
Survey Instrument Requirements Requirements Definition Template

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Please Note: This is a working document and is changing as we continue to hold discussions and receive feedback from the campus.



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1. Introduction

1.1. Purpose of this document

This document contains all User-level and System-level requirements for this project.

1.2. Reference Materials

There are many other documents that together describe the complete set of requirements for this project.

Reference Document Name	Brief Description	Location of Definitive Source
Stakeholders profile.doc	Identifies the stakeholders	https://pantherfile.uwm.edu/groups/uits/webdev/projects/uwm/survey_instrument/requirements
Context Diagram.vsd	Context diagram	https://pantherfile.uwm.edu/groups/uits/webdev/projects/uwm/survey_instrument/requirements

1.3. Specific Terms and Acronyms

Terms here are specific to this document. Refer to "Project Glossary" for a more comprehensive list of terms used in this project.

Term or Acronym	Description

1.4. User Roles

Roles played by various users that interact with the business process or system are described here.

Role	Description of Role and Activities Performed

Role	Description of Role and Activities Performed

1.5. Assumptions

Identify anything that adds clarification to or provides background information about the requirement statement, or other related item.

ID	Assumption Statement	Related To
A1	Survey sample design is no a part of this project.	
A2	Teaching how to design a survey is not part of this project.	
A3		
A4		
A5		
A6		

1.6. Constraints

Identify anything that puts limits on implementing the requirements.

ID	Constraint Statement	Related To
C1	The requirements are for an on-line survey tool.	
C2	The project will restrict itself to evaluating how well a single product, Qualtrics, meets the needs identified in the requirements.	
C3	Shall be compatible with other UW survey instrument tools.	
C4		
C5		

1.7. Dependencies

Detail any external event, condition, or system that must be in place for a requirement to be valid.

ID	Dependency Statement	Related To
D1		
D2		
D3		
D4		
D5		

2. Requirements

2.1. Business Requirements

Business-level requirements are written from the sponsor's perspective. The business requirements identify the reason why the project is being done or what business objective it supports, as well as the benefits to the business. Business requirements are typically documented early in the project life cycle or the planning phase of the project, and are frequently documented in the project management deliverables.

ID	Business Requirement Statement
B1	<p>The <u>purpose of</u> the Survey Instrument Tool project</p> <p><u>Is to</u> determine the requirements for a Survey Instrument Tool and determine whether a particular product, Qualtrics, meets those requirements. This is to be available to the UWM community.</p> <p><u>So that</u></p> <ul style="list-style-type: none"> • Ease of survey design and administration • Campus supported and vetted tool • Reduced cost through a standard tool that does not require custom development resources. • Improved scheduling across multiple users • Better quality of data(to the extent a survey tool can provide this assistance) • Facilitate IRB review of instruments

2.2. User and Functional Requirements

User-level requirements are written from the user role's perspective. Named information is shown quoted in these requirement statements. Information used in the user-level requirements is described in the "Common Information" section below.

Functional requirements are written from the system's (features or functions) perspective. What must the system do to support the user role? Information referenced in the functional requirements is described in the "Common Information" section below.

Column Header Key: BR = Business Rules Identifier, CI = Common Information Identifier, ID = Information Dictionary Identifier, ST = Status.

Status Column Key: A = Accepted, C = Changed since last review, N (or Blank) = New since last review.

ID	User Requirement Statements	Common ID
USER ROLE: Administrator		
GOAL U1	Provisions user accounts	
U1.1	The administrator shall provide user/group account information.	
U1.2	The administrator shall provide user/group role(s) and permissions.	
U1.3	The administrator shall provide the "user relationship" associated with the account.	CI1

ID		User Requirement Statements	Common ID
USER ROLE: Sample Management			
GOAL U2		Import respondent list(s)	
U2.1		The sample manager shall provide pre-test or regular respondents.	
	U2.1F1	The survey instrument shall assign unique identifier to each respondent.	
GOAL U3		Identify pre-test respondents	
U3.1		The sample manager shall provide survey assignment for pre-test respondents for subsequent distribution.	
GOAL U4		Identify respondents	
U4.1		The sample manager shall provide survey assignment for regular respondents for subsequent distribution.	
GOAL U5		Schedule survey	
U5.1		The sample manager shall provide a survey available/unavailable timeframe.	
U5.2		The sample manager shall provide schedule for pre-survey notices and reminders.	
USER ROLE: Survey Questionnaire Designer			
GOAL U6		Design survey instrument	
U6.1		The survey questionnaire designer shall provide a survey instance.	
	U6.1F1	The survey instrument shall verify user's permissions allow survey creation.	
	U6.1F2	The survey instrument shall assign unique identifier to survey instance.	
U6.2		The survey questionnaire designer shall provide questions, corresponding "response formats", descriptions, and values.	CI2
U6.3		The survey questionnaire designer shall provide "custom content" to be used as questions or responses.	CI3
U6.4		The survey questionnaire designer shall provide question branching.	
U6.5		The survey questionnaire designer shall provide "general formatting" of questions/responses.	CI4
U6.6		The survey questionnaire designer shall provide number of questions per page.	
U6.7		The survey questionnaire designer shall provide answer/input/movement validation.	
U6.8		The survey questionnaire designer shall provide text/dependent list piping.	CI5
U6.9		The survey questionnaire designer shall provide specified or random order for questions or responses.	
	U6.9F1	The survey instrument shall assign identifiers that link the randomized questions/responses to the relevant data.	
U6.10		The survey questionnaire designer shall provide print options.	
GOAL U7		Design multiple surveys	

ID		User Requirement Statements	Common ID
U7.1		The survey questionnaire designer shall provide a survey's group/series relationships.	
U7.2		The survey questionnaire designer shall provide survey path branching.	
USER ROLE: Provisioning Systems			
GOAL U8		Provide related external data	
U8.1		The provisioning system shall provide external data.	
USER ROLE: Survey Operations			
GOAL U9		Administer surveys	
U9.1		The survey operations manager shall provide survey distributions.	
U9.2		The survey operations manager shall provide whether a survey is "anonymous", "confidential", or neither	CI98
USER ROLE: Survey Monitor			
GOAL U10		Monitor respondent status	
U10.1		The survey monitor shall receive survey completion notifications.	
U10.2		The survey monitor shall receive completion percentages.	
GOAL U11		Remind survey respondents	
U11.1		The survey monitor shall provide adjusted respondent list based on survey completions.	
U11.2		The survey monitor shall provide survey re-distributions for unresponsive or partial surveys.	
USER ROLE: Survey Respondents			
GOAL U12		Receive survey	
U12.1		The survey respondent shall receive email or web-based notification of survey.	
U12.2		The survey respondent shall receive access to survey.	
GOAL U13		Receive reminders/pre-survey notices	
U13.1		The survey respondent shall receive email or web-based survey notifications.	
GOAL U14		Provide survey responses	
U14.1		The survey respondent shall provide complete or partial survey submission.	
U14.2		The survey respondent shall receive access to partially completed survey.	
U14.3		The survey respondent shall receive printable version of survey.	

ID		User Requirement Statements	Common ID
USER ROLE: Survey Analyst			
GOAL U15		Generate reports	
U15.1		The survey analyst shall provide report parameters and criteria.	
U15.2		The survey analyst shall receive reports on pre-test/survey data.	
GOAL U16		Analyze pre-test data	
U16.1		The survey analyst shall receive pre-test data.	
GOAL U17		Analyze survey data	
U17.1		The survey analyst shall receive "common survey statistics".	CI99
U17.2		The survey analyst shall receive data based on single, group or series of surveys.	
U17.3		The survey analyst shall receive data in "common visual formats".	CI100
GOAL U18		Analyze para-data	
U18.1		The survey analyst shall receive question response times.	
U18.2		The survey analyst shall receive survey completion times.	
USER ROLE: Analysis Tools			
GOAL U19		Export survey results to analysis tools	
U19.1		The analysis tool shall provide specific data for export.	
U19.2		The analysis tool shall provide "file format" of exported data.	CI101
U19.3		The analysis tool shall provide the location of the exported data.	

2.3. Nonfunctional Requirements

Nonfunctional requirements focus on the qualities that must be applied to design and implement the system. These are specific standards and attributes in support of the other requirements.

ID	Nonfunctional Requirement Statements	BR	CI	ID	ST
Availability—Percentage of planned “up time” for access by the users.					
NA1					
NA2					
Efficiency—Response time, throughput, and capacity.					
NE1					
NE2					
Flexibility—Effort to add, modify, or remove functionality.					
NF1					
NF2					
Integrity—Security needed (authorized access, software, hardware, and privacy).					
NG1	The system shall provide secure (encrypted/https) web-based surveys.				
NG2	The system shall allow for completely anonymous survey responses.				
NG3	The system shall provide secure data storage.				
Interoperability—Compatibility or ability to exchange data or services with other systems.					
NC1	The system shall allow for extensibility by providing an API.				
NC2					
Reliability—Probability of the system executing without failure for a specific period of time.					
NL1					
NL2					
Robustness—Degree to which system continues to function when unexpected operating conditions occur.					
NB1					
NB2					
Usability—Effort required to prepare input, operate, and retrieve output by various users.					
NU1	Training needs to be provided.				
NU2					
Maintainability—Ability to correct defects.					
NM1	The vendor shall provide adequate product support.				

ID	Nonfunctional Requirement Statements	BR	CI	ID	ST
NM2					
Portability—Migration of software from one operating environment to another.					
NP1					
NP2					
Reusability—Ability to use functionality in multiple areas of business operations.					
NR1					
NR2					
Testability—Ease with which the system can be tested to find defects.					
NT1					
NT2					
Scalability—Ability to handle a variety of system operations, number of users, and volume processed.					
NS1					
NS2					

2.4. Common Information

In the other Requirements subsections, specific information that is referenced multiple times may be described once here. This "named information" may then be referenced by its name with quotes around it in the rest of the document.

ID	Named Information	Related Req. ID	Definition/Business Usage	Definitive Source
CI1	"user relationship"	U1.4	A user can be classified as a "guest" or a user can be a "member of the UWM population", and be validated via LDAP	LDAP
CI2	"response formats"	U6.2	Standard response formats: <ul style="list-style-type: none"> - Multiple Choice (single answer) - Multiple Choice (multiple answer) - Matrix of Choices (one answer per row) - Matrix of Choices (multiple answers per row) - Matrix of Drop-down Menus - Rating Scale - Single Textbox - Multiple Textboxes - Comment/Essay Box - Numerical Textboxes - Demographic Information (US) - Demographic Information (International) - Date and/or Time - Image - Descriptive Text 	
CI3	"custom content"	U6.3	Videos can be used as questions for which a respondent will answer a corresponding question or vice versa. Other custom content could include: imported images, imported data, etc.	
CI4	"general formatting"	U6.5	Allows the questionnaire designer to determine where page breaks will occur, what text should be bolded/highlighted/italicized, what font size the question text should be, etc.	
CI5	"text/dependent list piping"	U6.7	The ability to dynamically generate text/responses based on a previously answered question.	
CI98	"anonymous" and "confidential"	U9.2	Anonymous: responses are not linked to any data unique to a respondent. Confidential: responses can be linked to respondent, but are not made public.	
CI99	"common survey statistics"	U17.1	Common survey statistics should include: mean, median, standard deviation, chi square, etc.	
CI100	"common visual formats"	U17.1	Common visual formats should include: bar graph, pie chart, etc.	
CI101	"file formats"	U19.2	Common exportable file formats should include: .spss, .csv, .xml, .html, etc.	

3. Appendices

3.1. Revision History

Change Date	Changed by	Description of Change	Version

3.2. Validation History

Participant Index

ID	Stakeholder Name	Specific Role or Area of Expertise
Supplier 1		
Supplier 2		
Supplier 3		
Supplier 4		
Receiver 1		
Receiver 2		
Receiver 3		
Receiver 4		

Outcomes: A = Accept, C = Accept with Conditions, R = Reject

Review Date	Overall Outcome	Supplier Outcome(s)				Receiver Outcome(s)				Identified Issues
		S1	S2	S3	S4	R1	R2	R3	R4	

3.3. Requirements Issues

ID	Description	Assigned to	Status
IS1			
IS2			
IS3			
IS4			
IS5			

3.4. Attachments

Below are other documents that help to illustrate and define the User-level and System-level Requirements.

3.4.1. Attachment