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A GUIDED ORIENTATION PROCESS FOR ONLINE ADULT LEARNERS

by

Shana L. Palla

A Doctoral Project Submitted to,
the College of Education and Human Sciences
and the School of Education
at The University of Southern Mississippi
in Partial Fulfillment of the Requirements
for the Degree of Doctor of Education

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This Doctoral Project was approved by:

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ABSTRACT

To the MS in Applied Statistics, Analytics & Data Science program at the University of Kansas, the orientation process, between accepting an offer of admission and starting the first day of classes, takes approximately 7 steps. Students to this program, typically online non-traditional working professionals, were sent an email with directions on how to complete the steps, and the students self-guided their way through the process using the email. The steps must be completed in a specific order and some steps require overnight processing before the next step can be initiated. When students were unable to complete the process on their own, they would contact a student resource office for assistance. This utilized valuable institutional personnel time. A new guided orientation process was developed that takes a more incremental approach with one email sent for each step that includes a video link with audio and video guides on how to complete the step, tailored towards the needs of a diverse online and adult learner population.

The old process continued in the Spring 2020 and Summer 2020 terms, and the new process was implemented in the Fall 2020 term. We assessed the effectiveness of the new guided orientation process at decreasing student frustration, improving student orientation experiences, decreasing the assistance students need to successfully complete the orientation steps, and improving the newly admitted student's first impression of the institution, department, and program. Surveys were given to all students during the three 2020 terms. The results of the Spring and Summer student surveys were compared to the Fall student surveys to assess the change in students' opinions, experiences, resource

usages, and first impressions. Analyses showed no statistically significant improvements in student opinions or experiences. However, there was a significant improvement in students first impressions of the institution, and increased independence with establishing email and getting connected to the department LinkedIn page.

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I would like to thank Dr. Holly Foster for providing valuable insight throughout the experience. Your guidance and support have been the driving force that has kept me on track.

I would also like to thank Casey Henceroth for being there for me every step of the way. I am thankful that we met in our first class in the program. Having a companion on the same journey has meant the world to me. You encouraged me to push myself in a way that I would not easily take if it hadn't come from someone going through the same trials.

DEDICATION

Thank you to my family for supporting me while I spent years of long nights and weekends working on this degree. You all tolerated more quick bedtimes and dinners without Mommy than you should have, and I am so blessed to have you. To my husband, your unwavering confidence and support has been a strength on which I have drawn many times. I simply could not have done this without you. To my parents, your help, as throughout my life, cannot be measured nor repaid in full. It means the world. And last, but not least, to my grandfather for being the first to bluntly ask when it was going to happen. Somehow, he knew it would. His faith in me has been the fire that has kept the dream alive, and I know he is proud.

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LIST OF ABBREVIATIONS

<i>KU</i>	The University of Kansas
<i>KUMC</i>	The University of Kansas Medical Center
<i>JCERT</i>	Johnson County Education Scholarship

CHAPTER I - INTRODUCTION

The period of time between receiving an offer of admission to graduate school and the first day of class is an exciting time. Students are anxiously awaiting the start of a new adventure. A venture that is a significant time and financial investment in their future. Logistically, there are a wide range of things that need to happen. They range from setting up an email account with the school to purchasing textbooks and enrolling in classes. The process in which these steps are taken is the first opportunity for most students to be exposed to the institution, the department, and the program administrators. Having a process that goes smoothly, is clear and straightforward, and is informative without being overwhelming is going to set the stage for their graduate experience.

Background

The Master of Science in Applied Statistics, Analytics & Data Science program at the University of Kansas has a unique student population. They are generally adult learners who are often mid-career working professionals. Unlike the typical university student, they have families and social obligations. The average age of students in the program is 36 years old and they are from all over the United States adding a challenge of time zone differences with their professors and peers. Adult graduate students are very diverse because they can come straight from undergraduate programs, certificate programs, a related professional career, or a completely unrelated professional career (Hegarty, 2011).

This graduate degree program is 100% online. However, for many of these students, online education was not prominent when they were in their undergraduate programs. For some, this degree program will be their first foray into online education.

Online students tend to overestimate their technical abilities to navigate software, hardware, and communication tools (Arrowsmith, 2017). Most will be unfamiliar with the online tools and, therefore, simply navigating the many systems involved in higher education online programs will be a challenge.

In addition to the unique student population of the program, the program itself is quite unique and atypical of graduate programs at the University of Kansas. The program is designed specifically to be flexible enough to accommodate the schedules of working professionals. The course content is delivered asynchronously so there are no scheduled class times for classroom discussions. Instead, they are done on a BlackBoard discussion board. The program is ten courses and students have seven years to complete the program. Continuous enrollment is not required. The tuition fee structure is flat rate per credit hour and includes everything except the textbooks needed for the classes. This is to discourage students from rushing through the program to minimize the term-associated student fees that can add up quickly. Students can be admitted to the program at the fall, spring and summer terms.

One unique problem that poses some interesting challenges is that the University of Kansas and the University of Kansas Medical Center are in different cities and have operated independently for many decades. Therefore, they have duplicate systems, departments, and offices when it comes to education. There are two registrars, two financial aid offices, two application systems, two email systems, and two BlackBoards. Licenses and contracts for vendors are different between the two systems. This is relevant because this particular degree program spans both institutions. The Department of Biostatistics & Data Science in the School of Medicine is the degree granting

department; therefore, students are actually students of the University of Kansas Medical Center. However, this department partnered with a University of Kansas satellite campus for the geographic location of program administration. There are financial and logistical reasons for this, but it is a complicated relationship and one that adds a number of steps to the process of new student orientation.

The current process between the time a new student is extended an offer of admission and the first day of class in their starting term involves a welcome e-mail containing a list of all the steps, necessary information to complete the steps, and instructions on how to do it. These steps include, but are not limited to:

- 1) Access: Setting up a password and gaining access to email; requesting an Online ID and logging into the KU BlackBoard
- 2) Taking the institution's online orientation and quiz; removing health holds; reading, signing and returning the department
 - Honor Code & Code of Conduct forms
 - Technical Standards
 - Page 2 of the Program Handbook
- 3) Connecting with the Financial Aid Office and Academic Accommodations Office; applying for the JCERT Scholarship, if applicable
- 4) Understanding the course offerings, proper course sequence, course format, time demand, and pace; arranging an initial advising appointment with the Program Director
- 5) Becoming familiar with the enrollment system, enrolling in classes, tuition payment, finding textbooks, and locating the academic calendar

- 6) Enrolling into the department bootcamp course shell in BlackBoard; connecting on LinkedIn for addition to the student and alumni of the department group
- 7) Requesting, downloading, and installing necessary software such as SAS or rStudio

Statement of the problem

It is the Assistant Director's opinion that students tend not to read the email, do not read it carefully, are easily confused by the instructions, think they can complete the process in one sitting, or simply want to be walked through the process without utilizing the information provided to them. As a result, a considerable amount of student resource personnel time is spent helping students through the process, fixing situations where they have not followed the directions correctly and have hit a roadblock, and manually doing the process for them. Some students, obviously, require more assistance than others. Therefore, the problem addressed in this study is an orientation process that is inefficient, confusing, and frustrating, and does not provide a very positive first experience with the program, department, or institution. Specifically, the orientation process needs to be significantly modified to be tailored to the adult learner (Sutton, 2018) and the needs of the 100% online student (Jones, 2013).

To meet this objective, a new guided orientation process was created. It utilizes the current third-party application vendor CollegeNet with an embedded email system to timestamp when each email is opened by the recipient and also when any links in the email have been accessed. Each step in the process is communicated in a separate email that is sent when the previous steps are complete. Within the email are links to videos that provide verbal instructions to the new student as well as provide screenshot

illustrations on how to perform the step. In addition to the steps of the process, additional information is disseminated in the emails, i.e. who to contact if assistance is needed for a given step, and the difference between the KU BlackBoard and the KUMC BlackBoard.

In the Spring 2020 and Summer 2020 terms, administrators continued to use the single emailed instructions orientation process, during which time the new guided orientation process was under development. The cohort of new students for the Fall 2020 term was the first cohort to use the new guided orientation process.

Purpose

The purpose of the study was to develop and assess the effectiveness of a new guided orientation process at decreasing student frustration, improving student orientation experiences, decreasing the amount of assistance students need to successfully complete the orientation steps, and improving the newly admitted student's first impression of the institution, department and program.

Making the decision to go back to school mid-career after starting a family and establishing an array of social obligations is a stressful experience. When adding to that all the minute details that are needed to prepare for the first day of class, anyone can be overwhelmed. There are over seven steps in the process between getting that offer letter and the first day of class. When a student cannot get one step done, it often inhibits further progress through the steps. Student resource personnel are often stretched thin during the few weeks leading up to the first day of a new term. When student after student is initiating contact, desperate for help and convinced they have done something wrong, it is a drain on the system to work through question after question that should be easily conveyed to the students, but often is not. This drain on the system is happening in

the MS in Applied Statistics, Analytics & Data Science program. New students are often experiencing frustration with a process that seems disjointed and archaic. Unfortunately, at an institution the size of the University of Kansas, systems, policies, and processes are often perceived as antiquated. And yet, the fact remains that these steps absolutely need to be done prior to the first day of class. The guidelines for completing these steps must be followed in the precise order and at the right time. Some systems require an overnight processing in order to advance the student status to the next stage.

Refining the process to make it more accessible, less confusing, illustrative, and easy to follow is imperative to creating a new guided orientation process that will serve two purposes. It will improve the experience for the student and reduce resource burden on the system.

Research Questions

1. How have opinions of the orientation process changed as a result of implementing a more guided orientation process?
2. How have orientation experiences changed as a result of implementing a more guided orientation process?
3. How has the new guided orientation process impacted the student's first impressions of the institution, department, and graduate program?
4. How has utilization of student resources (Success Coach, Office of Student Life, IT Helpdesk, Registrar, Student Health Services, and Financial Aid Office) changed as a result of implementing a more guided orientation process?

CHAPTER II – LITERATURE REVIEW

When college graduates become mid-career professionals and find themselves in a situation where they cannot advance any further in their current trajectory, or they have hit the ceiling in the salary bracket of the highest position they can achieve without an advanced degree, they often re-evaluate their academic and career choices. A very appealing option is to return to school for a graduate degree, especially when they can keep their full-time job and attend school from the comfort of their own homes. Online graduate education options have become increasingly popular for this demographic, and programs are being designed specifically with these working professionals in mind. Higher education institutions are realizing the untapped market in this arena and are seeing the growth potential.

However, this demographic of returning students are non-traditional in a number of ways and, therefore, they introduce not only unique challenges on the part of the student, but also on the part of the institution, department, program, and administrators. It follows that graduate programs meeting the needs of these unique students must be different. They require an unusually high amount of flexibility to accommodate the life-stage and complexity of older, diverse, professionally motivated, online students who are coming from extremely varied backgrounds. This combination of unique students and programs creates formidable complications when it comes to assimilating into a higher education mold that has been around for many decades.

Higher education institutions are in a race to attract these types of non-traditional students, but current institutional models are tailored for the traditional 18-year-old on-campus student (Cini, 2019). But non-traditional students have diverse needs and, as a

result, should not only have a different program model, but be provided a different student resource model starting with the orientation process.

Adult Learners

Older adult learners differ from traditional students in that they are a very heterogeneous group of students with each student having a distinctive background, demographic, skill set and motivation. Their professional experiences shape their views and impact their knowledge and skill sets. And while academically they have expressed a need for a strong sense of a learning community (Dzubinski & Hentz, 2012), establishing a cohesive learning community when students are so diverse is challenging. Graduate instructors do not consider themselves adult educators (Dzubinski & Hentz, 2012), but it would benefit their teaching approach to consider the differences that adult students bring to the classroom, and perhaps facilitate the formation of learning communities that appeal to adult learners.

Adult graduate students often take varied paths to their graduate education experience. They may come from certificate programs, related professional careers, or completely unrelated professional careers (Hegarty, 2011). If faculty can capitalize on the professional diversity in their classrooms, the added exposure students get to other fields could really enhance their educational experience.

Understanding graduate students' motivations can help guide program goals (Hegarty, 2011). It follows that understanding those motivations can also help guide aspects of advising and orientation. Reminding the students of why they are taking a specific step could alleviate the discomfort and uncertainty of starting a graduate program as a mature adult.

Online Students

Online education has grown tremendously in the last 10 years; however, retention rates in online courses are notorious for being a fraction of traditional courses (Jones, 2013). Understanding the students' reasons for pursuing higher education online is the key to improving retention rates in this student group, yet these motivations are being ignored. If a factor for selecting an online program is because they have a non-traditional work schedule and need to have the flexibility to watch lectures in the middle of the night in an asynchronous environment, it does not make sense to put them in classes that have a specific afternoon class time where virtual attendance is required.

The ability to acclimate to education as non-traditional students can have a significant impact on their persistence and academic success (Golubski, 2010). Part of that is becoming familiar with the tools needed to engage with peers and faculty. Online students often overestimate their technical abilities to navigate software, hardware, and communication tools (Arrowsmith, 2017). Orientation for online students should automatically mandate online tool training, thereby enhancing the acclimation process. However, student orientation is often a cookie cutter experience for all new students, online or in person.

Advising

Non-traditional students expect to have access to traditional support systems (Alnawas, 2014). They expect their advisor to be knowledgeable (Cross, 2018; Schroeder & Terras, 2015), proactive, timely (Cross, 2018), have good communication skills, be responsive to student needs (Deggs & Kacirek, 2010; Schroeder & Terras, 2015), trustworthy, personalized, and valuable (Schroeder & Terras, 2015). They should

also be aware and sensitive to the needs of students of various racial, gender, and sexual orientation identities (Schlosser, et al., 2010). A large majority of online graduate students felt that the connection or interaction with their academic advisor was important or very important (Milman et al., 2015).

Adult learners are complex and have unique needs that require a more holistic advising approach (Schroeder & Terras, 2015). Therefore, a one-stop student service model for online students has worked well, but it requires centralized communication, problem solving, relationship management, administrative processing, and tracking all by a single advisor (Simpson, 2018). The result of the one-stop student service model has increased retention and has been very well received by online students (Simpson, 2018).

In a quantitative assessment of student perceptions of online advising experiences, students found their online advisors to be effective in communication and knowledgeable of support services (Cross, 2018). However, Milman, et al. (2015) reported that only 62% of online graduate students were satisfied with their connection or interaction with their academic advisor.

The lack of satisfaction with graduate academic advising could be that adult learners would rather be mentored than advised. The distinction between advising and mentoring is that advising can be positive, neutral, or negative, but mentoring is a positive-only relationship (Schlosser et al., 2010). Advising is a pre-cursor to mentoring (Schlosser, et al., 2010). Institutions are recognizing the difference and have started titling the role of academic advisors as Success Coaches, putting a more positive spin on the relationship.

Adult students are often not included in traditional in-person orientation programs (Golubski, 2010) and online students are included even less. This is just one example of non-traditional students not receiving the same student resources available to traditional students. With the growing interest in this student demographic, the increased need in resources for adult and online students is an area in which higher education institutions need to invest additional resources.

Orientation

Orientation programs that are tailored to specific student populations are much needed in higher education, but especially for the non-traditional students. Adult learners benefit from a tailored orientation that is unique to adults (Sutton, 2018). An orientation directed at first-time online students can potentially remove technical skill limitations, assist with time management, avoid additional frustration, and increase retention (Jones, 2013). It follows that an orientation program tailored to adult online learners would be beneficial for all.

Understanding what non-traditional students need and expect is paramount in order to modify the orientation and make it more successful. Orientation curriculum should be developed using an outside-in approach (Alnawas, 2014). Consideration could be given to breaking students into small groups so students can meet other non-traditional learners who are in similar situations (Sutton, 2018). Following up with students is also necessary, but after a short delay (Sutton, 2018). These students should be encouraged to socialize with peers, seek needed academic services, and become more integrated in their degree program (Golubski, 2010).

Technology is one area in which orientation programs must excel, particularly with the adult online learners. When asked if technology orientation is important to online graduate students, 88.7% responded that it is important or very important (Milman et al., 2015). Students especially expressed a desire for improved orientation on the e-learning platforms (Dzubinski & Hentz, 2012).

Arrowsmith (2017) came to a rather surprising conclusion: online students generally felt like a mini-course in technology was not relevant to them, despite their personal need to develop these skills. However, in a study by Milman et al. (2015), the conclusion was that students want more training. Only 61.1% of the students said they were satisfied or very satisfied with the online technology orientation they received (Milman et al., 2015).

There are some definite benefits to including a significant amount of technology training in new student orientation programs. The majority of online students in a first-time online student orientation expressed an increased confidence in their technical skills, navigating the Learning Management System (LMS), and managing their academic plan. Retention increased by 8% (Jones, 2013). Not only did the faculty feel the students were more prepared from a first-time online orientation, but the Online Help Desk experienced a decrease in the number of tickets at the start of the term (Jones, 2013).

Lastly, the quality of the student orientation program has a direct impact on student satisfaction and university reputation (Alnawas, 2014). It is imperative that students start the first day of class with confidence, a clear understanding of how to use the tools, solid knowledge of student expectations and how to go about achieving those

expectations. By doing this, students are provided what they need to be successful in their higher education aspirations.

CHAPTER III - METHODOLOGY

The purpose of this study was to assess the effectiveness of the new guided orientation process at decreasing student frustration, improving student orientation experiences, decreasing the amount of assistance students need to successfully complete the orientation steps, and improving the newly admitted student's first impression of the University of Kansas, the Department of Biostatistics & Data Science, and the MS in Applied Statistics, Analytics & Data Science program. A quantitative web-based survey was designed to answer the following research questions:

1. How have opinions of the orientation process changed as a result of implementing a more guided orientation process?
2. How have orientation experiences changed as a result of implementing a more guided orientation process?
3. How has the new guided orientation process impacted the student's first impressions of the institution, department, and graduate program?
4. How has utilization of student resources (Success Coach, Office of Student Life, IT Helpdesk, Registrar, Student Health Services, and Financial Aid Office) changed as a result of implementing a more guided orientation process?

Research Design

This project was conducted in three stages. The first stage was the single emailed instructions orientation process assessment. The second stage was the development of the new guided orientation process. And lastly, the third stage was the new guided orientation process assessment and comparison to the original process.

The single emailed instructions orientation process was assessed using the Spring and Summer 2020 cohorts of new students admitted to the MS in Applied Statistics, Analytics & Data Science program at the University of Kansas. They were considered Group 1. The new guided orientation process was put in place for students starting in the Fall 2020 cohort. These students were Group 2.

Both the assessment of the single emailed instructions and new guided orientation processes was done by emailing new students and inviting them to complete a Qualtrics survey about their orientation experience. These email invitations were sent to students each week for the first three weeks of the term in which the student started the graduate program. The survey asked questions regarding the student's opinion of the process, the experience they had during the process, and their first impressions of the program, department, and institution. The questionnaire included seven opinion statements, six experience statements, four first impression statements, and ten resource utilization statements to which each student rated on a 7-point Likert scale whether they strongly disagreed, disagreed, somewhat disagreed, neither agreed nor disagreed, somewhat agreed, agreed, or strongly agreed with the statement. Standard demographics were also collected.

The two independent samples, Group 1 and Group 2, were then compared with regard to their orientation opinions, experiences, first impressions, and resource utilization.

The sample sizes were rather small with 30 students in Group 1 and 25 students in Group 2. Due to the small sample size, the Likert scale item responses were analyzed using a non-parametric Mann-Whitney test. Visually, the results are displayed in

diverging stacked bar graphs that are proportionately divided into Likert response sections based on the proportion of the group who responded with the Likert response. These bars, one for each group, were then put on the scale with the neutral section centered over zero.

Instrument

The survey was crafted to collect information on the opinions, experiences, first-impressions, and resource utilization needs of incoming new students to the online master's program. Participants who experienced the single emailed instructions orientation process and participants who experienced the new guided orientation process were sent the same survey to complete. It consisted of a question about start term, four sets of Likert scale questions, one open ended question, and a set of demographic questions. The first set of Likert scale questions explored the opinions of the survey process and how it made them feel. The second set of questions collected information on the student experience as they went through their orientation process. The third set of questions examined how the orientation process impacted their first impressions of the process, student resources, department, and institution. The last set of Likert scale questions assessed the need and usage patterns of the academic resources available as the participant went through the orientation process. The open-ended question simply gave the participant an opportunity to share any other information about their experience they felt was relevant.

Timeline

The survey instrument was developed, revised, and pilot tested by two faculty reviewers during the Fall term of 2019. Since the research involved human subjects, but

with very little to no risk, the researcher submitted an application requesting exemption to the Institutional Review Board (IRB) in November 2019 (See Appendix B). IRB exemption was granted on December 13, 2019 based on Category 2(ii). The survey was initially sent to Spring 2020 students on January 27, 2020, and to Summer 2020 students on June 10, 2020. The new guided orientation process was implemented for use in July and August 2020 for the Fall 2020 students. They were then sent the survey August 31, 2020. For each term, the survey was closed two weeks after the initial invite to participate.

Participants

Participants in the study were newly admitted graduate students in the MS in Applied Statistics, Analytics & Data Science program at the University of Kansas in the Spring 2020, Summer 2020, and Fall 2020 terms. A convenience sample of all newly admitted students was used. There were 16 Spring 2020 students and 18 Summer 2020 students eligible for Group 1, and 32 Fall 2020 students eligible for Group 2.

Data Collection Procedures

The researcher identified newly admitted MS in Applied Statistics, Analytics & Data Science students at the University of Kansas and invited them to participate in the study, specifically citing the study will only entail their input via a one-time survey administered online. Using the mailout, potential participants were sent a recruitment announcement with an embedded link to the questionnaire. If the participant chose to participate in the study and subsequently clicked on the embedded link, they were navigated to the questionnaire. At the very top of the questionnaire was the Informed Consent Letter, which explained the nature of the study, what was expected of

participants, and how the data would be used. The letter guaranteed anonymity and assurance of confidentiality (APPENDIX A). Also, the letter informed the participant the study was completely voluntary and that they could exit the survey without penalty at any time.

Participants also confirmed that they were at least 18 years old before participating in the study. If the participant did not confirm they were at least 18 years of age, the Qualtrics questionnaire was designed to terminate immediately. Qualtrics is a secure hosting site used for administering online surveys and compiling data for which is accessible only to the research team.

Assumptions/Limitations

Sample size was a limitation. In order to ensure enough student questionnaire data was collected to be able to make meaningful conclusions, the response rate needed to be exceptionally high. The invitation to participate came from the Program Director for the MS in Applied Statistics, Analytics & Data Science. Having the invitation come from a person of authority within the Department of Biostatistics & Data Science helped encourage students to participate.

Lastly, there are no established tools for assessing orientation processes. All of the tools used in the evaluation were newly developed for the purposes of this study, and therefore do not have established validity or reliability. While an established tool would have been ideal, customizing a tool for the collection of new guided orientation process opinions, experiences, resource utilization, and resulting first impressions of the degree program, department, and institution served the purpose of this study.

CHAPTER IV – FINDINGS

The survey responses were divided into four major constructs. The first construct was the emotional construct as it relates directly to the participants feelings towards the orientation process. Questions in this construct were related to whether the participant felt welcomed, respected, valued, comfortable, frustrated, confused, or confident. The second construct was participant behaviors as they progressed through the orientation process. These questions were comprehension, independence, efficiency, and preparedness. The third construct was on participant impressions of the orientation process, student resources, department, and institution as a whole as a result of the orientation process. Lastly, questions were asked regarding their resource usage throughout the process and which of the steps posed the greatest level of difficulty.

Participant Demographics

Basic student demographics were collected to ensure balance between the analysis groups. Participants were asked to self-report gender, race/ethnicity, the duration of time since the last time they were a student at a university and whether they had ever participated in a 100% online graduate program in the past. Using a Fisher's Exact test, it was determined that none of the demographics were significantly different by participant group. Approximately 76% of the participants identified as non-Hispanic white, 64% identified as male, and over 84% had never been in a 100% online graduate program in the past. The categories for the time since a university student were < 2 years (49%), 3-5 years (13%), 6-10 years (24%), and more than 10 years (13%). One participant chose not

to respond to the question. Since none of these demographics were statistically different between the participant groups, no additional analysis adjustments were required.

Emotional Response to Orientation Process

Among the seven questions that addressed the participant emotional response, four of them received only neutral, somewhat agree, agree, or strongly agree responses from both participant groups. In the question “I felt like I knew what I was doing,” 10% of Group 1 (Spring 2020 and Summer 2020) students who experienced the single emailed instructions orientation process, responded that they somewhat disagreed with the statement. However, no students from Group 2 (Fall 2020) who experienced the guided orientation process responded with any level of disagreement. The statement “I never felt frustrated with the process” received 16% disagreement with Group 1, and 20% disagreement with Group 2. None of the group responses to the seven statements yielded statistically significant differences using the Mann-Whitney test for Likert responses (Figure 1).

EMOTIONS: During the period between being extended an offer of admission and when my first course started...

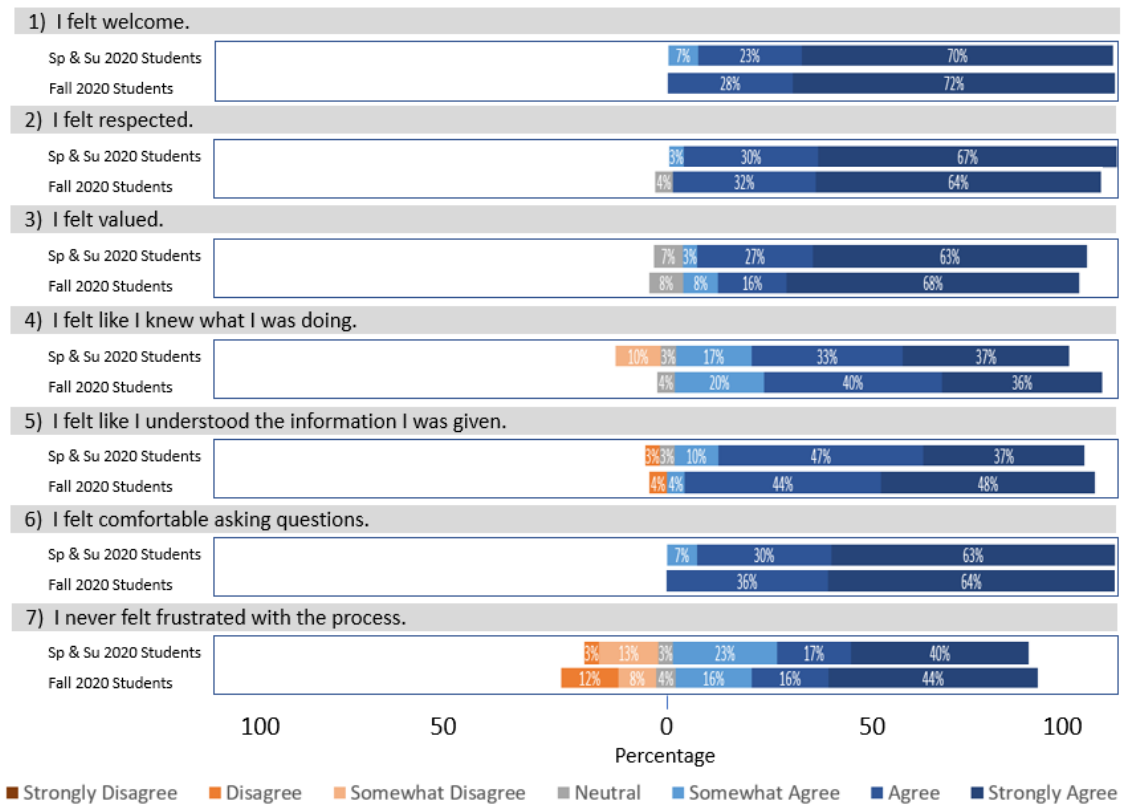


Figure 1 Likert agreement responses to Emotions statements by Group

Behavioral Response to Orientation Process

There were six behavioral response statements on the assessment tool. All statements yielded fairly positive responses with at least 75% of participants expressing agreement with the statements, except for one statement. The statement “I didn’t need to seek assistance to complete the orientation process steps” yielded 40% of participants in Group 1 disagreeing, and 32% of participants in Group 2 disagreeing. While none of the behavior responses showed statistically significant differences by group, clearly at least a third of students required assistance, even after the more guided orientation process was implemented (Figure 2).

BEHAVIORS: During the period between being extended an offer of admission and when my first course started...

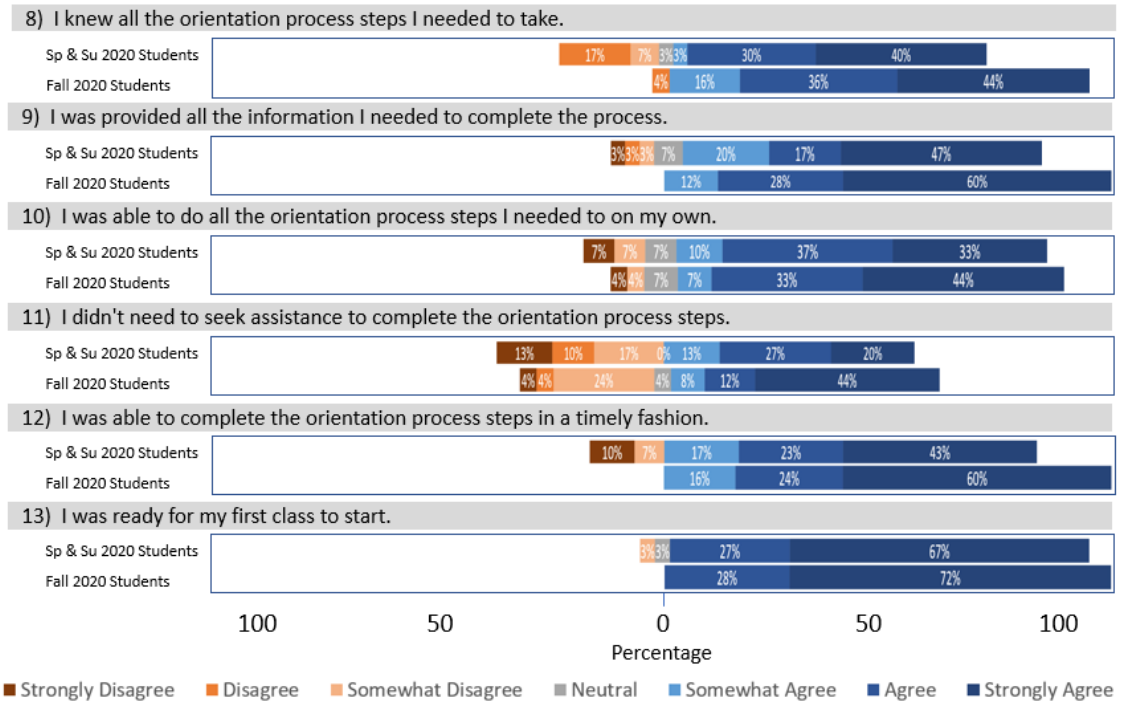


Figure 2 Likert agreement responses to Behavior statements by Group

First Impression Response to Orientation Process

Some statistically significant group differences were detected in the participants’ first impressions as a result of the orientation process. There were four statements in this category. The statements “my opinion of the orientation process is favorable” and “my opinion of the student resources is favorable” both had marginally significant group differences with Mann-Whitney test p-values of 0.0826 and 0.0599, respectively. In both cases, Group 2 participants responded more positively than the Group 1 participants. The most significant group difference in this category was in response to the statement “my opinion of the University of Kansas is favorable.” While none of the responses in either

group showed any disagreement with this statement, the Strongly Agree category went from 38% in Group 1 to 72% in Group 2. The change from the single emailed instruction orientation to the guided orientation had a significant impact on how strongly students favored the institution (Figure 3).

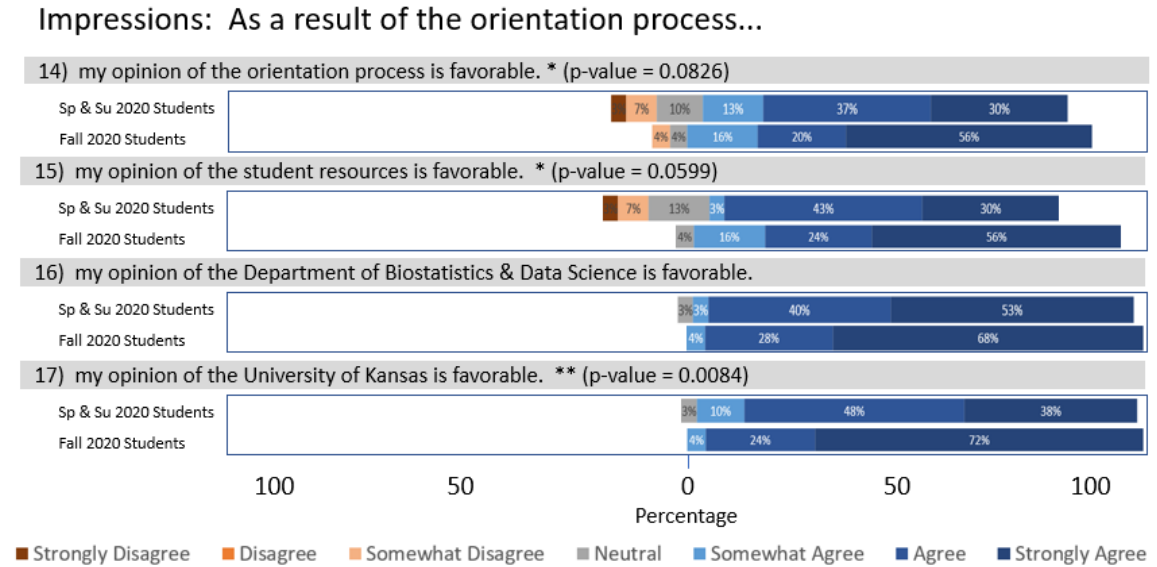


Figure 3 Likert agreement responses to Impression statements by Group

Resource Usage Response to Orientation Process

Ten resource statements were presented to participants to examine the need for assistance for participants by group. There were four statements that showed statistically significant or marginally statistical significance between groups. The statement with marginal difference was “I was able to take the institution’s online orientation and quiz without assistance.” In Group 2, no students disagreed with this statement at all, whereas 12% of students in Group 1 disagreed. The Mann-Whitney p-value for this comparison was 0.0706.

Statistically significant differences were observed between participant groups in the resource statements “I was able to set up and access my KU Med Center email without assistance,” “I was able to connect on LinkedIn and to the department student’s group without assistance,” and “I was able to log into Enroll & Pay and register for classes without assistance,” with p-values of 0.0072, 0.0036, and 0.0463, respectively (Figure 4). The statement about LinkedIn really just showed that 57% of participants from Group 1 were neutral, and only 24% from Group 2 were neutral. This step is not required for students, as it is an opt-in situation, so this difference is not crucial. However, the observed differences in being able to set up email and register for classes is very critical. In Group 1, nearly 30% needed assistance with email access, while in Group 2 only 4% needed assistance. Similarly, in Group 1, 23% needed assistance to register for classes, and only 4% in Group 2 needed assistance. These improvements alone show the value of the new guided orientation process as an alternative to the emailed instructions orientation process.

The remaining six statements, while not even marginally significantly different between participant groups, showed at least the trend in the direction of more independence and unassisted achievement of the step by participants in Group 2. This was seen, in particular, with the statements “I was able to request an Online ID and log into the KU Blackboard without assistance” and “I was able to access the department bootcamp course in Blackboard without assistance.” Both of these steps are complicated and often introduce significant confusion to students in the program.

Resource Usage:

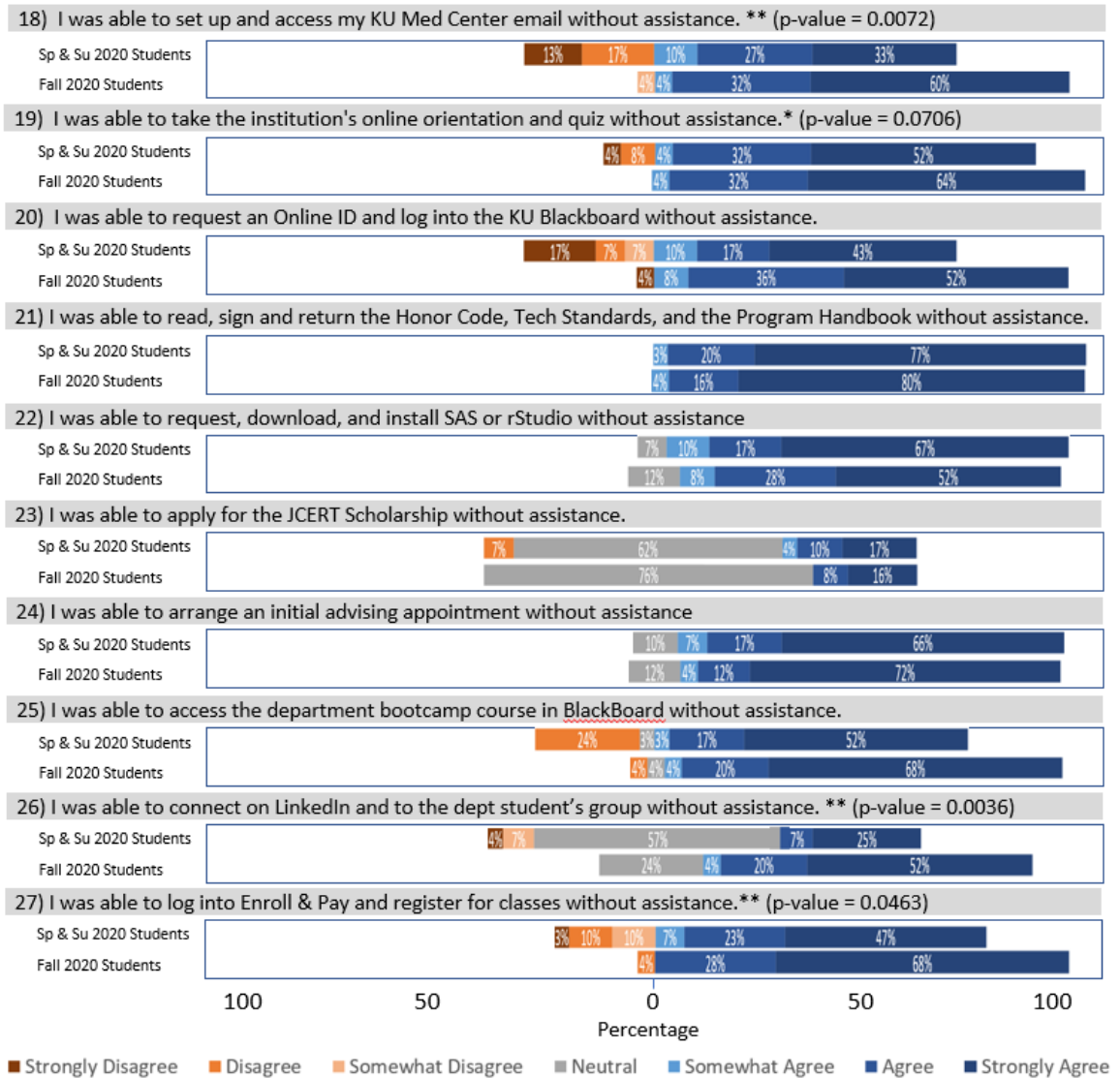


Figure 4 Likert agreement responses to Resource Usage statements by Group

CHAPTER V – DISCUSSION

Participants did not experience significantly different emotional or behavioral responses as a result of the new guided orientation process as opposed to the previous emailed instruction list. However, participants did experience some improved impressions of the orientation process, student resource options, and the University of Kansas as a whole. Participants were also more likely to be able to complete some of the key orientation steps independently, such as set up their email account, complete the institution online orientation module and quiz, connect with the department LinkedIn page, and register for classes in Enroll & Pay. All tests conducted were two-sided tests, so any negative impacts would have been detected if present. This lack of adverse impact is supported in the diverging stacked bar graphs, where the majority of construct items appear to show the shift between Group 1 and Group 2 was in the direction of increased agreement.

Several additional factors could have impacted the participant experience. Students who underwent the orientation process in Spring 2020 went through the process pre-COVID-19. The Summer 2020 and Fall 2020 cohorts would have had their orientation process during COVID-19. It is unclear if or how this could have impacted their experience. Secondly, there was significant turnover in the Registrar's Office during the evaluation period. The Registrar has a direct impact on the timing and accuracy of entering new students into the systems, triggering email account creation, enrollment availability, etc. A new registrar was named in March 2020, but the office remained with only two employees, down from four original employees, for the duration of the evaluation period. Processes, accuracy, timeliness, and responsiveness from the

Registrar's Office were all impacted, and quite possibly could have impacted the participant experience.

In the future, a more automated schedule for release of the guided orientation process steps could be implemented. Allowing the student to trigger the next step would be ideal, so they can work through the steps at a pace that works for them. In addition, the idea of a checklist has been suggested, and could also be created and distributed. The student and the academic advisor could more easily keep track of step completion. Overall, the guided orientation process will be adopted permanently, as the time investment on the part of the academic advisors was significantly reduced. The increased independence of step completion and improved impressions of the institution will hopefully have an impact on student retention and graduation rates.

Adult online graduate students appreciate a more guided orientation process. Frustration remains on the magnitude of preparation that is required between receiving an offer of admission and the first day of class, but being sent and watching step-by-step videos on how to get through the process is beneficial not only to the student, but to the department administrators, and hopefully the institutional student resource personnel.

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APPENDIX A – Orientation Student Survey

Orientation Student Survey

Thank you for participating in this study. I am collecting data for a University of Southern Mississippi research project. By participating in this survey, you are affirming that you are at least 18 years old. All of your responses are anonymous.

You were recently admitted to the MS in Applied Statistics, Analytics & Data Science program at the University of Kansas. Between when you were extended an offer of admission, and the first day of class in your starting term, you underwent an orientation process. Below are questions about this process.

Thank you for your help!
Shana Palla

What was your starting term in the MS in Applied Statistics, Analytics & Data Science program?

- Spring 2020 or Summer 2020
- Fall 2020

Please indicate the extent to which you agree or disagree with the following statements:

During the period between being extended an offer of admission and when my first course started...

	Strongly disagree	Disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Agree	Strongly agree
1) I felt welcome.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2) I felt respected.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3) I felt valued.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4) I felt like I knew what I was doing.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
5) I felt like I understood the information I was given.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
6) I felt comfortable asking questions.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
7) I never felt frustrated with the process.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

During the period between being extended an offer of admission and when my first course started...

	Strongly disagree	Disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Agree	Strongly agree
8) I knew all the orientation process steps I needed to take.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
9) I was provided all the information I needed to complete the process.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
10) I was able to do all the orientation process steps I needed to on my own.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
11) I didn't need to seek assistance to complete the orientation process steps.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
12) I was able to complete the orientation process steps in a timely fashion.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
13) I was ready for my first class to start.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

As a result of the orientation process...

	Strongly disagree	Disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Agree	Strongly agree
14) my opinion of the orientation process is favorable.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
15) my opinion of the student resources is favorable.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
16) my opinion of the Department of Biostatistics & Data Science is favorable.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
17) my opinion of the University of Kansas is favorable.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Resource Usage	Strongly disagree	Disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Agree	Strongly agree
18) I was able to set up and access my KU Med Center email without assistance.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
19) I was able to take the institution online orientation and quiz without assistance.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
20) I was able to request an Online ID and log into the KU Blackboard without assistance.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
21) I was able to read, sign, and return the Honor Code, Technical Standards, and Page 2 of the Program Handbook without assistance.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
22) I was able to request, download, and install SAS or rStudio without assistance	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
23) I was able to apply for the JCERT Scholarship without assistance	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
24) I was able to arrange an initial advising appointment with the Program Director without assistance.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

26) I was able to connect on LinkedIn and gain access to the department students and alumni group without assistance.

27) I was able to log into Enroll & Pay and register for classes without assistance.



Is there any other information about your experience in the orientation process that you would like to share?



Please complete the following questions about you and your academic history so we can better understand the demographics of online graduate students in the MS in Applied Statistics, Analytics & Data Science graduate program.



Are you Spanish, Hispanic, or Latino?

- Yes
- None of these



Choose one or more races that you consider yourself to be:

- White
 - Black or African American
 - American Indian or Alaska Native
 - Asian
 - Native Hawaiian or Pacific Islander
 - Other _____
-

What is your gender?

- Male
 - Female
 - Other
-

How long has it been since you were a student at a University?

- < 2 years
 - 3-5 years
 - 6-10 years
 - > 10 years
-

Have you ever participated in a 100% online graduate program before this one?

- Yes
- No

APPENDIX B – IRB Approval Letter

IRB-19-583 - Initial: Sacco Committee Letter - Exempt

irb@usm.edu <irb@usm.edu>

Fri 12/13/2019 3:03 PM

To: Holly Foster <Holly.Foster@usm.edu>; Shana Palla <Shana.Palla@usm.edu>

Office of
Research Integrity



118 COLLEGE DRIVE #5125 • HATTIESBURG, MS | 601.266.6576 | USM.EDU/ORI

NOTICE OF INSTITUTIONAL REVIEW BOARD ACTION

The project below has been reviewed by The University of Southern Mississippi Institutional Review Board in accordance with Federal Drug Administration regulations (21 CFR 26, 111), Department of Health and Human Services regulations (45 CFR Part 46), and University Policy to ensure:

- The risks to subjects are minimized and reasonable in relation to the anticipated benefits.
- The selection of subjects is equitable.
- Informed consent is adequate and appropriately documented.
- Where appropriate, the research plan makes adequate provisions for monitoring the data collected to ensure the safety of the subjects.
- Where appropriate, there are adequate provisions to protect the privacy of subjects and to maintain the confidentiality of all data.
- Appropriate additional safeguards have been included to protect vulnerable subjects.
- Any unanticipated, serious, or continuing problems encountered involving risks to subjects must be reported immediately. Problems should be reported to ORI via the Incident template on Cayuse IRB.
- The period of approval is twelve months. An application for renewal must be submitted for projects exceeding twelve months.

PROTOCOL NUMBER: IRB-19-583

PROJECT TITLE: New Guided Orientation Process

SCHOOL/PROGRAM: School of Education, Educational Research and Admin

RESEARCHER(S): Shana Palla, Holly Foster

IRB COMMITTEE ACTION: Exempt

CATEGORY: Exempt

Category 2.(ii). Research that only includes interactions involving educational tests (cognitive, diagnostic, aptitude, achievement), survey procedures, interview procedures, or observation of public behavior (including visual or auditory recording).

Any disclosure of the human subjects' responses outside the research would not reasonably place the subjects at risk of criminal or civil liability or be damaging to the subjects' financial standing, employability, educational advancement, or reputation.

APPROVED STARTING: December 13, 2019

A handwritten signature in cursive script that reads "Donald Sacco".

Donald Sacco, Ph.D.

Institutional Review Board Chairperson

APPENDIX C – Student Recruitment Announcement

Dear Potential Participant,

You are being asked to consider participating in a study because you have been identified as a newly admitted student to the MS in Applied Statistics, Analytics & Data Science program at the University of Kansas Medical Center. The purpose of the study is to assess student orientation process opinions and experiences, resource utilization during the orientation process, and how the orientation process has impacted your first impressions of the institution, department, and program.

If you choose to participate in this study, you will be asked to complete a short questionnaire consisting of demographic questions, questions related to your overall orientation process opinions and experience, questions related to your usage of student resources during the process, and questions related to your first impressions.

The study is an online questionnaire and should take less than 10 minutes to complete and participation is entirely voluntary. You may choose to decline participation or to discontinue participation at any point without concern regarding penalty, prejudice, or any other negative consequence. There are no risks involved with participation in this study and all data collected will remain completely anonymous. Additionally, any information inadvertently obtained during this study will remain completely confidential. Data will be aggregated and analyzed for purposes of completing a project for a doctoral capstone project at The University of Southern Mississippi.

Upon completion of the project, all questionnaire data will be destroyed. If you have questions concerning the study, please contact Shana Palla at shana.palla@usm.edu. This research is being conducted under the supervision of Dr. Holly Foster. This project has been reviewed by USM's Institutional Review Board, which ensures that research projects involving human subjects follow federal regulations. Any questions or concerns about rights as a research participant should be directed to the Chair of the Institutional Review Board, The University of Southern Mississippi, 118 College Drive #5125, Hattiesburg, MS 39406-0001, (601) 266-5997.

By completing and submitting the attached questionnaire, you are agreeing to participate in the study and give permission for your anonymous and confidential data to be used for the purposes described above. Thank you for your consideration.

Sincerely,
Shana Palla