

Unsuccessful Does Not Equal Failure: Evaluating the Decision Making Process of Formal Library Instruction Initiatives at a Distance Learning Center Library Using Principles of Design Thinking

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Introduction

August 2007 marked the beginning of considerable changes at the Brigham Young University (BYU) Salt Lake Center library. The Center moved from its previous location on Highland Drive in east Salt Lake City, where it operated from 1997–2007, to a new, larger facility at the Triad Center in downtown Salt Lake City. At the time of the move, a charge was given to the BYU Salt Lake Center to take advantage of the opportunity to build upon previous services and to overcome shortfalls that were present at the previous location.¹

The vision for the Center library had always been to be an academic resource and provide needed support for courses at the Center. However, a deficit in library services existed and the move created new situations which allowed the Center to more fully reach the vision of what the library could and should be.² The initiatives discussed in this paper were possible because of the opportunities created as a direct result of the move to a new facility.

The purpose of this paper is to analyze the decision-making process at the BYU Salt Lake Center library for the implementation of library instruction initiatives from 2007–2010. “Failed” initiatives are deconstructed in order to assess positive repercussions.

A framework is used to provide focus and structure to the process and to help emphasize action-taking steps.^{3,4} The framework is a seven-phase decision making process based on principles of design thinking: Create a Vision, Recognize Opportunity, Define Objectives, Identify Alternate Solutions, Rank Options, Implement, and Evaluate.

For this analysis, design thinking was the chosen framework because it is founded on the idea that failure is a positive occurrence on the path to success and a driving force to innovation. Other characteristics of design thinking that render it useful in this evaluation are its focus on the future and non-linear process that allows for flexibility in moving between phases.^{5,6} This is an important aspect because, as will be illustrated more fully later, the decision making process for library instruction initiatives at the BYU Salt Lake Center often did not follow a clean, linear path from beginning to end.

Why Design Thinking?

Design thinking has been defined as “a catalyst for growth,” the “obverse of scientific thinking,” a “social process,” “the creation process through which we employ tools and language to invent artifacts and institutions,” and “a judicious blend of bottom-up experi-

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mentation and guidance from above.”⁷⁻¹⁰ Others have defined it as “a plan to make something, for a specific purpose, with a specific audience or user in mind,” a delicate balance of “analytical mastery and intuitive originality,” and “powerful, effective, and broadly accessible that individuals and teams can use to generate breakthrough ideas that are implemented and that therefore have an impact.”¹¹⁻¹³

Design thinking can be artful, but “there’s a critical aspect of it that often distinguishes it from pure art.”¹⁴ Though the definitions for design thinking are wide ranging, “common threads seem to involve planning, purpose, and intent.”¹⁵ Part of that planning, purpose, and intent is to help “people and organizations to solve their problems for long-term satisfaction, not achieving efficiency for short-run gains.”¹⁶ Design thinking also promotes conscientiousness, having a vision of what is wanted so that when the opportunity presents itself it is recognized and taken. Looking back is an important aspect of creating a vision, or further articulating a previous vision. If an organization can look back and articulate what occurred, then they are able to identify what worked, or did not work, discover why, and make changes in the future.

By using the design thinking based framework we were able to look back on various opportunities recognized by library staff of the BYU Salt Lake Center library from 2007–2010 and discover the different criteria used to develop initiatives to optimize those opportunities.

Framework Description

Creating a Vision

Tim Brown, President and CEO of the leading design firm IDEO, states in his six rules for design thinking that “an overarching purpose should be articulated so that the organization has a sense of direction and innovators don’t feel the need for constant supervision.”¹⁷

Recognize Opportunity

A well articulated vision allows an organization to be sensitive as opportunities become available to fulfill the vision. In design thinking “designers think of themselves as problem finders more so than problem solvers because their solutions start with a deep understanding of the problem requiring a solution.”¹⁸ Within this framework, “the problem requiring a so-

lution” is the previously created unfulfilled vision. The more deeply that vision is articulated and understood, the easier it is to recognize opportunity. Opportunities translate into projects or programs that serve as the vehicle from vision to reality.¹⁹

Define Objectives

As stated previously, design thinking is non-linear with the potential of being a continual never-ending process. Defining the objectives anchors the project to the real world by creating a beginning, a middle, and an end. These restrictions create “natural deadlines that impose discipline and give [...] an opportunity to review progress, make midcourse corrections, and redirect future activity.”²⁰

Identify Alternate Solutions

“[T]he solution space in design thinking is usually quite large. There is rarely one single solution—there are many possible solutions.”²¹

Brainstorming is an effective way to generate a lot of ideas and optimism for the project. IDEO adheres to the following four rules during brainstorming sessions²²:

1. One conversation at a time.
2. Stay focused.
3. Defer judgment: Playing the Devil’s Advocate is not permitted because it “encourages idea-wreckers to assume the most negative possible perspective, one that sees only the downside, the problems, the disasters-in-waiting.”²³
4. Build on ideas of others: Use previously expressed ideas as a jumping board to produce new ideas.

Rank Options

At some point a decision must be made in order for the project to go forward. As stated previously, there are usually multiple viable options. In ranking possible options it is important to realize that “every solution represent[s] a trade-off between certain advantages and disadvantages.”²⁴ There are a few ways to rank options before making the final decision. If there are a small number of options, each project member can rank each option on a level of 1 to 5 on how well it fits in the vision. If there are a large number of options, team members can vote by placing Post-it notes next to the options that they think are most viable.²⁵ With both approaches, solutions are being evaluated

according to how well they meet project goals, and in turn the overarching vision of the library. After votes are cast, it is important to look for ways to draw from the best of the top picks. Before a final decision is made, “designers look for new ways to ‘have your cake and eat it too’ by combing or reformulating ideas into new configurations.”^{26,27}

Implement

Take the idea chosen during Rank Options and implement it.

Evaluate

Evaluation should occur throughout the project as well as at the end. Important questions to ask are: How true is this project to the library’s vision? How well is it serving our user base? If the project is less than successful, is the vision off, or is our choice of implementation off? Not every project is going to be successful, but being able to evaluate why the project failed is just as important as recognizing the opportunity to develop the project. Design thinking focuses on the positive with failure being seen a step closer to success—“Fail often, in order to succeed sooner.”²⁸

Applied Framework

The Move

Since the establishment of the BYU Salt Lake Center in 1959 the vision for the Center’s library has been to be an academic resource and provide needed support for courses at the Center. Because the Center had a previously established vision for the library when the opportunity to better meet the vision arose—specifically by improving library services—it was recognized and taken. The opportunity came from the move to the new facility and was expressed through the previously mentioned charge. The charge is the first of many instances exhibiting recognition of opportunities.

Two major opportunities that resulted from the move were the staffing and design of the library. Previously, the library was staffed by one full-time employee whose duties included overseeing the testing center in addition to the library. Two part-time employees were also employed to function as both library attendants and test proctors. The floor layout permitted an overlap in library and testing center staffing because both were housed in one room, divided only by a wall of windows and a door. Separate from the library fa-

cilities—down the hall—was a computer lab that held approximately twenty-five computers and staffed two part-time employees.

The new location was designed with a combined library and computer lab in a 3,428 square foot room with thirty computers, and an adjacent technology instruction lab of 1,116 square feet with an additional thirty computers. The layout and design of the new library assisted in reaching the vision of the library being an academic resource by increasing seating and computer access.

The testing center was given its own dedicated space, with the previous staff retaining positions at the testing center. Both the library and testing center benefited from the separation. The testing center personnel were permitted to focus on scheduling, administering, and proctoring exams. The library personnel were permitted to focus on collection development, reference assistance, library instruction, and etc.

Also in alignment with the vision a full-time, an MLS degree holding librarian was hired in addition to two part-time assistant librarians.* The hiring of an MLS librarian was an important step because she had the appropriate education and professional training to recognize the importance of formal library instruction.²⁹

Formal Library Instruction

A formal library instruction program was not in place at the Highland Drive location. While classes at the Center offered many advantages, such as small class sizes and evening courses, library instruction was left at the discretion of the individual instructors. If a professor wanted to incorporate research or library instruction into the syllabus, the professor would make arrangements with the Information Literacy librarian from the Harold B. Lee Library (HBLL) who would travel to Salt Lake to teach. The main reasons for the absence of formal library instruction were lack of dedicated instructional space, dual responsibilities by library/testing center staff, and required travel between the HBLL and the Center library.

The facilities available at the new location created the opportunity for regular library instruction. However, before library instruction could be offered, a program needed to be designed.

There were two main objectives for the new pro-

*.Two additional part-time assistant librarians were hired within the next year, bringing the total to four.

gram. The first was to assist first and second year writing course professors in fulfilling the university requirement for library instruction. The second was to have the instruction content for first and second year writing courses be consistent with that of the HBLL because approximately 80% of the Center's students are matriculated students, which means that even though the Center is a commuter campus, a large portion of our students continue to use the HBLL for research through their undergraduate years. Also, because the Center is a satellite campus, it was natural to draw from the established program at the HBLL. Consistent library instruction is difficult to maintain when students are attending the same university but at different locations. However, that has been made easier through the implementation of online tutorials. The option to develop independent online library instruction tutorials was dismissed because the HBLL was already in the process and had greater development resources. However, the Center librarian worked closely with the Harold B. Lee Library on the development and implementation of content for library instruction. In the fall of 2007 the beginnings of a new library instruction curriculum was launched which included a thirty minute online tutorial called the Successfully Master Academic Research Tutorial (SMART). The tutorial was originally divided into two main primary sections each with four to five sub-sections modules that cover the basics of library research such as determining credible resources, gathering background information, how to use the library catalog, and how to conduct a database search. The tutorial has been modified over the years to remain consistent with the library website and search tools.³⁰ Currently, the tutorial has only one main section and five sub-sections. Each sub-unit module is followed by a short, "open book" quiz accessible only through BlackBoard. After completing the online tutorial, students then attended a library instruction session with their professor and class taught by the librarian

The Advanced Research (AR) tutorial was implemented in the fall of 2009 to be used by advanced writing students specifically. The AR tutorial has one main section which includes seven modules. Many of the modules topics are similar to those found in the SMART tutorial, but the AR provides more in depth information as well as an introduction to RefWorks.

By having students complete the online tutorial before attending library instruction, more time could

be dedicated to one-on-one assistance with the students. When possible, an assistant librarian also attended the class so that students could receive more one-on-one attention if needed. However, class sizes were generally small enough that one instructor was sufficient.

The librarian contacted professors of first and second year writing courses at the beginning of each semester to schedule library instruction for their courses. Library instruction was available to all courses taught at the Center, but was a university requirement for first and second year writing courses. When available, library instruction took place in the technology instruction lab. If the lab is unavailable, a "lab on wheels"—containing thirty laptops—was taken to the classroom for students to use during instruction.

Evaluation

Compared against the framework, the design and implementation of formal library instruction was strong in the areas of Recognize Opportunity, Define Objectives, Identify Alternate Solutions, Rank Options, and Implement. The library recognized the opportunity to have regular formal library instruction and the defined objectives were in alignment with the vision of being an academic resource and providing needed support to courses by offering regular instruction and helping to fulfill the university's requirement. Alternate solutions were identified and working with the HBLL in developing online tutorials was quickly identified as the most effective use of available resources while staying in line with the original vision.

Workshops

The library launched a pilot workshop program to teach RefWorks, Write-N-Cite, and Zotero. RefWorks is a small component of formal library instruction; but the workshop was organized as a way to teach advanced aspects of the program that are not taught due to time constraints, such as Write-N-Cite. The Mozilla application, Zotero, is not taught during formal library instruction, so a separate workshop was designed to show students how the application can save bibliographic information from sources such as GoogleScholar which do not always offer a direct export option into software such as RefWorks.

The first semesters of the pilot program, winter 2008, one 20 minute workshop was offered. The workshop covered RefWorks and Write-N-Cite. The sec-

ond semester, fall 2008, another 20 minute workshop was added that focused on Zotero. The reasoning behind limiting workshops to 20 minutes was that it was enough time to adequately cover the information, but short enough to appeal to students' busy schedules. The same logic was used when the second workshop was added—a 20 minute commitment would be more appealing to students as opposed to a 40 minute commitment. The two workshops were taught back-to-back, so students could conveniently attend one or both.

Since the BYU Salt Lake Center caters to a commuter student population careful consideration had to be given to scheduling the workshops. Two main factors were considered: 1) When are students on campus? 2) When are students in the library? Fall and winter semester courses are held once a week, with the bulk of them being offered on Tuesday, Wednesday, or Thursday in the afternoon and evening. Students are in the library throughout the day, but a significant increase of student population occurs around four or five o'clock in the afternoon. Workshops were then scheduled for a peak day and time. Advertisements were placed on bulletin boards, in the student commons area, and in the library. Additionally, the date and time of the workshops were announced at the beginning of library instruction sessions and an advertisement was emailed to professors encouraging them to announce the workshops to their classes.

The workshop program was sponsored for three semesters: Winter 2008, Fall 2008, and Winter 2009. Two students attended the first semester, three the next, and three the last. Subsequently, the workshop was discontinued due to low attendance.

Even though the pilot program as a whole was determined unsuccessful, there have been positive repercussions. Since the launching of the pilot program, and past its cancelation, individual instructors have requested RefWork sessions for their students during regular class time. To keep sessions to a minimum length and respect faculties' time, only RefWorks is taught during these sessions. However, students often have questions about other library services such as interlibrary loan and research assistance. With the instructors scheduling library time more than twice as many students (19) have attended RefWorks instruction than for the open workshop (8). The increase of participants is reminder of the influence instructors have on students' use of the library. Also, the fact that

instructors began scheduling the workshops is evidence that we were offering a valued service, just not in the best format for our users.

Evaluation

Compared against the framework the pilot workshop program was strong in the areas of Recognize Opportunity, Define Objectives, Identify Alternate Solutions, Implement, and Evaluate. The library recognized an opportunity to build on library instruction content by offering additional instruction that still focused on helping students be successful in their research. The objective was to further students' knowledge and abilities in programs briefly discussed during library instruction. Alternate solutions were considered in the length of the workshops and selecting the date and time. The workshop was implemented and evaluated by looking at the recorded statistics. The low attendance showed that the workshop was not as effective as had been hoped; however, another opportunity was recognized and taken with scheduling workshops with instructors. Because of that recognized opportunity twice as many students have received instruction and the program continues.

One-on-One Open Research Lab

In the fall of 2008 and winter 2009 the library offered a one-on-one open research lab twice a week for one hour. One-on-one research assistance was already available to students during regular library hours, but the lab was designed in an effort to be consistent with library services at the HBLL, further promote research assistance by library staff, and to provide a less intimidating environment for students to receive research assistance.³¹ The lab was scheduled based on the same statistics and logic as the previously discussed workshops and was held on Tuesdays from 4:00–5:00 p.m. and Thursdays from 2:00–3:00 p.m.. Again, advertisements were placed on bulletin boards, in the student commons area, and in the library. Also, a large sign was displayed at the reference desk on the days of the lab.

Four students total came to the lab the first semester and two students the second semester; subsequently the lab was canceled.

Evaluation

Compared against the framework the pilot workshop program was strong in the areas of Recognize Oppor-

tunity, Define Objectives, Implement, and Evaluate. The library recognized an opportunity to try a program already in place at the HBLL and further promote reference services. The objectives were to serve as an outreach to students, encourage them to ask questions by providing a less intimidating environment, and serve as a supplement to formal library instruction. Implementation was consistent throughout the two semesters. An evaluation of attendance determined that the program was not a good fit for the library. What we also learned from this failed initiative was that even though the Center library is an extension of the HBLL, not every program that works well at the HBLL will work well for the Center. Additionally, the Center library should strive to offer comparable services but how those services are delivered will vary from the HBLL because of the differences in the user base.

Conclusion

Elements of the design thinking based framework existed in all three library instruction initiatives from 2007–2010. Each initiative contained elements of the design thinking framework, though no one initiative used all seven elements. However, two of the three initiatives proved to be successful and continue to be part of the regular library instruction program. Even though we did not go through the formal steps of the framework, the dramatic turnaround in library instruction participation the BYU Salt Lake Center can be strongly attributed to practiced principles of design thinking that led to the design and implementation of new programs and services. The aspects of design thinking that we used contributed significantly to the success of the initiatives taken. As we focused on the vision of the library we were able to recognize opportunities and learn from approaches that worked well and ones that didn't work well.

Notes

1. Lee Glines (former director of BYU Salt Lake Center), interview by Lorianne Ouderkirk, June 10, 2010.
2. Lee Glines (former director of BYU Salt Lake Center), interview by Lorianne Ouderkirk, June 10, 2010.
3. Beckman, Sara L., and Michael Barry. "Innovation as a learning process: Embedding design thinking." *California Management Review* 50, no.1 (2007): 25–56.
4. Nutt, Paul C. "The formulation processes and tactics used in organizational decision making." *Organization Science* 4, no. 2 (1993): 226–251.
5. Beckman, Sara L., and Michael Barry. "Innovation as a learning process: Embedding design thinking." *California Management Review* 50, no. 1 (2007): 25.
6. Fraser, Heather M. A. "The practice of breakthrough strategies by design." *The Journal of Business Strategy* 28, no. 4 (2007): 66–74.
7. Fraser, Heather M. A. "The practice of breakthrough strategies by design." *The Journal of Business Strategy* 28, no. 4 (2007): 66–74.
8. Owen, Charles L. "Design thinking: Driving innovation." Available from <http://id.iit.edu>. [Accessed July 15 2010].
9. Beckman, Sara L., and Michael Barry. "Innovation as a learning process: Embedding design thinking." *California Management Review* 50, no.1 (2007): 25–56.
10. Brown, Tim, 1954–. *Change by design : How design thinking transforms organizations and inspires innovation*, ed. Barry Katz. New York: New York : Harper Business, 2009.
11. Berger, Warren. *Glimmer : How design can transform your life, and maybe even the world*. How design can transform your life, and maybe even the world. New York: New York : Penguin Press, 2009.
12. Martin, Roger L. *The design of business : why design thinking is the next competitive advantage*. Boston, MA: Harvard Business Press, 2009.
13. Brown, Tim, 1954–. *Change by design : How design thinking transforms organizations and inspires innovation*, ed. Barry Katz. New York: New York : Harper Business, 2009.
14. Berger, Warren. *Glimmer : How design can transform your life, and maybe even the world*. How design can transform your life, and maybe even the world. New York: New York : Penguin Press, 2009.
15. Berger, Warren. *Glimmer : How design can transform your life, and maybe even the world*. How design can transform your life, and maybe even the world. New York: New York : Penguin Press, 2009.
16. Bell, Steven. "Design thinking and higher education." *Inside Higher Education*. Available from <http://www.insidehighered.com/views/2010/03/02/bell>. [Accessed October 12 2010].
17. Brown, Tim, 1954–. *Change by design : How design thinking transforms organizations and inspires innovation*, ed. Barry Katz. New York: New York : Harper Business, 2009.
18. Bell, Steven. "Design thinking and higher education." *Inside Higher Education*. Available from <http://www.insidehighered.com/views/2010/03/02/bell>. [Accessed October 12 2010].

19. Brown, Tim, 1954–. *Change by design : How design thinking transforms organizations and inspires innovation*, ed. Barry Katz. New York: New York : Harper Business, 2009.
20. Brown, Tim, 1954–. *Change by design : How design thinking transforms organizations and inspires innovation*, ed. Barry Katz. New York: New York : Harper Business, 2009.
21. Stempfle, Joachim, and Petra Badke-Schaub. Thinking in design teams—an analysis of team communication. *Design Studies* 23, no. 5 (2002): 473–496.
22. Koppel, Ted, 1940 Feb. 8–, Jack Smith, ABC News, and Films for the Humanities. 2003. *The deep dive one company's secret weapon for innovation*. Vol. 1 videodisc (22 min.) : sd., col. with b&w sequences ; 4 3/4 in. Princeton, NJ: Films for the Humanities & Sciences.
23. Kelley, Tom, and Jonathan Littman. *The ten faces of innovation : IDEO's strategies for beating the devil's advocate & driving creativity throughout your organization*. New York: Currency/Doubleday, 2005.
24. Stempfle, Joachim, and Petra Badke-Schaub. “Thinking in design teams—an analysis of team communication.” *Design Studies* 23, no. 5 (2002): 473–496.
25. Brown, Tim, 1954–. *Change by design : How design thinking transforms organizations and inspires innovation*, ed. Barry Katz. New York: New York : Harper Business, 2009.
26. Owen, Charles L. “Design thinking: Driving innovation.” Available from <http://id.iit.edu>. [Accessed July 15, 2010]
27. Stempfle, Joachim, and Petra Badke-Schaub. “Thinking in design teams—an analysis of team communication.” *Design Studies* 23, no. 5 (2002): 473–496.
28. Koppel, Ted, 1940 Feb. 8–, Jack Smith, ABC News, and Films for the Humanities. 2003. *The deep dive one company's secret weapon for innovation*. Vol. 1 videodisc (22 min.) : sd., col. with b&w sequences ; 4 3/4 in. Princeton, NJ: Films for the Humanities & Sciences.
29. Lee Glines (former director of BYU Salt Lake Center), interview by Lorianne Ouderkirk, June 10, 2010.
30. Harold B. Lee Library. “First year writing.” Available from <http://lib.byu.edu.erl.lib.byu.edu/sites/instruction/first-year-writing>. [Accessed January 29 2010].
31. Kuhlthau, Carol C. “Inside the search process: Information seeking from the user's perspective.” *Journal of the American Society for Information Science (1986–1998)* 42, no. 5 (1991): 361–372, <https://www-lib-byu-edu.erl.lib.byu.edu/cgi-bin/remotearch.pl?url=http://proquest.umi.com.erl.lib.byu.edu/pqdweb?did=639272691&Fmt=7&cli>entId=9338&RQT=309&VName=PQD (accessed January 8, 2010).