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Modification

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STUDENT:

NAME: Julie A. Dresen DATE: December 6, 2012

ADVISER: (Committee Chair if MS Plan A or EdS Thesis or Field Project/Problem):

NAME Quan Zhou DATE:

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Dresen, Julie, A. Increasing Grant and Research Related Compliance through Website Modification

Abstract

This exploratory survey and usability study of randomly selected university faculty, administration, and staff examined features of a Research Administration Website that could help to increase knowledge of and compliance with federal and university rules and regulations related to grants and research administration. Although the number of participants was too low to generalize results, findings did suggest that Website redesign may be able to improve knowledge and compliance in such areas as the importance of meeting grant deadlines, understanding IRB protocol, familiarity with and importance of time and effort reporting, limits on allowable expenditures for contracted services, knowledge of who to contact regarding contracted services, and how to find information on financial conflict of interest.

Keywords: Research Administration, grants, compliance

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| | Page |
|---|------|
| Abstract | 2 |
| Chapter I: Introduction | 6 |
| Statement of the Problem | 6 |
| Purpose of the Study | 6 |
| Limitations of the Study | 7 |
| Methodology | 7 |
| Chapter II: Literature Review | 8 |
| Chapter III: Methodology | 14 |
| Subject Selection and Description | 15 |
| Instrumentation | 15 |
| Data Collection Procedures | 15 |
| Data Analysis | 17 |
| Limitations | |
| Summary | |
| Chapter IV: Results | 19 |
| Item Analysis | |
| Table 1: Usability Study Results | 21 |
| Table 2: Select Pretest-Posttest Result Comparisons | 23 |
| Chapter V: Discussion | |
| Limitations | |
| Conclusions | |

Table of Contents

| Recommendations | 25 |
|--|----|
| References | 26 |
| Appendix A: Pre-Test Survey & Post-Test Survey | 28 |
| Appendix B: Usability Tasks | 36 |

Chapter I: Introduction

Due to the increased demand for public accountability and the expanding regulatory environment, there is a greater need for documentation of compliance by universities, medical institutions, government laboratories, and independent for profit and not-for-profit organizations that are involved in conducting research. One means of doing so is improvement in Website design based on the principles of usability testing.

Statement of the Problem

The University of Wisconsin-Parkside Research Administration Office has experienced dramatic shifts in staffing and leadership over the past five years due, in part, to decreasing grant revenue. This has led to decreased staffing levels; going from a full-time director, full-time grant accountant, and part-time coordinator, to a full-time director and half-time financial specialist. The decreased staffing has also led to decreased attention to key administrative functions including pre-award assistance, post-award monitoring, and a general lack of communication from the office to the university community. As such, there have been numerous problems associated with grants compliance such as late project reporting, a lack of time and effort reporting, lack of knowledge of grants budgeting, non-compliance with procurement and contracting regulations, and more.

Purpose of the Study

The purpose of this study was to determine whether the information located on the Research Administration Website could be modified in such a way as to improve compliance with policies and procedures related to grant pre- and post-award processes.

Limitations of the Study

Despite efforts to garner a larger response rate, only 1% of persons in the eligible participant pool actually participated in the post survey. Therefore these results should not be generalized to the university faculty and staff as a whole.

Methodology

The research methodology included a pre-survey of faculty, administration, and staff knowledge of current relevant grants and research related policy and procedure. The researcher randomly selected faculty and staff from the pool of prospective survey respondents (UW-Parkside faculty and academic staff) to receive an email invitation to participate in a usability study. The eight-task usability test was designed to measure the user's experience when searching for information on the Research Administration Website. Following the pre-survey and the usability tests, the researcher met with a computer science student intern to review the responses and results and create web site improvements. A post-survey was distributed via email to the same list of recipients who received the pre-survey to asses changes in users' knowledge of grants and research related policy and procedure.

The research questions were defined as: "What are the features of a grants and research related Website that might prompt University of Wisconsin-Parkside faculty and staff's increased compliance with institution and federal regulations? How informed are faculty and staff about grants-related policy? What features of grants and research related policy do faculty and staff perceive as helping to increase compliance with federal and University of Wisconsin-Parkside federal rules and regulations?"

Chapter II: Literature Review

There is very little published about electronic policy and procedures for a Research Administration office and many of the publications are specific to the rules and regulations of federal grant management and the skill of grant proposal writing. As such, to properly research this topic, the review of literature focused upon two topics: managing an office of Research Administration and creating electronic publications and web sites.

Existing grants management resources include professional organizations such as the Grants Professional Association, the Society of Research Administrators, and the National Council of University Research Administrators. The latter has issued several micrographs related to the management of an office of sponsored programs. Additionally, *Research Administration and Management*, by Eliott C. Kulakowksi and Lynne U. Chronister, is a mainstay in the Research Administrator's office and covers topics applicable to Research Administration including chapters on policy in Responsible Conduct of Research, Human Resources in the Research Environment, Human Tissue in Research, Legal Issues, Institutional Review Boards, Intellectual Property, and more.

Among the many responsibilities of a Research Administration office, disseminating funding information to faculty and staff is one of the most time-consuming activities. While there are several methods to do so, there is a risk of either communicating too much information - overwhelming faculty and staff with numerous emails or other forms of communication may cause them to eventually ignore the messages; while not enough communication can lead to disengagement, poor post-award monitoring, and decreased grant revenue. Authors Kulakowski and Chronister (2006) recommend that Research Administrators utilize "funding newsletters, deadlines lists, and Websites …for disseminating funding information." The authors go on to say

8

that "keeping faculty aware of the services and resources that an institution has available to assist them...is difficult but absolutely essential activity...a functional and easy-to-navigate, contentrich home page...is the best way for letting faculty customers know about what is out there to help them" (Kulakowski & Chronister, p. 44).

The Role of Research Administration, (National Council of University Research Administrators, 2007) provides those new to research administration with an overview of the functions of the position and office. "The basic goal for all research administrators is to serve the faculty and other researchers so they can pursue their research and scholarly endeavors" (Erickson, p. 6). Erickson writes that the research administrator also serves in an advocacy role to "work toward improving and stimulating the institutional climate for these activities...Research administrators may also take on the role of policy developer when institutional polices and processes may need adjustment to comply with various sponsor requirements" (Erickson, p.8). Yet, in that regard research administrators also have a responsibility to develop systems to inform university administrators of concerns related to policy or lack thereof. This is of great concern when accepting an award and during the postaward period due to increasing federal regulation and the complexity of administering grants and contracts. Issues related to lack of, or failure to submit timely performance reports, misappropriation of funds, poor fiscal monitoring, and failure to maintain accurate and timely time and effort reports are just a few. This concern is also communicated in *The Role of* Research Administration, "... an institution must agree to comply with mandated requirements by singing a set of certifications and representations...the government views certifications as enforceable and effective tools for achieving cost reduction, research integrity and attaining many desired social goals" (Erickson, p. 24). Finally, according to a guidebook published by the

U.S. Department of Health and Human Services titled, *Managing Public Grants*, published by Strengthening NonProfits: A Capacity-Builder's Resource Library, "the grants management officer is the official responsible for the business management...these activities include...providing consultation and technical assistance to applicants and recipients" (Compassion Capital Fund National Resource Center, p. 8). To that end, it is the role of the research administrator to develop systems to inform and ensure compliance with federal regulations.

In *Getting Your Organization Grant-Ready*, authors Kurup and Butler discuss practices that advance grant-readiness. Of these, educating staff and administration is said to be an area that is commonly overlooked. "To assume that a clinician or a faculty member understands what grants entail is equivalent to assuming that the grant professional has the expertise and knowledge of the clinician's or the faculty's work" (Kurup & Butler, p. 11). The authors go on to say, "presentations about the grants process, regular newsletters from the grants office and grant trainings for the staff, might facilitate this educational process" (Kurup & Butler, p. 12).

The micrograph, *Establishing and Managing an Office of Sponsored Programs at Non-Research Intensive Colleges and Universities*, includes topics such as pre-award services, postaward services, and ethical compliance. The purpose of the micrograph is to "outline the basic functions of an office of sponsored programs to present various strategies predominantly undergraduate colleges and universities utilize in organizing and managing sponsored programs" (Hansen, p. 1). The micrograph covers responsibilities typically under the auspices of Research Administration offices including, organizational models, pre-award services, post-award services, ethical compliance, intellectual property and technology transfer, and staffing. According to the authors, "The institution needs a sponsored program administrator who understands the complex layers of regulation and who can develop and manage an appropriate system that assures compliance with the regulations" and "... issues such as time extensions and sub-contracting, demand management skills" (Hansen, p. 12). The authors further state, "Institutional policies must be in place to assure proper compliance with these regulations and to provide appropriate training programs for all faculty, pertinent staff and students" (p. 19). To ensure proper compliance with federal regulations sponsored program administrators are now required to utilize Web-based documents and tutorials to help faculty, staff, and Universities remain compliant with federal regulations as mandated by the U.S. Department of Health and Human Services:

An Institution applying for or receiving NIH funding from a grant or cooperative agreement must be in compliance with all of the revised regulatory requirements no later than 365 days after publication of the regulation in the Federal Register, i.e., August 24, 2012, and immediately upon making the Institution's Financial Conflict of Interest policy publicly accessible as described in 42 CFR part 50.604(a) (National Institutes of Health).

Yet, simply posting documents and processes on a Website will not ensure that a user understands or can locate the information yet alone ensure compliance. In *Getting Your Organization Grant Ready*, authors Kurup and Butler (2008) state, "One of the most common erroneous assumptions made by grant professionals is that the administration and staff of organizations understand the grants world and its various requirements...To assume that a clinician or a faculty member understands what grants entail is equivalent to assume that the grant professional has the expertise and knowledge of the clinician's or the faculty's work" (Kurup & Butler, p. 11). In a time of decreasing state and federal funding and increasing faculty and staff workloads, choosing the best method of communication is key to reengaging faculty and staff in the entire grants process. Email adds to the already full inboxes and hard copy documents are quickly becoming an antiquated method of communication. However, a Web presence offers convenience and portability while having the ability to provide literally all the information a researcher needs to complete both pre and post-award functions.

As such, it is imperative that a research administration Website be easily accessible and user-friendly. According to HowTo.gov, "Customers cannot find what they're looking for on Web sites about 60 percent of the time, according to recent research. This leads to wasted time, increased frustration, and loss of visitors and trust" (Rubin). The Results section of this paper also discusses faculty and staffs' frustration locating information on the UW-Parkside Research Administration Website. Usability consultant and author, Steve Krug, has found that people do not read sites. Rather they scan them "looking for words or phrases that catch our eye." According to Krug, people scan, rather than read because they are in a hurry and do not have time to "read any more than necessary" (Krug, 2006, Chapter 2 para. 8). Author, Janice Redish (2007) agrees and states that "most people skim and scan a lot on the web. They hurry through all navigation, wanting to get to the page that has what they came for...they are trying to do a task. They want to read only what is necessary to do the task" (Redish, 2007, Chapter 1). A research administration Website designer should consider this tendency for users to scan rather than read when creating content for the site. Ideally, a well thought out Website will reduce user frustration and loss of trust and increase frequency of visits and collaboration. Author and usability consultant, Steve Krug states that "a Web page...should be self-evident. Obvious. Selfexplanatory...when you're creating a site, your job is to get rid of question marks" (Krug, 2006,

Chapter 1, para. 6). This approach can ultimately result in the user's increased knowledge of the grants process and related policy.

To assess the ease of use and learnability of a website, Research Administrators and web designers can conduct a usability study. As cited in "Build a Better Website" by Mary K. Pratt, and according to Kerry Bodine, an analyst at Forrester Research, Incorporated, "You want to see where they stumble, what they're confused by." "Companies with the highest-ranked sites run usability tests frequently" (Pratt, 34).

Further, Jakob Nielsen, Ph.D., international web usability authority, contends that usability testing of a website should only include "five users per round....testing with more than five users per round does not significantly change the study results", as cited in Reynolds 2008. (Reynolds 2008).

Author, Janice Redish, in *Letting go of the words: Writing web content that works* supports usability testing of current web site content and contends that everything on a web site "should relate to at least one scenario that a real user might have for coming to the web site" (Reddish, Chapter 2, para. 51). The purpose of a home page is for users to 'grab information needed and move on. Reddish contends that home pages "set the tone and personality of the site….start key tasks immediately….sending each person on the right way, effectively and efficiently" (Reddish, Chapter 3, para. 6 & 7).

An upgraded Research Administration Website can result in improved communication between the Research Administration Office and the university community and as such, improved pre and post award grants compliance.

Chapter III: Methodology

The University of Wisconsin-Parkside is one of 13 four year-campuses that comprise the University of Wisconsin System. The University employs 125 full-time faculty and the Research Administration office manages over \$1,000,000 in private and federal grants annually. Over the past year, the Research Administration and Grants Office has worked to improve processes including improving communication with faculty in an effort to increase faculty and staff knowledge of the grants pre- and post-award process, compliance with federal regulations, and eventually increase grant revenue. Over the past several years, the Research Administration and Grants Office has experienced a decrease in staffing from a full-time director, full-time grants coordinator, and full-time grants accountant, to a full-time director and part-time (50%) financial specialist. This is due, in part, to decreasing grant income. The decreased staffing has resulted in less frequent communication between faculty and staff and the Research Administration and Grants office, an outdated website, lack of policy documentation (online and/or hard copy), fewer grants submissions, weak grants compliance, and faculty disengagement.

The research methodology included a pre-survey of faculty, administration, and staff knowledge of current relevant grants and research related policy and procedure. The 35-question Qualtrics survey was emailed as a link to 693 UW-Parkside faculty and staff. The purpose of the survey was to measure knowledge of current grants and research related policy and procedures. Survey questions are included in the appendices. A post-survey was distributed via email to the same list of recipients who received the pre-survey (693 UW-Parkside faculty and staff). After one week, the researcher resubmitted the email request to recipients to participate in the post-survey.

Subject Selection and Description

Selection of subjects for participation in the surveys was based upon faculty, administration, and staff knowledge of current relevant grants and research related policy and procedure. The researcher randomly selected ten faculty and staff out of the pool of prospective survey respondents (UW-Parkside faculty and academic staff) to receive an email invitation to participate in the usability study. Five agreed to participate.

Instrumentation

A 35-question Qualtrics survey (please see Appendix A) was designed specifically for this study and included data elements only related to pre- and post-award grants processes. The pre survey was administered to measure knowledge of pre and post award grants processes. Following the pre survey, an eight-task usability study was conducted to determine if the current Website contained the information and resources that faculty and staff require to appropriately manage their grant awards. The post survey was administered after the Website redesign to measure if the redesign improved users knowledge of pre and post award grants processes.

Data Collection Procedure

A usability study of the current research administration website was conducted following the survey which guided the web site redesign. Participants were selected based on their role in the grants process and included three faculty members (two with grant experience and one without), two program assistants (one with grants experience and one without), and two academic staff members with grants experience. A post-survey was conducted to measure if faculty and staff knowledge of current relevant grants and research related procedure and policy increased after the web site redesign. The study began with researching the role of research administrator, federal resources, including websites and other documentation, and other sources such as books, guides, and periodicals for language on grants-related policy. The researcher also referenced sources for usability studies and web site design.

The researcher met with the assistant vice-chancellor of Institutional Effectiveness to gain input on the format and content of the Website and to discuss the proposed usability study.

The researcher submitted the survey instruments (please refer to Appendix A & B), research study form, and a description of the project to the University of Wisconsin-Parkside's Institutional Review Board and the University of Wisconsin-Stout's Human Subjects Committee. The study was approved by both parties.

The eight-task usability test was designed to measure the user's experience when searching for information on the Research Administration Website. The researcher randomly selected ten faculty and staff out of the pool of prospective survey respondents (UW-Parkside faculty and academic staff) to receive an email invitation to participate in the usability study. Five agreed to participate. The test was scheduled at each subject's office to promote a high comfort level and familiarity with computer and web browser. Further, the subject's work computer was used to also promote a high comfort level and to avoid confusion by having to quickly become familiar with an unfamiliar computer. After introductions, the researcher explained the purpose of the study. The consent form was discussed and signed. Those who were not comfortable participating were told they were not obligated to participate. The researcher provided two scenarios to each subject:

 You are a researcher at the University of Wisconsin-Parkside and would like to apply for a federal grant. You were recently awarded a federal grant. You will need to monitor your grant outcomes, budget, and remain in compliance with UW System and federal requirements. Your grant also includes research.

Each subject performed seven tasks, they were asked to think aloud. The time was recorded as well as participant comments as they performed each task. The subjects were given five minutes to complete each task, but they were not told that they had a time limit as to avoid errors and delays caused by anxiety. Tasks were as follows:

- You are interested in a federal funding opportunity for your research. Locate the preaward process Research Administration and Grants Website.
- 4) Locate the information to log in to Pivot.
- 5) Can you locate any policy on the use of indirect costs?
- 6) Can you locate the UW-Parkside post-award process?
- View the Institutional Review Board policies on conducting research using human subjects. Locate the process to gain approval for your research.
- 8) Can you locate any resources on allowable grant costs?
- 9) From the Research Administration Website, please find your grant budget in WISDM.

Data Analysis. Following the pre-survey and the usability tests, the researcher reviewed the survey responses and usability results. The researcher met with a computer science student intern (a senior in the UW-Parkside Computer Science program) to review the results and recommend web site improvements. During the review of the pre-survey results, the responses to the data elements which indicated the greatest lack of knowledge were used to provide information on modifications of the Website. The usability study results were similarly reviewed and the performance on the tasks during which subjects performed most poorly were used to modify the Website.

Over the course of two months, the researcher met on a bi-weekly basis with the student intern to monitor the web site updates. The redesign was complete near the end of August 2012.

Limitations

The pre-survey survey response rate was four percent (4%) after two weeks. In an attempt to garner additional respondents, the survey was reissued to the same group but only garnered a handful of additional responses. The overall response rate was six percent (6%). Similarly, the post survey garnered a 1% response rate. Therefore, the study results cannot be generalized.

Summary

Based on the responses of the pre-survey and the usability test, the Research Administration Website was updated to include several changes including additional pages for time and effort reporting and proper documentation, grant budgeting and accounting; including appropriate contacts for further information. Increased links and pages were added to address federal compliance issues including financial conflict of interest, and institutional review board. Last, a frequently asked questions page and weekly grants opportunities page were also added.

Chapter IV: Results

The pre-survey survey response rate was four percent (4%) after two weeks. In an attempt to garner additional respondents, the survey was reissued to the same group but only garnered a handful of responses. The overall response rate was six percent (6%).

Pre-survey results indicate that while faculty and staff are knowledgeable about many key aspects of grants compliance, such as knowing grant-reporting deadlines (60% agree and 15% strongly agree), and understanding IRB protocol (44% agree and 26% strongly agree), an overwhelming percent (5% strongly disagree, 32% disagree, and 18% neither agree nor disagree) are not familiar with time and effort reporting. Referred to as 'effort reporting' by the Office of Management and Budget, is "perhaps the most contentious and audit-vulnerable area of the research enterprise" (Erickson, p. 13). As such, revisions include detailed description of time and effort reporting, sample time and effort report, and contact information if there are questions. Although 54% agree that time and effort reporting is valuable (36% agree and 18% strongly agree), 65% do not know the consequences for failure to document time and effort.

Further, the survey demonstrates that grant accounting (knowledge of allowable and unallowable costs on federal grants) is a strength area, as 64% report knowing which costs are allowable under the grants they are working. Yet, 51% report not knowing how to account for cash match (15% strongly disagree and 36% disagree). Contracting with vendors was another area in which respondents demonstrate lack of knowledge. 51% of respondents do not know the limits on allowable expenditures for contracted services and 43% do not know who to contact for information regarding contracted services. Finally, only 33% of respondents know how to find information on financial conflict of interest.

19

Item Analysis

The results of the usability test (Table 1) revealed several flaws in the design of the Research Administration website. Of note, of the five participants, five (100%) could not locate policy on the use of indirect costs with an average response time of two minutes and four seconds (2:04). All of the respondents clicked on other links and three of the five went outside of the Research Administration web site to search for the information.

Five (100%) could not locate resources on allowable grant costs with an average response time of one minute and 43 seconds (1:43). Respondents clicked on the grant budget link.

Five (100%) participants could not locate the WISDM (the University of Wisconsin System accounting system) login page with an average response time of 58.8 seconds. Every participant commented that it was difficult to find the information to login, one participant was not familiar with WISDM.

Tasks that were the quickest to complete and garnered the most favorable responses include ease in locating the pre-award process: five of the five participants (100%) were able to locate the pre-award process with an average time to complete the task of nearly 20 seconds. Three participants commented regarding the ease of locating the information.

Locating information to log into Pivot also revealed a fast task time with five participants able to locate the information with an average time to locate Pivot login information of 17 seconds. Two respondents commented that they were not familiar with Pivot.

Overall, when participants could not locate the information requested, they clicked on the "Grant Tips" page, the grants transmittal form link, or searched outside of the Research Administration web site and the UW-Parkside web site.

Table 1

Usability Study Results

| Task | Verbal Responses | Ave. Task | Researcher Notes |
|------------------------------------|---------------------------------------|------------|--|
| | | Completion | |
| | | Time | |
| 1. You are interested in a federal | "Yes" | :20 | |
| funding opportunity. Locate the | "Ok" | | |
| pre-award process on the | "Two tries to find it!" | | |
| Research Administration web site | "That was easy to find. It goes right | | |
| | there!" | | |
| 2. Locate the information to log | "Yes" | :17 | Searched from the UW-Parkside |
| in to Pivot | "I don't know what that is" | | homepage using the search box. |
| | "What is Pivot?" | | |
| 3. Can you locate any policy on | "Indirect costs? Hmmm, I'm | 2:04 | Not many comments. Checked 'tips' |
| the use of indirect costs? | thinking" | | often. Clicked on every link. |
| | "Hold onmaybe it's not here" | | Clicked on the grants transmittal form |
| | "Ok. Hmmm. I would ask another | | thinking instructions would be on the |
| | person" | | form. |
| | "Okhmmm. I don't know enough | | Clicked on every page, scrolled on every |
| | about indirect costs" | | page. |
| 4. Can you locate the UW- | "Yes" | :04 | |
| Parkside post-award process | "Done!" | | |

| | "Yes, you changed the site" | | |
|----------------------------------|---------------------------------------|------|---|
| | "I need a keyword" | | |
| | "Yep!" | | |
| 5. View the institutional review | "From the RA site? Hmmm. I | :51 | Scrolled a lot. |
| board policies on conducting | thought it might be under the heading | | Used UW-Parkside search box |
| research using human subjects. | 'workshops'" | | Used UW-Parkside search box |
| Locate the process to gain | "Isn't there a link direct to the IRB | | Used UW-Parkside search box |
| approval for your research. | site?" | | |
| | "I can't find it here" | | |
| 6. Can you locate any resources | "Does it matter that I'm new to | 1:43 | Located the 'grant budget sample |
| on allowable grant costs? | grants?" | | document" |
| | "No, I can't. I don't know if this | | |
| | suffices." | | |
| | "No, it's not here" | | |
| 7. From the Research | "From the RA site? I would just | :59 | Used the UW-Parkside homepage search |
| Administration web site, please | bookmark it" | | box to locate the Business Services web |
| find your grant budget in | "I would log on to WISDM from | | site. |
| WISDM. | Business Services web site" | | Clicked on every link. |
| | "It seems that I'm missing | | Clicked on grants budget document |
| | somethingshould I try something | | Clicked on grants transmittal form link |
| | else?" | | Used the UW-Parkside homepage search |
| | | | box. |
| | | | |

22

Once the usability tests were finalized and the web site redesign complete, a post-survey was emailed to the same pool who received the pre-survey request. The post-survey was conducted to measure knowledge of current grants and research related policy and procedures after the Research Administration website redesign was complete. The post-survey instrument can be located in Appendix A.

After two email messages were sent requesting that respondents view the updated Website and then complete the survey, the post survey garnered a response rate of 1%. Table 2 references the changes measured following the Website modifications.

Table 2

| Item | Pretest Response | Posttest Response |
|--------------------------------------|-----------------------|-----------------------------|
| Know grant reporting deadlines | 15% strongly agree | 40% strongly agree |
| | 80% agree or strongly | 80% agree or strongly agree |
| | agree | |
| Understand IRB protocol | 26% strongly agree | 75% strongly agree |
| Familiar with time & effort | 32% disagree | 60% agree |
| reporting | 5% strongly disagree | 20% strongly agree |
| Time & effort reporting is valuable | 36% agree | 40% agree |
| | 18% strongly agree | 40% strongly agree |
| Know limits on allowable | 11% strongly disagree | 0% strongly disagree |
| expenditures for contracted services | 39% disagree | 25% disagree |
| Know who to contact for | 51% agree | 50% agree |
| information regarding contracted | 5% strongly agree | 25% strongly agree |
| services | | |
| Know how to find information on | 3% strongly agree | 33% strongly agree |
| financial conflict of interest | 31% agree | 33% agree |

Select Pretest-Posttest Result Comparisons

Chapter V: Discussion

There were a number of results that suggest that the website redesign is helpful in helping faculty and staff be more compliant with grants and research related policy. These results include increases in knowledge in the following areas:

- The importance of meeting grant deadlines,
- Understanding IRB protocol,
- Familiarity and importance of time and effort reporting,
- Limits on allowable expenditures for contracted services,
- Knowledge of who to contact regarding contracted services,
- How to find information on financial conflict of interest.

These results indicate that prompting the participants to review website content and the redesign of that content were responsible for the reported increase in knowledge. However, due to the low response rate, there can be no certainty about the causal relationship.

Limitations

Despite efforts to garner a larger response rate, only 1% of persons in the eligible participant pool participated in the post survey. Therefore these results should not be generalized to the university faculty and staff as a whole.

Conclusions

Pre-survey results indicated that while faculty and staff were knowledgeable about many key aspects of grants compliance, such as knowing grant-reporting deadlines, understanding IRB protocol, and grant accounting, a substantial proportion were not familiar with time and effort reporting; an area noted by the Office of Management and Budget, as contentious and auditvulnerable (Erickson, 2007). Further, respondents also indicated lack of knowledge regarding how to account for cash match, contracting with vendors, limits on allowable expenditures for contracted services, knowing who to contact for information regarding contracted service, and how to find information on financial conflict of interest.

These research findings led to Website revisions designed to improve knowledge in these areas. Following modification of the Website, post-survey results showed substantial improvements in time and effort reporting, limits on allowable expenditures, and knowing who to contact for further information.

Recommendations

In future studies, pre and post surveys should be conducted during optimal times including when faculty return for the semester and not during winter or summer breaks. Ideally, an annual usability study could be conducted to keep the site current and relevant and regular (semi-annually) monitoring of changes to federal regulations should be reflected in site content to keep faculty and staff abreast of changes in regulation and law.

References

- Becker, D. (2011, May/June). Usability testing on a shoestring: Test-driving your website.
 Online. 35(3). Retrieved from: http://www.infotoday.com/online/may11/
 Becker-Usability-Testing-on-a-Shoestring.shtml
- Compassion Capital Fund National Resource Center. *Managing Public Grants*. Retrieved from http://www.strengtheningnonprofits.org/
- Erickson, S., Hansen, C., Howard, C., Norris, J. T., Sedwick, S., Wilson, T. E. National Council of University Researcher Administrators. (2007). *The role of research administration* (2nd ed). Washington, D.C.
- Hansen, S. L., Ofosu, M. H., Johnson, C. C. National Council of University Research
 Administrators. (2008). *Establishing and managing an office of sponsored programs at non-research intensive colleges and universities* (2nd ed.). Washington, D.C.
- Kulakowksi, E. C., Chronister, L.U., (2006). *Research administration and management*. Sudbury, MA: Jones and Bartlett Publishers.
- Kurup, R. S., Butler, L. G. (2008). Getting your organization grant ready. *Journal of the American Association of Grant Professionals*. 6 (1), 7-14.
- Krug, S. (2006). Don't' make me think: A common sense approach to web usability. [Kindle Fire version]. Retrieved from http://www.amazon.com/
- National Institutes of Health. (2011). Financial Conflict of Interest. Retrieved from http://grants.nih.gov/grants/policy/coi/.
- Pratt, M. K. (2007, May 21). How to build a better web site. Computerworld, 31-34.
- Redish, J. (2007). *Letting go of the words: Writing web content that works*. [Kindle Fire version]. Retrieved from http://www.amazon.com/

Reynolds, E. (2008). The secret to patron-centered web design. Computers in Libraries. 28(6), 7.

Rubin. J. (2012, July 12). Usability principles and techniques. Retrieved from http://www.howto.gov/web-content/usability/principles-and-techniques

Appendix A: Pre-Test Survey & Post-Test Survey

Research Administration Survey

Please check the appropriate box below to indicate your choice to participate in the Research Administration survey

- □ I agree to participate (1)
- □ I do not agree to participate (2)

Q1 I know when I have a grant reporting deadline.

- O Strongly Disagree (1)
- O Disagree (2)
- **O** Neither Agree nor Disagree (3)
- O Agree (4)
- O Strongly Agree (5)

Q2 When I don't know when a grant reporting deadline is, I know where to find that information.

- Strongly Disagree (1)
- O Disagree (2)
- **O** Neither Agree nor Disagree (3)
- O Agree (4)
- O Strongly Agree (5)

Q3 I think grant reporting deadlines are important.

- O Strongly Disagree (1)
- O Disagree (2)
- **O** Neither Agree nor Disagree (3)
- O Agree (4)
- O Strongly Agree (5)

Q4 If a grant reporting deadline is missed, I know what the consequences are.

- Strongly Disagree (1)
- Disagree (2)
- **O** Neither Agree nor Disagree (3)
- O Agree (4)
- O Strongly Agree (5)

Q5 The consequences of missing a grant reporting deadline can be severe.

- Strongly Disagree (1)
- O Disagree (2)
- **O** Neither Agree nor Disagree (3)
- O Agree (4)
- O Strongly Agree (5)

Q6 I am familiar with time and effort reporting.

- Strongly Disagree (1)
- O Disagree (2)
- **O** Neither Agree nor Disagree (3)
- O Agree (4)
- O Strongly Agree (5)

Q7 I know where to go to document my time and effort reporting.

- O Strongly Disagree (1)
- O Disagree (2)
- **O** Neither Agree nor Disagree (3)
- Agree (4)
- O Strongly Agree (5)

Q8 I think time and effort reporting is valuable.

- Strongly Disagree (1)
- Disagree (2)
- **O** Neither Agree nor Disagree (3)
- O Agree (4)
- O Strongly Agree (5)

Q9 I know what the consequences are for failure to do time and effort in a timely manner.

- Strongly Disagree (1)
- O Disagree (2)
- **O** Neither Agree nor Disagree (3)
- O Agree (4)
- O Strongly Agree (5)

Q10 I understand the importance of accuracy in time and effort reporting.

- Strongly Disagree (1)
- O Disagree (2)
- **O** Neither Agree nor Disagree (3)
- O Agree (4)
- O Strongly Agree (5)

Q11 I understand how to calculate the proportion of my time spent on a particular grant.

- Strongly Disagree (1)
- O Disagree (2)
- **O** Neither Agree nor Disagree (3)
- O Agree (4)
- O Strongly Agree (5)

Q12 I know what costs are allowable under the grants on which I am working.

- Strongly Disagree (1)
- O Disagree (2)
- **O** Neither Agree nor Disagree (3)
- O Agree (4)
- O Strongly Agree (5)

Q13 I know what cash match is.

- O Strongly Disagree (1)
- Disagree (2)
- **O** Neither Agree nor Disagree (3)
- O Agree (4)
- O Strongly Agree (5)

Q14 I know what in-kind match is.

- Strongly Disagree (1)
- O Disagree (2)
- **O** Neither Agree nor Disagree (3)
- O Agree (4)
- O Strongly Agree (5)

Q15 I know how to account for cash match on the grants on which I am working.

- Strongly Disagree (1)
- O Disagree (2)
- **O** Neither Agree nor Disagree (3)
- O Agree (4)
- O Strongly Agree (5)

Q16 I know how to account for in-kind match on the grants on which I am working.

- Strongly Disagree (1)
- O Disagree (2)
- **O** Neither Agree nor Disagree (3)
- O Agree (4)
- O Strongly Agree (5)

Q17 Accounting for cash match is important.

- O Strongly Disagree (1)
- O Disagree (2)
- **O** Neither Agree nor Disagree (3)
- O Agree (4)
- O Strongly Agree (5)

Q18 Accounting for in-kind match important.

- Strongly Disagree (1)
- O Disagree (2)
- **O** Neither Agree nor Disagree (3)
- O Agree (4)
- O Strongly Agree (5)

Q19 I know what program revenue is.

- Strongly Disagree (1)
- O Disagree (2)
- **O** Neither Agree nor Disagree (3)
- O Agree (4)
- Strongly Agree (5)

Q20 I know how to account for program revenue.

- O Strongly Disagree (1)
- O Disagree (2)
- **O** Neither Agree nor Disagree (3)
- O Agree (4)
- O Strongly Agree (5)

Q21 I understand what the allowable expenditures are for program revenue.

- Strongly Disagree (1)
- O Disagree (2)
- **O** Neither Agree nor Disagree (3)
- O Agree (4)
- O Strongly Agree (5)

Q22 I know what fringe benefits are.

- O Strongly Disagree (1)
- O Disagree (2)
- **O** Neither Agree nor Disagree (3)
- O Agree (4)
- O Strongly Agree (5)

Q23 It is important to include the cost of fringe benefits in grant budgets.

- Strongly Disagree (1)
- Disagree (2)
- **O** Neither Agree nor Disagree (3)
- O Agree (4)
- O Strongly Agree (5)

Q24 It is permissible to contract with any vendor for any contract or grant.

- Strongly Disagree (1)
- O Disagree (2)
- **O** Neither Agree nor Disagree (3)
- O Agree (4)
- O Strongly Agree (5)

Q25 I know what the limits are on allowable expenditures for contracted services.

- Strongly Disagree (1)
- O Disagree (2)
- **O** Neither Agree nor Disagree (3)
- O Agree (4)
- O Strongly Agree (5)

Q26 I know who to contact at the university prior to selecting a vendor for contracting.

- Strongly Disagree (1)
- O Disagree (2)
- **O** Neither Agree nor Disagree (3)
- O Agree (4)
- O Strongly Agree (5)

Q27 I know who to contact at the university to obtain the most competitive price for contracted materials and services.

- Strongly Disagree (1)
- O Disagree (2)
- **O** Neither Agree nor Disagree (3)
- O Agree (4)
- O Strongly Agree (5)

Q28 I understand IRB protocol.

- O Strongly Disagree (1)
- O Disagree (2)
- **O** Neither Agree nor Disagree (3)
- O Agree (4)
- O Strongly Agree (5)

Q29 I know where to find information about UW-Parkside's IRB protocol.

- Strongly Disagree (1)
- O Disagree (2)
- **O** Neither Agree nor Disagree (3)
- O Agree (4)
- O Strongly Agree (5)

Q30 I know what financial conflict of interest is.

- O Strongly Disagree (1)
- O Disagree (2)
- **O** Neither Agree nor Disagree (3)
- O Agree (4)
- O Strongly Agree (5)

Q31 I know how to find information on financial conflict of interest.

- Strongly Disagree (1)
- O Disagree (2)
- **O** Neither Agree nor Disagree (3)
- O Agree (4)
- O Strongly Agree (5)

Q32 I understand the importance of performance measures for monitoring grants.

- O Strongly Disagree (1)
- O Disagree (2)
- **O** Neither Agree nor Disagree (3)
- O Agree (4)
- O Strongly Agree (5)

Q33 I understand the performance measures under the grants for which I am responsible.

- Strongly Disagree (1)
- O Disagree (2)
- **O** Neither Agree nor Disagree (3)
- O Agree (4)
- O Strongly Agree (5)

Q34 I know what indirect costs are.

- Strongly Disagree (1)
- O Disagree (2)
- O Neither Agree nor Disagree (3)
- O Agree (4)
- O Strongly Agree (5)

Q35 I understand the importance of including indirect costs in the grant budget.

- Strongly Disagree (1)
- O Disagree (2)
- Neither Agree nor Disagree (3)
- O Agree (4)
- O Strongly Agree (5)

Appendix B: Usability Tasks

| Participant Name and Title: | | | |
|--|------------------|----------------------------|------------------|
| Date: Task | Verbal Responses | Task Completion Time | Researcher Notes |
| 1. You are interested in a federal funding opportunity for your research. Locate the pre- award process Research Administration and Grants Website. | | | |
| 2. Locate the information to log in to Pivot. | | | |
| 3. Can you locate any policy on the use of indirect costs? | | | |
| 4. Can you locate the UW- Parkside post-award process? | | | |
| 5. View the Institutional Review Board policies on conducting research using human subjects. Locate the process to gain approval for your research. | | | |
| 6. Can you locate any resources on allowable grant costs? | | | |
| 7. From the Research Administration Website, please find your grant budget in WISDM. | | | |