

The utility of online questionnaires for conducting research on intercollegiate athletic coaches

Brian Turner, The Ohio State University

Jeremy Jordan, University of Miami

**Research
Session 12**

**Friday, May 30, 2008
9:50 AM - 10:15 AM**

**Presentation (25-minute)
Abstract 160**

Obtaining an adequate number of completed questionnaires is a challenge facing all researchers conducting survey research. The generalizability of findings, along with the validity and reliability of results, can be called into question with low response rates (Kerlinger & Lee, 2000). According to Baruch (1999), response rates reported in management journals have been on a steady decline. While attention has been given to subject response rates in other disciplines (Baruch, 1999; Dillman, 2000; Krosnick, 1999) there remains a dearth of information in the sport management literature (Kent & Turner, 2002; Turner, Jordan, & Sagas, 2006).

According to Bickart and Schmittlein (1999), the continuous use of the same population (i.e., oversampling) by researchers can lead to a decline in the willingness of subjects to participate in research projects. In sport management research, one group often used as subjects is intercollegiate coaches (Slack, 1996). With the continued growth of research in sport management, it is likely that the number of studies using coaches as subjects is also likely to increase, creating the possibility of oversampling (Turner et al., 2006). Therefore, one purpose of this study was to discern both the value and preferred timing of research involving NCAA coaches. Similar to the mail survey study conducted by Turner et al., the following research questions were examined: (a) Is there a 'best time' to send questionnaires to intercollegiate coaches?; (b) Is there a difference in response rates of intercollegiate coaches based on sport, gender of sport, and/or divisional membership?; (c) Are intercollegiate coaches 'oversampled'?; (d) What questionnaire format do coaches prefer (i.e., mail, web-based, personal interview, or phone)?; and (e) How important is academic research to intercollegiate coaches?

A second purpose of this study was to determine the impact that two methodological procedures had on response rates. Based on the work of Kent and Turner (2002) who found that pre-notification provided to subjects significantly increased response rates, the present study examined the impact of post-notification. As noted by Kent and Turner there have been very few studies in sport management which explored what factors increase the response rate for a sample population. While it is a common practice in sport management to use some type of notification process in survey research, there has been no examination of the effect that post-notification can have on the response rate of a study. Therefore, participants who had not responded by the deadline where sent a notification by electronic mail asking them to complete the web-based survey.

The second methodological procedure applied in this study was the use of a web-based survey. Previous authors (Kent & Turner, 2002; Turner et al., 2006) who have examined factors that influence response rates in sport management have done so using mailed questionnaires. The benefits of web-based survey research, specifically reduced cost (Ilieva, Baron, & Haley, 2002), response speed (Truell, 2003), and population coverage (Shannon & Bradshaw, 2002) have resulted in an increase on the use of on-line questionnaires. However, the impact of this methodology on response rates has not always been positive; specifically studies which utilize web based surveys have generally resulted in lower response rates than mailed questionnaires (Paolo et al., 2000; Shannon & Bradshaw, 2002; Sheehan & McMillan, 1999; Truell, 2003). Again, the impact of web-based surveys on response rates in the sport management literature has not been examined. The present study attempted to fill this void by adapting the questionnaire developed by Turner et al. (2006) to an on-line format so that the response rates from both studies could be compared.

Based on the methodology of Turner et al. (2006), a stratified, random sample (95% confidence level with a sampling error of $\pm 5\%$) of NCAA coaches from six sports (one men's and one women's sport from each of the three NCAA seasons [fall, winter, and spring]) at each division level (i.e., I, II, and III) was selected ($N = 3036$). Selection of sports was based on popularity and number of schools sponsoring each sport and included: (a) football ($n = 435$); (b) women's volleyball ($n = 528$); (c) men's basketball ($n = 534$); (d) women's basketball ($n = 540$); (e) baseball ($n = 495$); and (f) softball ($n = 504$). Selected coaches for each sport were then randomly divided into one of three groups - pre-season, during season, and post-season. Each coach selected was sent an email invitation to participate in the current study. The email included a link to the web-based questionnaire. Coaches in the pre-season group were sent emails approximately two weeks prior to the first official practice, those in the during season group were sent emails at the approximate mid-point of the season, and those in the post-season group were sent emails approximately two weeks after the sport's championship game. A total of 952 (31.4%) questionnaires were completed online.

By division, response rates ranged from 29.2% for Division I to 33.2% for Division III. There was no significant difference in response rates based on divisional membership, Cramer's V ($2, 3036$) = .048, $p = .144$. However, there was a significant

2008 North American Society for Sport Management Conference (NASSM 2008)

difference by gender of sport, Cramer's $V(1, 3036) = .057, p = .002$; coaches of women's teams (33.9%) completed the questionnaires had a higher rate than coaches of men's teams (28.6%). Furthermore, there was a significant difference in response rates based on sport, Cramer's $V(5, 3036) = .095, p < .001$, with rates ranging from 24.7% for men's basketball to 38.8% for women's volleyball.

Results showed that there was a significant difference in response rates based on time of the season sent, Cramer's $V(2, 3036) = .060, p = .004$. Coaches in the pre-season group completed the online questionnaires at a higher rate (35.3%) than those in the during season (29.2%) and post-season groups (29.5%). There was no difference in response rates between those in the during season and post-season groups, Cramer's $V(1, 2024) = .003, p = .844$. However, when asked when they prefer to receive questionnaires, coaches indicated a preference for after the season (64.9%); only 25 coaches (2.9%) preferred receiving questionnaires during the season. Contrary to the findings in Turner et al. (2006), intercollegiate coaches preferred receiving web-based questionnaires as opposed to other survey methods. Exactly 85% of the respondents in this study preferred this method; however, this could be an artifact of the method used in the current study (i.e., we used web-based questionnaires; Turner et al. used mailed questionnaires). Comparison of response rates for the present study and that of Turner et al. is consistent with previous research by authors in other disciplines who have found that studies using web-based surveys generally have a lower response rate than mail based survey research. The response rate for the present web-based study (31.4%) was lower than that of mailed questionnaire in Turner et al. (37%).

Finally, the use of post-notification sent to subjects who had not completed the survey by the deadline had a substantial impact on overall response rates. The provision of follow-up emails after the deadline for completing the questionnaires almost doubled the response rates (from 17.9% to 31.4%). With regards to salience, coaches felt that research on their profession was at least somewhat important ($M = 4.81$; $SD = 1.42$; on a 7-point scale). There was, however, a significant difference between coaches of the six sports, $F(5, 922) = 10.996, p < .001$. Post-hoc tests showed men's basketball coaches rated the importance of research significantly lower than the other five sport coaches ($M = 4.46$; $SD = 1.52$). Finally, on average, coaches reported receiving almost four requests for participation in research studies per year ($M = 3.92$; $SD = 2.50$). Again, there was a significant difference based on sport, $F(5, 922) = 8.595, p < .001$. Women's basketball coaches claimed they received more requests to participate in research studies ($M = 4.92$; $SD = 3.96$) than coaches of 4 of the 5 other sports (all but men's basketball).

Additional findings from this study will be discussed, with an emphasis on the practical importance for researchers in sport management.