

CSI in the Classroom: Using Crime Solving Games to Teach Research and Evaluation

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Introduction

One of the most dreaded college classes for students in the recreation field is usually the research and evaluation course. In this course students are “forced” to read and learn about the methods and techniques that are needed to understand and perform basic research. The course content is usually filled with new and foreign concepts to parks and recreation students, such as sampling, theory, data analysis, and the greatly feared statistical analysis. Traditionally, research and evaluation courses would be taught by lecture with some type of culminating practical project that would require the students to use the skills they had learned. Teaching the foundational (but often dry) material that addresses theory, methods, and analysis to resistant and reluctant students, however, remains a challenge. The activity proposed in this article is an interactive method for teaching and reinforcing the basic tenets of research methods.

Typically, the fundamental concepts that students learn in the research and evaluation class address the design and organization of the research process. Henderson and Bialeschki (2002) described three components necessary for “sound decision making” (p. 17): criteria, evidence, and judgment. The criteria are the building blocks which create the framework on which the whole project will be based. If the criteria are flawed then the remainder of the research will be weak. The criteria assist the researcher in developing methodology to collect the evidence (actual data). If the data collection or recording is sloppy, then the results, conclusions, judgments, and decisions will be incorrect. Therefore, the collection of the evidence must be done in an organized and deliberate way. Once the data are collected then the data must be analyzed and judgments (decisions) made. These very basic concepts and their relationship to each other, however, are often difficult for students to understand.

Description of Learning Activity

The use of games or interactive scenarios often assists students in understanding difficult concepts. For these games to be effective however, they must be planned

and developed so that the “game” is only part of the process. Debriefing the activity is the teaching tool (Honeycutt, 2004).

The activity that was developed for introducing fundamental research concepts (criteria, evidence, and judgment) was a crime mystery adapted from (Johnson & Johnson, 1975; 2003). Strong proponents of experiential learning, Johnson and Johnson based many of their exercises on Kurt Lewin’s work in the 1930s and 1940s. The original activity was designed to develop communication skills. Twenty-two “pieces” of information are to be distributed among a group, each receiving one or two. Through sharing their bits of information verbally, the group members learn various communication skills. The scenarios presented by Johnson and Johnson are typically mysteries (murder, theft, etc.). By using all of the information and communicating properly, group members should be able to solve the mystery.

Set-up

When used in a research course, the goals and process of solving the crime, are specifically correlated with the three “parts” of research (criteria, evidence, judgment) as presented by Henderson and Bialeschki. This activity begins with the instructor selecting two members of the class to be the “investigators.” The investigators are given charge of the case and asked to conduct the investigation. The remainder of the students are given clues to the crime on separate pieces of paper so that each student has only one or two. The class and the investigators are told that they must answer the following questions based on the information in the clues that are handed to the class: (a) Who committed the murder?, (b) How was the crime committed?, (c) When did the crime take place?, and (d) What was the motive? Many of the clues that are given to the class deal with the actual case but some are added information not particularly relevant to the case. The investigators are then left to facilitate the discussion, record and organize the evidence, and ultimately reach consensus regarding the four questions.

During the Activity

While the class discusses the case and attempts to answer the questions, the instructor watches and notes the successes and difficulties the class has with the project as suggested by Jones (1997). The instructor should not share these observations until the debriefing phase of the activity. Typical observations (behaviors) of the students tend to include rushing to judgment without using all of the data available, making judgments based on personal experiences rather than the data, poor organization of data so that interpretations are compromised, failure to record all data, and forgetting to address all criteria. Once the investigators have developed answers to the key questions the instructor reveals the answer. The sharing should be done so that the students understand not only the correct answers but also how the evidence (data) was used to develop these answers.

Debriefing

To apply the principles of the course, the instructor facilitates a debriefing session where students discuss procedures they used to come to conclusions, use of the data, and difficulties they experienced and observed during the exercise. The instructor should identify strengths and weaknesses of their process, comparing specific examples to the actual research process. For example, if some students were too shy to share their clues and their information is not used, the instructor can compare the similarities between missing clues to missing data and how this loss of information may ultimately compromise the "investigation." Similarly, if the investigator is too eager, he or she may ignore pertinent information in favor of a quick solution. This can happen in research and evaluation studies because of external pressures of time and resources. The instructor can use this analogy to emphasize rigor and patience in the research process. If in the activity, the students were "lead astray" or misinterpreted data, the instructor can also facilitate discussion on the ethical use of research.

Expected Outcomes

There are multiple outcomes for this activity. The advantages to this type of teaching include a more hands on experience, heightened interest in learning, ownership of their learning experience, and the removal of barriers between the student and instructor (McLure, 1997; Taylor & Walford 1972). Specifically, through this activity, the students can gain an understanding of how each aspect - criteria, evidence, and judgment - are interrelated and the steps needed to in each aspect. In addition, it is a good ice breaker for the class and helps them to begin working together for a common goal. This turns out to be valuable when they are placed into groups for research projects during the course.

Considerations and Variations

This should be done within the first three weeks of class to be most effective. Make sure that each student in the class has at least one clue. This allows for their participation in the assignment. It is important that the instructor not direct the investigators during the process. Set a specific time limit. Finally, it is important to make sure that when debriefing they are asked what they felt were weaknesses.

There are several useful variations of the assignment. For example, having the clues on different paper colors can add to the complexity of the activity. The students then try to link the paper color and ignore the actual clue. This can lead to a discussion on personal biases and preferences when conducting research and the need to look at the specific data. Another variation would be to exclude the role of the investigators, forcing the group to function without a designated leader.

As noted, this activity is useful beyond the actual day of instruction. For the most effect, the instructor should frequently refer to the points made throughout the semester. This activity can help in developing an overall sense of excitement and enjoyment in the class.

References

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