Transdisciplinary Methods: Applying Single-Case Design in Sport Management

Pamela Baker, George Mason University
Anya Evmenova, George Mason University
Bob Baker, George Mason University

Management - Other (Other) 60-minute symposium, roundtable, or workshop
Abstract 2019-373

Saturday, June 1, 2019 11:00 AM
Room: Napoleon A2

Commonly employed in special education settings, rigorous single-subject or single-case methodology has been recognized as especially appropriate and valuable for identifying evidence-based practices in education research in general, and special education in particular (Horner et al., 2005; Kratochwill, et al., 2010). Emerging from the early work of Skinner (1938) on individual behaviors of organisms, single-subject research methodology has naturally found a wide application in educational and behavioral sciences. Using the level of measurement as your own control by establishing appropriate baseline through the achievement of a steady state is essential (Sidman, 1960). Advantages of this alternative research paradigm include the ability to experiment with small numbers of heterogeneous participants; measure the process of change over time; and explore the effectiveness of treatment for each individual participant (Franklin, Allison, & Gorman, 1996; Michael, 1993).

In single-subject research, an individual is the center of attention (Barlow & Hersen, 1984). The effectiveness of an intervention can be determined for one individual case serving as its own control (Richards, Taylor, Ramasamy, & Richards, 1999). Thus, it is especially applicable to special education settings, where the numbers of homogeneous subjects with the same characteristics are usually quite small (Denenberg, 1982; Garmezy, 1982; McReynols & Kearns, 1983). Comparably, one could argue that elite athletes are similarly unique in their individual responses to specific training interventions. In single-case research, the use of the term “individual” has been extended to specific settings such as individual classrooms or whole schools to monitor collective behavior change in response to new interventions. For example, Ross and Horner (2009) studied the impact of a school-wide bullying prevention program on student behavior in three different schools. Similarly, Trendafilova (2008) studied the impact of the distribution of an informational brochure on disc golfer behavior in three different parks. We assert that this methodology could be useful in many more situations in sport management where an implementation approach is being examined across multiple individuals or cases.

As long as explicit and observable behaviors can be measured over time in response to a specific intervention, then a single-case approach can be utilized to monitor the effectiveness of change initiatives in entire organizations. Understanding essential features of single-subject or single-case designs gives the researcher the flexibility to monitor response to intervention. For example, visual analysis is the pivotal characteristic of single-subject research methodology (Baer, 1977; Gast & Ledford, 2014; Skinner, 1938). The data are usually inspected for changes in levels, trends, variability, immediacy of change, overlap and consistency of data across baseline and treatment phases (Kratochwill, et al., 2010).

Following a discussion of the essential features of single-subject/single-case research, examples of the most powerful designs will be explored (e.g., multiple baseline across participants, behaviors, and settings; reversal designs; and alternating treatment designs). Subsequently, participants will be encouraged to share ideas for the purpose of developing single-subject or single-case designs for their own research.