DAVID LEGER

CASE STUDY: SUPPORTING STUDENTS WITH DISABILITIES WEBSITE

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Supporting Students with Disabilities is a 16-module online course commisioned by the University of New Brunswick's (UNB) Accessability Learning Center for use by college and university instructors. It a resource for knowledge and guidance on the subject of accommodating students with disabilities in the classroom. Colleagues on this project included myself (Developer), Bev Bramble (Instructional Designer at UNB), and Richard Duijnstee (Graphic Designer at UNB).

As the developer on this project, I was independantly tasked with building the new version of the website and migrating content from the old version of the website (v1.0) to the new version (v2.0). This included choosing a development stack, coding and testing the website, and providing developer documentation.

Bev Bramble, who was the client (UNB) representative for this project, provided the content for the website, and also conducted acceptance testing on v2.0.

Richard Duijnstee was the graphic designer on this project, and he was also the designer for v1.0. He provided icons for the various sections of the website, and also contributed UI and UX suggestions.

SUPPORTING STUDENTS WITH DISABILITIES WEBSITE URL

www2.unb.ca/alc

When I was first approached by the client to work on this project, their objectives were to add a new module to v1.0 the website and to have a few bugs fixed. However, while conducting by assessment of v1.0 in order to provide an estimate for the work, I noticed there were many issues with the website ranging from poor user experience to bad coding practices.

My objectives for this project expanded to include addressing these main issues with v1.0:

Unresponsive Design: Many users accessed this site on a variety of mobile devices.
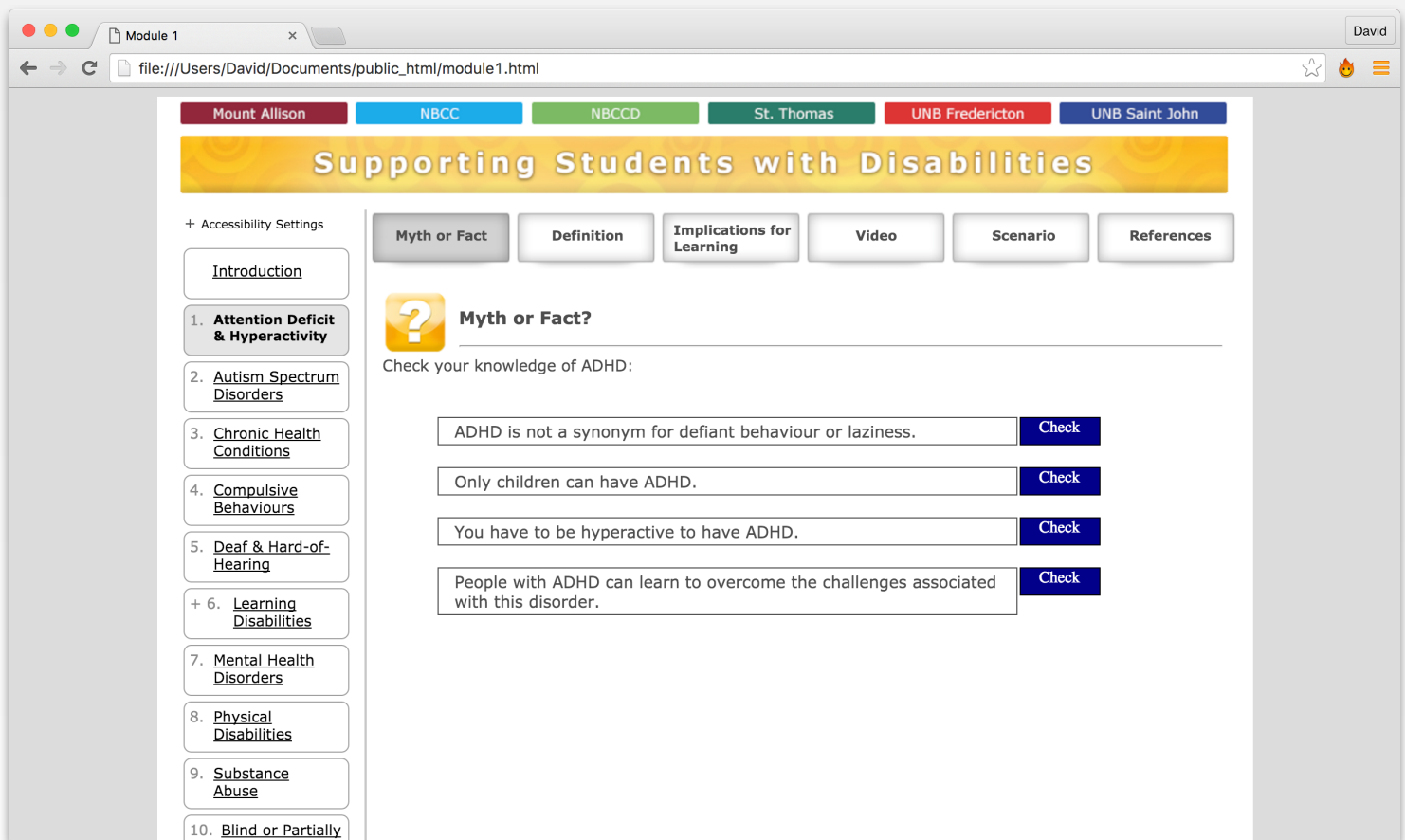
Limited Browser Support: Some web browsers were unsupported.

Undocumented Code: There were no code comments to explain functionality.

Disorganized Code: Large amounts of static HTML content was stored in JS files.

Unmaintainable Content: There was no CMS implemented in this project.

Supporting Students with Disabilities (v1.0)

I determined it would be worthwhile for the entire site to be restructured and rebuilt from scratch. I provided a detailed timeline, budget, and execution strategy which would deliver a solution that meets all the defined objectives and reduces future maintenance costs.

SOLUTION

Many people today access websites via mobile devices -- its not just desktops anymore. So with the current state of the web, responsiveness isn't just a luxury, it's standard. The same goes for browser support. It is unacceptable to tell the user they can't use a certain browser. It is for these reasons implemented a responsive design and thoroughly tested v2.0 of the website on a variety of browsers and devices.

The content of Supporting Students with Disabilities is vast. It includes 16 modules * 6 sections for the course content alone, plus several additional pages outside the course, which adds up to 100+ pages across the entire website. So in order to achieve the desired maintainability, there needed to be a content management system (CMS). However, this website also has the constraint that it can not contain any server-side code due to lack of resources to support it, which ruled out CMSs like Wordpress. So I opted to use Jekyll, a light-weight, command-line-based CMS which doesn't implement any server-side code. The Jekyll file system also provided some much-needed structure to the project directories. Adding Jekyll to the project was also a step up from v1.0 which implemented no CMS, simply storing content as pure HTML code. Furthuremore, I created developer documentation which includes a step-by-step guide on how to install project dependancies and a detailed mapping of the directory structure, for the benefit of future developers.

Supporting Students with Disabilities (v2.0)
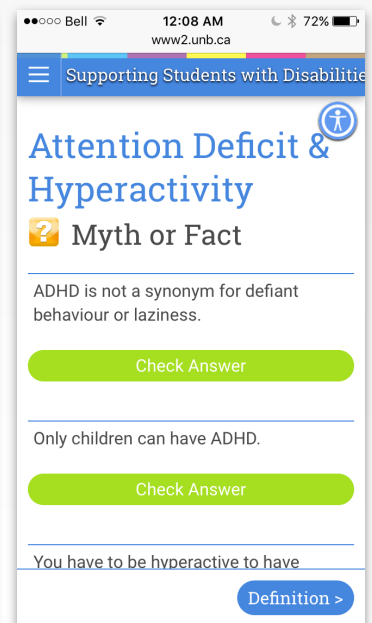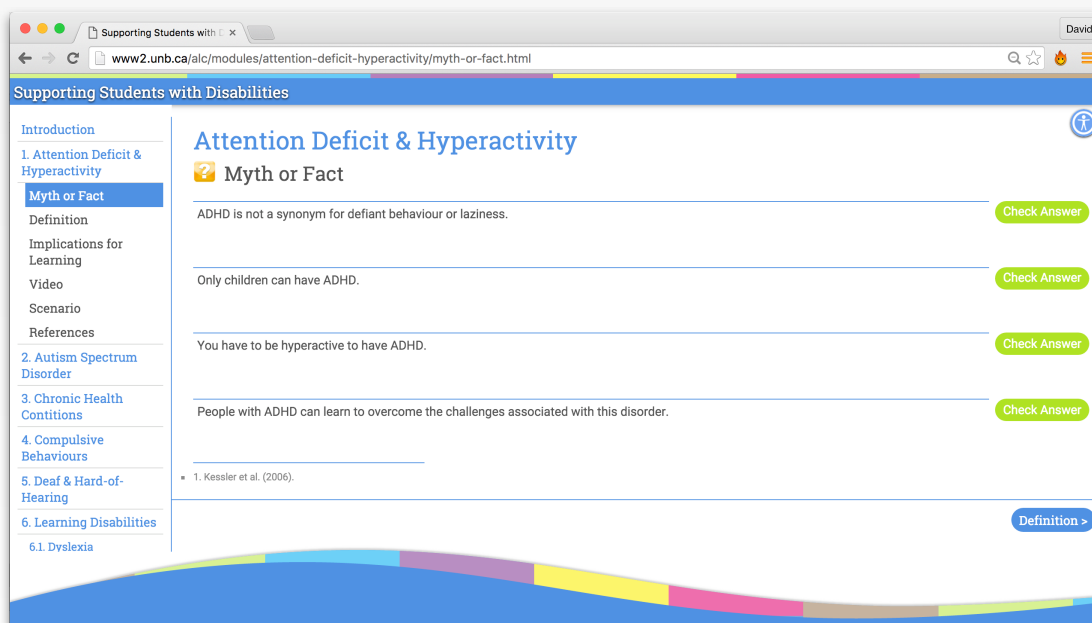
The result of this project was a success. All problems with v1.0 were addressed in v2.0 of the website and the project was completed on time, on budget, and to the client's satisfaction.

CLIENT FEEDBACK

" This was a 15-module online course for college and university instructors on the subject of accommodating students with disabilities in the classroom. It had been coded from scratch in HTML5 and my job was to create a responsive format that reshapes depending on the size of the viewing device: smartphone, tablet or laptop/desktop computer. This required a completely new layout and graphic design. In addition, a new 16th module was added, requiring the revamping of home page and side bar menus. David also provided layout mockups to assist with development tool and graphics design choices, and posted, closed-captioned and integrated several new videos. As well, he made accessibility recommendations and built and tested the new Responsive version for its compliance with accessibility requirements.

Feedback from clients and users on the new version has uniformly praised it, and David proved to be a well-organized, highly effective and capable programmer who did exemplary work on time and on budget, according to project standards. He kept track of a large number of files (and versions thereof) and instructions, always remembering and keeping track of everything as he conscientiously and consistently produced exactly what was promised, when it was promised (and often beforehand). It is rare to work with a student who is so mature, capable and dependable and I highly recommend him and commend his work. "

- Bev Bramble, Instructional Designer, University of New Brunswick