

Sport and the Environment: Can a Class Change Perceptions and/or Behaviors

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“Every day personnel in sport organizations do something that impacts the environment. These activities can aid in developing sustainable business practices or they can be detrimental” (Pfahl, 2011, p. 15). Sport and the environment are intricately intertwined. During exercise athletes breathe in ten times more air than when at rest causing air pollutants to be inhaled deeper into more sensitive parts of the lungs (UNEP, n.d.). At the same time, playing some sports has become more difficult as the land or water conditions required to play simply no longer exist (e.g., ultra marathons and open water swimming) (Maguire, 1999). Yet, even the sport industry has historically been somewhat cavalier in the use of natural resources to improve the participation/spectator experience (e.g., venue construction and outdoor recreation tourism) (Schmidt, 2006). For example, NASCAR used leaded gasoline up to 2007 even though the Clean Air Act phased out its use in personal vehicles 30 years earlier (Putting the Earth in Play, 2006). Furthermore, the 2004 Summer Olympics in Athens created half a million tons of carbon dioxide in two weeks time’ similar to the amount created by a city of a million people created in approximately the same amount of time (Putting the Earth in Play, 2006).

These startling facts have caused some sport organizations to take action. The Philadelphia Eagles have been trailblazers as they now have a comprehensive recycling, energy conservation, food preparation, purchasing, and carbon offsetting program (Go Green, 2011). The Eagles are not alone in their efforts as similar programs have been implemented by the IOC, The Ohio State University Athletics, the Staples Center, the Seattle Mariners, and FIFA to mention a few.

Due to the current environmental movement, sport managers are required to be more aware of how their actions, and the actions of their organization impact the environment. Environmental issues are beginning to be incorporated into strategic planning, requiring sport managers to be more knowledgeable about environmental issues (Casper, Pfahl, & McSherry, 2012). However, many sport managers have not been trained on environmental issues. Even those managers possessing a degree in Sport Management/Administration usually do not possess the requisite knowledge, as most programs do not include environmental components as part of the curriculum (Pfahl, 2011).

The current study aimed to measure the impact an educational class, titled Sport and the Environment, had on student perception about environmental issues as well as their behavior at work. An experimental design was implemented by utilizing a pre-post test design. Students enrolled in the class completed a survey aimed to assess their ecological worldview via the New Ecological Paradigm Scale, presented by Dunlap, Van Liere, Mertig, and Jones (2000). Participant’s environmental behavior was assessed using the scale presented by Homburg and Stolberg (2006). The current study takes the form of an experimental design as the students in the class were surveyed before the class began, at the end of the intensive (eight hours per day) one week class, and then will be assessed again six months after the class ended. This data will be collected in January of 2013. The class acted as the treatment within the experimental design. A control group consisting of students enrolled in a different class during the same semester within the same graduate program acted as the control group and received the survey just prior to the class beginning and will receive the survey again six months after the class concluded (January, 2013). Preliminary results have been calculated for the pre-class treatment group, immediate post-class treatment group, and pre-class control group. Once data is collected from both the treatment and control groups six months post-class, in January of 2013, that data will be analyzed. While the authors are unable to report the full results in this abstract, the information will be available prior to the 2013 NASSM conference.

A total of 31 responses were deemed adequate for analysis. Ten respondents were represented in the pre-class and

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immediate post-class treatment group representing 83.3% of the students within the class. Eleven usable responses were collected from the control group representing a 68.8% response rate.

Mean scores were calculated for each group's ecological worldview, via the 14-item Ecological Paradigm Scale (Dunlap et al., 2000). Similarly, mean scores were calculated for each of the groups with respect to direct environmental behavior in the workplace (3-items) and indirect environmental behavior at the workplace (2-items). All items were measured on a five-point Likert type semantic differential scale, ranging from strongly agree (5) to strongly disagree (1). Groups included in the current analysis were: pre-class treatment group, immediate post-class treatment group, and pre-class control group. The six months post-class treatment group, and six months post-class control group data will be collected and analyzed in January of 2013.

The pre-class treatment group was found to have an ecological worldview of $M = 2.79$ ($SD = .322$). When retested after the class the treatment group's ecological worldview rose to $M = 2.92$ ($SD = .41$). The control group reported an ecological worldview of $M = 2.82$ ($SD = .40$) when tested prior to the class commencing. Results indicated direct environmental behavior in the workplace was rated highest by the pre-class treatment group ($M = 3.23$, $SD = .78$) followed by the pre-class control group ($M = 3.06$, $SD = .77$), and finally the post-class treatment group ($M = 2.86$, $SD = .82$). However, indirect environmental behavior at the workplace was reported to be highest amongst the pre-class control group ($M = 2.77$, $SD = 1.0$) followed by the post-class treatment group ($M = 2.75$, $SD = .89$), and the pre-class treatment group ($M = 2.70$, $SD = .63$).

A multivariate analysis of variance (MANOVA) was conducted to determine group differences on ecological worldview, direct environmental behavior in the workplace, and indirect environmental behavior in the workplace for each of the three groups (pre-class treatment group, pre-class control group, immediate post-class treatment group). No statistically significant difference was found ($F(6, 52) = .32$, $p = .92$).

While the results from the current study are not overly positive with respect to the efficacy of the class in changing the ecological worldview of the students or their environmental work behavior within the sample, the importance of the issue should not be undermined. It must be noted that the sample, while highly representative of the population, was very small. The small sample combined with a relatively small number of items rated on a five-point scale, yielded little room for variance within the three outcome variables. Results from the six-month post-class survey collected in January 2013 may still yield interesting findings. Future research is certainly needed in this area. Perhaps a multi-institution sample of students taking environmentally focused classes providing a larger sample would provide more robust results. Furthermore, the importance placed on the environment by sport organizations also requires attention from academicians. This is a burgeoning area where it appears the sport industry is significantly ahead of sport academics.