Project report-out & lessons learned

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Business need/opportunity

Overview

The Saskatchewan Regional Centre of Expertise on Education for Sustainable Development (RCE-SK on ESD) seeks to transform education for sustainability in our region. *Education* includes formal education (such as primary, secondary, and post-secondary education) as well as informal and non-formal education (such as the private media and public education by non-governmental organizations). Education respects the autonomy and dignity of the learner. ESD helps us work together to identify and pursue paths to sustainability, leading to improvements in quality of life while sustaining healthy ecosystems. They promote active environmental stewardship, social justice, and intergenerational equity.

The challenge

There is a wealth of local/provincial ESD projects being explored by individuals and organizations within Saskatchewan. What could be improved is the dissemination of knowledge work, i.e. what everyone is doing, what knowledge they are gaining, and how others can collaborate.

The opportunity

The RCE-SK web platform may provide an ideal centralized source of this knowledge. A better understanding of how to disseminate, share, and grow knowledge on the local/provincial work towards ESD is needed. As well, ways to indicate local/global willingness/need to collaborate on current and future projects could be facilitated by the web platform accordingly.

Reflections on project planning

Customers

- **North star customers:** The volunteers, the organizers, and all the people who are connected with the project.
- **Carryover customers:** educators, local communities, and other users who want to know more about SDG and UN goals.

Assumptions and Constraints

- Design approach: Design Thinking (Agile)/Fast Feedback Cycle
- Technology/Programming environment: StoriesOnBoard, Adobe XD, WordPress, Local by Flywheel, GitHub

Key findings from affinity diagramming, empathy mapping

at the early stage of the fast feedback cycle helped us gain an understanding of our customers and their problems, and how our solution can potentially solve their problems. As well, doing empathy mapping individually and in a group was a good idea to capture our customers saying, doing, thinking and feeling from different perspectives. After collecting all of the team findings, we began to think about how we are going to frame the customers' problems.

Initial & evolution of USM/MVP

At first, we had difficulties in determining our epics but the topic of mapping user stories in agile (NN/g)[1] helped us to get a better understanding and define epics, steps and activities to represent the tasks that the user aims to complete at different granularity. Then over time by providing low-fidelity prototypes, high-fidelity prototypes and getting feedback from our customers we have added some epics, steps and activities. As well, we have changed the priority of some steps according to our customer feedback.

Prototyping activities and findings

1- **Affordances:** We used several visual clues like buttons, tabs, links, input text boxes and dropdown menus to make possible actions understandable for users.
2- **Signifiers:** Here we tried to use proper signifiers to support our affordances and provide a better understanding of the design.

Table 1. Signifiers

3- **Metaphors:** In the design to view more project cards we use > symbol to see the next page of projects and < symbol for the previous page of projects.
   As well, we used meaningful icons, for example, a graduation hat for education, hands to show the volunteers, and the lamp out of the box to show the suggestions.
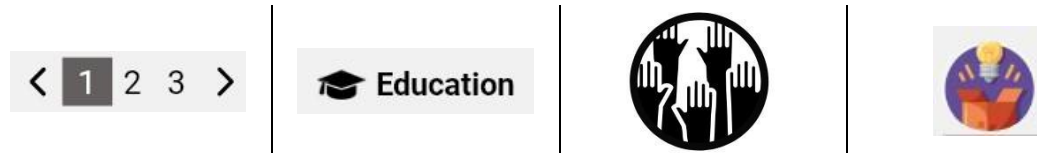
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[1] https://www.nngroup.com/articles/user-story-mapping/

Table 2. Metaphors

4- **Culture and design mapping:** As North America follows the top left to the bottom right pattern and the whole website also follows the same, we tried to maintain the culture and put our buttons such as search, details and vote at the bottom right corner of the content.
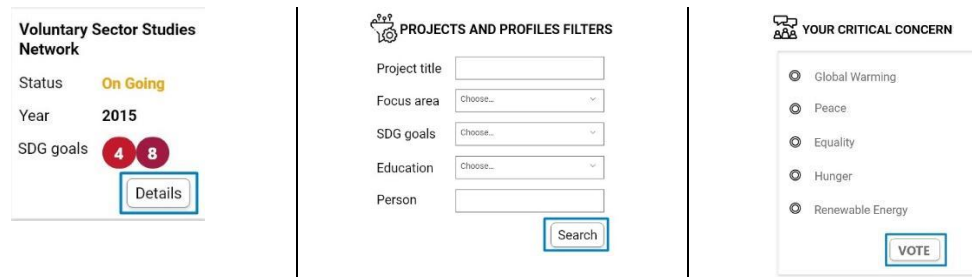

Table 3. Culture and design mapping

5. **Gestalt theory:** We tried to organize various components of our designs using Gestalt principles.
   a. **Similarity**
      i. The cards of projects with the same shape and size.
      ii. The cards of local sustainable programs with the same shape and size.
      iii. The statistics information is visualized using similar graphical elements.
      iv. The headings with the same text size and font.

Table 4. Gestalt, Similarity

   b. **Proximity**
      In most parts of our designs similarity and proximity are working together, as complementary. For example
      i. Project items close to each other.
      ii. Local sustainable programs next to each other.
      iii. Search filters are close to each other.

Reflections on project results

- Summarize how you felt about this project (likes/dislikes)
  We like this project and we think this project has provided us with a unique learning experience to apply what we have learned in our lectures in a real-world application.

- Summarize what went well during the project
  - Working on a real project
  - Getting feedback in in-person check-ins from our customer and the instructor

- Summarize what did not go well during the project
  - For the last activity, different members of the group were busy with their research presentations on different schedules, therefore we could not start the last activity on time. I think it affects the quality of our last activity because we were behind the schedule.
  - As well, our lack of prior knowledge of WordPress made us less confident about turning our high-fidelity prototypes into expected result.

- How successful was your team and translating prototypes into WordPress reality?
  I think it could be more successful if we got familiar with WordPress during the semester, rather than the last week. For example, we all knew that the search feature is the key requirement of our project. As a result, I think if we started working with WordPress, we could be more successful.

- Did you find that the people-centred design ideas discussed in lectures helped/hindered your design explorations?
  I think what we have learned as people-centred design principles have been really helpful. We started understanding the problem from our customers' point of view in a fast-feedback cycle with empathy mapping and framing it using the affinity diagram. At this time, we had our first version of User Story Map which was a really raw version. Then by taking advantage of the low-fidelity prototype we had this opportunity to brainstorm and create our ideas with the least effort and in minimum time. It was really helpful, because without spending a considerable amount of time on XD we obtained valuable feedback on our ideas. Finally, during both high-fidelity and low-fidelity prototypes we tried to take advantage of design principles like affordances, signifiers, constraints and Gestalt theory that helped us with providing more understandable and usable designs.

- What would you do the same for future projects?
  We will use the same project planning from finding north star customers to making user story mappings and prototyping. Also, as we updated the client and worked according to their feedback this was helpful in the long run. Moreover, we will take advantage of design principles like affordances, signifiers, mappings, constraints, feedback and discoverability. And finally, we would try usability testing with at least five users to observe how they use the software.

- What would you do differently on future projects?

  After attending all the lectures, we are sure that we need something like a fast feedback cycle to improve the design of the website and also will use some different approaches for assigning affordances, signifiers and feedback to provide a better user experience. We will also research other existing websites and try to find out how to improve user interaction and usability. Finally, we will analyze the feedback gathered from our customers and take advantage of testing the usability of our software by observing the interaction of at least five users.

- Summarize opportunities and design ideas for future work

  From this project, we have a proper understanding of designing products keeping in mind the users (the target and carryover customer). For future work, we would like to take reviews from all other people and work on the reviews. From research papers, we were able to find out what factors which affect the physiology of users in the first 50 mili-seconds when they view the homepage for the first time. We would also like to change the theme to Astra so that we have many functionalities which can be implemented. As well, we should devise an understandable design that integrates the map properly with our current search.

WordPress themes and plugins

Themes

Theme	# Active installs	Last Updated	Rating	Compatibility
Twenty Twenty	800,000+	2 months ago	★★★★⯪	✔

Plugins

Plugin	Functionality	# Active installs	Last Updated	Rating	Compatibility
WPvivid Backup	Backup	100,000+	1 week ago	★★★★★ (543)	✔
Formidable	Form builder	300,000+	4 weeks ago	★★★★⯪ (843)	✔
Max Mega Menu	Menu	400,000+	2 months ago	★★★★⯪ (430)	✔
Search & Filter	Search	50,000+	2 months ago	★★★★⯪ (152)	✔
Popup Maker	Popup	700,000+	2 days ago	★★★★★ (4,298)	✔
Poll Maker	Poll	3,000+	6 days ago	★★★★⯪ (44)	✔
Post grid	Post Layout	30,000+	1 month ago	★★★★⯪ (87)	✔
Elementor	Web element builder	5+ Million	6 days ago	★★★★⯪ (6,145)	✔
premium addons elementor	Web element builder	500,000+	4 days ago	★★★★★ (1,173)	✔