Using Role-Play to Enhance Critical Thinking about Ethics in Psychology

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Abstract

In this chapter, I describe a highly structured, student-centered role-play activity. Before coming to class, students read about the Tuskegee Syphilis Study. They then work cooperatively in small groups to decide on how to collectively portray the role of their assigned character from the study. Each group then presents their character’s testimonial at a tribunal, with the aim of clarifying the injustices that occurred during the study. The activity is designed to foster collaboration and communication skills and to encourage students to think critically about how this historical study violated ethical standards for conducting research with human subjects. Assessment data suggest that the activity deepens students’ understanding about the significance of the study and the purpose of giving informed consent as a research participant.

Introduction

Consistent with the principles of backward design (McTighe & Wiggins, 2012), I design my courses with the end in mind (for more details about backward course design see also Strashnaya and Dow, this volume). Based on the goals suggested by APA for the Undergraduate Major in Psychology (APA, 2013), my learning objectives in my Introductory Psychology classes are to enhance my students’ collaborative, communication, and critical thinking skills. Although it is not quick or easy to change how students think (e.g., Benassi & Goldstein, 2006; Halonen, 2008; Halpern, 1998, 1999; King & Kitchener, 2004), I have found that using learner-centered activities that my students find enjoyable (like the role-play I describe here) increases their motivation to engage in higher-order thinking. The role-play exercises in my classes involve highly structured small-group activities in which students learn to cooperate and construct knowledge with their peers. Having opportunities to work on improving their collaborative skills is particularly important for students because employers increasingly value these skills in a variety of career settings (National Association of Colleges and Employers (NACE), 2014). Using role-play activities is also consonant with the American Association of Higher Education’s evidence-based principles for effective undergraduate education (Chickering & Gamson, 1987), who advocate for the use of active learning and collaboration among students.

Role-plays have been used extensively to educate students across multiple disciplines (Rao & Stupans, 2012), including medical (Lane & Rollnick, 2007; Nestel & Tierney, 2007) and mental health fields (Rabinowitz, 1997; Schwitzer, Gonzalez, & Curl, 2001; Smith, 2009), as well as for training teachers (Çerkez, Altinay, Altinay, & Bashirova, 2012; Kilgour, Reynaud, Northcote, & Shields, 2015; Koc, 2011) and encouraging students to take leadership roles (Brown, 1994; Shapiro & Leopold, 2012). Role-play enhances student learning across multiple domains (e.g., Stroessner, Beckerman, & Whittaker, 2009), including perspective taking (Pusateri, Halonen, Hill, & McCarthy, 2009), critical thinking (Poling & Hupp,
There is growing evidence to suggest that role-plays also help students to consolidate and enhance their knowledge in a particular subject area (DeNeve & Heppner, 1997; McCarthy & Anderson, 2000; Poling & Hupp, 2009; Poorman, 2002). Role-play has also been used in a variety of different undergraduate psychology classes to deepen students’ understanding about psychological disorders (Poorman, 2002), research design (Bleske-Rechek, 2001), ethics (Rosnow, 1990; Strohmert, 1992), historical influences in the field of psychology (Zehr, 2004), acculturation (Tomcho & Foels, 2002; Zamboanga, Ham, Tomaso, Audley, & Pole, 2016), and key concepts in developmental psychology (Poling & Hupp, 2009).

The role-play exercise that I describe here was originally developed with my innovative colleague, Kimberly Helmer, when she was teaching in the English department at John Jay College, for students in our Introductory Psychology/Introductory English learning community classes. This particular role-play centers on portraying characters in the highly unethical 40-year-long Tuskegee syphilis study (Jones, 1993; Rivers, Schuman, Simpson & Olansky, 1953; Shafer, Usilton, & Gleson, 1954; Thomas & Quinn, 1991). The Tuskegee study researchers decided that they wanted to study the natural trajectory of syphilis, and consequently, all of the study participants (nearly 400 impoverished Black men) tested positive for syphilis but were purposefully left untreated and uninformed about the nature of their illness or its communicability (Jones, 1993; Thomas & Quinn, 1991). The role-play exercise is designed to increase students’ skills in terms of communication, collaboration and critical thinking, while helping them to understand how this historical study has shaped protection for human subjects participating in research studies today. I describe both the basic structure of the role-play and also provide details for a follow-up homework assignment that is suitable for introductory psychology students (who are often in their first-year at college). However, the role-play itself can be used at all levels of the baccalaureate, by adapting the follow-up homework assignment to fit the appropriate developmental level of the students.

Role-play activity

Students are first assigned the role of a person associated with the Tuskegee Study (see Table 1 for suggestions) and then, prior to coming to class, they read a thought-provoking description of the study written by Thomas and Quinn (1991). Thomas and Quinn (1991) explain that the study began as a collaborative effort between the Public Health Service (PHS) and the Rosenwald Fund to control syphilis among impoverished Blacks in the rural south of the United States. From 1929 to 1931, a large number of Black study participants were tested and identified as having the disease. However, during the Depression, the Rosenwald Fund withdrew from the project due to lack of finances and so the proposed treatment phase of the study could not be carried out. This dramatically changed the nature of the study. PHS scientists decided that they would continue the study by investigating the effects of untreated syphilis among Blacks. Initially they planned to do this for 6-9 months, but the study actually continued for 40 years. Moreover, the study persisted long after penicillin had become widely available as an effective treatment for syphilis, because the researchers wanted to track changes in these untreated participants until they died. In fact, the investigators went to extraordinary lengths to ensure that participants were never given the chance to receive effective treatment by involving a wide range of authorities (including the draft board and local and state health authorities across the country). The participants were not informed about the true nature of the study, nor were they told that they had syphilis and how this disease could be communicated to others. Moreover, the PHS involved community leaders, a Black nurse, and Black doctors from the Tuskegee Institute in order to increase the chances of
persuading the men to participate in the study. The incentives that the participants were offered – free physical examinations, food, transportation, and burial costs – were also clearly coercive given their impoverished financial situations. During the mid-sixties, Peter Buxton, a PHS investigator tried to bring the study to an end by writing to the Director of Venereal Diseases, who eventually discussed his communications with the Director of the Center for Disease Control (CDC). However, a CDC panel then decided that the study should still continue until the men died. The study finally came to a halt following the public outcry after Buxton told his story to the Washington Star. Thomas and Quinn (1991) contextualize the study in terms of feelings of mistrust among Blacks in relation to public health programs designed to control the spread of HIV in the 1990s.

Table 1. Suggested characters for the role-play (* extra characters for large classes)

<table>
<thead>
<tr>
<th>Character</th>
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<tbody>
<tr>
<td>Representative from Julius Rosenwald Fund</td>
</tr>
<tr>
<td>Representative from the Public Health Service</td>
</tr>
<tr>
<td>Eunice Rivers, study nurse</td>
</tr>
<tr>
<td>Study participant</td>
</tr>
<tr>
<td>Peter Buxton</td>
</tr>
<tr>
<td>Taliferro Clark*</td>
</tr>
<tr>
<td>Relative of study participant (spouse or child)*</td>
</tr>
<tr>
<td>Tuskegee Institute doctor*</td>
</tr>
</tbody>
</table>

After completing the reading, each student prepares a very short written statement to bring to class that explains their assigned character’s role in the Tuskegee study. The role-play itself occurs in the form of a tribunal that brings together the people (both living and dead) who were associated with the study in order to clarify what happened in the study and to decide the level of injustice that occurred. Students are free to express their feelings about the study (within the context of their character) in their statements, including justifications or apologies for their behavior.

This role-play activity is highly structured so that all students (irrespective of any previous role-play experience) can quickly grasp what is expected of them. Structured activities have also been shown to increase learning more effectively that unguided discovery learning (Alfieri, Brooks, Aldrich, & Tenenbaum, 2011). The role-play activity is designed to encourage students to learn how to work with peers from different backgrounds and with different viewpoints, and so is predicated on the best practices for cooperative learning (Johnson, Johnson, & Smith, 1998; Slavin, 1995; see also Sawyer & Obeid, this volume). The role-play class period begins with students meeting in small 4-5 person groups with others who have been assigned the same character. They share their statements with the other group members and then collaboratively write a short script for their character’s testimonial. Consistent with Vygotsky’s theory of social constructivism (Vygotsky, 1978), students benefit from hearing each other’s interpretation of the reading as they help each other to identify and elaborate on the main points that they feel are most pertinent to their character’s role in the study. This cognitive elaboration is also likely to result in deeper understanding and greater retention of the information (Pressley et al., 1992; Slavin, 2011).

One of the benefits of this small group work is that students have to use multiple levels from both the affective and cognitive domains of Bloom’s Taxonomies for Educational Objectives (Anderson et al., 2001). Within the affective domain, students have to be ready to receive information and respond to
their peers in their small groups and at the tribunal, as well as use this information to make value judgments about the injustices that they perceived to have occurred during the study. Within the cognitive domain, after recalling information from the reading and demonstrating to their peers that they understand it, they then have to analyze the information to create their role. The small-group activity is designed to promote positive interdependency (Johnson, et al., 1998; Slavin, 1995), i.e., the success of the individual is dependent on the success of the other group members. The likelihood of free-riding, a relatively common problem in unstructured group work, is therefore reduced because students depend upon each other in order to write their script and produce a coordinated character depiction (Johnson & Johnson, 2009). Another way that I ensure that students contribute equitably to the small-group discussion and character creation is by using peer evaluation. After the class, students fill in a form (see Table 2) where they rate both their own contribution and that of the other group members. I then use this to make any necessary adjustments to students’ participation grades.

Table 2. Peer evaluation form for role-play process

<table>
<thead>
<tr>
<th>Group Member</th>
<th>Group Member</th>
<th>Group Member</th>
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<tbody>
<tr>
<td>_____ did fair share of work</td>
<td>_____ did fair share of work</td>
<td>_____ did fair share of work</td>
</tr>
<tr>
<td>_____ was cooperative</td>
<td>_____ was cooperative</td>
<td>_____ was cooperative</td>
</tr>
<tr>
<td>_____ was positive, helpful</td>
<td>_____ was positive, helpful</td>
<td>_____ was positive, helpful</td>
</tr>
<tr>
<td>3= definitely</td>
<td>3= definitely</td>
<td>3= definitely</td>
</tr>
<tr>
<td>2= a bit</td>
<td>2= a bit</td>
<td>2= a bit</td>
</tr>
<tr>
<td>1= not really</td>
<td>1= not really</td>
<td>1= not really</td>
</tr>
</tbody>
</table>

Note: My peer evaluation form typically has entries for five group members and one for self-assessment.

After about 15-20 minutes of this small group work, the groups then come together at the tribunal itself. Each character is asked to give their testimonial and because each group is representing one person, students are asked to think of themselves as one body with multiple heads. Each person within the group speaks for one minute, and as one person speaks the other group members pay careful attention and mimic their body language and gestures. This practice helps to keep students on task and promotes active listening when one of their group members is speaking. I usually start with the representative from the Rosenwald Fund to help students to understand that the initial rationale for the study was benevolent. Then we rotate through the characters: the PHS official, the study participant, the study nurse, and end with the whistle-blower, Peter Buxtun. I act as the judge at the testimonial, and ask clarifying questions to make sure that the students accurately present the role portrayed in the article that they read. This also ensures that important information is not glossed over. The structure of the activity is similar to that used in jigsaw designs (Aronson, Blaney, Stephin, Sikes, & Snapp, 1978; Carroll, 1986; Clump, 2012; Crone & Portillo, 2013); students become experts in a particular area (their own character) and then at the tribunal all students benefit from hearing from the other characters in the study. Students in the class are motivated to pay attention to whoever is speaking during the tribunal because they know that they may have to use this information when answering questions about their own role in the study. Furthermore, they know that they will need a strong understanding of multiple aspects of the study to successfully complete the related homework assignment. From a practical viewpoint, instructors who teach large classes (in excess of 40 students) may find it better to
hold multiple (simultaneous) tribunals by dividing the class into smaller subgroups. Teaching assistants (or another student within the group) can act as tribunal judges for each subgroup, and the faculty member can rotate from group to group.

There is considerable freedom for students to explore ideas within their small groups, with the result that across classes, the tribunal is never the same. Inevitably, some students are tasked with playing the role of someone who they feel behaved very badly in the study, especially if they have to play the part of a PHS official. Although no one has ever complained about this, students vary considerably in their willingness to temporarily put aside their personal feelings about the role. Consequently, sometimes, the PHS official is apologetic and admits that the PHS behaved unethically. However, in other classes, the PHS official plays the devil's advocate and cites societal norms for racism at the time of the study as justification for their behavior toward the Black study participants. Students may have to take the perspective of other characters such as Eunice Rivers, the community nurse, who they often imagine tries to be kind to the men in the study, but still has to carry out the orders of her superiors. My students are particularly passionate in their indignant portrayals of the impoverished black men who participated in the study, by describing how they were persuaded to participate by influential community leaders and the lure of food, money, and medical attention. They also express their anger that they were denied treatment and that they had unknowingly spread the disease to family members. Moreover, they are emphatic in their disbelief that this study went on for forty years. To bring the role-play activity to a close, we talk about what students have learned about the study. We finish by discussing what kinds of protections are in place for participants in research studies today, such as giving informed consent, and what students felt they gained by participating in the role-play exercise. This discussion is a very important part of the process as it helps to bring about closure and ensures that students understand the relevance of the role-play (Hertel & Millis, 2002).

In my undergraduate courses, my students' enthusiasm during the classroom activity carries over as they engage with the written homework (see Table 3) that follows the exercise. The homework has two main objectives, one is to assess whether students have understood the main points of the Tuskegee study, and the other is for students to gather information about other unethical psychological studies. In doing the latter, students participate in one of a sequence of scaffolded assignments designed to promote informational literacy. This particular assignment, which comes near the start of the semester, allows me to assess which search strategies students use in looking for information and what criteria they use to assess reliability of sources. These questions start to prompt students to consider the effectiveness of their strategies for finding and evaluating information.
Table 3. Homework

You both read about the Tuskegee study and acted out some of the roles of the characters involved. Please answer the following questions:

1. Do you think that the original idea for the Tuskegee study was ethical? Why/Why not?
2. When do you think the Tuskegee study became unethical? What factors that made it so?
3. Why do you think that so many African Americans agreed to participate in the study?
4. How long did the study go on for?
5. Who provided funding for the study?
6. What did the scientists who conducted the study think that they would find out?
7. Why do you think that the scientists felt justified in carrying out the study?

DIG DEEPER QUESTION: As a result of studies like this one, in 1979, the Belmont Report made recommendations about how research must be conducted. Nowadays, all research involving human participants must be approved by an ethics review board (institutional review board or IRB) that protects the rights of research participants. I want you to dig deeper into the history of science/psychology to find another example of an unethical experiment. You can use any sources that you feel are appropriate for this assignment, but you must complete the worksheet below so that I can understand where and how you found the information.

Tuskegee – Dig Deeper Worksheet

1. Where did you find the information?
   a. Internet
   b. Book
   c. Newspaper
   d. Other – please state

2. Tell me more exactly how you found the information, i.e. the name of the search engine that you used if you did an Internet search, or how you found the book etc. Give me as much detail as possible so if I wanted I could find exactly the same information.

3. What keywords did you use to search?

4. Tell me the exact source of the information – i.e. the html of a website, the information about the book – again, be as precise as possible, imagine that you are leaving me a trail of clues to follow so that I can see exactly what you did and so that I can do the same.

5. Make a copy of the information to hand in.

6. How reliable do you think that this information is? Tell me why you think this.

Assessment

I formally assessed the efficacy of the role-play exercise on increasing student learning in two ways. First, in two English/Psychology learning community classes (a total of 46 first semester first-year students) I compared scores on the homework assignment related to the role-play activity (described in Table 3) to the combined scores on all other comparable homework assignments that did not involve role-plays. The score (out of 20 points) on the role-play related homework ($M =16.2, SD = 2.8$) was significantly higher than the combined scores for all other comparable homework assignments ($M =14.9,$
These data suggest that role-play helped to deepen students’ understanding of research ethics within the context of the Tuskegee study. Secondly, I compared the scores on a multiple-choice test item relating to informed consent that I administered to six different sections of Introductory Psychology classes that I taught over various semesters. In three of the classes, all of the students ($n = 58$) engaged in the Tuskegee role-play described above, but in the other three classes ($n = 96$) there was no role-play activity. More students in the role-play group (96.6%) answered this question correctly than in the non-role-play group (79.8%), $\chi^2 (1, N=152) = 8.47, p = 0.003$. Students’ perceptions about the role-play activity were not formally collected but I have provided a summary of some of their general impressions during the debriefing session in the conclusion section below.

Conclusions
This role-play exercise helps to bring psychology to life in the classroom, and despite the gravity of the topic, students find it to be very enjoyable. This enjoyment may help to explain why they are so highly engaged during the role-play activity (Slavin, 2011). Students usually tell me that the role-play helped them to understand the study from multiple viewpoints. Even doctoral students, who have participated in the exercise as part of a Teaching of Psychology class, report that engaging in the role-play increased their ability to take the perspective of others. The assessment data support the notion that the role-play activity helped students to internalize and reflect on what they knew about the study in their homework assignments and helped them to understand the concept of informed consent. Other studies have also found evidence that role-play increases comprehension of a topic (DeNeve & Heppner, 1997; McCarthy & Anderson, 2000; Poling & Hupp, 2009; Poorman, 2002). In addition, Poling and Hupp (2009) found evidence that role-play can increase critical thinking skills. I did not explicitly measure gains in critical thinking before and after the role-play, but students clearly engaged in higher-order thinking both during the creation of their testimonials, and also when asking and fielding questions during the tribunal. Some of these questions required students to extrapolate beyond the reading and imagine more explicitly the motivation behind their character’s actions.

One criticism of role-plays among medical students is that some people find them to be anxiety provoking (Stevenson & Sander, 2002) and in some of the debriefing sessions at the end of my role-play activities, a few students have stated that they felt nervous before coming to class. However, they typically go on to say that collaborating on the script with their classmates lessened their anxiety. Therefore, having students work cooperatively on a role-play activity may lead to better outcomes. Students also think that this activity helps them with their public speaking skills, which they acknowledge is likely to be valuable in their future careers.

The role-play activity helps students to think about ethical issues in psychology studies. Students seem particularly invested in the part of the homework assignment where they have to find another unethical study, and they enthusiastically share the details of these in subsequent class discussions. Other studies have also shown various role-plays to be effective for deepening students’ understanding of ethics in research studies. In some cases, students played the parts of Milgram (Obedience to Power) or Zimbardo (Stanford Prison experiment) or other authors of unethical studies who had to defend their study to the IRB (Rosnow, 1990; Strohmetz, 1992). Similarly, Kraus (2008) found that sociology students who made up skits that addressed various ethical issues in research design improved their ability to identify situations in which research ethics were violated.
In general, I have found this role-play activity to be a highly successful student-centered learning practice. It motivates students to engage with their peers in thinking deeply about ethics and the motivation behind a historically important research study.

References


Stevenson, K., & Sander, P. (2002). Medical students are from Mars - business and psychology students are from Venus - University teachers are from Pluto? *Medical Teacher, 24*(1), 27-31. doi:10.1080/00034980120103441


Chapter 16: Ten TED Talk Thinking Tasks: Engaging College Students in Structured Self-Reflection to Foster Critical Thinking
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Abstract
When technology is used in a purposeful and structured way as an online learning tool, students engage in the self-reflection about past face-to-face learning experiences and link them to the new learning experiences. As a result, students learn to synthesize the learning material and participate in higher order thinking. I use Ten TED Talk Thinking Tasks posted on Blackboard as an effective student-centered activity to spark student interest in complex topics and to help students perceive their relevance in relation to developmental psychology. These weekly online thinking routines serve as a powerful learning tool that prompts students to consider how their personal experiences and professional goals are related to ideas spread by inspirational TED thinkers. In doing so, I involve students for a longer period of time with the course material to foster critical thinking and develop competence in academic writing. The online tasks enhance student comprehension of textbook reading and confidence to participate in class discussions, but more importantly, they establish routines in active self-reflection and writing that help students to attend more closely to their own learning through metacognition.

Introduction
Using the principles of blended learning theory (Garrison & Kanuka, 2004), recommending the traditional classes be augmented with online learning opportunities, I started to use freely accessible Technology, Entertainment and Design Talks, also known as TED Talks, posted online to a Blackboard (BB) discussion board as an effective student-centered activity to spark student interest in course topics prior to class. Averaging 10 to 18 minutes, the short TED Talks are recorded conference presentations given by expert speakers on thought-provoking topics related to global issues (Masson, 2014). Sir Ken Robinson questions the modern education system and asks the audience why we cannot teach students dance the way we teach them math and educate their whole being rather than from the waist up. In this chapter I describe how I use TED Talks as a pedagogical tool for students to engage in deeper thinking, develop personal grit, and gain understanding of the mindset of professionals. I use structured TED Talk Thinking Tasks to prompt my students to be involved in self-reflection while learning about human development from experts in the field. Stirring TED Talks that are linked with material in the textbook chapters can serve pedagogical purposes of enhancing self-efficacy and confidence to approach complex topics.

When technology is used in a purposeful and structured way, students spend time engaged in self-reflection about past face-to-face learning experiences and can link these experiences to new learning experiences. As a result, students learn to synthesize the learning material in a meaningful way and engage in higher order thinking, which allows for longer retention of textbook material (e.g., Benjamin, 1991; Hartlep & Forsyth, 2000; Mayer, 2008). Recorded media, when combined with questions, allows

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