

Nonresponse error in sport management research: A content analysis of the Journal of Sport Management

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**Research/statistical methodology
Abstract 2009-199**

**May 30, 2009
3:00 PM**

**Poster
(Lexington/Carolina Prefunction)**

One of the most salient concerns in the sport management discourse has been the debate over academic research (Chalip, 2006; Cuneen & Parks, 1997; Parks & Bartley, 1996; Weese, 1995). While the emphasis has predominately been on the usefulness of theory to sport practitioners (Chalip, 2006), a more immediate concern is that of the methodological quality of published survey research (Boucher, 1998; Mahony & Pitts, 1998; Olafson, 1990, 1995). Paton (1987) was among the first to espouse the need for a continued trend to strengthen sport management research. Costa (2005) questioned the quality and utility of published sport management research. Recognizing that all research methods and designs have limitations, Olafsen (1990) cautioned against the heavy reliance on the use of the survey in sport management research. One particular concern with survey research is that different sources of error can be introduced, bringing into question the validity and reliability of the research findings. Dillman (2000) identified four possible sources of error in survey research when a sample of a target population is studied. These sources of error include sampling error, coverage error, measurement error, and nonresponse error. Of these, nonresponse has received the least amount of attention by scholars (Dooley & Lindner, 2003). The purpose of this study is to examine how the threat of nonresponse error has been addressed in articles published in the Journal of Sport Management between the years of 1988-2008.

Sport research has advanced, in part, due to the efforts of scholars having produced valid and reliable instrumentation for measuring social variables (e.g., Heere & Dickson, 2008; Kim & Kim, 1995; Seo & Green, 2008; Verner, Hect, & Fransler, 1998). However, there are limitations to survey research which need to be addressed and overcome before the results can be accurately interpreted. One such limitation is the issue of nonresponse in survey research (Armstrong & Overton, 1977; Dooley & Lindner, 2003; Lindner, Murphy, & Briers, 2001; Miller & Smith, 1983), which may significantly hinder the ability to generalize findings to larger populations (Groves & Couper, 1998). Nonresponse error exists in survey research when individuals selected for inclusion in the study fail to provide useable responses and are significantly different from those who chose to participate by completing the questionnaire. According to Dillman (2000), this type of error is the result of nonresponse from individuals in the sample, who, if they had responded would have done so in a manner significantly different from respondents. Survey or unit nonresponse, is a major component of total survey error (Smith, 1995) and nonresponse has become increasingly problematic in academic research (Groves & Couper, 1998; Smith, 1995; Synodinos & Yamada, 2000).

Miller and Smith (1983) in their widely accepted and highly cited (Dooley & Lindner, 2003; Lindner, Murphy, & Briers, 2001) manuscript on handling nonresponse error in survey research, suggested five general methods that could be used to control for nonresponse bias. These methods include: (a) ignoring nonrespondents; (b) comparing respondents to the target population; (c) comparing respondents to nonrespondents; (d) comparing early to late respondents; and (e) "double-dipping" or sampling nonrespondents. While the first strategy is one that is often applied, simply ignoring nonrespondents when confronted with a low response rate does not help determine if a sample is representative of a target population (Werner, Praxedes, & Kim, 2007). Therefore, the more appropriate methods involve some type of comparison of respondents, nonrespondents, and/or the population on study related variables of interest. Inclusion of one or more of these strategies intended to control nonresponse error can help establish that a sample is representative of a target population regardless of response rate.

While methods used to handle nonresponse error have been examined in other disciplines (Bartlett, Bartlett, & Reio, 2008; Dooley & Lindner, 2003; Lindner, Murphy, & Briers, 2001; Miller & Smith, 1983; Werner, Praxedes, & Kim, 2007) no such investigation has been undertaken in the sport management discourse. This type of inquiry would seem prudent due to the large number of published research articles that collected data through survey research from a sample of a population (Kent & Turner, 2002). To investigate this potential issue, a two-stage procedure was employed. First, a content analysis of every article published in JSM between 1988-2008 (N=371), was conducted to determine the number and types of articles contained in this time period. Second, the researchers isolated the articles that used sampling procedures and survey research methods and content analyzed each article independently. Based on previous work in this area (e.g., Dooley & Lindner, 2003; Linder, Dooley, & Briers, 2001), seven coding categories were used to gather the necessary data: (1) type of article; (2) sampling technique; (3) method of data collection; (4) use of response incentives; (5) response rate; (6) method used to control nonresponse error; and (7) literature cited for handling nonresponse error. All articles were analyzed independently by three researchers who coded all articles based on the aforementioned categories. To establish reliability, results from each researcher were compared in order to

2009 North American Society for Sport Management Conference (NASSM 2009)

identify any discrepancies. When discrepancies existed, the researchers evaluated the source of the inconsistency until consensus was achieved.

Of the 371 analyzed, 162 (43.67%) used sampling procedures and survey research methods. The remaining 209 articles did not use sampling techniques and made no attempt to infer findings back to a larger population and were not included in further analyses. Some preliminary findings based on initial analyses revealed the following. The most prevalent sampling technique used was convenience sampling with nearly 30% of the articles reporting use of this method to select a sample. Over half of the studies (52.2%) used mail questionnaires to collect data and postnotification was the most common incentive method used (23.6%) to increase response rates. The response rates for the 162 articles ranged from a low of 13.5% to a high of 100% with the average response rate being 66.6% (SD=24.36). Of the 126 studies that did not achieve a 100% response rate, 69.6% made no attempt to control for nonresponse error or did not report attempts to control for nonresponse error. Given the widespread use of survey research methods among sport management scholars, it is essential to understand the bias that can be introduced through nonresponse error. To ensure external validity findings, researchers must satisfactorily answer the question of whether the results of the survey would have been the same if a 100 percent response rate had been achieved. Findings from this study illuminate how the threat of nonresponse error has been handled by authors who publish articles in JSM. Further, based on the results of this study, the authors will make recommendations on how nonresponse error should be addressed by authors as well as the editorial staff of our flagship journal.