GEORGE MASON UNIVERSITY
COLLEGE OF EDUCATION AND HUMAN DEVELOPMENT
Instructional Design and Technology Program

EDIT 752 Section 001: Design and Implementation of Technology-Based Learning Environments
3 Credits Spring 2015
Thursdays 7:20 – 10:00 pm
Fairfax Campus – Exploratory Hall L102

PROFESSOR(S):
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COURSE DESCRIPTION

1. **Prerequisites –** EDIT 732 or permission of instructor

2. **Course description from the University Catalog:** Students design and produce multimedia/hypermedia applications based on current theory and research in instructional design and cognitive science. Examines user needs, information models, structure, and media selection and uses to inform design and production of final project.

COURSE DELIVERY/DESCRIPTION

This course will provide students with face-to-face and online learning opportunities to apply principles of instructional design, design research, user research, usability and evaluation and revision techniques to a real world learning technology design project. Students will work intensively in a team-based setting to collaboratively and thoroughly design/re-design, produce, collect, evaluate, and analyze data related to the design and/or implementation of a real-world technology solution prototype geared toward a specific instructional or performance problem. The outcome of the course will be a viable and implemented user research plan that allows for several rounds of applied data collection, analysis and revision of a technology-based prototype project.

LEARNER OUTCOMES

This course is designed to enable students to:

1. understand the process of instructional design and development as applied to a User Experience (UX) real-world project;

2. apply instructional design, UX design, learning theories and interdisciplinary design principles to technology prototype development;

3. apply product development, evaluation, research and design research methodologies to instructional design and development

4. collect and analyze user data related to iterative instructional design and development

5. contribute positively to the team's mission and goals and support of individual members and team members' professional growth and development

6. document individual's contributions to team's mission and goals

7. contribute to project management and accomplishment of goals

8. write research management plan

9. implement cycles of rapid evaluation of technology-based prototype and revisions and present results

PROFESSIONAL STANDARDS:

This course adheres to the following Instructional Technology Program Goals and Standards for Programs in Educational Communications and Instructional Technologies established by the Association of Educational Communication and Technologies (AECT) under the National Council for the Accreditation of Teacher Education (NCATE).

Standard 1 – Design

1.1.2.a Demonstrate in-depth synthesis and evaluation of the theoretical constructs and research methodologies related to instructional design as applied in multiple contexts.

1.1.3.b Utilize the research, theoretical, and practitioner foundations of the field in the development of instructional materials.

1.1.4.a Conduct basic and applied research related to technology integration and implementation.

1.1.5.c Articulate the relationship within the discipline among theory, research, and practice as well as the interrelationships among people, processes, and devices.

1.3.a Identify multiple instructional strategy models and demonstrate appropriate contextualized application within practice and field experiences.

REQUIRED TEXTS:

1) Hartson, R. & Pyla, P.S. (2012) *The UX Book: Process and guidelines for ensuring a quality user experience.* Waltham, MA:Elsevier.

2) Bolt, N. & Tulathimutte, T. (2013). Remote research: Real users, real time, real research.

3) Nielsen, J. & Budiu, R. (2012). Mobile Usability: Edition: 13. New Riders.

4) Goodman, E. & Moed, A. (2012). Observing the User Experience: 2nd Edition. Elsevier.

RECOMMENDED TEXTS:

1) Sharon, T. (2012). It's our research: Getting stakeholder buy-in for user experience research projects. Morgan Kaufman. Elsevier.

2) Brown, D. M. (2013). *Designing Together: The collaboration and conflict management handbook for creative professionals (Voices That Matter)*. New Riders. San Francisco. (ISBN-13: 978-0321918635)

COURSE ASSIGNMENT AND EVALUATION

A. Assignment Descriptions

1. **Participation/Teamwork Contributions to Group Process (20%)** - This course requires significant online asynchronous, synchronous and face-to-face participation and interaction. Each member of small teams (5-6 people) will interact to conduct UX research, analyze results and revise a prototype of a technology-based learning environment. Each student will be expected to participate and contribute to each assignment in a self-selected, rotating role with each student taking leadership on one designated assignment (co-leadership can be facilitated if necessary to evenly distribute tasks). However, each student is also expected to individually contribute to all project deliverables and document their contribution in the team member evaluation form provided by the instructor. Successful collaboration and respectful, professional interaction among team members is a core competency of this course and will be facilitated by team meetings through Blackboard Collaborate or another selected form of online and off-line interaction. Student design teams must schedule at least one group meeting per week (beginning the third week of class). Students may elect to use Blackboard Collaborate **or another tool but should capture and post evidence of their meeting (e.g. meeting notes, document sharing link, video or audio accessible to the instructor) to provide evidence of participation in the UX research process.** Student design team members may elect to assign rotating roles for each project deliverable assignment.

   As part of this course, students are expected to find ways to work online and face-to-face respectfully and successfully in their teams as would be expected in a consulting or professional position. Each student will complete a team member evaluation for each assignment commenting on their own and their team members' contribution to the assignments. This information is one of many points of data considered and triangulated by the instructor along with individual online presence and interaction as well as contribution to each team deliverable that encompass individual grades.

2. **UX Research Resource Review (10%)**- Each student will identify, synthesize, create and post a review of a User Experience (UX) Research resource of a UX example, technique or expert perspective (e.g. website, white paper, UX commentary or process example, research study, etc.). The UX research resource should be related to topics we are exploring in the course such as the process of user experience research, mobile usability, design research, and/or evaluation. The UX research resource review should reflect concise, informative and additional information benefiting course participants and our work in some way. Each student will post one major resource contribution that will take the form of a 5-minute video screen capture (using available screen capture technology within Blackboard called Kaltura). These screen capture videos will be uploaded to the designated area of the online course. The videos should be well-prepared, organized, as professionally delivered as possible (so as others outside the course could value them as well) and include: 1) 3 major take-away points made in the resource posting; 2) in an overall verbal synthesis of the resource; and 3) it's value to learning UX design as an instructional designer. Students will also be required to review and post a total of at least three reflective text-based comments on others students' resource reviews (to promote interaction). The resource posting for each student is designed to have students thoughtfully contributing and provoking interest in the class on:

- Examples or commentary of or on notable UX research, design research, user research trends, usability testing and implementation

- Complementary, thoughtful and elaborative (not repetitive) resources related to our readings, activities and discussions related to UX research processes and techniques.

2. **Research Management Plan (10%)** – Each team member will contribute to the conceptualization, drafting and implementation of a research management plan for the semester that includes further development of the prototype, selection of UX research methods (related to rapid evaluation methods) and implementation of at least two UX research evaluation cycles (referred to as round 1 and round 2 UX research cycles). **The research management plan will include background on the UX project, as well as for each of the two rounds of research: 1) study goals; 2) research questions; methodology(ies); participants; 4)schedule and; 5)sample protocol or script.** Implementation of these two UX research evaluation cycles will uncover problems with the prototype through group implementation of selected data-driven, rapid evaluation techniques and analysis that will feed into progression and revision of prototype (see assignments 4 & 5). Each student will work with his or her team to successfully break down tasks in a plan to accomplish these objectives across the semester that will be carried out by all team members who each will assume lead on one deliverable and will be posted to the course online system early in the semester.

4. **Progression and Revision of Prototype (20%)** - Collectively and individually, students will continue to contribute to progressing toward quality UX design, re-design through rapid UX evaluation and iterative cycles for the established project prototype. The first iterative production and revision cycle will be based on revisiting the prototype and feedback from last semester as well as reviewed design implications. The second iteration will occur after the first round of data collection and analysis (described below). If time permits, a final round of improvement or iteration of the prototype will occur after round two data collection and analysis (if not possible, then changes should be mocked up in the presentation of the prototype or at the very least described and listed as recommendations). Major changes to the prototype should be directly linked to analytic findings and posted on the course online system with designation of lead group member and other members' contributions and activity related to the progression and revision of the prototype.

5. **Round 1 and Round 2 Data Collection and Analysis (30%)** – Collectively, each student will contribute to conducting two rounds of UX research cycles (selected from rapid evaluation and other methods reviewed in course), analysis and appropriate revisions to the prototype. Groups will implement the two rounds of UX research, analyze the data between each round and make corresponding targeted revisions to the prototype based on the analysis. The two rounds of data collection and analysis that may include any (or a combination) of the following rapid evaluation methods: cognitive walk-throughs, expert evaluation, heuristic evaluation, focus groups, field observations, diary studies, usability tests, video observation, remote research techniques, etc. There will be two separate rounds of data and separate analyses that with reported results collection (due dates indicated on schedule) with resulting, identified logical and carried out revisions to the prototype. Each round will be summarized in a report or briefing and described or illustrated changes to the prototype submitted on the course system with designation of lead group member and contributions of other group members. The report, outline or briefing will include the following components: 1) background and description of the product; 2)goals of the testing; 3) description or map of participants; 4) research questions; 5) protocol and/or; 6) task; 7) methods; 8) data collection; 9) results, participant quotes, or themes; 10) artifacts such as photographs, videos, graphics, etc. Each student will **also post a brief reflection on their experience at each round in their TME and online discussion** about implementing their selected research method (e.g. lessons learned, what they wished they would have done differently after each implemented round of data collection and analysis, what worked well in their selected methodology and what did not, etc.).

6. **User Experience Research Presentation (10%) -** Each group will present their initial revisions to prototype, UX research cycles, their data collection, analyses and corresponding prototype revisions from rounds 1 and 2 for the class and clients, if available. Each presentation will consist of an overview of initial revisions, two rounds of evaluation, results, analysis and associated revisions (screen shots) to prototype and highlight the group's process/accomplishments and progress in user research throughout the semester.

CRITERIA FOR EVALUATION

Performance-Based Assessments - This course includes multiple performance-based assessments with allocated percentages and corresponding point values (listed in rubric at end of syllabus):

Participation/Teamwork Contributions to Group Process		20%
UX Research, Revision and Presentation of Prototype		80%
UX Research Resource Review	10%	
Research Management Plan	10%	
Progression and Revision of Prototype	20%	
Round 1 and Round 2 Data Collection and Analysis	30%	
User Experience Research Presentation	10%	
Total percentage (referred to as points in individual items in rubrics below)		100%

A. Grading scale: A = 94-100; A - = 90-93; B+ = 86-89; B = 83-85; B- = 80-82; C = 70-79; F = <70

B. Course Content Availability/Instructor Availability

Due to intense nature of this collaborative blended course, the instructor will release content progressively in the Blackboard course site typically the day of the course session (e.g. by Thursday 7:20pm of specific class session content or sometimes earlier). Any course questions should be posted to the course question section on Blackboard for all class participants to view and benefit from the collaborative responses. The instructor will typically respond to the majority of questions/concerns on the day of the class allocated to that particular topic and remaining responses will likely occur periodically on Monday-Thursday. Response to questions/concerns posted on Thursday-Sunday will typically require some additional turn-around time.

C. Blackboard Support

This course intensively implements Blackboard (for asynchronous sessions) and Blackboard Collaborate (for synchronous sessions). Beyond the introduction to these tools in class, students can access the following support resources:

1) GMU Course Support for Blackboard in General https://mymasonportal.gmu.edu/webapps/portal/frameset.jsp?tab_tab_group_id=_230_1
2) GMU Top Questions and Additional Tools for Blackboard Mobile and Collaborate http://coursessupport.gmu.edu/
3) GMU Course Support form for problems http://coursessupport.gmu.edu/contactus.cfm

4) Blackboard Collaborate Support
http://support.blackboardcollaborate.com/ics/support/default.asp?deptID=8336

GMU POLICIES AND RESOURES FOR STUDENTS

a. Students must adhere to the guidelines of the George Mason University Honor Code (See http://oai.gmu.edu/honor-code/).

b. Students must follow the university policy for Responsible Use of Computing (See http://universitypolicy.gmu.edu/policies/responsible-use-of-computing/).

c. Students are responsible for the content of university communications sent to their George Mason University email account and are required to activate their account and check it regularly. All communication from the university, college, school, and program will be sent to students solely through their Mason email account.

d. The George Mason University Counseling and Psychological Services (CAPS) staff consists of professional counseling and clinical psychologists, social workers, and counselors who offer a wide range of services (e.g., individual and group counseling, workshops and outreach programs) to enhance students' personal experience and academic performance (See http://caps.gmu.edu/).

e. Students with disabilities who seek accommodations in a course must be registered with the George Mason University Office of Disability Services (ODS) and inform their instructor, in writing, at the beginning of the semester (See http://ods.gmu.edu/).

f. Students must follow the university policy stating that all sound emitting devices shall be turned off during class unless otherwise authorized by the instructor.

g. The George Mason University Writing Center staff provides a variety of resources and services (e.g., tutoring, workshops, writing guides, handbooks) intended to support students as they work to construct and share knowledge through writing (See http://writingcenter.gmu.edu/).

PROFESSIONAL DISPOSITIONS

Students are expected to exhibit professional behaviors and dispositions at all times.

CORE VALUES COMMITMENT

The College of Education & Human Development is committed to collaboration, ethical leadership, innovation, research-based practice, and social justice. Students are expected to adhere to these principles: http://cehd.gmu.edu/values/.

For additional information on the College of Education and Human Development,
Graduate School of Education, please visit our website http://gse.gmu.edu/.

INSTRUCTIONAL DESIGN AND DEVELOPMENT PROGRAM EXPECTATIONS:

**Required Portfolio Elements for IT students (EDIT601/EDIT701)

If you are a student in the IT program, it is strongly suggested that you retain your design brief/prototype elements produced in this course for your required online Masters electronic portfolio assessment process at

the mid-point and end of your coursework (EDIT601/701). You may also want to document the feedback from your peers and indicate what elements of the design were adjusted based on collected formative feedback. You will be asked to reflect on your learning within this course and the best time to formulate those reflections is when you are currently in the course. Please retain these electronic materials for your required portfolio assessment.

Mason email Account and IT Listserv

As a GMU student, you will need to acquire a GMU email account. Contact the IT Support Center to activate your account. If you are an IT student, please also subscribe to the IT Listserv which will post job opportunities, program announcements, etc. Directions about how to subscribe can be located on the IT Program Website.

PROPOSED CLASS SCHEDULE

*Due to the fluid, real-world and dynamic nature of the design process/context, the instructor reserves the right to change the syllabus/schedule during the course if needed based on project needs/requirements. Every effort will be made to keep students abreast of changes as soon as possible but professionalism and demonstration of your adaptive expertise as a designer/design researcher and flexibility in complex, real world projects is expected in this course.

WEEK	IN CLASS ACTIVITIES	OUT OF CLASS ACTIVITIES
1 Jan 22 **(F to F)**	Overview of Syllabus: Schedule and Requirements Overview of Course and Tools on Bb Sign up for week of submitted UX Research Resource Review ISD, ADDIE and Kirkpatrick Introduction to UX Research Meet as groups, revisit and identify issues and questions with prototype, draft goals to progress prototype based on last semester input	- Read Goodman, Kuniavsky & Moed Preface and Chapters 1-3 - Read Nielson & Budiu Chapter 1 (very short) - Read Hartson & Pyla, Chapters 20 -23 - Review Online Resources - As a group, re-examine prototype, feedback from last semester and draft some revision and research goals for prototype for the next month - Begin to think about and plan for connecting with target audience members related to UX research cycles - REVIEW examples of user research/project management plans and presentations from last year

2 Jan 29 (Asynch)	Cognitive Affordances and Interactions UX Mobile Design When to Use UX Research	- (Optional) Read Sharon Chapter 3 - Read Hartson & Pyla, Chapters 12-13 - Read Nielsen & Budui Chapters 2-3 - Read Bolt & Tulathimutte, Chapter 1 - Review Online Resources - Revisit the design of your prototype identifying affordances and interactions their implications for design as grist for redesign - Review UX interaction design principles to apply to progressively improving your prototype - Begin to implement any changes to prototype based on feedback from last semester and prepare prototype for initial research cycle - Begin thinking about UX research management plan and post initial *drafts* of potential research goals and questions in group area - Determine accessible target audience and begin to recruit audience members
3 Feb 5 **(F to F)** Or (Asynch) negotiable	UX Research Questions and Methods Overview of Traditional Metrics and Methods Overview of Rapid Evaluation Methods Brief Introduction to Remote Research UX Research Planning	- Read Goodman, Kuniavsky & Moed Chapter 4 - Read Hartson & Pyla, Chapters 14-15 - Review Online Resources - Revise posted initial user research goals and research questions - Associate goal/questions with potential UX research method - Continue to work on revising, progressing and fleshing out prototype based on last semester feedback to prepare for UX research cycles - Determine accessible target audience and begin to recruit audience members

4 Feb 12 (Synch)	**Sharing of Research Questions and Question/Answer Opportunity on Research Management Plan (Synch)** Rapid UX Evaluation Methods Examples of UX Research Approach and Strategy Sharing preparation and plans at this point	- Read Bolt & Tulathimutte, Chapters 2-5 - Review Online Resources - Continue work on revisions to production prototype - Collaboratively work on UX research management plan - Identify and recruit target audience members
5 Feb 19 **(F to F)** Or (Asynch) negotiable	Remote Research Sharing preparation and plans at this point	- Read Bolt & Tulathimutte, Chapter 6 and 8 - Review Online Resources - Collaboratively work on UX research management plan - Continue work on prototype to get in shape for further research and evaluation - Identify and recruit target audience members
6 Feb 26 (Asynch)	**Research Management Plan DUE** Tools for Remote Research	- Read Bolt & Tulathimutte, Chapters 7 - Review Online Resources - pilot test materials for research sessions - Confirm recruitment of target audience members and prepare materials for user research sessions

7 Mar 5 **(F-to-F)**	**Question and Answer Opportunity on Upcoming Research Cycle** Introduction to Analysis Design/Cognitive Walkthroughs, Expert/Heuristic Evaluations, Focus groups, Usability Studies Round 1: Data Collection	- Read Hartson & Pyla, Chapters 16 - Read Nielson & Budiu Chapter 5 - Review Online Resources - Implement User Research Plan - Begin data collection and analysis - Report results and related prototype revisions on online system - Cycle of development/revision of prototype based on analyzed results begins
8 Mar 12	***SPRING BREAK***	***SPRING BREAK***
9 Mar 19 **(F to F)** Or (Asynch) negotiable	**Initial Revisions to Prototype DUE on course site** Round 1: Data Collection and Analysis begins Field Observations, Video observation, Diary Studies Analysis Methods	- Review Online Resources - Read Hartman & Pyla, Chapter 17 - Read Goodman, Kuniavsky & Moed Chapters 9 & 10
10 Mar 26 (Synch)	**Sharing on Current Research Cycle, Question and Answer Opportunity on Upcoming Research Cycle** Round 1: Data Collection and Analysis Communicating Results Draft Report Results in Briefing	- Read Hartman & Pyla, Chapter 18 - Read Goodman, Kuniavsky & Moed Chapters 17-19 - Review Online Resources - Round 1: Data Analysis and Revisions to Prototype

11 April 2 **(F to F)** Or (Asynch) negotiable	**Reported Results Briefing on Round 1 and Associated Revisions DUE** Round 2: Data Collection begins Overview of Analytics	- Review Online Resources - Begin to Prepare for Round 2: Data Collection - Recruit and implement data collection
12 April 9 (Asynch)	Round 2: Data Collection begins Overview of Agile, Lean (and other various terms about)development	- Review Online Resources
13 Apr 16 **(F to F)** Or (Asynch) negotiable	Round 2: Data Collection and Analysis Round 2: Data Collection and Analysis Groupwork in Data Analysis and Identified Revisions of Prototoype	- Round 2: Data Analysis and Revisions to Prototype Round 2: Data Analysis and Identified Revisions to Prototype

14 Apr 23 (Synch)	**Sharing on Current Research Cycle, Question and Answer Opportunity** Round 2: Data Collection and Analysis Groupwork in Data Analysis and Identified Revisions of Prototoype Prepare for final presentation of user research	- Round 2: Data Analysis and Implemented Revisions to Prototype - Work on Reporting Results from Round 2 - Work on Final Presentation
15 Apr 30 **(F to F)** Or (Asynch) negotiable	**Reported Results Briefing on Round 2 and Associated Revisions DUE** Prepare for final presentation of user research	- Work on Final Presentation
16 May 7 **(F to F)**	**FINAL Presentation DUE**	**Congratulations!**

ASSESSMENT RUBRIC(S):

Participation/Group Project Process rubric for both in-class and online participation and contributions:

- Outstanding contributor/team member: contributions and meeting evidence reflect exceptional preparation and full participation in groups. Ideas offered are always substantive, providing one or more major insights as well as suggestions for group. Attended all group meetings (unless discussed with instructor), demonstrated exceptional effort on individual and lead tasks, exceeded individual contribution requirements and was instrumental in leading the group forward. Respectfully

acknowledged and integrated all members' skills in project development process. Worked as an excellent team group member and contributor. If this person were not a member of the group, the quality of project would be diminished markedly.

- Good contributor/team member: contributions and meeting evidence reflect good preparation and full participation in groups. Good insights are always offered, providing one or more major ideas as well as suggestions for group. Attended all group meetings, demonstrated good effort on individual and lead tasks, met individual contribution requirements and was valuable in leading the group forward. Respectfully acknowledged and integrated all members' skills in project development process. Worked as a good team group member and contributor. If this person were not a member of the group, the quality of project would be diminished.

- Adequate contributor/team member: contributions and meeting evidence reflect adequate preparation and adequate participation in groups. Some insights offered are occasionally, providing some ideas as well as suggestions for group. Attended majority of group meetings, demonstrated effort on individual and lead tasks, met individual contribution requirements. Respectfully acknowledged and integrated all members' skills in project development process. Worked as a team group member and contributor. If this person were not a member of the group, the quality of project would be somewhat diminished.

- Unsatisfactory contributor/team member: contributions and meeting evidence reflect inadequate preparation and adequate participation in groups. There are little insights/contributions offered as well as suggestions for group. Missed a significant amount of group meetings, demonstrated inadequate effort on individual and lead tasks, did not meet individual contribution requirements for group. Did not respectfully interact and acknowledge all members' skills in project development process. Did not work well as a team group member and contributor. If this person were not a member of the group, the quality of project would be unchanged.

- Note: Students who do not participate or contribute will receive zero points in the applicable area.

Table 1 Participation/Contributions to Group Project Process Rubric (20%)

	Category 1	Category 2	Category 3	Category 4
CRITERIA	Unsatisfactory Contributor	Adequate Contributor	Good Contributor	Outstanding Contributor
Class participation	6	7	8	10
Project contributions and Process group meetings	6	7	8	10
Score	12	14	16	20

Table 2 UX Research, Revision and Presentation of Prototype (80%):

Criteria	**No Evidence**	**Beginning (Limited evidence)**	**Developing (Clear evidence)**	**Accomplished (Clear, convincing, substantial evidence)**
UX Research Resource Review **(Total possible points – 10)**				
Evidence that student identified, synthesized and reviewed concepts about a research resource.	No evidence of a reviewed research resource.	Limited evidence or incomplete reviewed research resource.	Evidence of of a reviewed research resource following some guidelines.	Clear evidence of reviewed research resource following all guidelines
Topics is related to topics explored in the course such as the process of user experience research, mobile usability, design research, and/or evaluation, etc.	Topic is not related to topics in the course.	Topic is tangentially related to topics in the course.	Topic is somewhat related to topics in the course.	Topic is clearly related but not repetitive of topics in the course.
Review of resource is concise, informative and excellent additional information benefiting course participants.	No review of resource	Limited review of resource that is long, not informative to our process	Review of resource elaborates course material and related to course	Concise, informative and excellent additional information reviewed in an interesting manner benefiting all participants
Total points				
Research Management Plan (Total possible points – 10)				
Research management plan includes plans for further development of prototype, description of two research cycles that will be implemented across the semester.	No evidence of preparation	Limited evidence of preparation	Evidence of planning and preparation with posted documentation of data collection protocol	Outstanding, detailed evidence of planning and preparation with posted documentation of data

				collection protocol
Description of research cycles include background on the UX project, as well as for each of the two rounds of research: 1) study goals; 2) research questions; methodology(ies); participants; 4)schedule and; 5)sample protocol or script (if applicable).	No description of research cycles presented	Limited description of research cycles presented	Description of research cycles included with some elements	Thorough description of research cycles with all elements included and a clear representation of activities and logical plan.
Total points				
Progression and Revision of Prototype (Total possible points – 20)				
Evidence of cycles of iterative progression and revision of prototype.	No evidence of progression and revision of prototype	Limited evidence of progression and revision of prototype	Evidence of evidence of progression and iterative revision of prototype	E evidence of excellent progression and multiple revisions of prototype
Progression and revisions are based on and directly linked to research analysis findings.	No evidence of linkage to research findings	Little evidence of progression and revision linked to research analysis findings.	Evidence of progression and revision linked to research analysis findings.	Evidence of excellent level of progression and targeted revision directly linked to research analysis findings.
Total points				
Round 1 and Round 2 Data Collection and Analysis (Total possible points – 30)				
Conduct or implement (2) cycles or round(s) of research, analyze data and identify corresponding revisions to prototype based on data analysis.	No evidence of implementation of each round of research, no analysis and identified prototype revisions	Limited evidence of implementation of each round of research, little analysis and identified prototype revisions	Evidence of implementation of each round of research, some analysis and identified prototype revisions	Excellent evidence of implementation of each round of research, excellent analysis and identified prototype revisions

Professionally presented report submitted after each round of research and analysis	No research report submitted	Incomplete research report submitted	Research report submitted with some description of components	Professional presented research report submitted with well-described procedures and components
Total points				
User Experience Research Presentation (Total possible points – 10)				
Professional presentation or walkthrough of progression and revision of prototype based on cycles of research	No evidence of preparation or organization for presentation with no evidence of progression or revision of prototype based on cycles of research	Little evidence of preparation or organization in delivery of presentation with little evidence of progression or revision of prototype based on cycles of research	Evidence of preparation, organization and practiced delivery of presentation with evidence of progression or revision of prototype based on cycles of research	Excellent presentation evidenced by organized, practiced, professional delivery of presentation with outstanding evidence of progression or revision of prototype based on cycles of research
Total points				
Total Points Across Assignments				