Teaching Environmental Sustainability to Digital Natives: The 2016 Rio Olympics as a Case Study

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Sustainability is defined as the condition of meeting the needs of the present without compromising the ability of future generations to meet their own needs (World Commission on Environment and Development, 1987). Sustainability is a concept that has become ubiquitous over the last decade, and the interest in examining the impact of sport on the physical environment has remained strong (Falt, 2006; Lindsey, 2008; Smith & Westerbeek, 2007; Trendafilova, 2011; Trendafilova & Chalip, 2007; Trendafilova & Waller, 2011). This topic has recently been addressed by scholars emphasizing the importance of educating budding practitioners about these important issues (Mercado & Grady, 2016). Mercado and Grady's focus, however, was on infusing environmental sustainability into the content of various courses when it was possible and appropriate. Fortunately, some sport management programs have dedicated courses specifically focused on sustainability in sport. Considering the novelty of these courses, there is a need for interactive teaching and learning strategies that will connect with a generation of technology oriented students who are characterized as digital natives (Palfrey & Gasser, 2008). These courses, focused on sustainability, are both significant to sport management instructors and students, because students need to be well prepared for a career in a global industry that is increasingly implementing environmental initiatives. The purpose of this presentation is to use the 2016 Rio Olympics as an example of how to address important sustainability issues in sport utilizing innovative teaching methods that mesh with students today.

In 1995 the International Olympic Committee (IOC) adopted the environment as the third pillar of Olympism to address sustainability within the Olympics (Cantelon & Letters, 2000). Despite efforts and requirements by the IOC on host countries to create plans for minimizing negative impacts on the environment, the Olympic Games continue to cause significant environmental damage (Schmidt, 2006). In October of 2009, the IOC announced Rio de Janeiro as the host city of the Games of the XXXI Olympiad. Rio became the first ever South American host of the Summer Olympics. The city was experiencing the largest series of urban changes in its recent history. Despite Rio’s long track record of environmental issues related to water supply, air quality, waste management, and deforestation, Rio’s bid to host the Games proposed an extensive and rigorous plan of environmental protection while promising compliance to a range of sustainable practices. Even with these plans and guarantees in place, popular media presented the Rio Olympics with scrutiny and highlighted the number of environmental failures of the Games (Ford, 2016).

The background information above provides a rich platform from which classroom instructors can engage students with a relevant discussion on sustainability management in sport. Research in active pedagogy suggests that students today can be categorized as digital natives and are known for having short attention spans and being disengaged during traditional class activities (Prensky, 2010). Although engaging students today is a recognizable challenge, it is far from insurmountable. One common struggle instructors face is the fact that students are distracted by their handheld devices (i.e., cellphone and tablets). This, however, if creatively incorporated into the classroom instruction could benefit the learning process by engaging students with a medium they are already comfortable with and eager to use. One possible outlet for connecting student interests with instructor’s objectives is to use an innovative web application - Kahoot. The Kahoot platform is free and links students’ electronic devices with an online multiplayer environment. Instructors can create quizzes, discussion questions, polls, and other types of questions through the Kahoot’s portal. Then, during class students sign into the web application with their personal electronic devices and participate in the instructor led activity. During this presentation we will describe in details how the Kahoot platform
can be utilized to engage students in learning objectives focused on sustainability in the context of the Rio Olympics. In addition, the presentation will illustrate the simplicity and ease of use of this platform by engaging the audience on their own electronic devices.

Combining the Kahoot digital platform with the Rio Olympics has strong potential for increasing the quality of classroom instruction. This innovative teaching strategy provides a setting in which students are co-creators and collaborative problem-solvers along with the instructor. This strategy scaffolds learning outcomes through a developmental approach by exposing students to information gradually, which, when compiled with additional information, allows students to see the issues comprehensively. This is especially important when teaching sustainability because it is a complex topic with multiple factors and stakeholders. Similar platforms have been used in the past, such as Clickers. However, these have drawbacks that inhibit their utility in the classroom (e.g., cost, functionality, ease of use). The Kahoot platform incorporates some of the features of the Clicker, such as interacting with the presentation, however because it is free for both instructors and students and has a user-friendly interface, there are advantages to using the Kahoot platform. Additionally, it is a web application that occupies the user’s device screen. This means that although students will be using their electronic devices in class, they will be less distracted by the device because it is occupied by the Kahoot platform, rather than their own personal content.

One way that we envision the sustainability issues presented by the Rio Olympics could be combined with the Kahoot platform is outlined in the following steps. The class would first be divided into small groups of 2-4 students. Then significant decision making challenges regarding sustainability efforts of the Rio Olympics would be presented sequentially. For each challenge, the small groups would be asked to discuss the issue and come up with a solution. Once the groups are ready to decide, the instructor would advance the Kahoot and students would submit their responses. The Kahoot platform would then display all group answers on the projector simultaneously, thereby providing the instructor and the class with immediate feedback about the various proposed courses of action. This is especially useful for the instructor as it provides a clear and easy way to ilicit debate, discuss proposed solutions as well as rationales behind those solutions, and in general engage the entire class in that particular challenge. Once that particular issue related to sustainability was fully discussed, the instructor would advance the Kahoot to the next sustainability challenge. Advancing the Kahoot would initiate the small group discussion, solution proposal, class discussion, and class feedback cycle again. This process would continue until each of the sustainability challenges posed by the Rio Games had been presented.

This presentation contributes to the understanding of instructor effectiveness by answering the call to engage students in innovative, active, and participative learning environments. By facilitating small and large group discussions with an innovative web application through the lens of a meaningful and timely case study (Rio Olympics), instructors will spend less time talking at their students and more time conversing with their students. In addition, the 2016 Games provide a valuable opportunity for students to learn about sustainability in sport and to critically analyze the IOC and the Rio Organizing Committee’s efforts in relation to the environment. There is a growing demand in the sport industry for students with background knowledge on sustainability. We remain optimistic that more and more sport management programs (pending resources) will incorporate sustainability courses in their curriculum, and adopt innovative and interactive instructional methods as discussed here.