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The Effect of Email Communications on Professor-Student Rapport, Academic Self-Efficacy, Resiliency, Motivation, and Student-Rapport

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**THE EFFECT OF EMAIL COMMUNICATIONS ON PROFESSOR-STUDENT
RAPPOR, ACADEMIC SELF-EFFICACY, RESILIENCY,
MOTIVATION, AND SPIRITUALITY**

A Master's Thesis

Presented to

The Graduate College of

Missouri State University

In Partial Fulfillment

Of the Requirements for the Degree

Master of Science, Psychology

By

David Joshua Heim

May 2022

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THE EFFECT OF EMAIL COMMUNICATIONS ON PROFESSOR-STUDENT RAPPORT, ACADEMIC SELF-EFFICACY, RESILIENCE, MOTIVATION, AND SPIRITUALITY

Psychology

Missouri State University, May 2022

Psychology, Master of Science

David Joshua Heim

ABSTRACT

Student retention and success rates are an increasing concern among collegiate administrators and educators. This study examined the influence of a college instructor's email communications on professor-student rapport, student academic self-efficacy, resilience, motivation, and success. Researchers hypothesized that the student participants who received the encouraging email communications from their professor would demonstrate higher levels of professor-student rapport, higher levels of academic self-efficacy, resiliency, and success compared to the students who receive standard email communications from their professor. Five scales were utilized in this study including Professor-Student Rapport Scale, Academic Self-Efficacy Scale, Academic Resilience Scale (ARS-30), Daily Spiritual Experience Scale (DSES), and Patterns of Adaptive Learning Scale-Achievement Goal Subscales (PALS, Revised 2000). Participants ($N = 66$) completed the scales twice, once at the beginning of the semester and once at the end in order to evaluate the effects of email communications from the professor on participants' thoughts and feelings concerning professor-student rapport, academic self-efficacy, resilience, and motivation. Researchers found a positive increase in professor-student rapport from the beginning to the conclusion of the semester (Pre-Post ANOVA), supporting the hypothesis. Additionally, a significant decrease in academic self-efficacy and resiliency was evident from the beginning to the end of the semester. When evaluating group differences (Control vs Experimental), no significant differences were observed. Based upon a multiple regression analysis, it was found that professor-student rapport was the only factor that contributed significantly to changes in academic self-efficacy. However, the direction of this relationship did not support the predicted hypothesis. This study exemplifies the strengths that email communications demonstrate on professor-student rapport and indicates that it should be implemented by educators.

KEYWORDS: professor-student rapport, academic self-efficacy, resilience, motivation, spirituality

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May 2022

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In the interest of academic freedom and the principle of free speech, approval of this thesis indicates the format is acceptable and meets the academic criteria for the discipline as determined by the faculty that constitute the thesis committee. The content and views expressed in this thesis are those of the student-scholar and are not endorsed by Missouri State University, its Graduate College, or its employees.

ACKNOWLEDGEMENTS

I would like to thank my mentor and chair Dr. Adena Young-Jones for her guidance throughout the thesis process. I would also like to thank Dr. Ashley Payne and Dr. D. Wayne Mitchell for serving as my committee members and assisting me in completing my thesis.

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INTRODUCTION

Building and encouraging strong relationships between educators and students is a critical priority of student affairs and university faculty (Olson and Carter, 2014). According to the National Center for Education Statistics (2020), approximately 62% of students who began courses toward a bachelor's degree at a four-year educational institution completed that degree within six years. University administrators, professors, and advisors must discover positive behaviors that may strengthen their students resolve to graduate. Establishing strong rapport encourages academic aspirations, respect, and confidence; all of these qualities are important when pursuing higher education. Research has linked faculty-student rapport with student retention and academic success (Olson and Carter, 2014) as it builds positive academic attitudes and behaviors such as self-efficacy (Waples, 2016), resilience, and motivation (Estep and Roberts, 2013). Rapport is considered "a close or sympathetic relationship; agreement; harmony" (Guralnik, 1982). Advances in technology increase opportunities for building faculty-student rapport. Email communications provide effective, efficient, and engaging learning, which can boost levels of academic self-efficacy, resilience, and motivation (Kim, 2008). The purpose of this study was to evaluate the impact of professor student email communications in strengthening rapport, academic self-efficacy, resilience, and motivation in upper-level psychology courses.

LITERATURE REVIEW

Professor-Student Rapport

Professor-student rapport has a positive influence on student outcomes (Wilson et al., 2010). The key to establishing professor-student rapport is open communication, which leads to the development of mutual trust and respect. Advancements in technology, such as email, offer college instructors and students an additional platform to collaborate outside of the classroom. Research has demonstrated that email communications positively effect student rapport, motivation, attitudes, and promote collegiate success (Dobranksy and Frymier, 2004; Legg and Wilson, 2009; Sheer and Fung, 2007). In the current study, the impact of email communications on professor-student rapport, academic self-efficacy, resilience, and spirituality were explored.

Rapport in Building Retention and Persistence. Public universities are often scrutinized by states demanding evidence of greater accountability, effective use of resources, and graduating additional students in a shorter time period while still offering a quality education (Olson and Carter, 2014). Since retention and persistence toward a degree are crucial to student success, university administrators must acknowledge that considerate and committed full-time professors aid in student retention and persistence. Olson and Carter (2014) examined caring behaviors portrayed by college educators, which positively enhanced student retention, graduation rates, and academic success rates. Results of this investigative study found that when students feel welcome and valued, lines of communication are fostered, which assists in promoting feelings of appreciation and trust. To instill confidence, professors were encouraged to make a significant effort to provide positive feedback, encourage creative thinking, and dispense productive criticism. When faculty members responded to phone calls and emails

quickly and effectively, students appreciated the fast response time and linked that to attentive and concerned professors (Groth, 2007; Olson and Carter, 2014). Olson and Carter (2014) further emphasized that students need professors to provide unconditional positive regard and have a “caring” attitude toward students to promote retention and success, both inside and outside of the classroom. College educators who display caring attitudes and behaviors tend to develop stronger and more positive professor-student rapport.

Professor-student rapport is a professional and personal connection that is built on mutual trust and respect. When rapport is established, students feel like their professors are compassionate and value their future academic and professional endeavors. Students may also foster a sense of “partnership” with professors when rapport is emotionally secure. This type of mentoring relationship may increase students’ academic self-efficacy, resilience, motivation, and retention/success. Therefore, students are more likely to persist and graduate when professor-student rapport flourishes on college campuses.

Rapport in Fostering a Positive Learning Environment. Establishing and building rapport between professors and students promotes positive relationships, which fosters a constructive classroom environment that stimulates learning and participation (Ellis, 2004; Frisby and Martin, 2010; Worley et al., 2007). Frisby and Martin (2010) examined the connection between professors and their students using the Modified Rapport Measure and Cognitive Learning Measure. This instrument assessed students’ perceptions about how social relationships in the classroom influence participation and student learning outcomes. Frisby and Martin found that perceived rapport with instructors and students was associated to classroom connectedness. Professor-student rapport and classroom connectedness encouraged and increased student participation. In conclusion, the findings suggested perceived instructor

rapport was the primary and crucial variable as it persistently predicted affective and cognitive learning along with participation.

Identifying the types of positive professional conduct that enhance scholastic motivation and rapport should be a priority for college educators. To determine the classification of faculty etiquette that encourage student success, Granitz et al. (2009) investigated behaviors that professors classified as meaningful and significant in building rapport. Faculty participants identified approachability and accessibility as two fundamental components that are pivotal in creating rapport with students. Approachability referred to a student's level of comfort when asking questions and seeking guidance from their professor (Benson et al., 2005; Faranda and Clarke, 2004). Accessibility signified a professor's willingness to provide students with their personal phone number and email (Benson et al., 2005; Faranda and Clarke, 2004). The outcomes of professor-student rapport emphasized were higher motivation, improved evaluations, better relationships, and enhanced communication. Therefore, rapport between professors and students improved learning and provided additional positive benefits to the classroom environment.

The Role of Rapport in Building Academic Beliefs. Numerous benefits exist of building emotional bonds between instructors and students. Reciprocal sharing of experiences established respect and trust within the instructor-student relationship, which are essential for student academic success (Goodman, 2009; Waples, 2016). Therefore, professor-student collaboration should be a priority to create and cultivate rapport. Waples' (2016) investigation also suggested the significance of building emotional rapport to enhance student self-efficacy and academic performance. Additionally, providing emotionally secure learning environments created opportunities for students to nurture their self-efficacy. According to Jungert and

Rosander (2010), self-efficacy increased upon the belief that they were a contributor in their learning and could improve course curriculum or composition through teacher-student collaboration. Subsequently, professor-student alliances lead to the development of mentoring relationships that guide positively student's scholastic success.

Mentoring relationships (rapport) established between undergraduates and professors can be a strong indicator of an exceptional college experience for students. Professors are in a unique and opportunistic position to use verbal and non-verbal communication resulting in the cultivation of rapport within the classroom. In order to predict student outcomes, Wilson et al. (2010) developed a Professor-Student Rapport Scale to evaluate student's perspectives of the instructor and the course. Wilson et al. (2010) noted that perceived relationships with educators is indeed linked to perceptions of classroom connectedness, which enhanced student participation. Instructor-student rapport continually predicted levels of student participation and learning. College instructors can inspire educational and professional accomplishments by understanding and recognizing each student's values and goals. When professors put forth the effort to build these connections, students feel inspired to fulfill their scholastic objectives. Consequently, educators should inspect ways that they can improve interpersonal relationships with each student to motivate individual achievements, academically and professionally.

Student motivation and goal setting are essential attributes for collegiate academic achievement. In particular, interpersonal relationships are vital to teaching and learning in the college classroom (Meyers, 2009). Estep and Roberts (2013) investigated the association between professor and student, student motivation, expectancy for success, and individual values/goals. The majority of participants reported the establishment of rapport with their instructors. Estep and Roberts (2013) results found that educators were successful in building

rapport through positive classroom reciprocity. Participants identified specific characteristics such as respecting students, being approachable, communicating effectively, and being fair, which supported Wilson et al. (2010) research.

Particular professional conduct toward students enhances interpersonal and educational relationships. Rokach (2016) investigated the impression college professors specifically have on their students, which behaviors were crucial in creating an impact, and the behaviors that instructors may want to embrace to enhance their academic effectiveness. Rokach's (2016) research emphasized the development of rapport between faculty and students through verbal and nonverbal communication. Some of the behaviors mentioned were providing positive feedback to students, making a special effort to encourage creativity and freethinking, being open to new ideas, and providing constructive criticism. Rokach's (2016) results revealed that respectful professors encouraged openness and accessibility, acted as an appropriate adult role model, responded to student's needs, and returned calls and emails in a timely manner. Additionally, caring educators embraced email as an effective tool to communicate with students.

The Effects of Technology on Professor-Student Rapport

The development of technology has provided professors with a unique tool to enhance teaching and learning. Legg and Wilson (2009) acknowledged that technological advances provide multiple methods for educators and students to interact outside of the classroom. Blackboard, chatrooms, Facebook groups, and email dispense additional opportunities for interchanges between faculty and students. Specifically, electronic mail (email) can be a useful educational instrument that strengthens learning and scholastic opportunities (Hassett et al.,

1995; Legg and Wilson; Sheer and Fung, 2007; Weiss and Hanson-Baldauf, 2008). Hassett et al. (1995) researched conceptual examples of how instructors can incorporate email communications into the classroom and supplement unconventional teaching/learning situations. Email communications positively benefited both professors and students. Students believed faculty were reachable for more than only syllabus office hours and extended contact hours to practically any time and place with internet accessibility. Hassett et al. (1995) accentuated that email assisted professors and students with course management and support, grade reporting, teaching/learning, course evaluation, and student feedback. In conclusion, email is a productive implement which engaged professors use to encourage rapport and promote student success.

Welcome Emails to Encourage Rapport. Conventionally, professors have used the first day of class to begin developing rapport with students (Legg and Wilson, 2009). However, waiting for the first day of class to begin establishing rapport is no longer necessary for educators. Legg and Wilson (2009) investigated the effects of an introductory welcome email prior to the first class in increasing motivation and attitudes toward the instructor and the course. In fact, the email communication significantly impacted course retention. Only two students who received a welcome email dropped the course compared to 29% of the students who did not receive an email from the instructor (Legg and Wilson, 2009). Thus, research has concluded that an email from an instructor can enhance student motivation and attitudes.

Email communications often impact student educational attitudes, retention, and success. A variety of research has assessed the influence that emails have on undergraduates' scholastic outcomes. Weiss and Hanson-Baldauf (2008) specifically investigated email practices in academia between instructors and undergraduates in association to their expectations and the impact on learning outcomes and student success. Several appropriate uses for email were

examined including assignment clarification, question asking/answering, lecture clarification, and relationship building (rapport). Professors and students concurred that increased email communication contributed positively to learning, higher grades, and establishing connections; these findings were supported by Legg and Wilson (2009). Since email communications prove to be influential on educational outcomes, it should be used as a supplement to instruction. Further exploration is necessary to recognize the beneficial contributions of email on student motivation, retention, and achievement.

Email Use to Provide Feedback and Promote Success. To assess how email communication impacted the professor-student relationship, Sheer and Fung (2007) investigated five key relationship components/variables comprised of familiarity, relational quality, trust, relationship closeness, and satisfaction. The majority of email communications were found to be positively linked to these five variables. Specifically, professor email frequency, helpfulness, and replying punctually contributed positively to the professor-student relationship (Dobransky and Frymier, 2004; Sheer and Fung, 2007). Professors who use email as a supplement to teaching provided students a valuable communication instrument when they had questions or concerns between class periods (Hassini, 2006). Consequently, as Dobransky and Frymier (2004) revealed, open lines of communication demonstrated a professor's caring attitude toward their students, which promotes success and retention.

Email transmissions allow instructors to respond promptly to students' inquiries and concerns; in turn, this demonstrates attentiveness and concern, which facilitates academic achievement. Carrell et al. (2016) investigated the effects of professor feedback on student success in collegiate classrooms. A "light-touch" intervention, consisting of two precisely timed emails to students, was implemented. The emails from professors included knowledge of the

student's present standing in class, keys to success in the course, and a reminder of the professor's availability. Carrell et al. (2016) conveyed those students in the treatment group scored higher on exams, homework assignments, and final grades were higher in contrast to the students in the control group. Essentially, professors who communicated effectively through email reflected positive support and promoted student success.

Effects of Email Use for Online Courses. Self-efficacy is a crucial component for academic performance in traditional educational settings. Hodges (2008) explored self-efficacy and its relationship to academic success in an online learning environment. Email messages were designed to strengthen students' self-efficacy to learn mathematics asynchronously and were developed along with neutral email messages intended not to effect self-efficacy. Hodges suggested that an increase in self-efficacy was observed immediately following the email treatment measure, which demonstrated that simply receiving an email message was efficacy boosting. Therefore, the use of email to increase academic self-efficacy should be examined further in online learning environments to enhance successful distance learning.

A multitude of universities are offering classes online. Consequently, Kim's (2008) research emphasized that email can make online courses exponentially effective, efficient, and engaging, also known as e3 learning. To increase the use of email for the support of e3 learning, researchers proposed a guide to design and develop a process including identifying a learner's needs, constructing appropriate email, and renewing email. Kim asserted that more obstacles exist to e3 learning in many undergraduate courses than graduate courses where fewer students are enrolled. Emails provided more effective, efficient, and engaging learning resulting in possibly increased student academic self-efficacy. Lessons learned concerned using email

effectively to engage and communicate with students in a traditional classroom setting may transfer to non-traditional (distance) educational settings.

Academic Self-Efficacy, Motivation, and Resilience

The concept of self-efficacy concerns an individual's belief in one's ability to produce or obtain specific goals or accomplishments (Bandura, 1977, 1986, and 1997). Independent confidence in personal capabilities dictated the type of goals set, the amount of effort disbursed, and persistence exhibited when obstacles arose (Bandura, 1997). Self-efficacy produced the basis for individual motivation, well-being, and personal achievement (Sachitra and Bandara, 2017). It also predicted outcomes connected to career choice and academic accomplishments (Bandura, 1986). Furthermore, self-efficacy among college students depicted a predominant role in propelling them to learn (Pajares and Schunk, 2001).

In order to evaluate an individual's belief concerning his or her capability to self-regulate learning (SRL), Zimmerman and Kitsantas (2007) established the Self-Efficacy for Learning Form (SELF). This assessment measures student's confidence in their abilities to set goals, self-monitor, strategy use, self-evaluation, and self-reaction. Additionally, the SELF was designed to explore perceived self-efficacy focused on reading, note taking, test-taking, writing, and studying. The college participants' scores on the SELF were significant in predicting the quality and quantity of their homework, acceptance of responsibility for adverse academic outcomes, and course grades. Students with high SELF scores tended to have higher quality and quantity of homework, have greater acceptance for adverse academic outcomes, and higher course grades.

Academic self-efficacy is defined as a student's confidence in their abilities to successfully accomplish academic pursuits at a desired level (Schunk, 1991). Bandura (1997)

exerted that academic self-efficacy is affected by four sources: mastery experience, vicarious experience, verbal persuasions, and psychological and affective states. Bandura believed that mastery experiences are the most influential for individuals. Likewise, Schunk (1991) argued that motivation is increased when students believe they are making advancements in their educational learning. As such, when students work on tasks and become increasingly accomplished, they cultivate a sense of self-efficacy for achievement. Researchers concluded that students with a higher sense of self-efficacy will participate in activities that they deem will result in learning (Bandura, 1993, 1997; Pajares and Schunk, 2001; Schunk, 1991). Consequently, academic self-efficacy and motivation increased when students believe that they are comprehending and mastering educational materials.

When students have confidence in their scholarly abilities, they remain optimistic and committed to completing their educational goals. Self-assured undergraduates possess distinct characteristics that compel them toward achievement when they encounter life impediments. Chemers et al. (2001) investigated the effects of academic self-efficacy and optimism on first year college student's academic performance, stress, health, and commitment to remain in school (retention). Researchers emphasized an individual's confidence in their abilities played a significant role in their ability to successfully navigate challenges during transitional periods in life. Results also revealed that students with higher levels of self-efficacy experienced less stress, fewer health problems, and adjusted better to the collegiate environment. Additionally, students entering college with confidence in their ability to achieve scholastic goals performed better than less confident peers. In particular, Chemers et al. (2001) encouraged university faculty to identify attributes that motivate student confidence to promote retention and academic success.

One powerful predictor of student scholastic success is resilience. An individual's ability to bounce back under challenging circumstances determines their level of resilience. Jowkar et al. (2014) explored the relationship between achievement goal orientations and academic resilience. Despite the existence of stressful events, resilient students maintained higher levels of achievement, motivation, and performance (Alva, 1991; Jowkar et al.; Martin and Marsh, 2009; McLafferty et al., 2012; Waxman et al., 2003). Since it is a priority for university faculty to promote scholarly success and retention, recognizing characteristics of resilient students could be helpful in providing assistance to undergraduates who are struggling scholastically.

To further investigate and understand the value of resilience in college student achievement, Cassidy (2016) developed a self-reporting assessment. Cassidy's Academic Resilience Scale (ARS-30) measures aspects of resilience and behavioral responses to scholastic difficulties. Findings from Cassidy's investigation of the ARS-30 demonstrated that this scale provides good internal and construct validity. Therefore, it was an appropriate tool to be used in the current research study.

Spirituality's Effects on Self-Efficacy and Well-Being

Many healthcare professionals recognize the positive impact religion and/or spirituality provides in their clients' lives. Oxhandler and Parrish (2017) examined the experiences of social workers, psychologists, counselors, marriage and family therapists, and nurses in integrating their clients' religiosity/spirituality into their clinical practice. A total of 550 participants responded to the online survey, which included the Religious/Spirituality Integration Practice Assessment Scale. Oxhandler and Parrish (2017) results suggested that attitudes concerning the integration of clients' religious/spirituality were mainly positive, which conveyed

that religious/spirituality can have a positive influence in many people's mental health and well-being.

Religious beliefs play an influential role throughout people's lives. Bigdeloo and Bozorgi (2016) investigated the relationship between religious attitudes, self-efficacy, and life satisfaction in high school teachers. Participants completed a religious attitude questionnaire, a general self-efficacy survey, and a life satisfaction survey. Bigdeloo and Bozorgi's (2016) results demonstrated a productive and significant positive correlation between religious attitudes and life satisfaction. Self-efficacy and religious attitudes also predicted life satisfaction. Consequently, religious beliefs have been beneficially linked to be a prognosticator of mental health, life satisfaction, and overall well-being.

Psychological well-being (PWB) and self-efficacy are considered to be decisive elements for the classroom settings. Ganaprakasam and Hutagalung (2018) explored the relationship religion had on the psychological well-being and self-efficacy of participants. In order to assess this relationship, Ganaprakasam and Hutagalung (2018) determined the correlation between the following scales: Strength of Religious Faith Questionnaire (SCSRFQ), the Psychological Well-Being Inventory (The Ryff Scale), and the Self-Efficacy for Learning Scale (SELF). The results from this investigation indicated that praying eliminated feelings of failure and positive declarations were found to boost student confidence. Furthermore, Ganaprakasam and Hutagalung (2018) suggested that religiosity can positively impact self-efficacy. Researchers concluded that psychological well-being was directly connected to a person's religious beliefs and leads them to develop positive attitudes in recognizing their individual capabilities.

Psychological well-being correlates with feelings of happiness, joy, hope, optimism, self-efficacy, and adaptability (Archana et al., 2014). Specifically, resilience is one of the most

crucial factors that contribute to the well-being of college students. Resilient people are most likely to achieve good mental health and have the ability to recover more swiftly from traumatic and stressful circumstances (Singh and Pareek, 2007). Spirituality also enhances psychological well-being and assists people in developing a better understanding of life (Ellens, 2008; Foskett et al., 2004). According to Archana et al. (2014), psychological well-being was predicted by both resilience and spirituality among the college participants in this research study (Archana et al., 2014). Since college is typically a transitional period for students, professors should understand the types of activities that provide psychological well-being to promote higher levels of self-efficacy and resilience.

When students first arrive on campus, they are in a transitional period and are developing a new sense of independence away from their guardians (Dev et al., 2018). The new social, financial, and environment factors can place students at risk for negative health behaviors, which could possibly proceed into their adult years. Dev et al. (2018) investigated the relationship between emotional intelligence, spiritual intelligence, and self-efficacy on collegiate students' health behaviors. Spiritual intelligence enhanced positive healthy behaviors and was also connected to higher levels of emotional intelligence and self-efficacy (Dev et al., 2018; Rahimabadi and Iranyar, 2015).

Religiosity is considered a crucial component in emerging adults' lives (Fatima et al., 2018). The roles of self-efficacy and perceived social support, which is believed to be directly linked to the relationship of religiosity with psychological well-being (PWB), were explored. Young adults in the collegiate age group (19-24) experience many life changes and challenges; therefore, they need positive sources such as religiosity to deal with these transitional life challenges. Fatima et al. results found that religious coping and practices were compelling

predictors of all psychological well-being outcomes including relationships between religiosity, self-efficacy, and perceived social support. Essentially, religiosity factors were found to be connected to self-efficacy, perceived social support, and PWB outcomes. Overall, spirituality seems to have a positive influence on college students' self-efficacy and psychological well-being during a transitional period in life.

PURPOSE OF STUDY

The purpose of the current study was to examine the effects of an encouraging and welcoming email from a psychology professor in an upper-level course on building rapport, increasing student academic self-efficacy, motivation, resilience, and success. A lack of research exists concerning spirituality's influencing factors toward academic self-efficacy, motivation, resilience, and student success. It is essential for educators to recognize and understand characteristics that encourage student success to promote persistence and retention. To further explore motivating attributes to student success and positive outcomes, researchers investigated professor-student rapport, academic self-efficacy, and resilience. In previous studies, these factors have indicated to be significant individually to student motivation and success (Cassidy, 2016; Midgley et al., 2000; Sachitra and Bandara, 2017; Wilson et al., 2010). Consequently, researchers investigated how these factors influenced student success when integrated into one study (See Appendix A). Researchers sought to answer the following research questions: 1) Were there significant differences within each grouping variable (Academic Self-Efficacy, Professor-Student Rapport, Spirituality, and Resiliency)? 2) Was there a significant prediction within the Experimental and Control conditions? Did the manipulation have an overall impact? Researchers hypothesized that the student participants who receive the encouraging email communications from their professor would demonstrate higher levels of professor-student rapport, higher levels of academic self-efficacy, resiliency, and success compared to the students who receive standard email communications from their professor (See Appendix B).

METHOD

Participants

Participants included sophomore, junior, and senior Psychology students ($N = 66$) enrolled in Educational Psychology, Psychology of Childhood, Psychology of Diverse Populations, or additional upper-level Psychology classes at a Midwestern university, all taught by the same professor. The participants included 51 women, 8 men, 2 transgender, 4 who did not identify their gender, and 1 who identified as other. The participants were at a variety of phases in their academic career including 3 others (non-traditional), 8 sophomores, 25 juniors, and 30 seniors. Of all the participants, 61 were White, 1 Black, 1 Hispanic, 1 Biracial, 1 Native American, and 1 other.

Measures

Professor-Student Rapport Scale. This scale was constructed using 44 items (see Appendix for item names and descriptors) that question student beliefs concerning teacher's respect, rapport, value, characteristics, and classroom environment success (Wilson, Ryan, and Pugh, 2010). Item responses were on a Likert-type scale ranging from 1 ("strongly disagree") to 5 ("strongly agree"). Sample items from the scale include: "I email my professor often/ My professor is understanding" and "I feel uncomfortable letting my professor know I need help." This scale proved to have high internal consistency ($\alpha = .96$).

Academic Self-Efficacy Scale. Academic self-efficacy was assessed using 20 items that question students' beliefs about their levels of perceived academic self-efficacy (Sachitra and Bandara, 2017). Item responses were on a Likert-type scale ranging from 1 ("strongly agree") to

5 (“strongly disagree”). Sample items from the scale include: “I produce my best work on examinations” and “I express my opinion when I do not understand the lecture.” The Academic Self-Efficacy assessment had an adequate internal consistency ($\alpha = .79$)

Academic Resilience Scale (ARS-30). Academic resilience was measured using 30 items that explored students’ beliefs concerning their individual perseverance, reflecting and adaptive help seeking, negative effects, and emotional responses (Cassidy, 2016). Item responses were on a Likert-type scale ranging from 1 (“Likely”) to 5 (“Unlikely”). Sample items from the scale include: “I would use the situation to motivate myself” and “I would try to think of new solutions.” This scale demonstrated high internal consistency ($\alpha = .90$).

Daily Spiritual Experience Scale (DSES). Daily spirituality experiences were evaluated using 16 items that examined students’ beliefs concerning their level of daily spirituality through self-reporting items concerning their thoughts, feelings, and engagement in specific spiritual activities (Underwood and Teresi, 2002). Item responses were on a Likert-type scale ranging from 1 (“daily”) to 5 (“never or almost never”). Sample items from the scale include: “I find comfort in my religion or spirituality” and “I feel God’s love for me, directly.” The measurement had a high internal consistency ($\alpha = .95$).

Patterns of Adaptive Learning Scale. This scale was constructed using 14 items from a subscale that measured students’ levels of achievement goals and/or motivation (Midgley et al., 2000). Item responses were on a Likert-type scale ranging from 1 (“strongly disagree”) to 5 (“strongly agree”). Sample items from the scale include: “One of my goals in class is to learn as much as I can” and “It’s important to me that I don’t look stupid in class.” This evaluation resulted in a high internal consistency ($\alpha = .85$).

Demographic Information Form. This informational form was constructed in order to collect objective and descriptive information about the students who participated in the study (i.e., classification, gender ethnicity, generation of college student, grade point average, etc.).

Procedures

Institutional Review Board (IRB) exemption was obtained (IRB-FY-2020-49; 8/19/2019) Additionally, IRB approval was obtained for a Modification submission (11/24/2019), see Appendix A. A quasi-experimental design was utilized as students were assigned to their group through the course that they were enrolled in for the semester. During the first week of class, the professor sent an email to both groups of students: the control group and the experimental group. One set of students received a standard email and were classified as the control group. The other set of students, in the professors two other classes received, an encouraging email and were classified as the experimental group (See Appendix B). Shortly after the emails were sent, the students responded to a survey that included the measures and scales listed above. The professor then sent the same groups a similar email to the standard (control) and encouraging (experimental) groups during the week of finals. After the final emails were sent to the control and experimental groups, the participants again responded to the same survey that included the measures and scales listed above and provided through the Qualtrics computerized data collection system.

Analysis

Researchers compared the pre and post results means and differences of the control and experimental groups using an analysis of variance (ANOVA). Researchers hypothesized that the

student participants who receive the encouraging email communications from their professor will demonstrate a significant difference of professor-student rapport, academic self-efficacy, resiliency, and success compared to the students who receive standard email communications.

RESULTS

Two primary levels of analyses (1) A series of 2 (Group; Control vs Experimental) X 2 (Pre-test vs Post-test) ANOVAs one for each of the dependent variables (Academic Self-Efficacy, Professor-Student Rapport, Spirituality, and Resiliency); and (2) A Multiple Regression analyses assessing the contribution of Professor-Student Rapport, Spirituality, and Resiliency regarding individual changes in Academic Self-Efficacy.

ANOVA: Analyses for Professor-Student Rapport, Spirituality, Resilience, and Academic Self-Efficacy

Academic Self-Efficacy. Based upon the 2 (Group) X 2 (Pre vs Post) test ANOVA, there were significant Pre vs Post-test differences ($F(1,64) = 302.47, p < .001, \eta_p^2 = .825$). The Post-test Self-Efficacy scores were found to decrease significantly from the Pre-test to the Post-test assessment. While this was an unexpected outcome, there are factors that could have contributed to this result. Possible factors could include course difficulty or the stress of student progression throughout the semester, No significant Group differences were observed ($F(1,64) = 1.03, p = .313, \eta_p^2 = .016$) nor was a significant Group by Test interaction was observed ($F(1,64) = 0.42, p = .518, \eta_p^2 = .007$).

Professor-Student Rapport. Like Self Efficacy, no significant Group differences were observed ($F(1,64) = 0.03, p = .875, \eta_p^2 = .000$), and there was no Group by Test interaction ($F(1,64) = 0.230, p = .633, \eta_p^2 = .004$). However, a significant Pre vs Post-test difference was evident ($F(1,64) = 21.90, p < .001, \eta_p^2 = .255$). Overall, Professor-Student Rapport increased

significantly from the Pre to Post-test suggesting that the email interventions did have a positive effect on Professor-Student Rapport.

Spirituality. For Spirituality no significant Group differences were found ($F(1,64) = 0.22, p = .638, \eta_p^2 = .003$). And moreover, no significant Group by Test interaction was found ($F(1,64) = 0.179, p = 0.67, \eta_p^2 = .003$) and no significant Pre-test and Post-test differences were observed ($F(1,64) = 0.25, p = .700, \eta_p^2 = .002$)

Resiliency. Significant differences between the Pre-test and Post-test was found for ($F(1,64) = 9.63, p = .003, \eta_p^2 = .131$). As can be seen in Table 1, the Resiliency scores decreased significantly from the Pre-test to the Post-test. Like Self-Efficacy, this was not in the hypothesize direction. The differences between Groups approached statistical significance ($F(1,64) = 3.02, p = .087, \eta_p^2 = .045$). Overall, the Experimental Group rating higher on Resiliency on both the Pre-test and Post-test. The Experimental Group responding at a higher rate than the Control Group could be due to a multitude of factors. Researchers believe email structure might have played a role in this. No Group by Test interaction resulted from this analysis ($F(1,64) = 0.943, p = .335, \eta_p^2 = .015$).

Multiple Regression Analysis: Predicting Changes in Self-Efficacy

A multiple linear regression was performed to assess changes in Self-Efficacy as a function of Professor-Student Rapport, Spirituality, and Resiliency. Prior to conducting the multiple regression, difference scores between Self-Efficacy Pre-test and Post-test were created to represent individual differences in the magnitude of change from Pre-test to Post-test. Given that the no significant group differences were evident expect for Resiliency, the multiple regression included all participants. The multiple linear regression model was statistically

significant ($F(3,62) = 3.78, p = .015, R = .39, R^2 = .16$). The regression coefficients are displayed in Table 2 and Pearson r Correlations are displayed in Table 3. As can be seen in Table 2, Professor-Student Rapport was the only variable contributing significantly to the magnitude of change in Self-Efficacy ($\beta = -.55, t = -2.95, p = .004$). The fact that the relationship was negative seems counterintuitive. One would not expect students Self-Efficacy to decrease if the strength of the Professor-Student Relationship was increasing from the beginning to the end of the semester. Part of goal theory is that making goals public should increase one's motivation to obtain said goal. It is possible that as the semester wears on, students become more stressed and feel less competent, and then having made goals public, via Professor-Student conferences, then self-efficacy could be predicted to decrease. Although there were no significant differences between the email groups it is possible that individual differences within the email could be a factor effecting the predicted outcome. To explore the relationship between Professor-Student Rapport and Self-Efficacy more so, two separate Multiple Regressions were computed, one for the control group and one for the experimental group.

Control Group. For the control group, the multiple regression model was not statistically significant ($F(3,21) = 2.24, p = .114, R = .49, R^2 = .24$). Although the model was not statistically significant, as can be seen in the regression coefficients (See Table 4) the direction of the relationships remained the same as the model with all participants, and Professor-Student Rapport as the variable contributing significantly to the prediction changes in Self-Efficacy ($\beta = -.75, t = -2.32, p = .031$). Based upon this analysis it can be concluded that individual differences Spirituality and Resiliency are unrelated to changes in the control groups Self-Efficacy. The Pearson r correlations (See Table 5) bare this interpretation given in that only Professor-Student Rapport was correlated or approached statistical significance with Self-Efficacy.

Experimental Group. For the experimental group, the regression model was not statistically significant ($F(3,37) = 1.49, p = .233, R = .33, R^2 = .11$). The regression coefficients are displayed in Table 6 and the Pearson r correlations are presented in Table 7. As can be seen Professor-Student Rapport did approach significant contribution the regression model equations ($\beta = -.42, t = -1.78, p = .083$), but was not significant overall. No other independent variable contributed to the model predicting individual differences in Self-Efficacy. Of note, a spurious correlation between Spirituality and Resiliency appeared to occur.

DISCUSSION

College students are influenced in multiple ways by establishing rapport with their professors (Olson and Carter, 2014; Wilson et al., 2010). Open lines of communication between instructors and students have been encouraged to develop respect, trust, and intimacy, which establishes rapport (Dobransky and Frymier, 2004). It is critical to consider the impact that email communications can have on strengthening professor-student rapport and enhancing student motivation and attitudes (Legg and Wilson, 2009; Sheer and Fung, 2007). Researchers in the present study explored the effects that different types of email communications (standard/encouraging) had on professor-student rapport, academic self-efficacy, spirituality, resilience, and success. Significance was found within academic self-efficacy, professor-student rapport, and resiliency when the factors were compared individually from the beginning to the end of the semester (Pre-Post ANOVA). However, when the group conditions (Control/Experimental) were compared (Pre), none of the factors indicated significance. Overall, when all of the components (Academic Self-Efficacy, Professor-Student Rapport, Spirituality, and Resiliency) were placed into a linear regression and analyzed, the results suggested significant differences.

Differences Between Each Grouping Variable

Academic Self-Efficacy. Self-efficacy beliefs have shown to be a critical contributor to scholastic achievement, human motivation, and personal success. (Pajares and Schunk, 2001; Sachitra and Bandara, 2017)). Therefore, the current investigation sought to measure academic self-efficacy between groups to evaluate the impact specific emails (Control vs Experimental)

would have on a participant's self-efficacy. The present results did not reveal a significant group effect with regard to academic self-efficacy. However, the Test effect (Pre vs. Post-test) indicated statistical significance in a decreasing manner. This does support Hodges (2008) findings due to statistical significance suggested within the Test effect. Hodges sent out the same motivational emails to all participants, while our research utilized different emails (standard/encouraging) to determine if the type of email a student received would impact their academic self-efficacy. Perhaps receiving an email could be a factor which kept participants' academic self-efficacy from decreasing further in the present investigation. As noted by Hodges, professors should be encouraged to draft and send emails to students at various points throughout the semester.

Professor-Student Rapport. Previous research has demonstrated that emails promote the development of strong bonds between professors and students, student motivation, and educational attitudes (Legg and Wilson, 2009; Sheer and Fung, 2007). Therefore, researchers sought to investigate if the type of email a student receives (standard/encouraging) would have an effect on each group's perspective concerning the professor and course. With regard to the group (Control vs Experimental), the investigation indicated that there was not an influential group effect, which does not support Legg and Wilson's (2009) research. The participants in Legg and Wilson's (2009) study received the same welcoming email before the beginning of the semester to increase motivation. Two emails were sent to the participants (Control vs Experimental) in the current exploration to determine the impact on professor-student rapport, one before the semester began and another prior to finals. Consequently, researchers sought to expand Legg and Wilson's (2009) assessment by altering the types of emails (standard/encouraging) participants received and sending out an additional email during the end

of the semester. However, based on the present findings, which support Legg and Wilson's (2009) results, receiving any email from an educator provides an efficient outcome of professor-student rapport rather than not receiving an email at all. Specifically, contacting students via email is more influential than focusing on the tone and content of the message. Since professor-student rapport has been found to positively influence scholastic outcomes such as retention and academic achievement (Olson and Carter, 2014), further research should be pursued to examine the effect of email communications on mentoring relationships. Researchers acknowledge that this is the only component that represented statistical significance in a positive direction, which aligned with the hypothesis.

Spirituality. Spirituality enhances healthy behaviors and has been linked to higher levels of self-efficacy (Dev et al., 2018; Rahimabadi and Iranyar, 2015). Therefore, the present investigation inspected college student's thoughts and feelings concerning spirituality. Spirituality did not have significant outcomes in this study. Considering that the research conducted by Dev et al. (2018) took place at a Malaysian University, cultural differences could explain the reason that study found significance concerning spiritual intelligence within the participants. American undergraduates are potentially less likely to retain their religious customs because they are more accepting of new ideas and/or concepts that the university environment offers. Although spirituality was not found to be related to changes in test performance in the subsequent research, this does not imply that spirituality does not have an influence on an individual's life.

Academic Resilience. In the current study, researchers assessed the impact of emails (Control vs Experimental) from professors on participants' academic resilience. The results demonstrated no significant group effect. However, the outcomes approached significance.

Additionally, the group by Test was not influential. Although this finding does not fully support Cassidy's (2016) research, the ARS-30 should still be considered a valid construct to utilize on university campuses to further research among undergraduates because it is tailored to collect adaptive responses of participants to assess their thoughts and feelings about personal academic success despite adversity. The present research suggested statistical significance in a negative direction in the Pre-test and Post-test condition for academic resilience. These findings indicate factors not connected to the course or professor could potentially influence the results.

Specifically, class difficulty and/or overwhelming collegiate apprehension may have played a role from the beginning of the semester to the conclusion. Since academic resilience has been linked to scholastic achievement and retention, university researchers should continue to evaluate student populations in determining specific attributes that promote academic ascertainment.

Multiple Regression Analysis

Upon analyzing all of the participant responses from the beginning of the semester (without conditions) in a linear regression, researchers found significant differences; albeit in a negative direction. This did not meet the researcher's prediction as the findings were in an opposing relationship. Although the outcomes of the study do not fully support Legg and Wilson's (2009) research, it does strongly suggest subsequent investigations should pursue the connections between these variables, specifically academic self-efficacy and professor-student rapport. However, over the semester as professor-student rapport increased within the experimental group, the student academic self-efficacy decreased, stated by the Pearson correlation. Therefore, the encouraging emails did not have the expected effect on participants' confidence and attitudes concerning academic self-efficacy.

In addition to the linear regression without conditions, researchers analyzed the control group responses at the beginning of the semester (Pre) in a multiple linear regression. Based on the regression, no significant differences were evident. This was a discouraging outcome as it did not support the hypothesis. Conversely, participant responses (Pre) were examined in a multiple linear regression for the experimental group. These results indicated no significant findings overall, thus not meeting the researcher's prediction. While the multiple regression for the control and experimental groups were not significant, researchers believe potential limitations might have led to this result, which will be discussed later. In conclusion, past research does not fully support the findings in the current study on these concepts when combined.

Implications

Spirituality and resilience were not found to be significant. Although spirituality showed an insignificant interaction within the study, it might be interesting for future researchers to consider duplicating this at a faith-based university to determine if religiosity impacts a more conservative student population. The transition from spirituality's significance from the beginning to the end on academic efficacy generates further interest. Conversely, spirituality loses some predictability in the model. This implies that spirituality was not an influential factor overall.

Investigating the component of Professor-student rapport, researchers were encouraged by the statistical significance. Professor-student rapport suggested increased predictability for self-efficacy as the semester progresses in the present research. Considering professor-student rapport positively impacted student's self-efficacy, educational psychologists' continual investigation into supplemental techniques to assist educators in building these influential

relationships is pivotal. Researchers believe that receiving an email from a professor anytime throughout the semester (rather than not) should be examined thoroughly due to the impact that was indicated in the current study.

College educators are in a unique position to potentially inspire students to reach their scholastic aspirations. Increased levels of self-efficacy motivate students to pursue their college instruction to reach academic goals and life-long success. Graduating with a bachelor's degree has been linked to higher socioeconomic opportunities/status and intellectual satisfaction. Therefore, connections between the scholastic concepts (academic self-efficacy, professor-student rapport, and academic resilience) explored in the subsequent study to evaluate college student outcomes/retention ought to be a priority for future researchers.

Limitations

One limitation in the present study was a small sample size which resulted in low levels of participation. Considering the number of participants in this study, the impact of the results could have been minimized. Additionally, there were not an equal number of participants in each group (Control vs Experimental), which could have resulted in biased sampling. Another potential limitation was that only two emails were sent throughout the semester contributing to restricted communication measures. One final limitation was that all participants attended one midwestern state university. Subsequent research should seek student participation from a variety of colleges in order to gather results from a more diverse population.

Future Research

The current investigation was conducted utilizing one professor's upper-level seated psychology courses. Therefore, all participants were exposed to one instructor's teaching and communication methods. Future studies should consider expand the number of college instructors that participate in the exploration of using technological communications to enhance professor-student rapport, academic self-efficacy, resilience, motivation, and success. Additionally, future researchers should seek to increase the number of emails sent to the control and experimental groups to gather supplementary accurate results. Also, subsequent studies might consider exploring participation among all four years of college students to strengthen the validity of the results. Other investigations might examine online course delivery to minimize in-person personality characteristics of instructor(s) influencing email communications effects on professor-student rapport, academic self-efficacy, and resilience.

Conclusion

This investigation provides a foundation for understanding the effectiveness of technological communications (email) in promoting professor-student rapport and increasing student academic self-efficacy. Despite the statistically insignificant results due to a variety of limitations, this study could be a beneficial substructure for future research. Additionally, university administrators should consider this information to enhance student academic resilience, motivation, persistence, and retention. Cultivating strong alliances with students must be a top priority for university administrators, educators, and faculty (Olson and Carter, 2014). The educational and mentoring relationships built between professors and students are pivotal in encouraging respect, confidence, and academic success (Legg and Wilson, 2009; Waples, 2016;

Wilson et al., 2010). These types of strong associations encourage students to pursue higher education as many will follow in their mentor's footsteps to pursue master and/or doctoral degrees. Essentially, enhancing academia and possibly promoting life-long educational, research, and publishing partnerships between students and their mentors are the results of rapport. Therefore, building professor-student rapport must be a paramount concern for all universities in order to motivate student academic persistence and retention.

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Table 1-Summary Statistics – Variables by Group by Pre vs Post-test

Variables	Control (<i>n</i> = 25)		Experimental (<i>n</i> = 41)	
	Pre-test Mean (<i>SD</i>)	Post-test Mean (<i>SD</i>)	Pre-test Mean (<i>SD</i>)	Post-test Mean (<i>SD</i>)
Self-Efficacy	3.53 (0.44)	2.19 (0.53)	3.66 (0.34)	2.23 (0.52)
Professor-Student	3.68 (0.42)	4.05 (0.42)	3.70 (0.40)	4.00 (0.49)
Resiliency	2.43 (0.24)	2.27 (0.22)	2.49 (0.24)	2.41 (0.31)
Spirituality	2.47 (1.20)	2.33 (0.24)	2.34 (1.11)	2.34 (0.27)

Table 2-Model Coefficients – Self-Efficacy Change Total Sample

Predictor	β	<i>SE</i>	<i>t</i>	<i>p</i>
PSR-Pre	-0.5450	0.1848	-2.9493	0.004
Spirituality-Pre	0.0491	0.0652	0.7530	0.454
Resiliency-Pre	0.2404	0.3132	0.7676	0.446

Table 3-Pearson r Correlation Matrix – Total Sample

		ASEChange	PSR-Pre	Spirituality-Pre
PSR-Pre	r	-0.376 **	—	
	p -value	0.002	—	
	n	66	—	
Spirituality-Pre	r	0.102	-0.076	—
	p -value	0.413	0.543	—
	n	66	66	—
Resiliency-Pre	r	0.143	-0.182	-0.150
	p -value	0.252	0.144	0.228
	n	66	66	66

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

Table 4-Control Group Model Coefficients – Self-Efficacy Change

Predictor	β	SE	t	p
PSRPre	-0.75104	0.324	-2.3199	0.031
SpirPre	0.00218	0.113	0.0193	0.985
ResPre	0.33995	0.551	0.6169	0.544

Table 5-Pearson r Correlation Matrix – Control Group

		ASEChange	PSRPre	SpirPre
PSRPre	r	-0.478 *	—	
	p -value	0.016	—	
	n	25	—	
SpirPre	r	0.129	-0.230	—
	p -value	0.540	0.269	—
	n	25	25	—
ResPre	r	0.196	-0.166	0.165
	p -value	0.347	0.428	0.430
	n	25	25	25

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

Table 6- Experimental Group Model Coefficients – Self-Efficacy Change

Predictor	β	SE	t	p
PSRPre	-0.4157	0.2335	-1.780	0.083
SpiritualityPre	0.0654	0.0879	0.744	0.462
ResPre	0.2724	0.4159	0.655	0.517

Table 7-Pearson r Correlation Matrix – Experimental Group

		ASEChange	PSRPre	SpiritualityPre
PSRPre	r	-0.301	—	
	p -value	0.056	—	
	n	41	—	
SpiritualityPre	r	0.076	0.031	—
	p -value	0.637	0.849	—
	n	41	41	—
ResPre	r	0.124	-0.198	-0.351 *
	p -value	0.441	0.214	0.025
	n	41	41	41

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

APPENDICES

Appendix A. Human Subjects IRB Approval/Exemption

1 irb@missouristate.edu
Thu 8/8/2019 2:46 PM
To: Payne, Ashley N; Young-Jones, Adena D; Heim, David J



To:
Adena Young-Jones
Psychology
Ashley Payne

Date: Aug 8, 2019 12:46 PM PDT

RE: Notice of IRB Exemption
Study #: IRB-FY2020-49
Study Title: Email Communications Effects on Professor-Student Rapport, Academic Self-Efficacy, Resilience, Motivation, and Spirituality

This submission has been reviewed by the Missouri State University Institutional Review Board (IRB) and was determined to be exempt from further review. However, any changes to any aspect of this study must be submitted, as a modification to the study, for IRB review as the changes may change this Exempt determination. Should any adverse event or unanticipated problem involving risks to subjects or others occur it must be reported immediately to the IRB.

This study was reviewed in accordance with federal regulations governing human subjects research, including those found at 45 CFR 46 (Common Rule), 45 CFR 164 (HIPAA), 21 CFR 50 & 56 (FDA), and 40 CFR 26 (EPA), where applicable.

1 irb@missouristate.edu
Mon 11/25/2019 12:25 PM
To: Payne, Ashley N; Young-Jones, Adena D; Heim, David J



To:
Adena Young-Jones
Psychology
Ashley Payne

RE: Notice of IRB Approval
Submission Type: Modification
Study #: IRB-FY2020-49
Study Title: Email Communications Effects on Professor-Student Rapport, Academic Self-Efficacy, Resilience, Motivation, and Spirituality
Decision: Exempt

Approval Date: November 24, 2019

This submission has been approved by the Missouri State University Institutional Review Board (IRB). You are required to obtain IRB approval for any changes to any aspect of this study before they can be implemented. Should any adverse event or unanticipated problem involving risks to subjects or others occur it must be reported immediately to the IRB.

This study was reviewed in accordance with federal regulations governing human subjects research, including those found at 45 CFR 46 (Common Rule), 45 CFR 164 (HIPAA), 21 CFR 50 & 56 (FDA), and 40 CFR 26 (EPA), where applicable.

Researchers Associated with this Project:
PI: Adena Young-Jones
Co-PI: Ashley Payne
Primary Contact: David Heim
Other Investigators:



irb@missouristate.edu

Thu 8/8/2019 2:46 PM

To: Payne, Ashley N; Young-Jones, Adena D; Heim, David J



Missouri State.
U N I V E R S I T Y

To:

Adena Young-Jones
Psychology
Ashley Payne

Date: Aug 8, 2019 12:46 PM PDT

RE: Notice of IRB Exemption

Study #: IRB-FY2020-49

Study Title: Email Communications Effects on Professor-Student Rapport, Academic Self-Efficacy, Resilience, Motivation, and Spirituality

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Researchers Associated with this Project:

PI: Adena Young-Jones

Co-PI: Ashley Payne

Primary Contact: David Heim

Other Investigators:



irb@missouristate.edu

Mon 11/25/2019 12:25 PM

To: Payne, Ashley N; Young-Jones, Adena D; Heim, David J



Missouri State.
UNIVERSITY

To:

Adena Young-Jones
Psychology
Ashley Payne

RE: Notice of IRB Approval

Submission Type: Modification

Study #: IRB-FY2020-49

Study Title: Email Communications Effects on Professor-Student Rapport, Academic Self-Efficacy, Resilience, Motivation, and Spirituality

Decision: Exempt

Approval Date: November 24, 2019

This submission has been approved by the Missouri State University Institutional Review Board (IRB). You are required to obtain IRB approval for any changes to any aspect of this study before they can be implemented. Should any adverse event or unanticipated problem involving risks to subjects or others occur it must be reported immediately to the IRB.

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Researchers Associated with this Project:

PI: Adena Young-Jones

Co-PI: Ashley Payne

Primary Contact: David Heim

Other Investigators:

Appendix B. Emails Used for Experimental and Control Groups

Before the first week of class:

Standard Email:

Welcome to PSY XXX!

This course will evaluate research and theories pertaining to XXXXX psychology. Specifically, we will focus on applying research to the classroom. The following textbook is required:

Please contact me should you have any questions or concerns.

Welcoming and Encouraging Email:

Welcome to PSY XXX!

I am so excited to have you in my class this semester. We will review research conducted on specific topics, engage in hands-on activities, and discuss your perspectives on certain aspects of the course materials. If we all work together, we can make this course a productive and thought-provoking educational experience for *each* one of us!

I suggest that you purchase one textbook and one additional book is optional/suggested; see the following link:

I encourage you to purchase the textbook at your earliest convenience in order to be prepared for the first week of class.

Please let me know if you have any questions, comments, or concerns at any time. Feel free to email, call, or stop by my office at any point throughout the semester. I look forward to meeting you on the first day of class!

Enjoy the remainder of your summer!

Final Emails:

Standard:

Just a reminder that your final examination is scheduled for next week. Please be sure to take the time to review the materials covered in class and ask questions concerning anything that you need additional information or explanation.

Encouraging:

Hello, XXX!

Please remember that your final examination is scheduled for next week. During this period of the semester, it is important that you give yourself plenty of time to study and prepare for this final examination as it counts for 100 points toward your final grade. As you are studying, if there is anything in the course materials that you need further information about, please feel free to contact me via office hours, phone call, or email. I will be happy to explain any concept in the course materials that you need further explanation about. I trust that you will do your best.