

# Enrollment Central Mobile Application Research Management Plan



## **EDIT 752- Spring 2016-Group B**

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## Background

The Design Team designed a mobile application for George Mason University students, parents and student helpers. This mobile application was initially conceptualized with an

initial intent of providing a remedy for navigational issues that they faced when traversing campus. Upon further research, it was determined that the root of the issue primarily stemmed from an overall lack of knowledge when it came to completing common tasks associated with being a student at GMU. This lack of knowledge was often accompanied with a lack of direction due to poorly marked buildings. It was discovered that at the core of all of the processes was the Enrollment Central office. The designers provided a prototype that served as a solution that not only met navigational needs but, also provided access to self-services. These were typically only offered with the assistance of Enrollment Central or several key offices. The UX design team obtained valuable feedback prior to this research phase. This was accomplished by their close interaction with a group of potential student users as well as the Enrollment Central staff members. This was done in an effort to compile a list of primary areas of focus for future improvement. The prototype is currently available on a website. One version can be made accessible from a mobile device to simulate similar functionality.

### **Prototype**

<http://masonec2.weebly.com/>

### **Goals**

A pilot test will assist the UX Design Team in the determination of specific areas of design functionality that should be further investigated through UX Testing. More feedback will be gathered from user focus groups shortly before and after their usage of the mobile application. Through research, we hope to identify ways to make our design more practical and intuitive by focusing on our user's ability to complete tasks and navigate throughout our application. The intent is to accomplish the following goals:

1. Assess the practicality of the application in assisting users complete common Enrollment Central tasks (navigation, interaction).
2. Identify critical performance gaps in the design of our mobile application.
3. Identify ways to improve our current design and functionality.
4. Obtain deeper insight into the user impressions and emotional impact of the overall design and layout.

### **Research Questions**

A combination of qualitative and quantitative research data will be gathered in an effort to gain rich user insight into the important questions surrounding the Enrollment Central mobile application. The research questions will concentrate heavily on areas such as navigation and information, visual design and layout, content and terminology, task completion, as well as communication and user site impressions. Specifically, design considerations such as practicality, ease of use, design and visual impact, language and meaning, will be closely examined. Several corresponding research questions will be answered by the collection of data:

1. **Practicality** – Does the application assist users in completing Enrollment Central tasks?
2. **Ease of Use** – Are users able to navigate the application successfully?
3. **Design and Visual Impact** – What are the overall impressions of the applications look and feel?
4. **Language and Meaning** – Does the application provide a clear path to information?
5. **Overall Impressions** – How do users feel about the application and its intended purpose?

## Methodology

The UX design team plans on conducting two rounds of testing. This process will be managed using a formative evaluation approach. UX Design team members will collect qualitative data to diagnose and address the causes of UX issues. Quantitative data will also be collected to assess the level of quality and intuition of the design. Specifically, rapid and analytical methods will be the central evaluation methods for this project. These methods were selected in order to evaluate the design in its early stage of progress. The purpose of this approach is to allow the team to address any necessary design modifications. The need for multiple iterations of the design will become persistent over time, due to the UX performance and feedback. Student recruitment will occur in the common area between the Enrollment Central lounge and the front walkway of the Enrollment Central area. During this UX testing process, two rounds of UX testing will be conducted.

Team members will work in teams of two members or pairs. One of the two members will serve as a primary facilitator. Once the facilitator has explained the prototype to the participant, the participant will be prompted to complete a task. Meanwhile, the secondary facilitator will document the task by video recording the session. The primary facilitator will continue close observation by taking notes. Upon task completion, the participant will be interviewed by the primary facilitator as the primary facilitator continues to take notes. The secondary facilitator will continue to videotape the interview. Upon completion of the interview, the primary facilitator will provide a questionnaire to the participant for completion. This cycle will be repeated in Round 1 and Round 2.

### Round 1: Task-Based Observation and Assessments

The first round will consist of three steps: 1) Task-Based Observation, 2) the Single Ease Questions (SEQ), and 3) Final Questionnaire and Recommendations. These three steps are expected to be carried out within ten minutes. Team members will tally their total findings following these sessions.

### Task-Based Observation

A pair of UX Design team members will document their observation via video recording. Team members will pay close attention to participants and their hand movements while their complete tasks. It is worth mentioning that the Guerrilla testing is chosen as a means of finding participants to complete tasks.

### Single Ease Questions (SEQ)

Team members will use a 7 point rating scale to assess how difficult users find a task. In this usability test, participants will be questioned immediately following their attempt to complete an Enrollment Central task with the mobile application. The end points will be labeled from one to seven making it simple to rate participant's frustration or delight at using the mobile application.

### Final Questionnaire and Recommendations

As a final part of Round 1, participants will be invited to complete a final questionnaire. They will be encouraged to provide recommendations on how the mobile application can be improved.

### Round 2: Replication of the Three-Step Approach

The second round of UX testing will replicate the three-step approach to the testing process unless the outcome of Round 1 would suggest otherwise.

### Participants

Our aim is to include between 5 to 7 volunteer participants in our usability testing. Visitors of the Enrollment Central help desk area will be approached by members of Group B and asked to participate in a brief user testing of the app in order to provide feedback on the prototype. This is the preferred demographic closely represents the primary user persona of our target audience. Enrollment Central Staff members will also be asked to use the prototype and make suggestions on its improvement. During design iterations 1 and 2, outside design experts and other programming experts will also be asked to provide feedback on the design and functionality of the app prototype. This group includes outside design consultants.

- Students (Graduate, Undergraduate, Prospective), Student Helpers, Parents, Visitors, Faculty, Enrollment Central Staff.
  - Familiarity with using an app ranges from unfamiliar to the technically savvy
  - Age ranges from 18 to 65+
  - Language skills vary

### Primary User Persona (from Fall 2016 Semester)

Jacob is student in his twenties, technically savvy, and new to George Mason. He has completed his BA in a foreign college and has earned a few credits at NOVA. Jacob's goal is to pursue a Master's degree as a full-time student. Unfortunately, he has been struggling to complete his paperwork as a transfer student. In addition to this, he has found that the GMU student resources are not as user friendly as he would like them to be.

"Jacob's "needs include:

- A simple way to track the status of a process that has been initiated.
- An interactive GPS/Mapping tool that provides directions to campus locations based on your current location.

- An application that can offer assistance to students as it relates to their own individual circumstances and specific needs.
- A tool that can provide all necessary requirements and paperwork that are needed to complete a certain task prior to visiting a campus location.
- An online chat/email tool that provides access to Enrollment Central staff that in most cases would eliminate the need to visit a physical location.
- A tool that offers the capability to complete and submit required forms online and one that provides smart fields that facilitate entering the correct information.

### Course Deliverables and Implementation Schedule

We will adhere to a rigid schedule in an effort to effectively manage all resources without the compromise of quality. This is also in a conscious effort to consider the time of our participants with minimum disruption to their day.

Date	Deliverable
Feb 8, 2017	Draft Research Goals and Research Questions
Feb 14, 2017	Revise Goals, Questions, Methodology and Instruments
Feb 21, 2017	Identify and Recruit Target Audience
Feb 28, 2017	<b>Submit Research Management Plan</b>
Mar 7, 2017	Conduct Round 1
Mar 21, 2017	<b>Submit Initial Prototype Revisions on Course Site</b>
Mar 28, 2017	Round 1 Data Collection and Analysis
Apr 04, 2017	<b>Submit Reported Results Briefing Round 1 and Associated Revisions</b>
Apr 11, 2017	Conduct Round 2
Apr 18, 2017	Round 2 Data Collection and Analysis
May 02, 2017	<b>Submit Reported Results Briefing Round 2 and Associated Revisions</b>
May 09, 2017	<b>Submit Final Presentation</b>

## Appendix

### Informed Consent Form

**Title of Project:** Enrollment Central Mobile Application

**Project team members:** Maimoona Abri, Aaron Black, Vera Gilbert, Hossein Kord, Tamasa Nelson, Kari Padilla, and Tracey Robinson.

### **The Purpose of your participation in this project**

As part of the project “Enrollment Central Mobile Application” evaluation, you are invited to participate in the assessment of its features, its usability and usefulness in the management of various EC processes.

### **PROCEDURES**

You are invited to participate in a design-based research approach to evaluate and improve the usability and usefulness of the “Enrollment Central Mobile Application,” as a part of George Mason University Mobile App. This project will be conducted by the project design team members, from the College of Education and Human Development at George Mason University. It will be conducted for EDIT 752: Analysis and Design of Technology-Based Learning Environments as a course assignment. The methodological approach of qualitative feedback and quantitative data will be used in the formative evaluation. Specifically, the project design team will begin the collection of qualitative and quantitative data. Both rapid and analytical methods will remain at the core of our evaluative procedural strategy for this project.

Participants will be observed and video-recorded with the participant's permission and will go through the third step, of Round 1. They will be asked Single Ease Questions (SEQs) and provide their recommendations by completing a questionnaire. This data collection will be conducted in three phases. Phase one will consist of Task-Based observation with a preliminary explanation of the purpose and capabilities of the application and how the student could possibly use it. The second phase will consist of a Single Ease Questions (SEQ). The final part of the study will consist of survey questions geared to assess the student's reaction to the application following their personal experience.

### **RISKS**

There are no foreseeable risks to participating in this study.

### **BENEFITS**

Your participation in the assessment will provide the project design team with information that will be utilized in the improvement of the design of the mobile application. The results of this assessment will be used to improve the mobile application. Although this is a concept design, there are current mobile applications utilized by George Mason University students. Future data will be recorded that can be later accessed by others to improve areas where there are a performance gaps. You are requested to refrain from discussing your experience and feedback with other participants who are involved in this project.

### **CONFIDENTIALITY**

You were selected as a participant in this project because you have been identified as a stakeholder. The project will be field-based. We will ask you questions regarding your

feedback and experiences pertaining to Enrollment Central task performance. Each method is expected to last no more than 10-15 minutes. Any information and comments that are shared during the testing process will be kept strictly confidential. All names and other identifying information will not be revealed. All audio files and transcripts will be kept on a password protected computer.

### **PARTICIPATION and COMPENSATION**

Your participation in the study is voluntary and unpaid. You can choose to withdraw and stop participating in this project at any time. Volunteers may choose not to answer a question at any time during the testing and/or to stop the testing at any time.

### **CONTACT**

If you have any questions about the study, please contact *Hossein Kord*, [hkord@gmu.edu](mailto:hkord@gmu.edu). If you have further questions, you may reach the researcher at (571-645-1714).

### **Agreement to Participate in Research**

I agree to have my testing audio and recorded.  Yes  No

I have read the above project and agree to participate in it as described.

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**Participant's Signature** **Date**

### **Testing Protocol**

The steps that we will take are as follows: First, we will contact the management office at the "Enrollment Central Department." We will inform the staff members that we are approaching the last stage of development of the project that we started during the previous semester. We will provide the office the background of the project including the project purpose, intended participants, data collecting method, and the period of the project. Then, we will remain in contact with EC staff and continue building a rapport with them. Guerrilla testing is chosen as a means of finding participants and conducting the test. We will then determine the best time to start the user testing. We will start testing participants by following this script:

"Welcome and thank you for your participation today. This is a group project. We are graduate students at George Mason University conducting a design-based research project. Thank you for agreeing to participate in this study. The follow-up task based observation will take no longer than 10-15 minutes and will include one specific task related to Enrollment Central processes. Upon completion of the chosen task, we will ask you to fill out the survey which consists of 5 multiple choice questions. After that, we will ask you to provide your feedback and recommendation for further improving the EC app.

We would like your permission to tape and video record the testing. The purpose of recording the testing is only for our use in order to have the ability to review your responses later on. Please note that your responses will remain 100% confidential and will be used to develop and improve the usability and usefulness of the EC mobile app. The focus of the



project is to assess various areas of your experience as they relate to the functionality of the mobile application. We will focus on the functional, cognitive, sensory, physical and emotional considerations of your experience as you complete tasks. After interviewing you, we will email you a written consent form that ensures your participating in this project. We need your consent for continuum communication should we need further clarification”.

We will ask the participants for any clarification or questions do they have before starting the testing.

After completing testing the participants, we will thank them for their comments and feedback.

## Question Guide

### Task-Based Observation

**Primary Facilitator:** *(Directs the participant to the Enrollment Central Mobile Application Login page while the Secondary Facilitator records the Exchange)* “This is where you will Login. Would you please choose one of the following tasks?”

**User:** Please select one task for completion from this list:

1. Use the app to send an email to Enrollment Central staff.
2. Use the app to find the history of your previous EC Processes.
3. Use the app to find the phone number to call EC Staff.
4. You are a transfer student who would like to attend Transfer Orientation. Use the app to determine the details of the Orientation.
5. You have a few questions and would like to determine whether the answers can be found in FAQs of the EC. Use the app to locate FAQs.

Upon completion of the chosen task, please complete the following questionnaire:

### Single Ease Questions

1. The application allowed me to find a solution to my issue.

Strongly Disagree	Disagree	Somewhat Disagree	Undecided	Somewhat Agree	Agree	Strongly Agree
1	2	3	4	5	6	7
0	0	0	0	0	0	0

2. Most people would be able to use this EC app.

Strongly Disagree	Disagree	Somewhat Disagree	Undecided	Somewhat Agree	Agree	Strongly Agree
1	2	3	4	5	6	7
0	0	0	0	0	0	0

3. I felt confident while using the EC app.

Strongly Disagree	Disagree	Somewhat Disagree	Undecided	Somewhat Agree	Agree	Strongly Agree
1	2	3	4	5	6	7
0	0	0	0	0	0	0

4. Before I could get going with this EC app I needed to learn a lot of things

Strongly Disagree	Disagree	Somewhat Disagree	Undecided	Somewhat Agree	Agree	Strongly Agree
1	2	3	4	5	6	7
0	0	0	0	0	0	0

5. The EC app was helpful.

Strongly Disagree	Disagree	Somewhat Disagree	Undecided	Somewhat Agree	Agree	Strongly Agree
1	2	3	4	5	6	7
0	0	0	0	0	0	0

## Final Questionnaire and Recommendations

1. What would you say are the three best things about the mobile application?

- 1.
- 2.
- 3.

2. What three things you suggest that we change about the mobile application?

- 1.
- 2.
- 3.

3. Please include any additional comments or suggestions
