of communication, and you provide/require a university account, it becomes more effective. We have seen significant increases in open rates by utilizing data tags and limiting "fluff" emails. It ensures messages are delivered, but cannot ensure that anyone reads them.

	Strongly Agree (4)	Agree (3)	Disagree (2)	Strongly Disagree (1)	No Judgment (-)
My level of agreement with this statement is (1)	○	○	○	○	○

Comments in response to statement.

10. Previous statement: Social media is an effective way to communicate certain critical messages, such as dates and deadlines and other global information. Previous responses - Agree 67%, Disagree 11%, No Judgment 22% Summary of comments: Not everyone is on social media. If the message is generic, such as the approach of deadlines, social media can be helpful.

However, it is dependent upon who is "following" you. It cannot be your only way of communicating as you will likely miss a chunk of your intended audience. Social media messages require redundancy. I think social media can be used to communicate dates, deadlines and global information but would not consider those critical messages for these channels. The critical channel for dates, deadlines and global information would be your website. This is only true if you have a large following on social media. 10. Updated statement: Social media can be an effective way to communicate certain messages, such as dates and deadlines and other global information.

	Strongly Agree (4)	Agree (3)	Disagree (2)	Strongly Disagree (1)	No Judgment (-)
My level of agreement with this statement is (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Comments in response to statement.

11. Messaging via a student information system (SIS) is an effective way to communicate critical messages. Previous responses - Agree 51%, Disagree 19%, No Judgment 30%
 Summary of comments: Students often do not access the SIS except at the point of registration/enrollment and grade distribution. We have used announcements in this way; through a usability study, we found that students don't read them. It can be effective, if put in front of the ability to get to registration screens, but only if there is limited amounts of messaging and that messaging is critical to the task at hand, namely registration. We have a home grown system and are unable to communicate this way.

	Strongly Agree (4)	Agree (3)	Disagree (2)	Strongly Disagree (1)	No Judgment (-)
My level of agreement with this statement is (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Comments in response to statement.

12. Previous statement: Messaging via other methods (secure system, texting...) are effective ways to communicate critical messages. Previous responses - Agree 85%, Disagree 4%, No Judgment 11%
 Summary of comments: I said that I disagreed because you need to be generic if it is a text. This is typically a voluntary opt-in, so it may not reach that many people. I think

this should only be used for campus emergencies. 12. Updated statement: Messaging via other methods, such as texting... are effective ways to communicate global messages.

	Strongly Agree (4)	Agree (3)	Disagree (2)	Strongly Disagree (1)	No Judgment (-)
My level of agreement with this statement is (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Comments in response to statement.

Overall comments regarding determining effective ways to communicate critical messages or additional statements the panel should address for this section.

Section 3 of 6 - Communication strategies

13. Previous statement: Critical messages (sent via email and/or social media) are most effective when sent/posted 1-2 days before action is needed. Previous responses - Agree 59%, Disagree 26%, No Judgment 15% Summary of comments: I think this depends a lot on the nature of the message and the action needed. Some actions require more planning by the student, and need to be sent earlier, often with subsequent reminders. Others are better off being sent 1-2 days out, so that students don't have too much time to forget. It really depends on how much prep time is needed for the action being requested. Preparing to register may take many days. Checking grades that have just been posted can be instantaneous. I agree, but for some messages, I might give more time. Example: It may be time to apply for graduation - please schedule an appointment with your academic adviser. Updated statement: Critical messages (sent via email and/or social media) requiring action and planning are most effective when sent/posted 1-2 days before action is needed.

	Strongly Agree (4)	Agree (3)	Disagree (2)	Strongly Disagree (1)	No Judgment (-)
My level of agreement with this statement is (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Comments in response to statement.

14. Previous statement: Critical messages (sent via email and/or social media) are most effective when sent/posted 3+ days before action is needed. Previous responses - Agree 26%, Disagree 52%, No Judgment 22% Summary of comments: Number of days depends of type of action that may be required. If the action is to do follow-ups extra days would be necessary. If action does not student may forget altogether. 14. Updated statement: Critical messages (sent

via email and/or social media) requiring action and planning are most effective when sent/posted 3+ days before action is needed.

	Strongly Agree (4)	Agree (3)	Disagree (2)	Strongly Disagree (1)	No Judgment (-)
My level of agreement with this statement is (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Comments in response to statement.

15. Critical messages (sent via email and/or social media) are most effective when sent/posted in the afternoon. Previous responses - Agree 22%, Disagree 22%, No Judgment 56% Summary of comments: For students, yes. That gives them time to get help while the offices are still open. Most studies show the most effective time to post on social media is in the later afternoon/early evening, between 3-5 p.m. and over the weekend.

	Strongly Agree (4)	Agree (3)	Disagree (2)	Strongly Disagree (1)	No Judgment (-)
My level of agreement with this statement is (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Comments in response to statement.

16. Critical messages (sent via email and/or social media) are most effective when sent/posted in the evening. Previous responses - Agree 30%, Disagree 22%, No Judgment 48% Summary of comments: The challenge with posting in the evening is that no one is in the office to answer questions so students panic all night long, tweet about it, talk to their parents about it, etc.

	Strongly Agree (4)	Agree (3)	Disagree (2)	Strongly Disagree (1)	No Judgment (-)
My level of agreement with this statement is (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Comments in response to statement.

17. Registrar office staff should be consistent with critical messages and deliver the same message regardless of media, such as website, email, social media. Previous responses - Agree

74%, Disagree 22%, No Judgment 4% Summary of comments: CUSTOMIZE, CUSTOMIZE, CUSTOMIZE. Twitter is not the same as Facebook. Facebook is not the same as Instagram. Each platform serves a different purpose, so it's critical to know the audience and platform and go from there. Messaging should be consistent. However, depending upon the media being utilized and the message, the information being relayed might be a direction to a more secure area to receive the information. Consistency is key to any communication plan. We don't want our messages to be contradictory, but the message ought to be different for effectiveness on different media.

	Strongly Agree (4)	Agree (3)	Disagree (2)	Strongly Disagree (1)	No Judgment (-)
My level of agreement with this statement is (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Comments in response to statement.

18. Registrar office staff should utilize more than one form of social media. Previous responses - Agree 56%, Disagree 4%, No Judgment 40% Summary of comments: Students aren't in just one spot - they're everywhere. I agree that multiple forms should be utilized if available to the office. We are often restricted by budgets and tools available to us. Though doing one form of social media really well may be better than doing many forms less well. We should have only one way to communicate with students. If we tell them that we are going to communicate through email or through their portal, we need to stay consistent with that method.

	Strongly Agree (4)	Agree (3)	Disagree (2)	Strongly Disagree (1)	No Judgment (-)
My level of agreement with this statement is (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Comments in response to statement.

19. Registrar office staff should implement hashtags into social media. Previous responses - Agree 33%, Disagree 7%, No Judgment 60% Summary of comments: Why not? I'd be

open to it, but don't really know how we could make it effective. Registrar messages don't tend to be the "sexiest"! Within reason - too many hashtags clutter and dilute the message.

	Strongly Agree (4)	Agree (3)	Disagree (2)	Strongly Disagree (1)	No Judgment (-)
My level of agreement with this statement is (1)	○	○	○	○	○

Comments in response to statement.

Overall comments regarding determining effective communication strategies or additional statements the panel should address for this section.

Section 4 of 6 - Communication mechanics in emails

20. Previous statement: Critical message emails from a registrar's office should contain hyperlinks. Previous responses - Agree 78%, Disagree 4%, No Judgment 18% Summary of comments: Messaging should be short and to the point. Additional content can be maintained in other areas and linked to. Some believe links in emails is spam, there are times when links are necessary or at least welcomed. We have moved away from this based on security, and now spell out the links. Agree - it keeps the message short and takes the student to more information as needed. 20. Updated statement: Critical message emails from a registrar's office should contain hyperlinks, when appropriate.

	Strongly Agree (4)	Agree (3)	Disagree (2)	Strongly Disagree (1)	No Judgment (-)
My level of agreement with this statement is (1)	○	○	○	○	○

Comments in response to statement.

21. Critical message emails from a registrar's office should contain bullet points. Previous responses - Agree 67%, Disagree 7%, No Judgment 26% Summary of comments: Bullet points assist in clarity and to the point messaging. Use of bullet points for brevity sake is

good. As a checklist of things a student would have to do in order to address the message received.

	Strongly Agree (4)	Agree (3)	Disagree (2)	Strongly Disagree (1)	No Judgment (-)
My level of agreement with this statement is (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Comments in response to statement.

Overall comments regarding determining effective communication mechanics in emails or additional statements the panel should address for this section.

Section 5 of 6 - Registrar office communication staffing

22. Registrar office staff should utilize technical writers to streamline critical message communications. Previous responses - Agree 52%, Disagree 33%, No Judgment 15% Summary of comments: As long as registrar personnel are the experts in developing the message. Technical writers can help a great deal in crafting an effective message. Communication experts should be used. It's important to write to the level of the student, not a technical level. It's also okay to avoid "academic" language. Staff should use good writers, but the best writers could be student workers who know registrar business more than the typical student and who know student communication more than the typical registrar staff member.

	Strongly Agree (4)	Agree (3)	Disagree (2)	Strongly Disagree (1)	No Judgment (-)
My level of agreement with this statement is (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Comments in response to statement.

23. Registrar office staff should consult with University communication experts while developing critical messages. Previous responses - Agree 70%, Disagree 19%, No Judgment 11% Summary of comments: I find that University communications has a different focus and they do not understand the academic side of our messaging. Unless this communication can happen very quickly. By definition, a critical message most likely needs to be released in a

timely fashion and consulting with another department is liable to slow the process down. Absolutely - consultation can be very beneficial.

	Strongly Agree (4)	Agree (3)	Disagree (2)	Strongly Disagree (1)	No Judgment (-)
My level of agreement with this statement is (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Comments in response to statement.

24. Registrar offices should employ a communication specialist. Previous responses - Agree 63%, Disagree 22%, No Judgment 15% Summary of comments: Communications people may see things differently than full-time registrar staff. It is the responsibility of the communications professional to make sure the message is clear and effective. I have a communication intern. I need a full-time staffer with these duties. The basic ability to craft well written, clear, concise and accurate messages needs to be in the skill set of and job description of one or more staff members.

	Strongly Agree (4)	Agree (3)	Disagree (2)	Strongly Disagree (1)	No Judgment (-)
My level of agreement with this statement is (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Comments in response to statement.

25. Registrar offices should have students/student workers assist with managing social media sites. Previous responses - Agree 78%, Disagree 7%, No Judgment 15% Summary of comments: Students will help you keep a pulse on how students get their information. Who knows social media best? Students. Why not utilize their skills? They know how to communicate best with their peers. Students will have better understanding of the technical nuances to social media. Under strict monitoring and strong hiring I believe a student could handle this task. I can see this in an admission office, but not in the registrar's office. A staff person would have to feed the student worker all the content, so why not just do it ourselves? I'm not sure we should be using social media and if so, probably not for anything other than general information. Therefore I cannot see using students for this task. When well trained and when

content is reviewed by professional staff. After all, student workers are often more savvy when it comes to social media than many of us.

	Strongly Agree (4)	Agree (3)	Disagree (2)	Strongly Disagree (1)	No Judgment (-)
My level of agreement with this statement is (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Comments in response to statement.

26. Registrar office staff should consult at least once per semester with information technology staff on issues related to electronic messaging and data security. Previous responses - Agree 63%, Disagree 15%, No Judgment 22% Summary of comments: There should be a relationship developed so that there isn't a formal meeting, it's just a series of conversations that are ongoing. We work very closely with our technical staff and discuss electronic messaging several times each semester. Our technical staff is housed in the Registrar's Office. Our office works with the data security experts on a regular basis. We consult almost on a weekly basis for data release questions or inquiries about new software.

	Strongly Agree (4)	Agree (3)	Disagree (2)	Strongly Disagree (1)	No Judgment (-)
My level of agreement with this statement is (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Comments in response to statement.

27. Registrar office staff should coordinate social media efforts with other campus entities, such as main university social media or one stop student services. Previous responses - Agree 70%, Disagree 7%, No Judgment 23% Summary of Comments: It can be useful, but often the main university social media folks are focused on efforts related to prospective students or alumni and are less concerned about operational processes for current students. Yes, I think it

is more fitting to do so. Registrar offices are not "sexy" in social media. No, when we start to blend in with everyone else, our message is no longer viewed as critical.

	Strongly Agree (4)	Agree (3)	Disagree (2)	Strongly Disagree (1)	No Judgment (-)
My level of agreement with this statement is (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Comments in response to statement.

28. It is challenging for registrar staff to stay current with emerging sites and technologies. Previous responses - Agree 81%, Disagree 15%, No Judgment 4% Summary of comments: New technologies come and go quickly! Especially when there isn't a full-time staff member dedicated solely to social media efforts. Completely agree with this statement. The difficulty is multiplied by the reliance on technology support.

	Strongly Agree (4)	Agree (3)	Disagree (2)	Strongly Disagree (1)	No Judgment (-)
My level of agreement with this statement is (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Comments in response to statement.

29. Previous statement - Registrar office staff should have social media skills. Previous responses - Agree 59%, Disagree 26%, No Judgment 15% Summary of comments: I think this will develop naturally as our workforce changes and develops. You can hire this talent. Everyone does not have to have it, but SOMEONE does. No, I don't feel we should be using social media extensively. Familiarity, not necessarily fluency. 29. Updated statement - Registrar office staff should have familiarity with social media use and trends.

	Strongly Agree (4)	Agree (3)	Disagree (2)	Strongly Disagree (1)	No Judgment (-)
My level of agreement with this statement is (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Comments in response to statement.

30. Indicate the number of registrar office staff who primarily coordinate, transmit and evaluate communication to students.

- 1 - 2 full time staff (1)
- 3 - 4 full time staff (2)
- 5 -6 full time staff (3)
- 6+ full time staff (5)
- Other (including student staff (6) _____

Overall comments regarding best practices in registrar office communication staffing or additional statements the panel should address for this section.

Section 6 of 6 - Determining effective ways to evaluate critical messages

31. Registrar offices should survey students' communication preferences. Previous responses - Agree 78%, Disagree 7%, No Judgment 15% Summary of comments: Students can communicate their preferences, however it should not dictate the manner in which they get their official communication. We should do this, but beware. IF you ask what they want, and then do not take steps to give them that, you will lose credibility as well as support. But should coordinate such a survey with other key communications units on campus. Perhaps a combined survey instead of each office sending their own. Registrar Offices should only survey for student preferences if they are able to then tailor their communication to match student preferences.

	Strongly Agree (4)	Agree (3)	Disagree (2)	Strongly Disagree (1)	No Judgment (-)
My level of agreement with this statement is (1)	○	○	○	○	○

Comments in response to statement.

Overall comments regarding determining effective ways to evaluate critical messages or additional statements the panel should address for this section.

Please provide any additional statements you feel should be added to the survey for the final round.

Thank you for your input! You will receive information regarding the final survey in several weeks.

APPENDIX L. DELPHI SURVEY ROUND THREE

Kitch Delphi Survey - Round Three

Best practices in communicating critical messages from a university's registrar's office

The goals for this research study are to (a) determine which strategies are most effective for communicating critical messages to students and (b) determine how critical messages should be evaluated for effectiveness.

The statements below are the final round of the Delphi survey. I have summarized statements from Round 2 to allow an opportunity to understand various points of view and allows you to reflect and comment on other opinions and determine your level of agreement. While agreement/disagreement for several statements is close, statistical consensus to agree/disagree has not been reached, thus statements continue to be included. In addition, a comment area is also provided after each statement and at the end of the survey.

Your participation is completely voluntary and you may withdraw from participating at any time without penalty. This survey may take up to 15 minutes to complete. Please complete this survey within 14 days. By completing and submitting the survey, you are consenting to participate in this research study. Thank you for your time and feedback! If you have any questions, please contact Rhonda Kitch at rhonda.k.kitch@ndsu.edu.

Survey Statements

Please read the statements below and indicate how strongly you agree or disagree with each statement. There are no right or wrong responses. Following each statement, you are invited to provide additional comments related to your response to assist with determining best practices.

Section 1 of 5 - Defining critical messages

1. Previous statement: A message about academic record updates would be considered a critical message. Previous responses - Agree 81%, Disagree 11%, No Judgment 8% Summary of comments: It depends on the nature of the record and if a student needs to take action or not. Students should be aware of their academic record and any updates to that record. Similar to a bank statement, students should monitor their academic record and review for updates and errors. Updated statement: A message about academic record updates that require action by a student would be considered a critical message.

	Strongly Agree (4)	Agree (3)	Disagree (2)	Strongly Disagree (1)	No Judgment (-)
My level of agreement with this statement is (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Comments in response to statement.

2. Previous statement: An email message about dates and deadlines would be considered a critical message. Previous responses - Agree 50%, Disagree 42%, No Judgment 8% Summary of comments: I believe emailing about registration dates and deadlines can be clutter and ineffective. It is critical only if a student needs to take action. I agree when dates and deadlines are critical or likely to be missed (e.g. - a new student might not know when registration for an upcoming semester is). It is the responsibility of the student to know dates and deadlines. Updated statement: An email message about dates and deadlines would be considered a critical message only if the student needs to take action.

	Strongly Agree (4)	Agree (3)	Disagree (2)	Strongly Disagree (1)	No Judgment (-)
My level of agreement with this statement is (1)	○	○	○	○	○

Comments in response to statement.

3. Previous statement: A personalized email message about registration would be considered a critical message. Previous responses - Agree 69%, Disagree 23%, No Judgment 8% Summary of comments: This information is important, but not critical. Agreed - if we send a personalized message depending on the situation, it would likely be considered critical. If they miss registration deadlines, it could cost them thousands of dollars or not graduating on time. We don't need to email students about when they register. We simply don't. Updated statement: A personalized email message, including detailed information about a student's specific registration time, would be considered a critical message.

	Strongly Agree (4)	Agree (3)	Disagree (2)	Strongly Disagree (1)	No Judgment (-)
My level of agreement with this statement is (1)	○	○	○	○	○

Comments in response to statement.

4. Previous statement: A personalized message about mid-term grades would be considered a critical message. Previous responses - Agree 62%, Disagree 30%, No Judgment 8% Summary of comments: Students should know how to access their grades. We do send messages to students who do not perform well and need to take action with their studies. It is critical to the student since they need to make a decision on whether to continue their studies or

not. Updated statement: A personalized message about deficient mid-term grades would be considered a critical message, since the student may need to take action due to the deficiency.

	Strongly Agree (4)	Agree (3)	Disagree (2)	Strongly Disagree (1)	No Judgment (-)
My level of agreement with this statement is (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Comments in response to statement.

5. A personalized message about final grades would be considered a critical message. Previous responses - Agree 46%, Disagree 54% No comments provided.

	Strongly Agree (4)	Agree (3)	Disagree (2)	Strongly Disagree (1)	No Judgment (-)
My level of agreement with this statement is (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Comments in response to statement.

6. Previous statement: A personalized message about degree progress (degree audit) would be considered a critical message. Previous responses - Agree 73%, Disagree 19%, No Judgment 8% Summary of comments: A message from an adviser would be critical at my institution. We would not be emailing students about degree audit messages - that is all done via the individual colleges. Students are bombarded and tend to ignore a lot of emails. A message would need to be very specific to be critical. Updated statement: A personalized message about degree progress (degree audit) would be considered a critical message if the student needs to take action or be made aware of a specific issue related to their academic progress.

	Strongly Agree (4)	Agree (3)	Disagree (2)	Strongly Disagree (1)	No Judgment (-)
My level of agreement with this statement is (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Comments in response to statement.

Section 2 of 5 - Determining effective ways to communicate critical messages

7. Previous statement: Social media can be an effective way to communicate certain messages, such as dates and deadlines and other global information. Previous responses - Agree 88%, Disagree 4%, No Judgment 8% Summary of comments: Not everyone uses social media. It's good for generic messages to mass populations. I agree, but you need to do a lot of work to build your social media base. Social media is one way, but it can't be the only way. Updated statement: When used to complement other forms of communication, social media can be an effective way to communicate certain messages, such as dates and deadlines and other global information.

	Strongly Agree (4)	Agree (3)	Disagree (2)	Strongly Disagree (1)	No Judgment (-)
My level of agreement with this statement is (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Comments in response to statement.

8. Previous Statement: Messaging via a student information system (SIS) is an effective way to communicate critical messages. Previous responses - Agree 58%, Disagree 27%, No Judgment 15% Summary of comments: Students don't come to the SIS/portal to read; they come to transact business and can't be expected to read ANYTHING! Yes, especially if you put it in the right location for the specific message. Yes, if it is targeted and private, it can be very effective. I agree, but know that not all SIS can do this. Updated Statement: Private messaging via a student information system (SIS) can be an effective way to communicate critical messages when action is required by a student.

	Strongly Agree (4)	Agree (3)	Disagree (2)	Strongly Disagree (1)	No Judgment (-)
My level of agreement with this statement is (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Comments in response to statement.

9. Previous statement: Messaging via other methods, such as texting, are effective ways to communicate global messages. Previous responses - Agree 77%, Disagree 12%, No Judgment 11% Summary of comments: SIS are still struggling with how to collect texting info. Students often change numbers. Should be opt-in and for emergency use only. We do not have this capability. Updated statement: Messaging via other methods, such as texting, are effective ways

to communicate global messages, when combined with other forms of communication and used on an opt-in basis.

	Strongly Agree (4)	Agree (3)	Disagree (2)	Strongly Disagree (1)	No Judgment (-)
My level of agreement with this statement is (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Comments in response to statement.

10. Does your department have mobile apps that facilitate registration transactions or communication to students?

- Yes (3)
- No (4)

Answer If 10. Does your department have mobile apps that facilitate registration transactions or communication... Yes Is Selected

Describe how mobile apps are utilized by your department.

11. Mobile apps can be another effective tool to communicate with students.

	Strongly Agree (4)	Agree (3)	Disagree (2)	Strongly Disagree (1)	No Judgment (-)
My level of agreement with this statement is (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Comments in response to statement.

Section 3 of 5 - Communication strategies

12. Previous statement: Critical messages (sent via email and/or social media) requiring action and planning are most effective when sent/posted 1-2 days before action is needed. Previous responses - Agree 69%, Disagree 19%, No Judgment 12% Summary of comments: If an action is required, there should be 1-2 weeks prior and then a reminder 1-2 days before the deadline. I think 5-7 days, perhaps. Updated statement: Critical messages (sent via

email and/or social media) requiring action and planning are most effective when sent/posted a minimum of 3-5 days before deadline; lead time is dependent on action/planning required.

	Strongly Agree (4)	Agree (3)	Disagree (2)	Strongly Disagree (1)	No Judgment (-)
My level of agreement with this statement is (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Comments in response to statement.

13. Previous statement: Registrar office staff should be consistent with critical messages and deliver the same message regardless of media, such as website, email, social media. Previous responses - Agree 69%, Disagree 31% Summary of comments: The beauty of social media is that you CAN customize the message to take advantage of each of their unique properties. The information should be consistent, but different forms of media do support different approaches. The content should be identical. Updated statement: Registrar office staff should provide an overall consistent message when delivering messages via social media, but tailor the message for each social media platform.

	Strongly Agree (4)	Agree (3)	Disagree (2)	Strongly Disagree (1)	No Judgment (-)
My level of agreement with this statement is (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Comments in response to statement.

14. Previous Statement: Registrar office staff should utilize more than one form of social media. Previous responses - Agree 81%, Disagree 4%, No Judgment 15% Summary of comments: Most social media costs nothing but time; it's better to be in multiple places as much as possible. We should utilize all the tools available to us. Updated Statement: Registrar office staff should utilize more than one form of social media, in addition to other forms of media, to communicate messages to students.

	Strongly Agree (4)	Agree (3)	Disagree (2)	Strongly Disagree (1)	No Judgment (-)
My level of agreement with this statement is (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Comments in response to statement.

Section 4 of 5 - Registrar office communication staffing

15. Previous statement: Registrar office staff should utilize technical writers to streamline critical message communications. Previous responses - Agree 46%, Disagree 42%, No Judgment 12% Summary of comments: The best people to write messages are the staff who interact/answer student questions frequently. Technical writing staff could assist in streamlining the message. Technical writers can assist with ensuring we don't get too "registrar-y" with our language and information. Updated statement: Registrar office staff should utilize technical writers to help to streamline complex critical message communications.

	Strongly Agree (4)	Agree (3)	Disagree (2)	Strongly Disagree (1)	No Judgment (-)
My level of agreement with this statement is (1)	○	○	○	○	○

Comments in response to statement.

16. Previous statement: Registrar office staff should consult with University communication experts while developing critical messages. Previous responses - Agree 65%, Disagree 23%, No Judgment 12% Summary of comments: For some messages, yes, but they are often focused on marketing. They may be able to assist with the "tone" of the message, but they don't know the right terminology to use in the message. We have our own enrollment services communication team. Updated statement: Registrar office staff could consult with University communication experts while developing critical messages.

	Strongly Agree (4)	Agree (3)	Disagree (2)	Strongly Disagree (1)	No Judgment (-)
My level of agreement with this statement is (1)	○	○	○	○	○

Comments in response to statement.

17. Previous statement: Registrar offices should employ a communication specialist. Previous responses - Agree 62%, Disagree 27%, No Judgment 11% Summary of comments: Ideally, strong communication skills should be a part of nearly every job description in the registrar's office. Most offices do not have staff with expertise, nor the skill set. Thus, an expert who can also be dedicated to social media, etc. can be essential to success. We have our own enrollment

services communication team. Updated statement: Ideally, registrar offices should employ a communication specialist.

	Strongly Agree (4)	Agree (3)	Disagree (2)	Strongly Disagree (1)	No Judgment (-)
My level of agreement with this statement is (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Comments in response to statement.

18. Previous statement: Registrar offices should have students/student workers assist with managing social media sites. Previous responses - Agree 77%, Disagree 8%, No Judgment 15% Summary of comments: They might know HOW to say something to their peers, but they don't know WHAT to say. YES! They can be very helpful with assisting with the messages and social media. They do need to be supervised and I have learned that it can take almost as much time as being the expert. However, the skill set and giving the opportunity for real-life experiences as well as reaching students via a student "perspective" is worth it. Updated statement: Registrar offices should have students/student workers assist with managing social media sites, but the work is directed by a registrar office staff member.

	Strongly Agree (4)	Agree (3)	Disagree (2)	Strongly Disagree (1)	No Judgment (-)
My level of agreement with this statement is (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Comments in response to statement.

19. Previous statement: Registrar office staff should consult at least once per semester with information technology staff on issues related to electronic messaging and data security. Previous responses - Agree 73%, Disagree 8%, No Judgment 19% Summary of comments: Meetings should happen very regularly. Security is the key to system utilization. Updated statement: Registrar office staff should consult with information technology staff on

issues related to electronic messaging and data security multiple times per semester and more frequently as needed.

	Strongly Agree (4)	Agree (3)	Disagree (2)	Strongly Disagree (1)	No Judgment (-)
My level of agreement with this statement is (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Comments in response to statement.

20. Previous statement: Registrar office staff should coordinate social media efforts with other campus entities, such as main university social media or one stop student services. Previous responses - Agree 65%, Disagree 12%, No Judgment 23% Summary of Comments: If there is a one-stop center, it is helpful to coordinate with them. Our messages follow the academic calendar, which is often different from activities happening on campus. When we can align, we should. It's ok to do our own thing. Coordination is one thing; it's likely we are the only office using social media with current students. Updated statement: When appropriate and used sparingly, registrar office staff should coordinate social media efforts with other campus entities, such as main university social media or one stop student services.

	Strongly Agree (4)	Agree (3)	Disagree (2)	Strongly Disagree (1)	No Judgment (-)
My level of agreement with this statement is (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Comments in response to statement.

21. Previous statement: Registrar office staff should have familiarity with social media use and trends. Previous responses - Agree 61%, Disagree 35%, No Judgment 4% Summary of comments: Hire, or consult with someone who does. It is too difficult to keep up with the latest trends. Social media changes faster than any other technical media we have. Having someone willing to learn and keep up with the trends is important, but not necessarily for all staff.

Updated statement: Registrar office staff who work with communication strategies should have familiarity with social media use and trends.

	Strongly Agree (4)	Agree (3)	Disagree (2)	Strongly Disagree (1)	No Judgment (-)
My level of agreement with this statement is (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Comments in response to statement.

Section 5 of 5 - Determining effective ways to evaluate critical messages

22. Previous statement: Registrar offices should survey students' communication preferences. Previous responses - Agree 69%, Disagree 19%, No Judgment 12% Summary of comments: Preferences change and vary. We do what we have to do - it's not up to the student how they are informed of things. Input is very good - a survey may be the best way to do this. We are just about to do this. We are at a loss if videos will be useful or not. This is difficult to do if you can't implement the suggestions. Updated statement: Registrar offices should survey students' communication preferences on targeted communication practices, such as social media, video tutorials, etc.

	Strongly Agree (4)	Agree (3)	Disagree (2)	Strongly Disagree (1)	No Judgment (-)
My level of agreement with this statement is (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Comments in response to statement.

23. What have you learned through the Delphi survey process?

Please provide comments on any statements in this final round or suggestions for future research related to communication from a registrar's office.

Thank you for your input and assistance. I will be collating and writing results during spring semester and share results with you by summer 2015. I wish you the best as you wrap up fall term!

APPENDIX M. DELPHI SURVEY STATEMENT CROSSWALK

Statement	Number in Round 1	Number in Round 2	Number in Round 3
Defining critical messages			
A critical message from a registrar’s office is a message that is important to a student’s academic status.	1	n/a	n/a
Students need to take action on a critical message.	2	1	n/a
A message about academic standing (academic warning, probation, suspension) would be considered a critical message.	3	n/a	n/a
A message about academic record updates would be considered a critical message.	4	2	n/a
A message about academic record updates that require action by a student would be considered a critical message.	n/a	n/a	1
A message about dates and deadlines would be considered a critical message.	5	n/a	n/a
An email message about dates and deadlines would be considered a critical message.	n/a	3	n/a
An email message about dates and deadlines would be considered a critical message only if the student needs to take action.	n/a	n/a	2
A message about registration would be considered a critical message.	6	n/a	n/a
A personalized email message about registration would be considered a critical message.	n/a	4	n/a
A personalized email message, including detailed information about a student’s specific registration time, would be considered a critical message.	n/a	n/a	3
A message about mid- or final grades would be considered a critical message.	7	n/a	n/a
A personalized message about mid-term grades would be considered a critical message.	n/a	5	n/a
A personalized message about deficient mid-term grades would be considered a critical message, since the student may need to take action due to the deficiency.	n/a	n/a	4
A personalized message about final grades would be considered a critical message.	n/a	6	5
A message about degree progress (degree audit) would be considered a critical message.	8	n/a	n/a
A personalized message about degree progress (degree audit) would be considered a critical message.	n/a	7	n/a

Statement	Number in Round 1	Number in Round 2	Number in Round 3
A personalized message about degree progress (degree audit) would be considered a critical message if the student needs to take action or be made aware of a specific issue related to their academic progress.	n/a	n/a	6
A message about the graduation process (i.e. application for degree, commencement participation information, diploma updates) would be considered a critical message.	9	n/a	n/a
A message about annual federal compliance notification would be considered a critical message.	10	n/a	n/a
In your opinion, registrar's offices send messages to students (via email, social media, etc.) that are: (check all that apply)	n/a	not numbered	n/a
Determining effective ways to communicate critical messages			
University email is an effective way to communicate critical messages.	11	9	n/a
Social media is an effective way to communicate certain critical messages, such as dates and deadlines and other global information.	12	n/a	n/a
Social media can be an effective way to communicate certain critical messages, such as dates and deadlines and other global information.	n/a	10	n/a
When used to complement other forms of communication, social media can be an effective way to communicate certain messages, such as dates and deadlines and other global information.	n/a	n/a	7
Messaging via a student information system (SIS) is an effective way to communicate critical messages.	13	11	n/a
Private messaging via a student information system (SIS) can be an effective way to communicate critical messages when action is required by a student.	n/a	n/a	8
Messaging via other methods (secure system, texting...) are effective ways to communicate critical messages.	14	n/a	n/a
Messaging via other methods, such as texting..., are effective ways to communicate global messages.	n/a	12	n/a
Messaging via other methods, such as texting, are effective ways to communicate global messages, when combined with other forms of communication and used on an opt-in basis.	n/a	n/a	9

Statement	Number in Round 1	Number in Round 2	Number in Round 3
Does your department have mobile apps that facilitate registration transactions or communication to students?	n/a	n/a	10
If yes, describe how mobile apps are utilized by your department.	n/a	n/a	
Mobile apps can be another effective tool to communicate with students.	n/a	n/a	11
Communication strategies			
Registrar offices should have a documented communication plan.	15	n/a	n/a
Registrar offices should have a communication calendar, which is a centralized source to plan, schedule, create, publish, monitor and update communication, including websites, email and social media.	16	n/a	n/a
Critical messages (sent via email and/or social media) are most effective when sent/posted 1-2 days before action is needed.	17	n/a	n/a
Critical messages (sent via email and/or social media) requiring an action and planning are most effective when sent/posted 1-2 days before action is needed.	n/a	13	n/a
Critical messages (sent via email and/or social media) requiring action and planning are most effective when sent/posted a minimum of 3-5 days before deadline; lead time is dependent on action/planning required.	n/a	n/a	12
Critical messages (sent via email and/or social media) are most effective when sent/posted 3+ days before action is needed.	18	n/a	n/a
Critical messages (sent via email and/or social media) requiring an action and planning are most effective when sent/posted 3+ days before action is needed.	n/a	14	n/a
Critical messages (sent via email and/or social media) are most effective when sent/posted in the morning.	19	n/a	n/a
Critical messages (sent via email and/or social media) are most effective when sent/posted in the afternoon.	20	15	n/a
Critical messages (sent via email and/or social media) are most effective when sent/posted in the evening.	21	16	n/a
Registrar office staff should segment and specifically target a focus population when possible in an effort to transmit critical messages only to the student population needing the message (i.e. degree audit, graduation updates, academic standing).	22	n/a	n/a

Statement	Number in Round 1	Number in Round 2	Number in Round 3
Registrar office staff should be consistent with critical messages and deliver the same message regardless of media, such as website, email, social media.	23	17	n/a
Registrar office staff should provide an overall consistent message when delivering messages via social media, but tailor the message for each social media platform.	n/a	n/a	13
Registrar office staff should utilize more than one form of social media.	24	18	n/a
Registrar office staff should utilize more than one form of social media, in addition to other forms of media, to communicate messages to students.	n/a	n/a	14
Registrar office staff should implement hashtags into social media.	25	19	n/a
Communication mechanics in emails			
Multiple registrar office staff should review the subject line of a critical message email prior to transmission.	26	n/a	n/a
Critical message emails from a registrar's office should contain images.	27	n/a	n/a
Critical message emails from a registrar's office should contain hyperlinks.	28	n/a	n/a
Critical message emails from a registrar's office should contain hyperlinks, when appropriate.	n/a	20	n/a
Critical message emails from a registrar's office should contain bullet points.	29	21	n/a
Critical message emails from a registrar's office should contain videos (i.e. YouTube).	30	n/a	n/a
Critical message emails from a registrar's office should be formatted in paragraph form.	31	n/a	n/a
Registrar office communication staffing			
Registrar office staff should utilize technical writers to streamline critical message communications.	32	22	n/a
Registrar office staff should utilize technical writers to help to streamline complex critical message communications.	n/a	n/a	15
Registrar office staff should consult with University communication experts while developing critical messages.	33	23	n/a
Registrar office staff could consult with University communication experts while developing critical messages.	n/a	n/a	16
Registrar offices should employ a communication specialist.	34	24	n/a

Statement	Number in Round 1	Number in Round 2	Number in Round 3
Ideally, registrar offices should employ a communication specialist.	n/a	n/a	17
Registrar offices should have students/student workers assist with managing social media sites.	35	25	n/a
Registrar offices should have students/student workers assist with managing social media sites, but the work is directed by a registrar office staff member.	n/a	n/a	18
Registrar office staff should consult at least once per semester with information technology staff on issues related to electronic messaging and data security.	36	26	n/a
Registrar office staff should consult with information technology staff on issues related to electronic messaging and data security multiple times per semester and more frequently as needed.	n/a	n/a	19
Our registrar's office collaborates with other campus departments to develop critical messages.	37	n/a	n/a
Registrar office staff should coordinate social media efforts with other campus entities, such as main university social media or one stop student services.	38	27	n/a
When appropriate and used sparingly, registrar office staff should coordinate social media efforts with other campus entities, such as main university social media or one stop student services.	n/a	n/a	20
It is challenging for registrar staff to stay current with emerging sites and technologies.	39	28	n/a
Registrar office staff should have social media skills.	40	n/a	n/a
Registrar office staff should have familiarity with social media use and trends.	n/a	29	n/a
Registrar office staff who work with communication strategies should have familiarity with social media use and trends.	n/a	n/a	21
Indicate the number of registrar office staff who primarily coordinate, transmit and evaluate communication to students.	n/a	30	n/a
Legal/FERPA issues			
Registrar office staff members need to be aware of FERPA and privacy controls when managing social media sites on behalf of the office.	41	n/a	n/a
Registrar offices should implement strategies to ensure critical messages are compliant with the Americans with Disabilities Act (ADA).	42	n/a	n/a

Statement	Number in Round 1	Number in Round 2	Number in Round 3
Evaluating critical messages			
Registrar office staff should evaluate the effectiveness of critical message emails (read rates, unopened messages, etc.).	43	n/a	n/a
Registrar office staff should evaluate the effectiveness of critical messages transmitted via social media.	44	n/a	n/a
Registrar office staff should evaluate the effectiveness of critical messages sent through other messaging systems.	45	n/a	n/a
Registrar offices should evaluate student follow-through after a critical message is transmitted.	46	n/a	n/a
An institution should identify student university email as an official form of communication.	47	n/a	n/a
Registrar offices should survey students' communication preferences.	48	31	n/a
Registrar offices should survey students' communication preferences on targeted communication practices, such as social media, video tutorials, etc.	n/a	n/a	22
Total statements	48	31	22

APPENDIX N. BEST PRACTICES FOR COMMUNICATING CRITICAL MESSAGES TO TRADITIONAL-AGED COLLEGE STUDENTS FROM A REGISTRAR’S OFFICE

Defining Critical Messages

- Critical messages differ from informational messages when the student needs to take action.
- A variety of academic record related messages are considered “critical,” including academic standing and academic record updates and academic degree progress messages needing student action.

Determining Effective Ways to Communicate Critical Messages

- Institutional email is an effective way to communicate critical messages. If an institutional email policy is not established, explore potential implementation.
- Establish communication expectations with incoming and current students.
- Be mindful of boundaries with social media; inform students how social media will be used to communicate important dates and deadlines, registration information, and more.
- Global messaging via other communication methods, including social media and text messaging, can be effective, but only when combined with other forms of communication and on an opt-in basis.

Communication Strategies

- It is essential to have a communication plan within the registrar’s office, as well as a communication calendar to plan, schedule, create, publish, monitor, and update communication efforts ranging from websites, email, and social media.
- Evaluate staff’s professional development needs as well as the office’s current technology infrastructure, and plan for training and development as appropriate.
- Segment and target communication to a specific population when sending a critical message when possible.
- Critical messages requiring student action are best sent via email or posted on social media a minimum of 3-5 days before deadline.
- Lead time for message transmission is dependent on the action and planning required by the student.
- Registrar staff should provide consistent messaging but yet vary messages appropriate to the social media platform.

Communication Mechanics in Emails

- Multiple registrar staff should review the subject line of a critical message prior to transmission.
- To ensure messages are concise, critical messages should contain bullet points and hyperlinks as appropriate.

Registrar Office Communication Staffing

- It is essential to communicate, collaborate, and coordinate with other campus departments, including University communication experts, when developing critical messages.
- Registrar staff need to stay current with emerging technologies and trends and be familiar with social media usage.
- Registrar office staff should reach out to other registrar professionals to share and discuss communication practices.
- Students/student workers should assist with managing office social media sites, but it is recommended a registrar professional provides oversight.
- Registrar offices should employ a communication specialist.

Legal/FERPA Issues

- Registrar staff need to be aware of FERPA and various privacy controls when managing social media sites.
- Registrar office staff should implement various strategies to ensure critical messages are compliant with the Americans with Disability Act.
- Registrar staff need to consider accessibility when sending or posting messages with hyperlinks, videos, images, and contain a variety of formatting options.

Evaluating Critical Messages

- Various ways to evaluate the effectiveness of critical email messages, include analytics on read rates, percentages of unopened/undelivered messages, etc.
- Social media efforts should be evaluated for effectiveness, as well as any messages sent via other messaging systems, including text messaging or messaging via SIS.
- Registrar office staff should evaluate student follow-through after a critical message has been sent.
- Registrar office staff should survey students' communication preferences on targeted communication practices, such as social media, video tutorials, timing of sending messages, etc.