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Crafting an Online Instrument to Conduct Research on Workplace Bullying

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Abstract: Instrument design is a powerful research approach to answer questions on a unique research topic. If the design was crafted to gather demographic information, and included open-ended remarks from respondents, the instrument could gather data that could be used in primary and secondary analyses on the same topic. Further, the quantitative data could establish independent and dependent variables for statistical tests, while the open-ended questions could garner qualitative data. This researcher created a 35-question instrument on workplace bullying for American higher education and conducted a study on 142 American community colleges. The findings revealed that 64% of respondents endured workplace bullying (Hollis, 2016). This data set supported several book chapters that included descriptive statistics, chi-square analysis, and qualitative data from the respondents. Further, by using the demographic data, the researcher was able to conduct a variety of analyses regarding workplace bullying and the association in community colleges involving race, gender, and sexual orientation. This practical essay will discuss insight to instrument development including a reflection on the literature review that informed the instrument design.

Keywords: *Workplace bullying, instrument design, qualitative data.*

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Introduction

Researchers often have inquiries and ideas that are outside the scope of previous studies. To address the gap in the literature, the researcher might have an opportunity to create an original instrument to analyze an original research question. One research practice to deal with unique questions is instrument development. The resulting data could answer the primary research question with descriptive statistics, and support other statistical tests such as multiple regression, correlational tests, and chi square analysis.

Literature Review and Instrument design

The instrument development should be informed by a comprehensive literature review. In addition, the theoretical frame should inform the instrument development. For example, this instrument development on workplace bullying incorporated Mithaug's equal opportunity theory (1996). The researcher therefore considered workplace bullying as an obstacle to employees' goals and career progress. Further, the instrument questions were informed by the Namie and Namie comprehensive study of workplace bullying in America (2009). While the Namie and Namie (2009) study found that 37% of American employees faced workplace bullying at some point in their lifetimes, the study did not specifically analyze workplace bullying in American higher education. Namie and Namie (2009), Journak (2010), and Wiedmer (2010) also discussed the cost associated with workplace bullying. In turn, this researcher's original instrument on workplace bullying extended the knowledge regarding the costs associated with workplace bullying in American higher education. Djurkovic, McCormack and Casimir (2008), Fritz (2014), and Lutgen-Sandvik and Arsht (2014) addressed the impact of bullying on productivity and turnover. Hence, their findings and discussions informed instrument questions which asked about respondents' intention to leave their jobs or about the tactics bullies aggressively used to control the higher education work environment. Consequently, when researchers presumably would gather new information through a new instrument, the researcher should have discovered the most recent findings regarding the topic and reflect on previous studies to develop new perspectives. As with any study, researchers should conduct a solid review of the literature, previous research, and theoretical approaches when developing a central research question and potential sub-questions.

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Instrument Development, Delivery, and Completion

Fan and Yan (2010) offered a concise structure for developing online instruments that included a focus on development, delivery, and completion. In addition, the process of delivery and completion supported the validity of results by cultivating higher response rates. Before developing an original instrument, the researcher should consider a few circumstances.

The researcher potentially had searched for other validated instruments but found that pre-existing instruments did not address or could not be modified for the proposed research question. Also, the researcher should have a willingness to create a series of questions and engage in multiple revisions. These multiple revisions should include the insights and comments from content experts who would review the instrument and offer their expertise on revisions. During question development, the researcher should also avoid biases or offensive questions (Dillman, Smyth, & Christian, 2014).

Instrument development is a creative process, in which the researcher should be proficient with the tools such as SurveyMonkey™ and Zoomerang™. Each of these platforms had a bank of questions and layout options. Once a draft of the instrument was designed, the researcher should then re-test the instrument to tabulate the time to completion and word choice clarity.

Controlling for Bias

Typically, researchers have some bias toward their topics or presumptions about potential findings. In instrument development, researchers should be careful to avoid their bias and strive to avoid leading questions. Krumpal (2013) stated that researchers should “attempt to formulate and present questions in a neutral way to lower respondents’ concerns about how the admission of a certain behavior will be judged. Researchers often write sensitive questions using unthreatening, euphemistic, familiar, and forgiving words or phrases” (p. 2036).

Instrument Development

Original instruments would give the researcher an opportunity to not only answer a primary research question but also include other questions on the same topic that could be useful for further analysis. For example, in regard to the instrument development on workplace bullying in American higher education, this researcher could continue analyses extracting female responses, or extracting responses by race or age. In short, the demographics allowed for additional analysis related to job position, salary, religion, or sexual orientation.

Elements to Consider in Instrument Design

The online instrument should facilitate the informed consent process and explain the purpose of the study. Further the informed consent page should explain how to contact the researcher, explain the potential harm (if any) to respondents, and explain the procedures to withdraw from the study. The informed consent page should appear before the collection of any other data. This page would allow respondents to indicate they understand the process.

The qualifying questions, questions that determined if the respondent was eligible for the sample being studied, should come after the informed consent page. If the researcher predetermined that the sample receiving the invitation was qualified, then qualifying or disqualifying the sample does not need to occur within the instrument. If the researcher needed to confirm the potential respondents’ eligibility to complete the instrument, such qualifying questions should come early in the instrument, just after the informed consent page. If the respondent does not qualify, these questions can then eliminate the respondent and lead directly to the end of the instrument.

Also in instrument design, a researcher should consider the order of the questions. Typically, collecting demographic information should occur first. With the instruments on workplace bullying, the process began with a few ‘warm up’ questions in the beginning that helped the respondent focus on the topic. Next, the researcher should ask the key question that addressed the primary research question. In instrument design, the researcher should remain particularly clear on which questions in the instrument address any sub-questions posed in the central research question. Such questions should appear after those addressing the primary research question.

Understanding the Proposed Respondents

The language should be clear and specific. The instrument should utilize words that are undeniably understood across the demographics and avoid slang or trendy phrases. The beta-testing process, asking other experts to complete the instrument, should control for this issue. Further, one should remember that respondents would not be necessarily

eager to answer a questionnaire; long surveys could diminish response rates. In turn, the researchers should consider the intake window and strive to keep time to completion at 5 to 7 minutes. Nonetheless, instrument design could also create the opportunity to gather qualitative information. Open-ended segments could collect insight which otherwise could be missed in multiple-choice questions.

Instrument Question Formats

The instrument on workplace bullying in American higher education used Likert scale questions, multiple choice questions, and open-ended questions. Each type had advantages, and all of them served a specific purpose that will be reviewed below. However, regardless of the question type, as respondents fatigue while participating, avoid trivial items that do not advance the study (Moreno, Martínez, & Muñoz, 2006).

Likert scale questions

Likert scale questions are good for determining the respondents' attitude or perception in social science research (Croasmun & Ostrom, 2011). In 1931, Likert developed this type of question to assess these attitudes and perceptions. Since this time, while researchers (Guilford, 1954; Matell & Jacoby, 1971; Ray, 1980), discussed if there should be 3 degrees in assessing attitudes (1 through 3), five degrees (1 through 5) or up to seven degrees (1 through 7), five is the number with the most reliability (Croasmun & Ostrom, 2011). Generally, the Likert question would ask respondents to rank their response with five degrees. 1 = not likely, 3 = neutral, 5 = very likely. See Table 1.

Table 1 Sample Likert Style Question

	Don't agree	Agree	Strongly agree			
Younger people are more likely to be bullied	1	2	3	4	5	N.A.*

* be sure to include an 'n/a' in case the respondent has no answer

Open-ended questions

While instruments would typically collect quantitative data, the instruments on workplace bullying in higher education included an opportunity for respondents to offer open-ended remarks yielding qualitative data that could support respondents' other answers. Below are two sample questions designed to collect descriptive statistics and also gather qualitative information through the open-ended option.

Example #1. adding "other" to a list of possible answers

This question type was a style utilized in the workplace bullying study. It included a list of answers, based on information from the literature review on workplace bullying. However, there was an option for "Other" as a potential answer for respondents to write in their respective thoughts if the predetermined choices did not suffice. See Table 2.

Table 2 Sample open-ended questions

How did the Target react to being bullied (Check up to three)
Report to supervisor
Report to HR
Leave Department (Transferred internally)
Take more sick time
Isolate self from group
Resigned/Quit
<u>Other (please specify)</u>
Sample respondents' answers to 'other'
Resented ineffectiveness of HR
Takes it, knows supervisor doesn't like her, but doesn't want to leave position
Tried to ignore embarrassment
One committed suicide
Emotional distress, affecting teaching and collegial relationships

By allowing respondents to write in their answers, the researcher gained deeper insight to the topic. In this example, the researcher could then consider further the impact of leadership, Human Resources training, and the impact of gender in the primary or secondary analyses.

A second type of open-ended question was the stand-alone open-ended question. This question, which was designed purely as an open-ended question at the end of the instrument, gave respondents an opportunity to add their experiences in their own words. Some comments documented the respondents' ideation of suicide, helplessness, and frustration that otherwise would not have been addressed in the researcher's standardized prompts. See Table 3.

Table 3. Sample question. Are there any specific comments or insights you would like to share about workplace bullying in higher education?

Sample open-ended answers from respondents:

A). It is an extremely horrible problem in higher education and there needs to be awareness programming and seminars. I also feel that confidential resources could help with workplace bullying.

B) The norm being bullies running unchecked devouring the meek and weak in an organizational structure. The bullies pick on those that they believe they can bully but don't dare stand up against someone with on equal footing. It is sad to watch.

Similar to the questions that had five possible answers and then "other" to collect open-ended remarks, the stand-alone open-ended questions at the end of the instrument collected respondents' overall perceptions and their reflections on the topic. After completing a majority of the instrument, respondents may have better recall about their personal experiences that could add data to the researcher's analysis.

Multiple Choice Questions

The instrument included multiple-choice questions to investigate elements that emerged from the literature. For example, Goldblatt (2007) commented that people would leave an organization because of workplace bullying. Therefore, multiple-choice questions were used to consider if respondents had left or considered leaving their current jobs in higher education because of workplace bullying.

The literature on workplace bullying also reflected on how targets reacted to such hostility (Glasø & Notelaers, 2012; Hollis, 2016c; Lutgen-Sandvik, & Arsht, 2014). Therefore, the instrument asked potential targets in higher education respond to workplace bullying based on the literature that reported self-isolation, depression, and concentration issues for the target.

Moreno, Martínez, and Muñiz (2006) stated that questions should not be excessive, negative, or convoluted. Further, they commented that the possible answers should be "autonomous, without overlapping or referring to others (for this reason, the options "All of the above" or "None of the above" should be avoided); and, no option should stand out from the rest in either content or appearance" (p. 65).

Aesthetics and Instrument Development

As respondents are often bombarded in their day-to-day world with email, spam, and phishing, they may not quickly engage a request to complete yet another instrument (Anseel, Lievens, Schollaert & Choragwicka, 2010). However, one of the ways to increase the response rate was through the layout and design (Tourangeau, Couper, & Conrad (2007). Further, researchers should consider how the instrument was branded. Edwards et al. (2002) stated including the researcher's college or university would increase response rates. Also, researchers should consider the readability of online instruments. The spacing between questions, the colors, and font can be easy on the eye or contribute to optical fatigue. Colors such as light green and light pink are easy on the eye and more inviting. The researcher should avoid colors that conflict such as a yellow background with green print. Dark colors that were gloomy could potentially over saturate the computer monitor. Joseph (2001) noted:

Everything you do should be aimed at making the survey more interesting, attractive and easy to fill out and return. Any flaw in printing, poor choices of words or opening questions, anything that makes it take longer or be harder to fill out will. ...result in smaller return rates (p. 420).

For the online workplace bullying instruments hosted on SurveyMonkey™, a larger font and pastel colors with a black print was utilized; also Arial, which was a standard font, was used because it was common for most Internet browsers. Fancy fonts and script fonts could be mangled on the end-user side. Researchers should preview the instrument in its entirety on different web browsers such as Mozilla, Google Chrome, Explorer, and Safari before distribution. Further, researchers should review the survey on smart phones and mobile devices to see the layout (Orr, 2012). Each browser and mobile device has different nuances that may affect how respondents view the instrument.

Instrument Delivery

When developing an instrument, or even using a pre-existing instrument, researchers needed to consider how to deliver the instrument. The workplace bullying instrument was distributed through SurveyMonkey™ that generated a special weblink to the instrument and emailed the link to potential respondents. Further, an IP address provider was hired to send mass emails. While some researchers teach at large universities, acceptable use policies may not allow them to send 5000 emails at once through their servers. Further, emailing from a commercial account such as AOL, Yahoo, or Gmail did not allow for en masse distribution.

Regardless of how the researcher sent the instrument, typically 20% of the sample will not receive the invitation. Various firewalls and Internet security did not allow en masse emails, or delivery of unknown email. Researchers should plan for this problem in anticipating the response rate and sample needed for the proposed research methodology.

Regarding samples in online instrument delivery, Baatard (2012) commented that the Internet allowed researchers to reach large audiences. However, the goal was to cultivate an accurate sample, not necessarily the largest sample. Avoid seeking “the largest number of respondents possible” if they do not serve the scope of the study (p. 102). For example, in this study about workplace bullying in higher education, expanding the study to include secondary school teachers or students might have increased the sample, but would have clouded the focus of the central research question, which dealt specifically with higher education experiences.

For this study on workplace bullying, the online instrument was announced to potential respondents before the actual distribution. This strategy also cultivated higher response rates. Various researchers (Edwards et al, 2002; Fox et al. 1988; Yammarino et al. 1991) have commented that introductions with personalized messages may increase the response rate. After the initial introduction about five days previous to the study, the instrument was then redistributed every 7-10 days, up to three more announcements.

In regard to crafting the initial invitation, researchers in instrument development offer mixed advice. Munoz-Leiva, et al. (2009) commented that the personalized invitations and introduction could increase response rates. Sensitive questions can also be a challenge (Hollis & McCalla, 2013). However, if the research topic was a sensitive issue, the personalization may indicate to the potential respondent that they did not have anonymity. However, with sensitive issues such as sex, criminal issues, and in this case bullying, the distance between researcher and respondent through the Internet could facilitate more answers to tough questions (Platek, 1985).

Conclusion

At times, researchers were encouraged to replicate another study; however, this meant the researcher expanded another researcher’s agenda instead of forging forward to create a unique data set. This researcher for workplace bullying created a unique data set resulting in extensive information on workplace bullying in American higher education. This data supported a book chapter with descriptive statistics (Hollis, 2016), a book chapter with qualitative data (Hollis, 2016a) a book chapter with chi-square analysis (Hollis, 2016b), and a book chapter address race and gender in regard to workplace bullying (Hollis 2016c). When the researcher cultivated a data set through original instrument design, the researcher could undertake several different analyses from one extended data collection. In contrast, using another researcher’s instrument meant being limited by someone else’s intent and imagination, limiting the opportunities possible through instrument design.

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