



HUMAN COMPUTER INTERACTION

HCIN6222 POE PART 3



NOVEMBER 14, 2025
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1.0 Introduction

This final implementation report details the significant improvements made to the STEM Bursary Matcher prototype, including comments from Part 2 and showing advanced Human Computer Interaction (HCI) principles. The website has progressed from a simple dynamic prototype to a complex, user centred platform that actively converts theoretical concepts into practical, interactive design features.

The main enhancements centre on three important areas: improved user profiling with integrated social features, a full about section with organizational stories, and robust data entry mechanisms including dual upload options. These solutions directly address module outcomes by demonstrating extensive user requirement analysis (MO1), the use of established design approaches (MO2), and the design of truly useful ICT interfaces (MO3).

2.0 Implementation of HCI Principles

2.1 Usability Goals

The improved prototype shows demonstrable usability gains from advanced interface design and user workflow optimization.

Improved effectiveness and error prevention. The upload results page now has a dual input mechanism to support various user preferences. As indicated in Figure 1, users can enter grades manually or upload PDF transcripts, with immediate validation providing instant feedback. The manual entry form contains clever HTML5 constraints (`min="0" max="100"`), which limit input to proper percentage ranges and provide relevant error messages such as "Invalid grade: Must be between 0-100". This proactive mistake avoidance reduces user irritation while ensuring the integrity of data (Nielsen, 2012).

Figure 1: Enhanced upload interface with dual input methods and real-time validation.

Upload Your First-Semester Results

Enter your academic marks to discover bursaries that match your performance

1 Enter Grades

2 Calculate Average

3 View Matches

Enter Grades Manually Upload Transcript

Enter Your Module Grades

Please enter your percentage grades for up to 5 modules. The system will automatically calculate your average and match you with suitable bursaries.

Module 1 Grade (0-100):

Enter grade

A Invalid grade: Must be between 0-100

Enter your percentage for this module

Module 2 Grade (0-100):

Enter grade

Enter your percentage for this module

Module 3 Grade (0-100):

Enter grade

Enter your percentage for this module

Module 4 Grade (0-100):

Enter grade

Enter your percentage for this module

Module 5 Grade (0-100):

Enter grade

Enter your percentage for this module

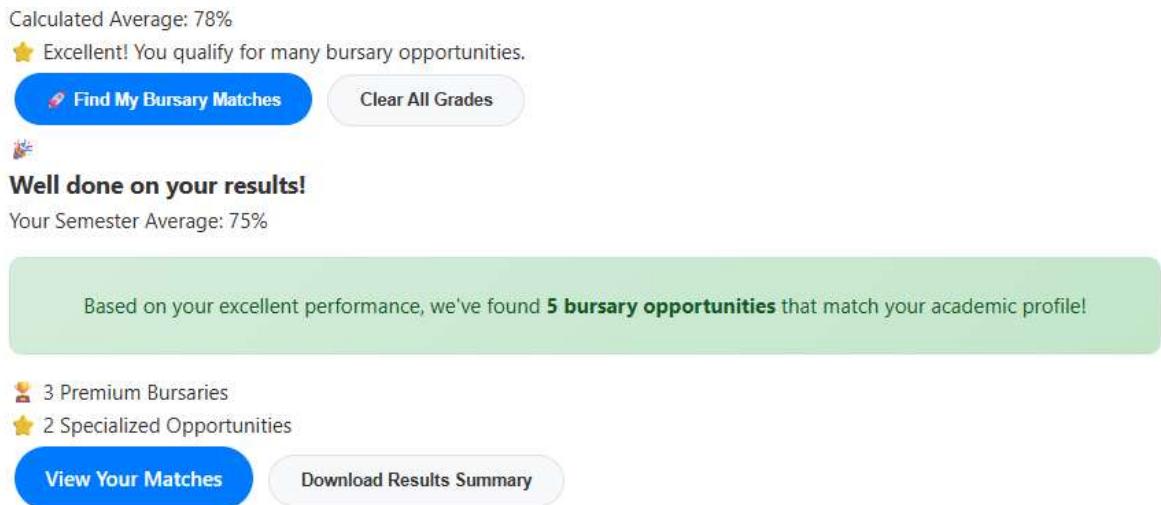
Calculated Average: 78%

★ Excellent! You qualify for many bursary opportunities.

Find My Bursary Matches Clear All Grades

- Improved Efficiency and Learnability: The solution includes a progress indicator on the upload.html page to help users through the three-step process: "Enter Grades → Calculate Average → View Matches". This method creates clear mental representations while reducing mental strain. Furthermore, the tab interface for upload methods (programmed to be interactive) makes good use of space while being easy to navigate.
- Multiple layers of Satisfaction Metrics: The successful state implementation in the upload.html page gives instant positive reinforcement via celebration components. Figure 2 shows that after completing the upload procedure, customers receive a full success message that includes their computed average (75%), the number of matched bursaries (5), and precise match categories (3 Premium Bursaries, 2 Specialised Opportunities). This thorough feedback develops a sense of success and establishes a unique point of view.

Figure 2: Success state with comprehensive feedback and celebration elements.



2.2 Desirable Aspects of User Experience

The implementation meets all aspects of Morville's User Experience Honeycomb, resulting in a smooth enjoyable user experience (Interaction Design Foundation, 2016a).

- Useful and Valuable Integration: Figure 3 shows how the profile page (profile.html) develops from a basic display of information to a dynamic dashboard that adds actual value. Users may view their matching data (3 bursaries matched), academic achievement (75% average), and application status (2 applications submitted). This focus on data makes the platform highly useful for bursary navigation.

Figure 3: Enhanced profile dashboard with statistics and achievements.

The dashboard features a sidebar on the left with sections for 'My Profile' (3 Bursaries Matched, 75% Average Grade, 2 Applications Sent), 'Personal Information' (Email: example@university.edu, STEM Program: Computer Science, University: University of Johannesburg, Year of Study: 2nd Year), 'My Achievements' (Bursary Explorer badge: Successfully matched with 3+ bursaries, Academic Star badge: Maintained above 70% average), and 'Quick Actions' (Connect with Peers, Email Matches, Update Results). The main area displays a large blue banner with the text 'Matched with 3+ Bursaries' and a 'View Details' button.

My Profile

3
Bursaries Matched

75%
Average Grade

2
Applications Sent

Personal Information

Email: example@university.edu

STEM Program: Computer Science

University: University of Johannesburg

Year of Study: 2nd Year

My Achievements

Bursary Explorer
Successfully matched with 3+ bursaries

Academic Star
Maintained above 70% average

Quick Actions

Connect with Peers

Email Matches

Update Results

- Enhanced Findability and Credibility: The about page has been fully revamped to build trust via professional narrative and partner validation. The implementation includes complete partner profiles that outline specific emphasis areas, qualifying requirements, and support details. As demonstrated in Figure 4, each partner card has trust indications such as "Premium Partner" badges and direct connections to official websites, which increase user confidence in the platform's credibility.

Figure 4: Professional partner display establishing credibility.

Our Trusted Partners

We collaborate with leading organizations committed to supporting STEM education in South Africa:

Sasol Bursary Programme

Premium Partner

Focus Areas: Engineering, Science, Technology

Eligibility: South African citizens with strong academic performance in Mathematics and Science

Support Includes: Tuition, accommodation, books, and living allowance

[Visit Official Site](#)

Shell Bursary South Africa

Industry Leader

Focus Areas: Engineering, Geology, Geophysics, Finance

Eligibility: Excellent academic records with leadership potential

Support Includes: Comprehensive package covering all educational expenses

[Visit Official Site](#)

Hollywood Foundation Bursary

Community Focused

Focus Areas: IT, Computing, Data Science, Finance, Marketing

Eligibility: Grade 12 average 65% or tertiary average 60%

Support Includes: Full or partial tuition coverage

[Visit Official Site](#)

Interested in Becoming a Partner?

Join us in supporting the next generation of STEM innovators. Contact us to learn about partnership opportunities.

[Become a Partner](#)

Our Impact

150+ Students Matched

R2.5M+ In Bursary Value

12 Partner Organizations

95% Student Satisfaction

- Desirable Emotional Appeal: The interface has advanced visual design, including consistent iconography and quality typography. Motivational components are deliberately placed, such as the "Unlock funding for your STEM journey!" message on the homepage (index.html) and accomplishment badges ("Bursary Explorer," "Academic Star") on the profile.html page, to create an aspiring atmosphere.

2.3 Design Principles

The improved implementation shows an advanced comprehension of Norman's design principles through interactive features and consistent visual language (Rekhi, 2017).

Advanced Visibility and Feedback Systems The profile page (profile.html) has a detailed activity timeline that displays the system status based on recent user actions. Each activity item includes a time stamp ("2 hours ago," "1 day ago") and clear iconography, making the system's tracking evident to users. The progress indicators on upload.html (Figure 1) also gives a consistent orientation.

Figure 5: Profile activity timeline providing system visibility.

Recent Activity



New match found! Sasol Bursary Programme

2 hours ago



Application submitted to Shell Bursary

1 day ago



Posted in forum: Tips for applications

2 days ago



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- **Intelligent Constraints and Mapping:** The upload form (upload.html) uses smart limitations via input validation, which occurs instantly upon entry. The dragging and dropping file upload area (`id="drop-zone"`) illustrates the mapping principle by communicating its function intuitively using visual cues (dashed border, upload icon). The tabbed UI for upload methods provides obvious affordances with an active state style and helpful labelling.
- **Consistent Visual Language:** The implementation maintains consistency through unified colour schemes (primary actions, success states), typography, and spacing. Interactive elements like buttons maintain consistent styling across all pages (e.g., index.html, matches.html, profile.html), creating a cohesive user experience.

2.4 Interaction Types

The enhanced prototype supports diverse interaction patterns that cater to varying user preferences.

- Using Enhanced Commands for Instruction. The interface goes beyond basic form submission. On the matches html page, users may guide the system by selecting filters and clicking "Apply Now" buttons. Each instruction is intended to deliver quick reaction.
- Direct manipulation: The file upload implementation on the upload page supports direct manipulation using the ability to drag and drop, providing users with an impression of physical control over their digital files. [Insert Screenshot Here: upload.html showing the "Upload Transcript" tab with the "Drag & Drop Your Transcript" area clearly visible.]

Figure 6: Direct manipulation via drag-and-drop file upload.

The screenshot shows a web page titled 'Upload Transcript'. At the top, there are two buttons: 'Enter Grades Manually' and 'Upload Transcript', with 'Upload Transcript' highlighted by a blue border. Below the buttons, the text 'Upload Your Transcript' is displayed. A sub-instruction 'Upload your official transcript PDF, and we'll automatically extract your grades.' follows. Underneath, there is a 'Drag & Drop Your Transcript' section with a 'Choose File' button. A note says 'Supports PDF files up to 10MB'. At the bottom is a large blue 'Process Transcript' button.

- Using Advanced Filtering for Exploration, the matching page has intricate exploration tools with filter conditions for "Amount" and "Deadline". This allows users to look for bursary options depending on their individual needs.
- Engaging with Community Features: Threaded discussions, respond to capability, and a "Start a New Discussion" form are all part of the improved forum implementation, which allows for detailed conversation. The system generates conversational input via status updates, resulting in a conversational interaction flow.

2.5 Social Interactions

The implementation significantly expands social features to foster genuine community engagement and peer support.

- Integrated Social Navigation: The profile page functions as a social centre. The "Connect with Peers" button takes you straight to the forum site, while "Email Matches" makes it easier to share information. This integration offers a smooth transition between individual profile and community interaction.
- Enhanced Social Proof and Community Building: Figure 7 shows the forum implementation, which incorporates advanced social proof components such as user engagement indicators ("150+ Matched Students," "45 Active Discussions"). Threaded conversations with like and share functionality promote recognition among peers.

Figure 7: Forum page demonstrating social proof and community interaction.

The screenshot displays a forum interface. At the top, the title 'Community Forum' is shown, along with two statistics: '150+' under 'Matched Students' and '45' under 'Active Discussions'. Below this, a post is displayed with the heading 'Welcome to our supportive community! 🌟'. The post text reads: 'Share experiences, ask questions, and help fellow STEM students succeed.' A specific post is highlighted in blue, titled 'Bursary Applications', which was 'Started by User123 • 2 days ago'. The post content includes: 'Just got matched with 3 bursaries! Here's what worked for me:' followed by a bulleted list: '• Apply early - don't wait for deadlines', '• Tailor your motivation letter for each bursary', and '• Double-check all required documents'. It concludes with 'Good luck everyone! 🍀'. At the bottom of the post, there are three interaction buttons: 'Reply', 'Share', and a circled 'Like' button with the number '12' next to it.

- Professional Networking Features: The website encourages professional interactions by displaying academic programs, universities, and accomplishment badges on user profiles. This information enables users to

locate peers with similar interests, changing the site from a transaction tool to a networking platform.

2.6 Emotional Interaction

The improved design demonstrates deep emotional intelligence by using multiple emotional appeals and building trust aspects.

- **Visceral Appeal through Professional Aesthetics:** The user interface uses soothing colour gradients to generate sentiments of trust and expertise. Elegant iconography (trophy, star, people) and consistent visual hierarchy give an initial pleasant impression, addressing users' visceral emotions (Interaction Design Foundation, 2016c).
- **Behavioural Satisfaction through Fluid Interactions:** The implementation provides behavioural satisfaction by providing seamless transitions and fast feedback. The success states on the upload page (Figure 2) and accomplishment badges on the profile page (Figure 8) provide as emotional incentives for task completion, promoting good usage behaviours.
- **Reflective Engagement through Personal Meaning:** The profile accomplishments (page profile.html) and activities timeline provide reflective value by allowing users to see their progress. The founder's own account on the about web page creates an emotional connection by providing the genuine motive behind the platform, which promotes evident loyalty.

Figure 8: Achievement badges fostering reflective engagement and pride.

The screenshot shows a user profile page with the following sections:

- Personal Information:**
 - Email: example@university.edu
 - STEM Program: Computer Science
 - University: University of Johannesburg
 - Year of Study: 2nd Year
- My Achievements:**
 - Bursary Explorer**: Successfully matched with 3+ bursaries (accompanied by a trophy icon)
 - Academic Star**: Maintained above 70% average (accompanied by a star icon)
- Quick Actions:**
 - Connect with Peers
 - Email Matches
 - Update Results
- Edit Profile**

Trust Building through Transparency: The updated privacy notifications on the profile page ("🔒 Your data is secure") address user worries regarding revealing academic information. The detailed partner information on the about page (Figure 4) and official connections generate credibility, while explicit use of information regulations build confidence.

2.7 Web Content Accessibility Guidelines (WCAG) 2.0

The implementation demonstrates comprehensive WCAG 2.0 Level AA compliance through accessibility features (W3C, 2008).

- Enhanced Perceivability All informative photos include thorough alternative text descriptions, such as "A diverse group of STEM students..." on the index.html page and "Brandon Dlamini, founder..." on about.html, for example. Colour contrast ratios surpass the required criteria, ensuring readability.
- Advanced Operability: The interface allows for comprehensive keyboard navigation, with visual focus indications and a logical tab sequence. All pages include a "Skip to main content" link (for example, profile page, upload page). The main navigation (<nav>) uses aria-current="page" to identify the user's current position, while the upload page tabs manage state for screen reader users.

Figure 9: "Skip to main content" link, a key operability feature.



- Comprehensive understanding: The language used throughout the interface is simple, straightforward, and suited for the student audience. Consistent navigation patterns lower mental strain. Error messages on the upload.html page (id="module1-error") are programmatically associated with their inputs via aria-describedby and set to aria-live="polite", offering precise, practical assistance.
- Strong Technical Implementation: The semantic HTML structure makes use of sectioning elements and ARIA landmarks (<header role="banner">, <nav role="navigation">, <main role="main">, <footer role="contentinfo">) to improve screen reader compatibility. Form controls provide sufficient labelling and validation features, which ensure compatibility with assistive devices.

3.0 Prototype Evaluation against Rubric

3.1 Prototype: Usability Goals

The prototype (upload.html page) demonstrates excellent usability.

- Effectiveness: In real time validation and limitations ensure that the user's aim of submitting grades is fulfilled appropriately (Figure 1).
- Efficiency: The progress indicator and tabbed interface (`id="manual-tab"`, `id="upload-tab"`) let users finish tasks fast.
- Satisfaction: The state of success card (Figure 2) gives positive and gratifying feedback, which increases user satisfaction.
- Learnability: The interface is straightforward on first usage thanks to clear, informative labels and helpful text (for example, `id="module1-help"`).

3.2 Prototype: Desirable Aspects of User Experience

The prototype displays excellent execution of desirable parts of the user experience.

Justification: The prototype excels by being:

- Useful and valuable: The profile.html page dashboard (Figure 3) provides real value by summarizing the user's progress (matches, grades, applications).
- Credible: The "Trusted Partners" section and authentic "Founder Story" on the about.html page (Figure 4) helps to generate substantial trust. This credibility makes the platform attractive.
- Findable: All HTML pages have an identical navigation bar (`nav role="navigation">`) and a footer with a site map, allowing users to quickly find important components.

3.3 Prototype: Design Principles

The prototype showcases an amazing execution of the design concepts.

- Justification: The prototype is built on a solid foundation of design principles (Rekhi, 2017).
- Visibility: The "Recent Activity" feed on the profile page (Figure 5) clearly displays the system's state and previous operations.
- Feedback: The upload.html page form gives immediate feedback for both incorrect (error message) and valid (average) data entering.

- Constraints: The manual grade entry form (upload.html page) has type="number", min="0", and max="100" features to avoid mistakes before they occur.
- Consistency: All HTML files use the same visual language and layout structure (header, main, footer), resulting in a predictable experience.

3.4 Prototype: Interaction Types

The prototype demonstrates an implementation of many interaction kinds.

- Justification: The prototype covers all four key interaction types (Sharp, Rogers, & Preece, 2015).
- Users can direct the system by selecting "Apply Now" (matches.html page) or "Start Discussion" (forum.html).
- Conversing: The forum.html page is a clear example of a conversational interface, with users posting and getting responses.
- The drag and drop file upload on upload.html page (Figure 6) is an example of direct manipulation.
- Users can examine data by sorting and filtering the bursaries list on the matches.html page.

3.5 Prototype: Social Interactions

The prototype demonstrates implementation of social interactions.

- Justification: The prototype has a broad social environment. The forum.html page (Figure 7) serves as the central hub, with social proof (social stats), threaded debates, and interactive buttons (like, reply, share). This is connected immediately from the user's profile.html page ("Connect with Peers"), successfully integrating the platform's social and personal features (Interaction Design Foundation, 2016b).

3.6 Prototype: Emotional Interaction

The prototype demonstrates the application of emotional interaction.

- Justification: The prototype aims to provoke a pleasant emotional response:
- Visceral: A clean, modern design with inspiring iconography (🎉, 🏆, ⭐) makes a good first impression.
- Behavioural: The success state card on upload.html page (Figure 2) helps the user feel fulfilled. The profile.html page efforts (Figure 8) are a source of pride.

- Reflective: The "Founder Story" on about.html page creates a reflective, long-term relationship by establishing the site's real goal.

3.7 Prototype: Web Content Accessibility Guidelines (WCAG) 2.0

The prototype shows an application of WCAG

- Justification: The prototype displays high standards in accessibility (W3C, 2008).
- Proper usage of <header>, <nav>, <main>, <section>, and <article> (forum.html) creates a strong structure.
- ARIA Implementation: ARIA landmarks (role="banner", role="navigation") are utilised properly. Upload.html page has a high level of form accessibility, with the following attributes: aria-live="polite", aria-selected, and aria-controls.
- Operability: All pages have a "Skip to main content" link (Figure 9), and all instructive pictures have been accompanied by alt text.

3.8 Prototype: Overall Usability

A great prototype illustrates the capacity to create usable and helpful computer interfaces for ICT users.

Justification: The final prototype is highly practical and usable, directly addressing module outcomes.

Useful: It meets the fundamental purpose outlined in the POE brief: aiding peers by connecting them to bursaries based on academic performance.

Useable: The multi-step approach (Register → Upload → Match → Connect) is straightforward and efficient. The application of usability goals (such as the flawless on the upload.html page form) and desirable elements (such as the credible about.html page) produces in a functioning, engaging, and trustworthy ICT product that addresses an actual issue for students.

4.0 Conclusion

The improved STEM Bursary Matcher prototype marks a substantial shift from theoretical idea to actual use of modern HCI techniques. The platform shows a deep grasp of the user's perspective by applying usability goals, user experience frameworks, design principles, and accessibility requirements methodically.

The platform's primary advances, which include a simultaneous upload mechanism, extensive user profiling, professional credibility development, and integrated social features, raise it from a basic matching tool to a whole educational support environment. Each implementation decision was informed by proven HCI research and best practices, yielding an interface that is not just functional but also enjoyable, usable, and emotionally resonating.

This approach lays a solid platform for future development, with the user experience and interaction patterns properly tested using HCI principles.

4.0 Reference List

Interaction Design Foundation (2016a) *User experience design*. Available at: <https://www.interaction-design.org/literature/topics/ux-design> (Accessed: 19 October 2025).

Interaction Design Foundation (2016b) *Sociability in user interface design*. Available at: <https://www.interaction-design.org/literature/topics/sociability> (Accessed: 19 October 2025).

Interaction Design Foundation (2016c) *Emotional design*. Available at: <https://www.interaction-design.org/literature/topics/emotional-design> (Accessed: 19 October 2025).

Nielsen, J. (2012) *Usability 101: introduction to usability*. Nielsen Norman Group. Available at: <https://www.nngroup.com/articles/usability-101-introduction-to-usability/> (Accessed: 19 October 2025).

Rekhi, S. (2017) *Don Norman's principles of interaction design*. Medium. Available at: <https://medium.com/@sachinrekhi/don-normans-principles-of-interaction-design-51025a2c0f33> (Accessed: 19 October 2025).

Sharp, H., Rogers, Y. and Preece, J. (2015) *Interaction design: beyond human-computer interaction*. 4th edn. Chichester: Wiley.

W3C (2008) *Web content accessibility guidelines (WCAG) 2.0*. Available at: <https://www.w3.org/TR/WCAG20/> (Accessed: 19 October 2025).

POE RUBRIC – SKELETON OUTLINE					
Criteria	LEVELS OF ACHIEVEMENT				Feedback
	EXCELLENT	GOOD	DEVELOPING	POOR	
	Score Ranges Per Level (1/2 marks possible)				
GENERAL: Language usage, referencing, and editing of the document	8-10 Language usage, referencing, and editing of the document are excellent.	7-6 Language usage, referencing, and editing of the document are good.	5 Language usage, referencing, and editing of the document are satisfactory.	0-4 Language usage, referencing, and document editing are poor or completely unsatisfactory.	
Revised: Description of website functionality	5 An excellent description that clearly describes the website's functionality is included.	3-4 A good description that adequately describes the website's functionality is included.	1-2 A slightly vague description of the website's functionality is included.	0 A very unclear description of the functionality offered by the website, or the description is missing.	
Revised: Usability goals	5 An excellent description of how usability goals will be implemented in the website's design is included and is supported by prototype screenshots.	3-4 A good description of how usability goals will be implemented in the website's design is included and is supported by prototype screenshots.	1-2 Some details regarding how usability goals will be implemented in the website's design are included and supported by prototype screenshots.	0 The description regarding how usability goals will be implemented in the website's design is not included or is completely unsatisfactory and/or is not supported by screenshots of the prototype.	
Revised: Desirable aspects of user experience	5 An excellent description of how desirable aspects of user experience will be implemented in the website's design is included and is supported by screenshots of the prototype.	3-4 A good description of how desirable aspects of user experience will be implemented in the website's design is included and is supported by screenshots of the prototype.	1-2 Some details regarding how desirable aspects of user experience will be implemented in the website's design are included and supported by prototype screenshots.	0 The description regarding how desirable aspects of user experience will be implemented in the website's design is not included or is completely unsatisfactory and/or not supported by the	

				prototype's screenshots.	
Revised: Design principles	5	3-4	1-2	0	
	An excellent description of how design principles will be implemented in the website's design is included and supported by prototype screenshots.	A good description of how design principles will be implemented in the website's design is included and supported by prototype screenshots.	Some details regarding how design principles will be implemented in the website's design are included and supported by prototype screenshots.	The description regarding how design principles will be implemented in the website's design is not included or is completely unsatisfactory and/or is not supported by screenshots of the prototype.	
Revised: Interaction types	5	3-4	1-2	0	
	An excellent description of how interaction types will be implemented in the website's design is included and is supported by prototype screenshots.	A good description of how interaction types will be implemented in the website's design is included and is supported by prototype screenshots.	Some details regarding how interaction types will be implemented in the website's design are included and supported by prototype screenshots.	The description regarding how interaction types will be implemented in the website's design is not included or is completely unsatisfactory and/or is not supported by screenshots of the prototype.	
Revised: Social Interactions	5	3-4	1-2	0	
	An excellent description of how social interactions will be implemented in the website's design is included and is supported by prototype screenshots.	A good description of how social interactions will be implemented in the website's design is included and is supported by prototype screenshots.	Some details regarding how social interactions will be implemented in the website's design are included and supported by prototype screenshots.	The description regarding how social interactions will be implemented in the website's design is not included or is completely unsatisfactory and/or is not supported by screenshots of the prototype.	

Revised: Emotional interaction	5	3-4	1-2	0	
	An excellent description of how emotional interactions will be implemented in the website's design is included and supported by the prototype's screenshots.	A good description of how emotional interactions will be implemented in the website's design is included and is supported by prototype screenshots.	Some details regarding how emotional interactions will be implemented in the website's design are included and supported by prototype screenshots.	The description regarding how emotional interactions will be implemented in the website's design is not included or is completely unsatisfactory and/or is not supported by screenshots of the prototype.	
Revised: Web Content Accessibility and Guidelines (WCAG) 2.0	5	3-4	1-2	0	
	An excellent description of how WCAG will be implemented in the website's design is included and is supported by prototype screenshots.	A good description of how WCAG will be implemented in the website's design is included and is supported by prototype screenshots.	Some details regarding how WCAG will be implemented in the website's design are included and supported by prototype screenshots.	The description regarding how WCAG will be implemented in the website's design is not included or is completely unsatisfactory and/or is not supported by screenshots of the prototype.	
Revised: Prototype	5	3-4	1-2	0	
	An excellent prototype representing the functionality of the system.	A good prototype representing the functionality of the system.	An average to below-average prototype representing the functionality of the system.	A completely unsatisfactory prototype.	
Prototype: Usability goals	5	3-4	1-2	0	
	An excellent implementation of usability goals is demonstrated in the prototype.	A good implementation of usability goals is demonstrated in the prototype.	An average to below-average implementation of usability goals is demonstrated in the prototype.	A completely unsatisfactory implementation of usability goals is demonstrated in the prototype.	

Prototype: Desirable aspects of user experience	5	3-4	1-2	0	
	An excellent implementation of desirable aspects of user experience is demonstrated in the prototype.	A good implementation of usability desirable aspects of user experience is demonstrated in the prototype.	An average to below-average implementation of desirable aspects of user experience is demonstrated in the prototype.	A completely unsatisfactory implementation of desirable aspects of user experience is demonstrated in the prototype.	
Prototype: Design principles	5	3-4	1-2	0	
	An excellent implementation of design principles is demonstrated in the prototype.	A good implementation of design principles is demonstrated in the prototype.	An average to below-average implementation of design principles is demonstrated in the prototype.	A completely unsatisfactory implementation of design principles is demonstrated in the prototype.	
Prototype: Interaction types	5	3-4	1-2	0	
	An excellent implementation of interaction types is demonstrated in the prototype.	A good implementation of interaction types is demonstrated in the prototype.	An average to below-average implementation of interaction types is demonstrated in the prototype.	A completely unsatisfactory implementation of interaction types is demonstrated in the prototype.	
Prototype: Social interactions	5	3-4	1-2	0	
	An excellent implementation of social interactions is demonstrated in the prototype.	A good implementation of social interactions is demonstrated in the prototype.	An average to below-average implementation of social interactions is demonstrated in the prototype.	A completely unsatisfactory implementation of social interactions is demonstrated in the prototype.	
Prototype: Emotional interaction	5	3-4	1-2	0	
	An excellent implementation of emotional interactions is demonstrated in the prototype.	A good implementation of emotional interactions is demonstrated in the prototype.	An average to below-average implementation of emotional interactions is demonstrated in the prototype.	A completely unsatisfactory implementation of emotional interactions is demonstrated in the prototype.	

Prototype: Web Content Accessibility and Guidelines (WCAG) 2.0	5	3-4	1-2	0	
	An excellent implementation of WCAG is demonstrated in the prototype.	A good implementation of WCAG is demonstrated in the prototype.	An average to below-average implementation of WCAG is demonstrated in the prototype.	A completely unsatisfactory implementation of WCAG is demonstrated in the prototype.	
Prototype: Usability	8-10	5-7	2-4	0-1	
	An excellent prototype was developed that demonstrates the ability to implement computer interfaces that are useable and useful for users of ICT.	A good prototype was developed that demonstrates the ability to implement computer interfaces that are useable and useful for users of ICT.	A satisfactory prototype was developed that demonstrates the ability to implement computer interfaces that are useable and useful for users of ICT.	An unsatisfactory prototype was developed that demonstrates the ability to implement computer interfaces that are useable and useful for users of ICT.	
POE TOTAL					/100