

The Bibliotherapy Education Project: Alive and Well—and Perpetually “Under Construction”

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ABSTRACT. The Bibliotherapy Education Project began as a teaching collaboration between faculty at Oregon State University’s Libraries and School of Education. The project’s evolution from 1999 to 2004 was previously described in this journal (McMillen 2005). The core of the project is a book evaluation tool, which builds counselor skill and knowledge in selection of books; since 2004, book evaluations created with the tool populate a searchable database. The accompanying Web site supports emerging counseling professionals in learning to competently use books in therapy. This article will describe recent developments and future directions for the overall project, including a usability study targeted to refining the Web site.

KEYWORDS. Bibliotherapy, collaboration, Web-based teaching, counselor education, databases, usability, testing

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Behavioral & Social Sciences Librarian, Vol. 27(1), 2008

Available online at <http://bssl.haworthpress.com>

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doi: 10.1080/01639260802152808

INTRODUCTION

Bibliotherapy can be generally defined as facilitating personal development or problem resolution through books. Both fiction and nonfiction materials are widely used by lay and trained helpers to address common developmental or situational issues (developmental bibliotherapy) as well as a host of more serious mental health problems (clinical bibliotherapy). In spite of this, the author found little information regarding formal training in bibliotherapy practice when she was originally approached to collaborate with a counselor education faculty member on teaching graduate students how to effectively evaluate books for use in therapy. Starting from a shared passion for books, belief in the immense therapeutic potential of stories, and working backgrounds in mental health practice, the author and her colleague undertook to develop a formal bibliotherapy teaching module, based on a review of the literature and their own clinical experience. A paper and pencil Bibliotherapy Evaluation Tool (BET) was developed, revised several times, and finally converted to a Web-based form that feeds into a searchable database. Contextual information pages were created around the tool and database, forming the Bibliotherapy Education Project (BEP) Web site.

EXPANDING IMPACT

The BEP has grown well beyond its beginnings as a teaching module in a single counselor education course at Oregon State University (OSU). It has become a focus for student research projects, professional scholarship, and general informational impact on the topic. For example, the following are two student research projects: an undergraduate Honors thesis adapted the bibliotherapy teaching module to increase the knowledge and skills of resident assistants in university housing regarding the potential value of written materials in their problem interventions; doctoral research found benefit from incorporating bibliotherapy into the developmental supervision of emerging counselors. On the professional development front, both faculty achieved promotion and tenure (at a Research I institution) largely on the basis of their scholarship in the field of bibliotherapy. The topic has continued to inspire both faculty members and they have increased their commitment to using multicultural children's and young adult literature for developmental bibliotherapy, offering presentations and workshops at national conferences.

The Web site developed to support the BEP has continued to evolve; many of the early questions—regarding format and language in the online version of the evaluation tool, the structure and content of the Web site, and the process for monitoring the quality of evaluations available through the Web site, for example—have been temporarily resolved. The Web site was made available on the open Internet approximately four years ago. Since then, BEP Web site activity has continuously expanded, even showing up as an “External Link” in the Wikipedia entry on “Bibliotherapy.” The BET is still used by faculty at the home institution as a teaching tool in the Theory and Techniques of Counseling class. Although the developers have continued to promote bibliotherapy as a valuable therapeutic intervention in conference presentations, articles, and class instruction (Pehrsson and McMillen, 2005), impetus for expansion has also come from outside enthusiasts. Faculty from two other institutions have asked for and received permission to use the BET in their counselor education curricula and their students have substantially added to the database of book evaluations. Currently the project’s co-developers review all book evaluations submitted before they are released for public view, so we are in direct e-mail contact with these outside faculty when they have a class of students using the BET.

Web Site Use Statistics

There are now almost 400 users who have registered to evaluate books for the BEP Web site, and nearly 1,900 evaluations have been entered for over 400 different books. As of February 2008, activity on the Web site has originated from 37 states with the majority coming from the home state of the sponsoring institution, Oregon (44%), and the second highest number from Texas (11%). Texas figures prominently because of the previously mentioned use of the BET by a faculty member at a Texas university counselor education program. Likewise, the next highest use, from Wisconsin (5%) is driven by a counselor education faculty member using the BET as a teaching tool. Quantitative data on Web site use outside the United States substantiates the developers’ qualitative experience of receiving e-mail queries from countries in North and South America, Europe, Africa, and Asia. Users in 36 countries outside the United States have accessed the Web site in the last month alone (February 2008). Tracking software indicates that in the last twelve months, the average number of sessions¹ per day has ranged from 109 to 213. The most recent month of activity shows daily averages of 148 sessions, 520 page views, and 768 hits, with 4,667 total sessions for that time period.

Many issues that were articulated shortly after the creation of the Web site remain to be resolved. Limited time and lack of money and personnel with the requisite skills have meant that the site, although operational, has not moved forward in design and functionality to the extent the developers originally hoped. We have had a small amount of money in reserve for programming but have had a difficult time finding students knowledgeable in the programming language of the database. The BEP Web site has remained viable largely due to the devoted attention of our liaison in Library Technology, who fixes user problems and makes small updates when he has time—all quite outside the range of his normally already demanding duties. Adding new informational content or making significant improvements to the design of the Web site often has to take a back seat to primary duties in the library and counselor education department for both of the faculty developers. A significant opportunity for moving the Web site design forward arose in fall 2006, when we were contacted by a newly minted Ph.D. in instructional technology. She was interested in working on the bibliotherapy project, even though we had no funding to support a post doc. Her interest and involvement allowed the author to organize a small scale usability test of the BEP Web site—what Steve Krug calls “lost our lease, going-out-of-business-sale usability testing” (Krug 2006). Although we might reasonably assert that the site has been constantly subjected to evaluation through feedback from the graduate students who use it for evaluating books in their coursework, this is the first time we had arranged a formal observational study with naïve users.

USABILITY TESTING

I'll offer a couple of experts' definitions of usability to frame the discussion of what we did with the bibliotherapy Web site. Usability is:

- “making sure that something works well: that a person of average . . . ability and experience can use the thing . . . for its intended purpose” (Krug, 2006).
- “ease of use . . . Web site usability is the measure of how an individual user actually navigates, finds information, and interacts with your Web site” (Goto and Cotler, 2002).

Krug emphasizes that usability testing is a one-on-one process where an individual is asked to interact with the Web site in question and “either

(a) figure out what it is, or (b) try to use it to do a typical task” (Krug, 2006). Hornbaek (2006) suggests most usability studies look at aspects of human computer interaction that can be classified as effectiveness, efficiency, and/or satisfaction. Data may be gathered by human observers, via questionnaires or structured interviews, or electronically with Web tracking software, audio, and/or video recordings. The desired outcome is a set of design recommendations to improve the effective use of the Web site. Optimally, usability testing is carried out in an iterative fashion—before a Web site is launched and then periodically throughout the design and implementation process; user feedback influences modifications which are then retested (Kim et al., 2001; Krug, 2006; Nielsen, 2002). Krug points out that, in such a scenario, early testing will uncover the major problems, and once these are fixed, additional concerns will emerge that were previously overshadowed by the larger problems; hence, testing early and often is more valuable than testing extensively. Jakob Nielsen, a leading authority on usability testing, asserted early on that a minimal number of subjects are required to get valid data. “Elaborate usability tests are a waste of resources. The best results come from testing no more than 5 users and running as many small tests as you can afford” (Nielsen, 2000). He mathematically demonstrated that a single user will reveal a third of the design issues, and five users will reliably uncover 80% of the problems.

Procedure

Although Krug (2007) claims that it isn’t critical who is tested, as long as subjects can navigate Web sites, we recruited subjects from the current graduate students in the Counselor Education program. Because the BEP Web site evolved out of a teaching module for these students, and because we lacked the funding to pay subjects, these students were deemed the likeliest group to volunteer without financial incentives, simply because they were interested in learning more about bibliotherapy. Following procedures approved by the university’s institutional review board, the author solicited participants via invitations in e-mail and student mailboxes. The only requirement for potential subjects was that they have no familiarity with the BEP Web site. The first five volunteers were each scheduled for a 90-minute session. All subjects were female, reflecting the predominantly female demographics of the counselor education student population and the counseling profession in general.

We created ten tasks which addressed various aspects of the BEP Web site design and functionality (see Appendix). Krug recommends that you

begin the session with an open-ended question about perceptions of the Web site's purpose and general first impressions (see his sample online script, 2007). Subjects were asked for any final impressions before they left. Our study epitomized Krug's most basic setup; we had a small conference room in the university library for testing, furnished only with tables, chairs, and a laptop computer with Internet access. The BEP Web site was set as the default homepage on the laptop. The author oriented each subject to the test session, following an adaptation of Krug's script which emphasizes that the focus would be on testing the site, not the subject. The post doc served as the second observer/note taker in the room. We followed a "think aloud" protocol where subjects are encouraged (and occasionally reminded) to talk about their process as they address the usability tasks; this practice enhances the observational information recorded (Krug, 2006; Kim et al., 2001). The author was available to clarify the nature of the tasks but not to help with completing them. Subjects were given an informed consent document to read and sign before beginning.

Results

Recording subject actions and comments provides data for both performance and process measures. Usability testing research has demonstrated that, when used to inform Web site redesign, performance measures (e.g., error and success rates) are most suitable for improving effectiveness—reducing the number of errors—whereas process measures (e.g., time to complete and think aloud protocols) improve efficiency—time taken to complete tasks successfully. This is probably because "raw performance data. . . informs a designer where problems might occur but provides no information about what exactly is happening and why" (Kelkar et al., 2005).

We did not record the time it took subjects to successfully complete a task; although in hindsight, this might have added an informative layer of interpretation. Although they had been told there was a ten-minute limit for each task, in only one case did a subject approach or actually exceed the limit. A task was considered successfully completed if the subject was able to locate the information or complete the task without intervention from the investigators (Barratt, 2001). Completion rates are computed as the number of subjects who successfully complete the task divided by the total number of subjects ($n = 5$ in this case). One item (#2), which asked subjects to locate a book on a subject of interest, was not completed by anyone within the time limit and at that point the author pointed out the

TABLE 1. Rates for Tasks

	Completion rate	Error rate (mean)
Item # 2: Subject search	0%	2.2
Item # 3: Author search	100%	0.4
Item # 4: Find book sources	60%	1.4
Item # 5: Project beginning	80%	0.2
Item # 6: Reviewer registration	100%	0.2
Item # 7: Begin book evaluation	80%	1.2
Item # 8: Find definitions	60%	0.7
Item # 9: ID project developers	100%	0.0
Item # 10: ID research projects	100%	0.0

link for subject searching. Subject performance on several items (e.g., #4 and #8) indicated that cues were not sufficiently salient, sometimes due to graphic elements and sometimes due to ambiguous terminology. For item #4, two subjects used other functions on the Web site to locate books in the database rather than using the link to outside book sources, indicating that the task itself was not sufficiently clear. The one “failure” on item #5 came from the most naïve Web user among the subjects; this subject did find the necessary information after being assured by the investigator that it was available on the Web site. On item #7, the subject couldn’t find the link to initiate the review process. Results are summarized in Table 1.

With the exception of the first item, which asked about the perceived purpose and general impressions of the Web site, the number of errors was also tabulated for each task. One significant source of errors (mean = 1.2) was item #7, “Begin evaluating this book.” The subjects found the screen placement and font size of the links to initiate the book evaluation process were placed too far down the page and not in a distinctive font size. Most tasks (numbers #3, 5, 6, 8, 9, and 10) had a mean error rate of less than one.

Although no formal satisfaction or ease of use ratings was solicited, subjects generally reported that the purpose of the Web site (item #1) was clear and they were positive in their comments about the constant navigation bar, which appears on the left side of all screens. This favorable reaction to persistent navigation is similar to findings in other usability studies (Kim et al., 2001). Problems encountered in completing tasks and the comments from subjects fall into roughly three categories: graphics and visual presentation, content, and workflow. Examples of graphics issues

are the need to increase text size overall, and to increase the visual salience of links which provide additional information about terminology and those that should lead users along in the book evaluation process. Other valuable comments from users included statements to the effect that bibliotherapy is seen as a creative therapeutic intervention and, therefore, the site itself should have more visual playfulness and color. The Web site developers will have to balance such user perceptions with keeping the appearance of the Web site appropriate for a high-quality professional resource. Content concerns were fairly limited and suggested separating out guidelines for using bibliotherapy from procedural information on how to evaluate books. Subjects also suggested that portions of the content be presented in bulleted or numbered lists to make information more visually accessible than it is when presented in paragraph form. Some terminology was unfamiliar to users (e.g., protagonist) and they suggested words that made more sense to them (e.g., main character). Examples of workflow issues were offering three choices for initiating the book evaluations, and the somewhat circuitous path for moving from the user registration form to the book evaluation tool.

Discussion

The BEP Web site was created and iteratively refined with feedback from multiple perspectives including computer science, library science, graphic design, and counseling. The site currently conforms to many of the design elements recommended by experts (Maddux et al., 2005; Sampson et al., 2003) such as current and accurate content, short page length, constantly available navigation, stylesheets for consistent presentation, clear identification of and information about the authors, explicit privacy policy, and the ability to contact site creators. Users, however, bring a unique and essential perspective to the evaluation process that must be taken into account if a Web site is to be truly successful. Less than optimal design can render even the best content difficult to use to its full potential.

Although the subjects of our usability study represented an apparent range of skill levels for navigating the Internet, they were consistent in the problems they identified with using the BEP site. The ways in which the Web site had been used within the counseling techniques course had obscured some of the problems that were revealed by this study. To take one clear example, when teaching graduate counseling students about bibliotherapy as a therapeutic intervention and about using the BET to inform their selection of materials, the developers would walk students through

the registration and evaluation processes on the Web site. The problems with linking to the evaluation tool, encountered by users coming to the site on their own, had never surfaced in these guided teaching contexts. It has become increasingly important, given the expanding use of the BEP Web site beyond the developing institution, to determine how well this site works when no facilitator is there to mediate the learning, processes, and tools. Other researchers have noted that Web site design issues are especially critical in the self-help arena (Sampson et al., 2003).

Several of the problems identified revolved around subjects not “seeing” links to additional information or next process steps. The usability study by Kim and colleagues also found that “subtle visual cues are likely to go undetected when an interface demands that a user recognize embedded text [and] navigational features” (Kim et al., 2001). Their recommendation is to enlarge or otherwise enhance the visibility of text, possibly by using distinct and consistent colors for certain types of navigation or content themes.

Consistent with the findings of usability experts (Krug, 2007; Nielsen, 2000), all of the significant problems identified in the study were found by the first three subjects, supporting the legitimacy of this small scale usability study. Although unique and helpful comments were offered by all five subjects, testing just three would have provided sufficient information for the Web site designers to make a first round of refinements. New issues will undoubtedly surface once the most obvious problems are addressed.

REMAINING ISSUES AND FUTURE DIRECTIONS

Several of the original goals for the back end of the BEP Web site remain to be realized, such as increasing the modularity of the BET, which would allow greater flexibility in updating individual questions or whole sections of the tool. Likewise we would like to ensure that the site’s content is fully ADA-compliant to provide maximum accessibility. A number of problems were identified in the usability study and these need to be prioritized based on currently limited resources. Some can be made fairly simply, such as changing terminology to more closely match user expectations. Other relatively straightforward changes would include reformatting information from paragraphs to bulleted lists. These changes will be made in the near future as the Web site and database are moved to a newer version of the programming language. More significant changes suggested by

the usability feedback involve creation of additional Web pages and some reprogramming that would clarify workflow. Enlisting the services of a graphics consultant is also in the longer term plans. Nice but not necessary add-ons would include providing links from book titles to local library holdings, creating options to export lists of titles, audio and/or video explanations of terminology, and demonstrations of book evaluations. All of these changes rely largely on having adequate resources for programming, including funding and qualified personnel. One real advantage of the usability study is that the results provide evidence and clear direction for articulating resource needs and may therefore be helpful in identifying potential funding sources to support the needed improvements.

As the focus of and access to the BEP Web site expand beyond counselor education students to other groups of helpers, future developments will include enriching the site with specialized pages and tools to address the needs of specific audiences and more diverse users (Sampson et al., 2003). Feedback from presentation attendees at conferences as well as from students in teacher education classes suggests that public librarians and teachers would all be interested in learning more about the effective and ethical uses of developmental bibliotherapy. Librarians can also use the database to help mental health practitioners in their communities locate potential titles for clinical bibliotherapy with their clients. The developers' growing interest in the bibliotherapeutic applications of multicultural children's and young adult literature has yet to be fully reflected in the informational content surrounding the database, and that, too, is an area for future growth.

The BEP developers' collaboration continues to fuel new scholarship activities. We have just completed a national survey of professional counselors (members of the American Counseling Association) regarding their utilization of bibliotherapy. Once this data is examined, more targeted groups such as play, school, and poetry therapists will be surveyed for comparison. Creating benchmark data through national surveys will inform teaching work with graduate students and potentially help establish the need for more standardized and accessible training in bibliotherapy for a variety of helpers. Former and current graduate students, as well as researchers at other institutions who are passionate about using books in therapy with a variety of populations and problems continue to contact us with questions and proposals for research, writing, and conference presentations.

The BEP will be undergoing a major change very soon, since one of the developers has already moved and the other is soon moving to the

University of Nevada, Las Vegas. There is a commitment from the UNLV Libraries and College of Education to continue supporting the project and to host the BEP Web site.

CONCLUSION

The Bibliotherapy Education Project has evolved from a teaching collaboration between faculty in the OSU Libraries and School of Education over its 9-year history. Focused originally on the development of a questionnaire designed to guide graduate counselor education students in evaluating books for potential use in therapy settings, the Bibliotherapy Evaluation Tool was refined several times with input from users and then underwent major revisions when it was reformatted to be a Web-based tool that would store evaluations in a searchable database. The BEP Web site was created to support the online tool and database with additional information and links to resources for bibliotherapy. Publishing the site on the publicly accessible Web has resulted in steadily increasing use over the last four years, including the BET's incorporation in counselor curriculum at other educational institutions. With the arrival of a volunteer post doc, a low-cost and small-scale usability study was designed and carried out in the spring of 2007. Valuable information was gained that will guide future refinements of Web site design and functionality. The developers pride themselves on being continually open to suggestions for improving the BEP Web site, since an optimally designed and functional site will help counseling students and other helping professionals more effectively use books as an adjunct to therapy.

NOTE

1. *Session* is defined by Urchin 5 (© Urchin Software Corporation) as "a series of clicks on your site by an individual visitor during a specific period of time." This is distinguished from *page views* or *hits*, which are typically three to seven times (respectively) the number of *sessions*.

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APPENDIX

Usability Tasks

1. Briefly describe what you think this Web site is about.
2. Locate a book on a subject of interest to you.
3. Locate a book by a favorite children's or young adult author.
4. Find at least two sources for locating additional books.
5. Describe briefly how this project got started.
6. Register as a reviewer for the Web site.
7. Begin evaluating this book (choice of picture books provided).
8. Find the explanation and definitions for “General Format/Structure” or another evaluation category in the Bibliotherapy Evaluation Tool.
9. Identify the people responsible for the content of this page.
10. Briefly describe at least one research project that has been generated by the Bibliotherapy Education Project.