

Game-Based Experiential Learning in Introductory Psychology

Jaclyn Spivey

York College

Note: 2015 Instructional Resource Award Recipient

Author Contact Information

Jaclyn Spivey

York College

1125 E. 8th Street, Middlebrook 304

York, NE 68467

Ph: (402) 363-5672

Email: [jspivey@york.edu](mailto:jspivey@york.edu)

Copyright 2016 by Dr. Jaclyn Spivey. All rights reserved. You may reproduce multiple copies of this material for your own personal use, including use in your classes and/or sharing with individual colleagues as long as the author’s name and institution and the Office of Teaching Resources in Psychology heading or other identifying information appear on the copied document. No other permission is implied or granted to print, copy, reproduce, or distribute additional copies of this material. Anyone who wishes to produce copies for purposes other than those specified above must obtain the permission of the author.

Game-Based Experiential Learning in Introductory Psychology

McGonigal (2011) described games as a useful way to provoke positive emotion, provide satisfying work, facilitate social connection, and create meaning. Because many students are already involved in game playing as part of their recreational time, a game-like approach to activities in higher education may gain their attention more easily than traditional methods. This project requires students to engage with one another outside of class and gives them structured ways to engage with the community and find larger meaning to the textbook principles of Psychology. The use of technology such as Facebook can serve to amplify student engagement (Case & Hentges, 2011). A game-based approach has the potential to motivate students to “power up” (i.e., increase or improve) their grades by way of cooperative team accomplishments (Dicheva, Dichev, Agre, & Angelova, 2015). The goal of this experiential learning project is to increase student interest in the Psychology major, as well as engagement in the classroom, on campus and in the community.

This assignment is aimed at students who are enrolled in Introductory Psychology. It is estimated that 1.2 to 1.6 million students take Introductory Psychology classes every year (Cush & Buskist, 1997; Steuer & Ham, 2008) and is considered a “centerpiece of general education requirements” (McGovern et al., 2009, p. 13). In my limited experience teaching at the college level, students in this course tend to be first-year college students, relative strangers to each other and to the community, and somewhat flexible regarding major program of study, a small percentage of whom have declared psychology as their majors. In addition, many are likely to be questioning how the course is relevant as a General Education requirement (Hanson, 2002). However, even among a group that is more familiar with one another, such as high school AP Introduction to Psychology, this set of activities may be useful for helping students see their community through a psychological lens.

Because many students entering a psychology course for the first time assume that psychology is limited to counseling and therapy, the activities in this assignment were selected in order to give students a variety of possible experiences in areas such as human services, animal behavior, research, and media coverage of issues in psychology. The creation of a social media site to document their activities allows students the creativity to show their progress in a familiar and comfortable way for many of them.

When I compared two sections of General Psychology, one doing the activities in groups of five and the other participating as individuals, I found no difference in students’ subsequent self-reported likelihood of majoring in psychology or enrolling in another psychology class. Therefore, this assignment can be equally beneficial in a group setting or individually, depending on the individual needs of the instructor and the size of the class. The possibility exists that these outside-of-class activities, regardless of whether they are conducted in groups as a game, or individually for class credit, are equally effective in terms of their effect on interest in psychology or other disciplines in higher education (Leaning, 2015). Alternatively, factors external to introductory psychology course layout and content, such as individual interests, personality, perception of faculty, and predetermined career paths, may have a stronger influence on major selection.

Additionally, because of the asynchronous nature of the activities and social media documentation, this assignment has the added versatility to be used for students in a traditional, seated classes as well as online settings. Taken together, the influence of game elements in higher-education settings has been met with mixed reviews. While some are optimistic about the usefulness of gamification in higher education (Smith-Robbins, 2011), empirical study of the effectiveness of this pedagogical approach is ongoing across many disciplines (Dicheva et al., 2015; Leaning, 2015) and gamification remains to be accepted by the higher-education community at large (Toyama, 2015).

The purpose of this assignment, therefore, is to introduce a game-based approach to out-of-class activities in an Introductory Psychology setting. The goal is to combine a variety of active learning concepts with prosocial benefits that accompany game-playing. This is done by creating groups of students who work together toward a criterion goal by completing out-of-class activities related to psychology.

**Instructor’s Notes**

When the add/drop period is over for the semester, form students into groups. I have found that it is easiest to require the groups to select from the same particular section of General Psychology. Students may be grouped in one of three ways: (1) they may be allowed to choose their group, though it is my experience that groups tend to form based on initial familiarity or proximity of seating; (2) the instructor randomly assigns students to groups; or (3) the instructor “engineers” groups based on a balancing of strengths (Huxham & Land, 2000). Each group should have five people, though due to attrition, withdrawal, and uneven enrollment numbers they occasionally end up with fewer per group. It is your choice whether to pro-rate the number of required points based on number of students per group.

The students should give themselves a group name and create a social media site as soon as possible. Have them share the link with you at the beginning of the semester (within a week or so of forming their team) and instruct them to update this social media site every time someone in the group completes an activity. In the event that you have students performing the tasks individually rather than in a group, you may opt to create your own social media page (such as Facebook) for the class and allow any class member permission to post to the page (Set up a Page, n.d.).

There are several options for the group website and its posts that you may consider. At a minimum, the website and content should be available in some way for your ability to view and compile points for the “leaderboard.” You may consider making the group sites available to the other student groups in order for them to monitor one another’s progress if they so desire. This can amplify the sense of competition and possibly reduce the likelihood of procrastination, particularly if groups post their activities to the page in a time-sensitive manner. However, this could also lead to unintended negative effects, such as cheating or cyberbullying toward groups that are progressing faster toward the goal.

Regarding social media sites, Facebook seems to be the most accessible for students and instructors alike; Facebook allows multiple individuals to have administrative privileges over a page so that multiple people can add information asynchronously (Apple, Reis-Bergan, Adams, & Saunders, 2011). However, if someone posts as a “guest,” this information is sometimes hidden from the home page. Websites such as Weebly, Wordpress, Blogspot and Tumblr have the benefit that individual posts are not hidden from the home page, and most of these allow for multiple editors. These have the added benefit of being more customizable than Facebook; however, they invite group interactions and comments less than Facebook or other social media pages. In my experience, Twitter seems to be the least conducive to use as a group social media page.

Throughout the semester, students should be working steadily to complete the activities listed on the student instruction page. Allowing students to self-select from a variety of activities can give students the freedom to create the most meaning from topics that are personally interesting to them. In my General Psychology classes, this group activity is worth 200 points out of a grand total of 750 points, accounting for roughly 25% of their final grade. I have found that this distribution of points is a fairly effective way for students to earn final grades appropriate to their learning, while also mitigating the possibility that groups may not perform the tasks to the desired level of each member of the group. Therefore, each individual activity within this assignment is worth 5 points per person, and if all members of the group complete any of the listed “individual” activities, the group earns an additional 5 bonus points toward the group total. In my experience, some students expressed frustration with this bonus because one or more of their groupmates were unavailable. However, the asynchronous nature of many of the activities may provide a buffer against this issue. Some students may naturally gravitate to some activities and want to do them multiple times (e.g., watching and writing up three movies); I prefer to limit repetition of activities so that students necessarily have a wider variety of experiences.

At the time of each scheduled exam, and at the end of the semester, tally the number of points that have been completed by each group. This ensures that groups get regular feedback about their progress, and potentially discourages procrastination. It is helpful to email the entire class a message containing progress for each group, serving as a “leaderboard.” Because of sensitivity to privacy laws, you should avoid releasing the actual point values associated with the names of each student. Alternatively, listing teams’ points accumulations in categories such as “bronze” (0-50 points), “silver” (51-100 points) and “gold” (101-150 points) may give the class a sense of their rank.

One potential incentive for homework (if you assign it) is that each time a member of the group completes a homework assignment on time, the group earns a “badge” for that assignment. Badges are not worth points, but the team with the most badges at the end of the semester may earn something extra (ideas listed below).

Each student should generate a final report done separately from the group, illustrating how these activities helped promote a deeper understanding of psychology. This metacognitive exercise is one way for you to qualitatively assess the effectiveness of the activity for your students.

As part of the final exam, include an assessment for the students’ own performance and that of their teammates. This item on the final exam might read as follows:

List your Group Project team name, and all members of your group. Based on participation, ideas, communication, and contribution to the project, assign a grade to yourself and each of your group project members on a scale of 1-50, where 1 = did not contribute at all, and 50 = was a full participant in the group activities.

This item allows teammates to assign points based on participation and can help you identify social loafing within a group. There are pitfalls to this approach, such as when students rate all their group members highly or, conversely, attempt humility by rating themselves lower than their teammates do. I assign participation points by averaging the points given to each individual by the teammates at the end of the semester. Another suggestion is to devise an algorithm based on the number of activities each student completes in comparison to the other members of the student’s group.

Suggestions for achievements can include (a) the team that earns 150 points first, (b) the team with the most Badges at the end of the semester, or (c) the most creative demonstration or outside-of-class activity. Prizes are optional (and subject to funding!) but incentives for teams achieving these milestones can include candy, trinkets, a home-cooked meal from the professor, or gift cards.

**About the Activities**

**Social Media Interactions**

Students can follow you or your department on Twitter or Facebook (one “follow” per individual). Reis-Bergan, Baker, Apple, and Zinn (2011) have written about some of the benefits and drawbacks of engaging with students on various social media platforms. If you maintain a professional social media presence, this is a great way to get students engaged with you outside of class and on a platform that is likely familiar to them. My personal preference is that I do not allow students to “friend me” on my personal social media accounts, but I direct them to my professional accounts that are specifically geared toward information that can enhance or reinforce topics in class, such as psychology department news, articles of interest, and happenings at my institution (twitter.com/ycpsych or facebook.com/yorkcollegepsychology).

**Volunteerism**

Here, students have the option of volunteering for 2 hours at a local clothing drive, children’s museum, animal rescue shelter, nursing home/retirement community, or other location or special event of your choosing. Hammer (2008) described the benefits and logistical issues (e.g., application, interviews, timing) related to service learning with local entities. In addition, benefits derived from volunteerism are dependent on the purpose for which students undertake them (Rockenbach, Hudson, & Tuchmayer, 2014), so students are likely to self-select this activity if they are predisposed to want to serve and, therefore, are likely to have a positive attitude toward it. This activity can have a positive effect on student engagement when put in context of the class material, so I ask them to post a picture from their experience if possible (and if permitted by the setting) and post a brief (100 word) summary reflecting on their experience.

**Research and Professional Development Activities**

A national survey indicated that graduate students in psychology were likely to have been members of Psi Chi as undergraduates (Ferrari & Appleby, 2006). These findings may not extend to Psychology Club activities because Psi Chi is an honor society, but encouraging students to participate in a Psychology department research project, attend one Psychology club/Psi Chi meeting, or attend a guest speaker related to behavioral sciences (psychology or criminal justice) can give them some insight into professional development issues or provide opportunities to learn more about continuing education and careers in psychology. Students can support departmental events and get a first-hand view of what it means to be a psychology major. Your local newspaper or professional network probably advertises special events that will take place at churches, hospitals, and other human services organizations that are relevant to psychology.

**Reflective Writing**

Reflective journaling and writing is demonstrated to help learning by allowing the student to create meaning, although some students are more apt to engage and find meaning in reflective writing than others (Mills, 2008). Any of the following options can give students a chance to explore topics that may not be addressed to their satisfaction by their textbooks or in their classroom:

1. Locate, link to, and write about one news article related to psychology.

2. Choose your favorite “school of thought” within psychology, list its defining features and important founders, and write about why it stands out to you more than the others.

3. Choose one topic in psychology that (a) doesn’t make any sense to you, or (b) you’ve always wanted to know more about. Find three sources online about this topic (be sure to cite them using APA style [American Psychological Association, 2009] in your post) and summarize your findings.

Depending on the emphasis your course or your department places on research, APA style and choosing sources, these activities can be adjusted to suit your purposes.

**Pop Culture**

Psychology is represented in the media, sometimes accurately and sometimes inaccurately, but this representation informs students’ developing ideas about what Psychology is (Buda, 2010). The students’ critical thinking abilities can be challenged with a pop culture activity. Many movies contain some sort of “trigger,” so feel free to specify which movies you prefer that they watch. After they watch a movie related to psychology, then they are to write a brief description (350-500 words) of the movie and how the concepts are related to General Psychology. (For ideas, students can check out the following links. Warn them to check carefully for any “troubling” material before they commit to watching a movie! Common Sense Media is a good resource.)

<http://www.imdb.com/list/ls006294202/>

<http://www.psychologytoday.com/blog/fulfillment-any-age/201201/psychologys-best-movies>

The American Psychological Association (APA) lists some guidelines (“Statement,” 1994) for using psychological test demonstrations for pedagogical purposes. If you do not have access to the tests or do not wish to use them, you can direct students to take a personality test online (links below) and briefly describe their results. While the websites listed below are unvalidated approximations of the actual personality inventories, students may have fun relating their findings to some popular culture characters that share their Myers-Briggs Type Indicator (MBTI) personality type (Cellania, 2015). Have them respond to the following prompts: “Is the summary of your personality accurate? What should you do with this information? What would be some potential concerns with using a ‘knockoff’ version compared to the legitimately researched version of these personality inventories?”

MBTI <http://www.humanmetrics.com/cgi-win/jtypes2.asp>

Big Five inventory: <http://www.outofservice.com/bigfive/>

Implicit Association Test: <https://implicit.harvard.edu/implicit/takeatest.html>

**Group activities**

Successful completion of these activities MUST involve each member of the group. Each item is worth 30 points and may be completed once per group, unless otherwise specified.

1. Students may choose to set up a meeting time for their group before each exam and generate 10 multiple choice questions related to the relevant chapters. They should post their questions on the group social media site the night before each exam. (Each group earns 5 points each time this is successfully completed.)

2. Groups may opt to do an in-class activity or demonstration for the “Sensation and Perception,” “Learning,” “Memory,” “Thinking,” “Language,” “Emotion,” “Motivation,” or “Social” chapters. Their activity or demonstration must be cleared and scheduled with the instructor ahead of time, and a trial run may be necessary at the discretion of the instructor.

Many references online and in various books, including the Instructor’s Resource Manual of your textbook, can give students ideas. I suggest the following references for activities and demonstrations:

Benjamin, L. T. (Ed). (2008). *Favorite activities for the teaching of psychology*. Washington, DC: American Psychological Association.

Brannigan, G. G. (2002). *Experiences in social psychology*. Boston, MA: Allyn & Bacon.

OTRP Teaching of Psychology Idea Exchange: <http://topix.teachpsych.org/w/page/19980993/FrontPage>

3. Groups may create a list entitled “Someone should really do a study about this.” Getting introductory psychology students to consider research methods can be tricky, but this activity can steer their thinking toward the relationship between behaviors, attitudes, and experiences that are of interest to the individual students. The topics must be related to psychology in some way. Instructors may choose to designate some minimum number of items they can list for full credit.

4. Institutions have a variety of social events, such as religious services, sporting events, or other times when large groups of people can be observed. Student groups may describe five learning or social behaviors that occur during an event they attend as a group.

5. Groups may develop a list of 15 questions to ask a psychology professor or professional psychologist about their training and career. You may designate individuals who have agreed ahead of time to be interviewed, or give students the option to do research on professional development in a particular career area.

6. Finally, I like to reward creativity, so groups that develop and satisfactorily complete an activity that is not on my list are awarded more points than they would have otherwise. Such activities must be cleared with the professor ahead of time.

**References**

American Psychological Association. (2009). *Publication manual of the American Psychological Association* (6th ed.). Washington, DC: American Psychological Association.

Apple, K. J., Reis-Bergan, M., Adams, A. H., & Saunders, G. (2011). Online tools to promote student collaboration. In D. S. Dunn, J. H. Wilson, J. E. Freeman, & J. R. Stowell (Eds.), *Best practices for technology-enhanced teaching & learning: Connecting to psychology and the social sciences* (pp. 239-251). New York, NY: Oxford University Press.

Buda, B. (2010). Teaching psychopathology through movies. *Crisis, 31*, 224. <http://dx.doi.org/10.1027/0027-5910/a000036>

Case, K. A., & Hentges, B. (2011). Motivating student engagement with MySpace and Web-enhanced research labs. In D. S. Dunn, J. H. Wilson, J. E. Freeman, & J. R. Stowell (Eds.), *Best practices for technology-enhanced teaching & learning: Connecting to psychology and the social sciences* (pp. 183-196). New York, NY: Oxford University Press.

Cellania, M. (2015). 10 Myers-Briggs type charts for pop culture characters. Retrieved February 15, 2016, from <http://mentalfloss.com/article/65218/10-myers-briggs-type-charts-pop-culture-characters>

Cush, D. T. & Buskist, W. (1997). Future of the introductory psychology textbook: A survey of college publishers. *Teaching of Psychology, 24*, 119-122. <http://dx.doi.org/10.1207/s15328023top2402_7>

Dicheva, D., Dichev, C., Agre, G., & Angelova, G. (2015). Gamification in education: A systematic mapping study*. Educational Technology and Society, 18(3)*, 75-88.

Ferrari, J. R., & Appleby, D. C. (2006). Psi Chi alumni: A national survey of psychology honor society graduates. *College Student Journal, 40*, 457-466.

Hammer, E. Y. (2008). Using service learning to promote critical thinking in the psychology curriculum. In D. S. Dunn, J. S. Halonen, & R. A. Smith (Eds.), *Teaching critical thinking in psychology: A handbook of best practices* (pp.175-182). West Sussex, UK: Wiley-Blackwell.

Hanson, C. M. (2002). Why do I have to take this class?: A Lesson in Making the Required Course Relevant, *College Teaching, 50*, 21. <http://dx.doi.org/10.1080/87567550209595866>

Huxham, M., & Land, R. (2000). Assigning students in group work projects: Can we do better than random? *Innovations in Education and Training International, 37,*17-22. <http://dx.doi.org/10.1080/135580000362043>

Leaning, M. (2015). A study of the use of games and gamification to enhance student engagement, experience and achievement on a theory-based course of an undergraduate media degree. *Journal of Media Practice, 16,* 155-170. <http://dx.doi.org/10.1080/14682753.2015.1041807>

McGonigal, J. (2011). *Reality is broken: Why games make us better and how they can change the world*. New York, NY: Penguin Books.

McGovern, T. V., Corey, L., Cranney, J., Dixon, W. E., Holmes, J. D., Kuebli, J. E., Ritchey, K. A., Smith, R. A., & Walker, S. J. (2009). Psychologically literate citizens. In D. F. Halpern (Ed.), *Undergraduate education in psychology: A blueprint for the future of the discipline* (pp. 9-27). Washington, DC: American Psychological Association.

Mills, R. (2008). “It’s just a nuisance”: Improving college student reflective journal writing. *College Student Journal, 42*, 684-690.

Reis-Bergan, M., Baker, S. C., Apple, K. J., & Zinn, T. E. (2011). Faculty-student communication: Beyond face to face. In D. S. Dunn, J. H. Wilson, J. E. Freeman, & J. R. Stowell (Eds.), *Best practices for technology-enhanced teaching & learning: Connecting to psychology and the social sciences* (pp. 73-85). New York, NY: Oxford University Press.

Rockenbach, A. B., Hudson, T. D., & Tuchmayer, J. B. (2014). Fostering meaning, purpose, and enduring commitments to community service in college: A multidimensional conceptual model. *The Journal of Higher Education, 85(3),* 312-338.

Set up a page. (n.d.). Retrieved January 28, 2016, from <https://www.facebook.com/business/learn/set-up-facebook-page>

Statement on the use of secure psychological tests in the education of graduate and undergraduate psychology students. (1994). Retrieved February 15, 2016, from <http://www.apa.org/science/programs/testing/test-security.aspx>

Steuer, F. B., & Ham, K. W., II. (2008). Psychology textbooks: Examining their accuracy. *Teaching of Psychology, 35*, 160-168. [https://dx.doi.org/10.1080/00986280802189197](https://dx.doi.org/10.1080/00986280802189197%20)

Smith-Robbins, S. (2011). "This game sucks": How to improve the gamification of education. *Educause Review, 46(1),* 58-59.

Toyama, K. (2015, November). The looming gamification of higher ed. *Chronicle of Higher Education,* *62(10)* 17. Retrieved January 28, 2016 from <http://chronicle.com/article/The-Looming-Gamification-of/233992>