

ARTICLE

Lights! Camera! Action Projects!

Engaging Psychopharmacology Students in Service-based Action Projects Focusing on Student Alcohol Abuse

Susan Kennedy

Psychology Department/Neuroscience Program, Denison University, Granville, OH 43023.

Alcohol abuse continues to be an issue of major concern for the health and well-being of college students. Estimates are that over 80% of college students are involved in the campus “alcohol culture.” Annually, close to 2000 students die in the United States due to alcohol-related accidents, with another 600,000 sustaining injury due to alcohol-related incidents (NIAAA, 2013). Students enrolled in a Psychopharmacology course engaged in action projects (community outreach) focused on alcohol abuse on our campus. Research has indicated that these types of projects can increase student engagement in

course material and foster important skills, including working with peers and developing involvement in one’s community. This paper describes the structure and requirements of five student outreach projects and the final projects designed by the students, summarizes the grading and assessment of the projects, and discusses the rewards and challenges of incorporating such projects into a course.

Key words: action projects, alcohol abuse, college students, outreach

The problem of alcohol abuse on college campuses across the nation is not a new one. The National Institute on Alcohol Abuse and Alcoholism (NIAAA; 2013) estimates that approximately 80% of college students consume alcohol regularly, with half engaging in binge drinking. The negative consequences associated with alcohol abuse have been well-documented. Close to 2,000 students in the United States lose their lives annually due to alcohol-related injuries, with well over 600,000 sustaining injury due to alcohol-related accidents. Moreover, approximately 700,000 students suffer assault from a fellow student who is under the influence of alcohol, and almost 100,000 students suffer from alcohol-related sexual violence (NIAAA, 2013). In addition, alcohol abuse can have deleterious consequences for students’ academic success, including absences from classes and poorer overall academic performance (NIAAA, 2013).

Although attempts to create safer alcohol-related environments on college campuses have been met with mixed success, it is recommended that colleges adopt the “3-in-1 Framework” as recommended by the Task Force of the National Advisory Council on Alcohol Abuse and Alcoholism, NIAAA (2002). The 3-in-1 framework recognizes that alcohol abuse in college students is a complex problem, and as such encourages thoughtful ways of thinking about alcohol abuse that involve: (1) individual students, (2) the student body as a whole, and (3) the community outside of the college campus (NIAAA, 2002). For example, colleges and universities might find ways of identifying “high risk” drinkers and subsequently working with them (e.g., through the annual national Alcohol Screening Day; point #1), create campus-wide efforts that address safe drinking environments (point #2), and work with community members outside of campus (e.g., bar owners, local law enforcement; point #3).

This paper describes a service-based “action project”

assignment integrated into an upper-level undergraduate course in Psychopharmacology focusing on student alcohol abuse. Action projects utilize information and knowledge in an effort to incur social change to benefit individuals or communities. Previous research has indicated that involving students in service projects, including action projects, particularly when the projects are related to course content, can have a number of benefits, including community building, enhancement of subsequent leadership skills, and raised awareness about needs facing communities (e.g., Snyder, 1990; Markus et al., 1993; Simons et al., 2011; Mead and Kennedy, 2012). Moreover, recent research reinforces the view that students value opportunities to engage in “active learning,” including service-based action projects (Lumpkin et al., 2015).

The paper begins with an overview of the course in which the action projects were integrated, then describes the final projects created by the students, summarizes grading and assessment of the projects, and finally discusses the rewards and challenges of incorporating action projects into the college course curriculum.

COURSE DESCRIPTION

Psychopharmacology (PSYC 305) at Denison is taught as an elective course for students pursuing the Neuroscience concentration and for Psychology majors and minors. Historically, however, the course has drawn some students from other disciplines, including the other sciences (e.g., Biology, Chemistry, Biochemistry), and occasionally from Social Sciences (e.g., Sociology) and Humanities (e.g., English, History). The course was added to Denison’s Psychology curriculum in 1992, and has been a popular choice for our students since its inception, with enrollments typically ranging from 15-25. In the Fall Semester of 2015, the course enrolled 20 students, including nine Psychology

majors, eight Biology majors, two Biochemistry majors, and one student majoring in English/Creative Writing.

Prerequisites for the course are Introductory Psychology and the introductory course in Biology. The course is capped at 25 students.

The course begins with an overview of the basic principles of psychopharmacology, including pharmacokinetics, pharmacodynamics, dose-response curves, half-life, tolerance and sensitization, and potential effects of chronic drug use. Classes of psychoactive drugs are then examined, including stimulants, depressants, hallucinogens, and psychotropic medicines. Throughout the semester, the class also grapples with controversial issues in Psychopharmacology, (the over prescription of psychoactive medicines, medicinal cannabis, and the question of civil liberties and drug testing) through class “debates” based on Goldberg’s (2012) *Taking Sides* book. A course syllabus is provided as *Supplementary Materials A*.

Alcohol and other depressant drugs are introduced midway through the semester as the first class of psychoactive substances; action projects therefore spanned the duration of approximately the final seven weeks of the 14-week semester.

STRUCTURE AND REQUIREMENTS OF THE ACTION PROJECTS

The action project assignment was first introduced to the students in the early weeks of the semester. Students were given one week to provide the instructor with their top three choices from the following five action project topics shown below. From the student choices, the instructor created five groups, each comprised of four students.

1. Creating an on-campus safe drinking campaign targeting first-year students at Denison. First-year students are known to attend campus parties in greater numbers than their older college peers, and to engage in heavier bouts of underage drinking than older students as they experience the transition into college and seek out social networks with peers (Harford et al., 2002; Borsari et al., 2007).
2. Writing letters to elected officials (local and national level) and alcohol vendors in the Granville area explaining the benefits of providing labels on alcohol products that warn of potentially dangerous interactions with other drugs, in an effort to begin to encourage conversation about this important issue.
3. Creating and monitoring an interactive social media site that allows for anonymous comments and questions from Denison students and provides information about alcohol and its effects.
4. Writing a series of informational columns about alcohol use on college campuses to be published in the student newspaper, as well as Public Service Announcements (PSAs) about alcohol misuse by college students to be broadcast on the student-run radio station.
5. Addressing the issue of alcohol abuse in athletes, particularly in first-year athletes. Research indicates

that, in comparison to their non-athlete first-year peers, first-year athletes report heavier alcohol use and higher rates of negative problems (e.g., academic problems) associated with alcohol use (Doumas et al., 2011), which may be related to the increased pressure to perform in the student’s respective sport.

Once the topic of alcohol was covered in class (Week 7), action project groups were required to meet on their own to plan specific ideas for the implementation of their projects. Some of this work required that students consult the literature for information on which to base their materials. Student groups subsequently met with the instructor, often multiple times, to share and discuss their ideas and drafts of materials (flyers, brochures, letters to elected officials, or “scripts” for interacting with coaches, team captains, or first-year advising classes). Students in the campus harm reduction group also met with staff from Student Development to discuss data from recent student alcohol surveys, and how these data might be incorporated into their campaign materials. The course instructor approved all materials prior to their distribution or implementation.

Students were required to complete two “reflection papers” at various points throughout the duration of the action project timeline. Each of these papers was written individually and was generally two to three pages in length. The first reflection paper was due approximately three weeks after the project began, and asked students to thoughtfully analyze the evolution of their group’s project. They were asked to comment on how their specific ideas were decided upon (e.g., did they consult the literature for information or strategies?), how the group resolved any disagreements on what the project would entail, and what some of the challenges were that the group encountered as the project evolved. The second reflection paper was due at the semester’s end. Here, students were asked to thoughtfully reflect on what they learned from the project and how the project related to material covered in the course and in the required readings. In addition, students were asked what they would change if the project were to be repeated, and what challenges were faced, and rewards gleaned, in their view.

In addition to the two reflection papers, students were asked to submit peer evaluations at the end of the semester. Using a 3-point scale (0=poor; 1=average; 2=excellent), students rated the contributions of their group members on attendance at meetings, willingness to create materials, and overall contribution of ideas to the final project. Written comments accompanied the numeric ratings.

During the final week of the semester, students presented a brief overview of their action projects to the class in an oral PowerPoint format. These were informal presentations, allowing the class to get a sense of the work completed by their peers during the semester. Students were instructed to limit their presentations to seven minutes, with slides covering the purpose of the project, how the project was implemented, and the challenges/successes of the project.

THE FINAL PROJECTS

The final action projects are described below.

1. Students in the on-campus safe drinking campaign group created three phases to their project aimed at first-year students. In the first phase, the students created colorful “tri-folds” (*Supplementary Materials B*) and distributed them on the tables of the dining halls frequented by first-year students. Tri-folds were distributed in the days preceding Halloween weekend, and our campus “D Day” celebration (which included an on-campus concert by the rapper T-Pain), historically times during which there are higher-than-usual alcohol-related injuries and alcohol-related incidents. The tri-folds included general information on alcohol-drug interactions, as well as tips for staying safe over the Halloween weekend (e.g., eating before consuming alcohol, not leaving drinks unattended). In the second phase of the project, students visited a number of first-year advising classes to engage first-years in a conversation about the alcohol culture on campus. First-years were encouraged to write anonymous questions that were then given to the group members and presented for discussion. In the final phase of the social norms project, students joined an on-campus “de-stress fest” held just before finals week, where they handed out flyers reminding students about the importance of safe drinking, as well as backpack buttons (created by the group) with the reminder to watch out for the wellness of fellow students: “Community: It’s a Denison Thing.”
2. To involve members of the community outside of campus (e.g., NIAAA, 2002), the group that was engaged in the letter writing campaign designed two different letters, one sent to elected officials, and the other to local alcohol vendors (bar owners, store managers). Sample letters are provided in the *Supplementary Materials C*. In total, over 50 letters were mailed to local and state officials, U.S. Representatives and Senators and local businesspeople. In addition, the students made a few in-person visits to local bar owners and store managers to discuss the value of incorporating labels warning of alcohol-drug interactions on alcohol products sold in their establishments.
3. An interactive Facebook page was created that allowed the student body to post anonymous questions and to share in conversation about alcohol’s effects in the brain, on behavior, and when consumed with other substances. Initially, the page received very little in the way of student visits and interaction. To address this, members of the group contacted campus organizations (Greek organizations, women’s groups) to encourage participation on the site. This resulted in a significant increase in page visits and comments posted by visitors.
4. A series of three newspaper columns and two PSAs were written for the student newspaper, the *Denisonian*, and for the student-run radio station, WDUB. Pieces focused on the college drinking

culture, presented statistics and facts about alcohol and alcohol-related injuries and deaths on college campuses, and encouraged safer drinking practices.

5. Students examining alcohol misuse in athletes contacted the Department of Athletics and obtained permission to visit an early November staff meeting with all of Denison’s coaches. The students created flyers for the coaches that detailed alcohol’s effects on physical performance, as well as provided questions for subsequent discussion in the staff meeting among coaches and the group of students. In early December, the group attended a meeting with varsity captains for further discussion about team alcohol use, particularly as related to first-year athletes.

GRADING AND ASSESSMENT

The action projects constituted approximately 20% of the final grade in the course. Projects were graded by the instructor on a number of criteria. Approximately 80% of the project grade (100 of 120 points) was based on the quality of the ideas as the project evolved, the rationale for selecting the particular materials that were chosen and the information included on the materials (e.g., the safe drinking tips contained in the tri-folds). Part of this grade also included the student’s attendance at all planning meetings with the instructor, and the degree to which students contributed ideas and participated in these meetings.

The other 20% of the project grade was based on the thoughtfulness of the two reflection papers (criteria are described above) and on the peer evaluations that evaluated the investment of group members.

Approximately two months after the semester ended, short surveys were sent out to the 20 students enrolled in the class. The surveys asked students to reflect on their group action project and rate each of six questions using the following 5-point Likert Scale, with 1=strongly disagree; 2=disagree; 3=neither agree nor disagree; 4=agree; 5=strongly agree. Questions and the mean (N = 15) for each question are provided below:

1. The action project helped me in working collaboratively with peers, requiring me to consider alternative ideas and opinions, and to work toward a common goal (4.47)
2. The action project helped to raise my awareness of some of the issues related to alcohol abuse present on our campus (4.33)
3. The action project made me think more deeply about some of the challenges we face on campus, and ways we might begin to address these challenges (4.53)
4. I got a better sense of the challenges required to create change with respect to college student alcohol abuse (4.73)
5. The action project helped me to integrate and implement information we learned in the course, with “real world” application of the material (4.46)
6. The action project increased my interest in becoming involved in campus organizations (e.g., DART) that address issues related to alcohol abuse, and ways to

increase awareness and safety around issues of alcohol (3.47).

DISCUSSION: REWARDS AND CHALLENGES OF INCORPORATING ACTION PROJECTS

Incorporating service-based action projects into a neuroscience-related class can be a valuable exercise for students to build community and engage in important outreach activities. The projects allow students to apply knowledge gained in the classroom in a new context (e.g., Markus et al., 1993; Eyler and Giles, 1999) in an effort to foster social change. The topic of the action projects described in this paper was one with which the students could easily identify, likely increasing their level of investment in and commitment to, the projects.

With the exception of the letter-writing group, all of the projects were completed on campus, eliminating the need to coordinate schedules and travel to off-campus sites. As most of our students are involved in a number of campus organizations, athletics, and extracurricular activities requiring significant amounts of their time outside of class, having the projects centered on campus was found to be highly beneficial for the students.

Student reflection on their action projects reinforced the overall success of the assignment. Notably, many students commented on the benefits of extending course material to outside of class (Markus et al., 1993; Eyler and Giles, 1999), as well as expressed pride taken in the work the group had completed.

One student, for example, commented, "I was proud of the work our group achieved," while another wrote, "After numerous group meetings, preparation and collaboration, I must say, I have grown attached to this project." One member of the letter writing campaign group shared her thoughts on the action project in the following way, "I think this was one of the most interesting and rewarding group projects I've been a part of during my time at Denison. Working with elected officials and local vendors gave me a better perspective on the issues our nation faces, as well as the amount of work required to elicit social change."

Additional reflective comments included the following: "Most of the courses I have taken usually do not extend outside of the classroom, especially science classes. In this regard, I was personally invested and excited when I had the opportunity to connect the course with my interests outside of the classroom...." Another commented, "...the information we posted (on the website) was accurate, deriving from material in class and in our readings." Yet another student commented, "...I found myself getting more and more intrigued by how well our class material fit with the posts (Facebook site) I was making..."

Finally, many students reflected positively on how the action projects facilitated working with peers and building community within their respective groups. Writes one student, "From the very beginning of our project, we were open and honest with each other about every aspect of our project planning. We all listened carefully to the ideas other group members had..."; another writes, "I have also improved my people skills by working on this project. My group worked well together to encourage each other to

work harder..."

Despite the many successes of the action projects, there were some challenges associated with them. Perhaps the most challenging aspect of the action projects is that it is not yet possible to assess the *larger influence* on the alcohol culture (if any) that the projects had on campus and in the community. To this end, some of the materials created by students will be re-used in the future. For example, the table tri-folds will be used by Denison's DART (Drug and Alcohol Resource Team) group during the Fall of 2016 as Halloween approaches. Similarly, the Facebook site continues to be maintained by a student who was enrolled in the class, allowing for continued student input and interaction with posts. Although only a handful of the elected officials have responded to the letters written by the group encouraging discussion of warning labels, the plan is to continue the conversation with these officials in the coming months. One State Representative, for example, has encouraged the students to continue to discuss the warning label idea with him more fully. It is our hope that we will receive additional responses from officials and vendors, and that the conversation can be extended to include additional individuals. The course instructor will be working with students from the course to continue this project.

One unforeseen challenge affected the project planned by the group that created columns for the student newspaper. Through no fault of the students, the newspaper ended their publication a few weeks prior to the end of the semester, although the editors had discussed publishing the columns with the students during this time. Fortunately, the PSAs were aired on WDUB, the student-run radio station.

Clearly, action projects would be difficult to implement in large classes. Successful projects require significant amounts of time and guidance from the course instructor, and this is really only possible with small class sizes. We are fortunate at Denison to have our classes capped at 25, so that active learning experiences such as action projects can be incorporated into the class.

Depending on the nature of the action projects, the entire semester could feasibly be devoted to the projects. This would be an ideal situation because it would allow for more possible outreach activities over greater periods of time than half a semester provides. This was not possible with the Psychopharmacology class projects, however, because the relevant class material (e.g.; alcohol and depressant drugs) was not covered until mid-semester.

Overall, the Psychopharmacology action projects were quite successful. Students gained experience in working with peers, coordinating schedules with each other and with the professor, developing materials, extending information learned in class lectures and readings into their projects, and gaining a sense of appreciation for the difficulty and rewards of trying to create social change. I believe action projects such as those described in the present paper can be important pedagogical tools that provide valuable learning experiences for Neuroscience students, Psychology students, and students enrolled in the course from other disciplines.

REFERENCES

- Borsari B, Murphy JG, Barnett NP (2007) Predictors of alcohol use during the first year of college: implications for prevention. *Addict Behav* 32:2062-2086.
- Doumas DM, Turrisi R, Coll KM, Haralson K (2011) High-risk drinking in college athletes and non-athletes across the academic year. *J Coll Counsel* 10:163-174.
- Eyler J, Giles D (1999) *Where's the learning in service learning?* San Francisco, CA: Jossey-Bass.
- Goldberg R (2012) *Taking sides: clashing views on drugs and society.* New York: McGraw-Hill.
- Harford TC, Wechsler H, Seibring M (2002) Attendance and alcohol use at parties and bars in college: a national survey of current drinkers. *J Stud Alcohol* 63:726-733.
- Lumpkin A, Achen RM, Dodd RK (2015) Student perceptions of active learning. *Coll Stud J* 49:121-133.
- Markus GB, Howard JPF, King DC (1993) Integrating community service and classroom instruction enhances learning: results from an experiment. *Educ Eval Policy Anal* 15:410-419.
- Mead KS, Kennedy S (2012) Service learning in neuroscience courses. *J Undergrad Neurosci Educ* 11:A90-A96.
- National Institute on Alcohol Abuse and Alcoholism (NIAAA) (2002) *A call to action: changing the culture of drinking at U.S. colleges.* Bethesda, MD: NIH-NIAAA Task Force Report.
- National Institute on Alcohol Abuse and Alcoholism (NIAAA) (2013) *Alcohol facts and statistics.* Available at <http://pubs.niaaa.nih.gov/publications/AlcoholFacts&Stats/AlcoholFacts&Stats.htm>.
- Simons L, Williams E, Russell B (2011) An exploration of the value of service-learning: characteristics of traditional and honor service learners. *J Effective Teaching* 11:6-18.
- Snyder G (1990) *The practice of the wild.* New York: North Point Press.

Thanks to Denison University for their support of Pedagogical Practice Projects, with special thanks to Dr. Frank Hassebrock, Director of Denison's Center for Teaching and Learning. My deepest thanks to my Psychopharmacology students for their energy, investment, dedication and hard work as your action projects evolved over the course of the semester.

Address correspondence to: Dr. Susan Kennedy, Psychology Department, Room 404D Knapp Hall, Denison University, Granville, OH 43023. Email: kennedys@denison.edu.

Copyright © 2016 Faculty for Undergraduate Neuroscience
www.funjournal