

Evaluating the Usability of Federal Student Aid Print Publications with Representative Users

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This case study describes an evaluation of current Federal Student Aid print publications to determine how well they meet users' needs and to what extent they are readily usable by and appealing to their intended audiences. The publications were designed to inform and educate readers about the process of preparing for higher education, both academically and financially. The intended audiences were students who are considering going to college, their parents, and counselors. The evaluation followed a multi-pronged, user-based approach. Our methods included usability testing, focus groups, an online survey followed by telephone interviews, and a mock "financial aid night" at which participants could browse among available publications and indicate which appeared to be of most interest to them. This paper will discuss these user-based activities, some of the insights that were derived from them, and some of the resulting design recommendations that will influence future versions of these print publications.

PURPOSE OF WORK

In February 2009, the U.S. Department of Education office of Federal Student Aid (FSA) contracted UserWorks, as a subcontractor to Crosby Marketing, to perform a usability evaluation of 36 print publications that provide information about preparing for a college education. A thorough evaluation of FSA print materials had not been conducted since 2004, and since that time a number of improvements and additional publications had been made. The set of materials that were evaluated (among those at www.fsapubs.gov) included a number of different formats – brochures, pamphlets, single-page fact sheets, handouts such as bookmarks and stickers, and more substantial guides. All but one (a brochure entitled the *College Preparation Checklist*) had already been produced and were being actively distributed. Our recommendations will be considered in making changes for the next school year's publication run.

The overall purpose of these publications is to provide information about financial aid for college or other post-secondary education, including the application and loan repayment processes. The audiences for these materials are students who are considering going to college, their families, and

their counselors. FSA's goals in evaluating the publications were to determine the extent to which they satisfy users' information needs and whether or not users find them to be readily usable and aesthetically appealing. In order to be effective, these publications need to readily convey their intent and scope and be understandable, both in serving as tutorial materials and as references. In addition, there is a persuasive aspect to them, in that they are intended to inform readers about the possibilities and advantages of higher education.

Our role in evaluating these publications was to conduct research with representative users, gathering their feedback and probing for information about their needs, wishes, pre-conceptions, concerns, and preferences. Of particular interest was feedback from lower income families, ethnic minorities, and students who would be the first in their family to attend college. In cases where the publication(s) fell short of their goals or could be improved, we strived to produce actionable recommendations for design changes. FSA was also particularly interested in whether any publications were redundant (and thus could be consolidated) or whether any additional publications (with a unique focus) were needed.

METHODOLOGY

Given the variety of formats spanned by the publications of interest, and the specific audiences to which some of the publications were addressed (e.g., parents, counselors, prospective students who were considering whether or not to go to college, adult learners, those ready to apply for aid, those in repayment), no single methodology seemed adequate for this evaluation. Thus we designed a multi-pronged approach involving a series of activities and encompassing a variety of methods.

Five methodologies were employed:

- an expert review by user experience (UX) specialists including a readability analysis
- a set of usability tests with representative high school students, parents, and “adult learners”
- a set of focus groups with representative students, parents, and adult learners
- a set of “Financial Aid Night” activities designed to mimic elements of the sort of educational events held by many high schools
- an un-moderated online survey of counselors and advisors followed by telephone interviews with them

These activities were designed to be complementary and to provide converging evidence, while at the same time allowing us to efficiently cover the wide range of print publications of interest, bringing input to bear from relevant audience groups for each publication. They also afforded the collection of both observational data (user task performance with these materials, addressing such issues as searchability, findability, and comprehension) and interview data (addressing user needs, perceptions, opinions, and preferences). The design elements of interest included:

- titling and branding of the documents
- their organization and (for some) table of contents
- page layouts including callouts, use of photos and illustrations
- color schemes
- headings and fonts

- content encompassing vocabulary, writing style, and clarity of the information conveyed (e.g., accuracy of instructions and references, Web links, phone numbers, and explanations of processes).

Aside from the range of print media formats, target audience groups, and design issues of interest, our challenges included how to address the various contexts of use. These print materials can be requested directly by users from FSA web sites, ordered by schools and distributed by counselors and financial aid administrators, or picked up by students and parents in advisors’ offices or at school events. They would be used to inspire, to educate, and to serve as a reference when specific questions arise. Some people might read them “cover to cover,” but many would likely hope to extract specific points or an overview of the entire financial aid process from a casual reading or skimming. The various data collection activities we devised were also intended to mimic these various contexts of use. In the following sections, we will briefly describe each of the various methods we employed and some of the findings they yielded.

Expert Review

Prior to performing any studies with actual users, three UX reviewers evaluated all 36 publications using a design best practices checklist and plain language guidelines as well as a readability analysis.

Reviewer’s checklist. A checklist was prepared which broke down each publication into elements of visual design, layout and organization, copy editing, plain language, and overall impressions. Each of these elements was characterized by a series of criteria on which we rated each publication. The UX specialists’ ratings were summarized with descriptive statistics, and comments were compiled that related to examples, design ideas, and problems to be addressed further in the subsequent user research.

Readability analysis. A readability analysis was performed on all 36 publications using three commonly used readability formulas – the Flesch-

Kincaid Grade Level, the FOG (Frequency of Gobbledygook), and the SMOG (Simplified Measure of Gobbledygook). In order to analyze the publications, we first obtained digital copies of the text and parsed them as appropriate. This involved:

- Deleting all trailing periods (e.g., changed ‘U.S. dollars’ to ‘United States dollars.’ Otherwise, the software counts all trailing periods as the end of a sentence)
- Deleting all carriage returns (interpreted as the end of a sentence)
- Deleting all bullet points and converting them to sentence structure
- Changing curly quotes to straight quotes
- Removing addresses, phone numbers, and URLs
- Removing asterisks and other characters that indicated footnotes

We found that the publications as a whole required higher than the desired 8th grade reading level, though this was in part due to the number of complex terms or multisyllabic words associated with FSA programs (e.g., dependency, repayment, forbearance). In that the texts usually did a good job of defining such terms, they were viewed as not posing serious readability impediments. In fact, it would have been more awkward to explain these concepts without using such terms. Later testing showed that participants did not have an overly difficult time reading and comprehending the publications, although they did sometimes struggle with the definitions of certain terms.

Usability Tests

Three sets of usability tests were performed, each focusing on one of the lengthier, more elaborate publications. These tests involved one-on-one moderated sessions allowing observation of representative users performing typical tasks with these publications.

The first usability test examined the *College Preparation Checklist*, a brochure designed to be used over a period of years as a student progresses from middle school, to high school, applies for

financial aid, goes to college, and then repays his/her loans. A section for “adult learners” is also included. Thus the participants for this test were sampled from people at each of these stages of the financial aid process.

The second test evaluated the publication *Funding Education Beyond High School: The Guide to Federal Student Aid*. This guide is a comprehensive look at the entire federal aid process. The primary demographics from which participants were drawn for this study were high school students and their parents.

The third usability test was of the publication *Your Federal Student Loans: Learn the Basics and Manage Your Debt*. This 50-page guide is intended to be a comprehensive reference for all information concerning federal loans. For this study, we focused on high school seniors and current college students as the primary demographics.

Focus Groups

Focus group sessions were performed in Cumberland, Maryland, Dearborn, Michigan, and Tulsa, Oklahoma. These cities were selected in order to obtain a sample of participants from different geographic regions as well as different population densities, i.e., urban, suburban, and rural. In the focus group sessions we obtained feedback from participants on subsets of the publications. We also had participants create a list of frequently asked questions, the answers to which they would like to have included in future revisions of the publications.

In Cumberland, we performed two focus groups: one with middle school students, and one with parents of middle school students. The focus was on publications designed to inspire middle school students to consider college. Both students and their parents focused on the interactive aspects of the publications, such as the thought-provoking activities that encourage young students to think about their future.

In Dearborn, we also conducted two focus groups, one made up of high school students, and the other

made up of parents of high school students. They evaluated publications of interest to these audience groups. Perhaps not surprisingly, high school students created a list of frequently asked questions involving what they should be doing to prepare for college and what career to choose, while their parents were more concerned about financial matters, such as how to pay for their child's education.

In Tulsa, we conducted focus groups consisting of adult learners and showed them a subset of the publications written with their questions in mind. In addition to having questions regarding eligibility for federal aid and how to apply for it, participants commented on how "traditional" higher education materials seemed to focus on high school students instead of all individuals who might want to go to college later in life.

Financial Aid Nights

The "Financial Aid Night" activity was meant to mimic the sort of event for students and parents that many high schools host, where these print materials would be available for attendees to self-select. Student/parent pairs were scheduled to come to the testing location in a staggered fashion, with each pair spending 30 minutes browsing through a display of the various publications, selecting those that appeared to be of most interest, and reviewing them in a cursory fashion. They were then interviewed for approximately 30 minutes about the basis for their selections and their first impressions of the publications they had reviewed. This activity afforded indications of how well the publications conveyed their scope at a glance, which readily caught the participants' attention, and the extent to which users self-selected the publications best suited for them.

The Financial Aid Night activity was conducted in four locations: Silver Spring, Maryland, Cumberland, Maryland, Dearborn, Michigan, and Tulsa, Oklahoma, to obtain feedback from participants drawn from various geographical regions as well as from urban, suburban, and rural areas.

Unmoderated Survey

Although these publications are all available to the public online in digital form, most students and families receive these publications in print form from school counselors or other advisors. In order to obtain feedback from such professionals, we designed and constructed an online survey to be sent to a mix of counselors and advisors at high schools, colleges, and community-based programs such as TRIO and Gear Up, which support disadvantaged students in preparing for college.

These advisors were mailed an appropriate subset of the print materials to be evaluated. They perused them at their leisure and then completed the online survey to provide their feedback on each publication. We then followed up with a telephone interview to clarify their responses to the survey and to delve further into issues of publication design, whether and how they use these materials in their work, and what other resources they need.

FINDINGS

Overall, the current publications were well received and proved to be both useful to and usable by their intended audiences. The information, by and large, was perceived as meeting their needs and was thought to be well organized. During usability testing, participants were observed to be able to efficiently and effectively extract task-specific information from the more elaborate publications. Nonetheless, some incremental design improvements were identified in particular publications, recommendations were derived regarding possible consolidation of publications, and a few unmet user needs were articulated.

Visual Design and Branding

Overall, the visual design and "branding" of these publications was very well received by participants. Participants were generally pleased with FSA's graphic design, use of color, and depictions of the diversity of the intended audience in the photos and illustrations. For a few publications, participants suggested that the imagery should reflect a greater diversity of ages and ethnicities.

The present publications presented a consistent “brand image” in their color scheme, graphics and logos, reflecting a strong sense of belonging to a family of FSA publications. This is of great importance in conveying the sources and processes involved in federal student aid, because there are a number of for-profit services that are sometimes confused with the government’s offerings.

Content

The most important part of these publications, of course, is the helpful information they convey. In general, the content was found to be very well written and well organized. It was effective both in a tutorial sense, educating the uninformed about the financial aid process, and as a reference source, allowing readers to readily look up answers to specific questions. Most participants were pleased with the amount of information provided, and saw great benefit in reading the publications.

Layout and Organization

Many of the publications relied on proper use of headings and white space to create a sense of organization to the page. There were very few incidents of participants having trouble in finding information due to poor organization; however, problems arose when references to information were inadequate or confusingly marked, and some of the smaller publications, such as the fact sheets, had a disproportionate amount of white space to text. Print size was relatively consistent across publications and only in a few circumstances did participants find the print difficult to read.

For the larger publications, participants relied on the table of contents to guide them to where they would find specific information of interest. Most participants used the tables of contents effectively, but some commented that they were overwhelmed by the detail (i.e., the levels of headings included) in the tables of contents of the lengthier publications.

Preferred Format and Distribution Methods

The biggest problem with these publications is that few of their intended audiences are aware that they exist. It was striking that many participants, even financial aid professionals, were not aware of many of these publications. Upon being exposed to them in the course of the present study, participants were almost uniformly delighted to learn of the availability of these publications, and many went away intending to make further use of them.

In order to improve distribution approaches and publicity while keeping production costs in check, FSA wished to also determine how users currently receive these publications, and how they expect to receive them in the future. Preferred methods of distribution, not surprisingly, differed across age groups. Students and younger participants, on average, wished to receive the information from Web sites, while older participants tended to prefer print media.

CONCLUSIONS REGARDING THE PRESENT MULTI-PRONGED APPROACH

Overall, our multi-pronged approach worked very effectively and the range of user-based activities that we utilized seemed to provide the desired benefits. We were able to efficiently cover the set of 36 print publications in our evaluation, obtaining feedback from multiple activities for each publication. We were able to involve representative users from each of the main audience groups, drawing from a mix of rural, urban, and suburban populations. We collected observational, survey, and interview data in service to the present assessment. We prompted users to think in terms of different contexts of use in offering their feedback. We derived actionable design recommendations for making specific improvements to specific publications, as well as more broad-brush recommendations about which publications could be consolidated and which issues of interest to users may warrant additional coverage in this family of publications.