Perceived classroom engagement and perceived classroom learning: Ethics class case study

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Active learning, engagement, ethics, student learning

Abstract

Active learning and flipped classrooms continue to trend upwards in higher education. Experts disagree on whether this trend has improved student learning. A known benefit of the flipped classroom is moving beyond identifying and explaining a concept to application, analysis, and evaluation of the topic. Yet, there is debate between students and among academic experts on the effectiveness of the flipped classroom to enhance classroom learning. This study will focus on the perceived engagement and perceived learning of a variety of activities in a Professional Ethics class. The purpose of this study is to ascertain the perception of which activities are most engaging and which contribute the most effectively to learning. Students completed an online survey on a four-point scale to identify their perceived engagement and perceived learning. Results of the study indicate that perceived learning increased with increased engagement, though the correlation was weak. The information from this study facilitates designing a class with high engagement and effective learning. Note: classroom engagement should not be confused with student engagement. This paper only focuses on the student's perception of engagement in specific classroom activities.

Introduction

Teaching and learning are important concepts in higher education. Faculty members are interested in understanding how to maximize their effectiveness during the face-to-face time in the classroom. This is also important for corporate training. A variety of learning methods have been identified, were used, categorized and analyzed for effectiveness.

The first learning objective of this study was to investigate students' perception of classroom engagement as it related to classroom learning. The second learning objective was to discover what type of activities students found most engaging. The third learning objective was to determine what kind of activities students found were most conducive to learning. The final learning objective was to use the information gathered to adjust improve teaching and learning in future classes.

Based on discussions with other faculty members, a general perception of classroom engagement is not that difficult. However, discerning learning from classroom activities is more difficult. Even direct assessments only provide information about what students know, not necessarily what they learned. One useful method for understanding what engages students and what helps them learn is to ask. Anonymous feedback from students helps an instructor understand not only what students find engaging, but also what students perceive as useful learning activities.

Literature review

Not surprisingly, experts do not agree on one concise goal for higher education. Some of the identified targets are "to provide a better life" (Nyangweso, 2017), "advance learning" (Kiener, Green, & Ahuna, 2014), and "for students to learn to apply the knowledge and skills they acquire to the realm of everyday life" (Dajani, 2013). Although it is not necessary to agree on a goal or set of goals for higher education, it is essential to set goals to be able to measure success. One standard measure used by institutes of higher learning is meeting learning outcomes (De Vlieger, Jacob, & Stange, 2017). By setting appropriate learning outcomes and helping students reach these outcomes, students should achieve advanced learning, build a better life, and can apply their knowledge to their personal and professional lives. Determining methods and techniques for instructors to help more students master learning outcomes is essential to continuous improvement and higher quality in higher education.

Student engagement is one of the better predictors of personal development and mastering of learning outcomes (Carini, Kuh, & Klein, 2006). Prince (2004) analyzed research on student engagement and stated student engagement and positive learning outcomes were nearly a consensus. Active learning, defined as classroom activities using collaborative learning, contributes to classroom engagement (Prince, 2004). Intentional and appropriate use of educational technology in the classroom has positive correlations with engagement (Chen, Lambert, & Guidry, 2010). Continued research into improvements in classroom engagement techniques is essential to enhance methods to help more students master learning outcomes.

Active learning and flipped classrooms continue to trend upwards in higher education (Allen, Withey, Lawton, & Aquino, 2016). Flipped classrooms intend to use class time to use higher levels of Bloom's Taxonomy (create, evaluate, analyze, and apply) as the lower levels (understand and remember) are expected to be addressed by students prior to class time by reading the textbook, watching videos, and completing assignments such as online quizzes, journaling, and guided questions. Active learning uses interactive techniques and methods designed to increase student attention, participation, and engagement (Hora & Ferrare, 2014). Multiple higher education studies have identified high student achievement by using active and interactive teaching methods (Lane & Harris, 2015, Wieman & Gilbert, 2014).

Unfortunately, changing from a lecture-based traditional classroom to a flipped classroom model does not always increase student learning (Hunt, Trent, Jackson, Marquis, Barrett-Williams, Gurvitch, & Metzler, 2016). Instead, focusing on what engages students is better information and leads to better information for meeting learning outcomes (Allen et al., 2016). Understanding the students' perception of what leads to improved classroom engagement and classroom learning is essential for faculty to consider when designing how best to manage and use classroom time.

Research Methodology

To run this exercise, first, select a course to use as the framework. Although it may not be necessary, contact the organization's Institutional Research Board (IRB) to receive permission to conduct research. During the first week of class, students decided whether they were willing to participate in the study. Students who were willing to participate signed and returned an informed consent that explained the purpose and goals of the study. Based on the course's learning outcomes, identify, create, and compile a variety of activities (Appendix A). Conduct these activities during class. After each event, ask students to use their mobile technology (Smartphones, tablets, or laptops) with the survey site "Poll Everywhere" to anonymously share their perceptions of the activity related to engagement and learning. The specific questions and possible responses were identical for each event (Appendix B). The survey tool had the functionality to export data into a spreadsheet format.

After each activity, download the results into a spreadsheet and name the sheet to associate it with the activity. Store the spreadsheet for analysis. At the end of the course, compare each event to the other events based on the students' perception of their engagement and learning. Rank activities from highest to lowest for engagement and education.

Over 40 students participated in the study from two classes. The course used for this study was a Professional Ethics class. The class met twice a week for 15 weeks, each class lasting 80 minutes. Students consisted of 15% first-year students, 54% second-year students, 27% third-year students, and 4% fourth-year students. All students were in College of Business degree plans. Students provided feedback on 17 activities. Of the 17, 6 were surveyed in both classes while 11 were only surveyed in 1 of the two classes. The intention was always to survey both classes, but some surveys did not occur because of running out of time at the end of a course. In other instances, the instructor did not remember to conduct the study.

Results

The formula for calculating weighted scores allocated zero points for little to no, one point for basic, two points for good, and three points for excellent. The overall ranking order for engagement and learning is in Appendix C. Appendix D shows the best fit line from the data that shows on average, perceived learning increased as perceived engagement increases.

Some interesting and surprising findings occurred when analyzing the data. The highest perceived engaging activity, the (13) Multidiscipline Mingle, was one of the lowest in perceived learning. The activity was unique, not often done at my institution, and the students enjoyed interacting with students

from other classes. However, the students did not link their teaching ethics to students in a different class as a sign of improved learning.

Students watched three videos. For each video, the higher the perceived engagement, the higher the perceived learning. The (07) Cookie Conspiracy is an activity that students talk about with the instructor in semesters after completing the ethics class. It is unusual and memorable. The activity had low perceived engagement and learning. Two (14 and 11) actions requiring role play resulted in significant differences in perceived engagement but were both high in perceived learning. Not surprisingly, the (02) Course Content Lecture was near the lowest in perceived engagement; however, it was in the top five of perceived learning.

Discussion and conclusion

The first learning objective of this study was to investigate students' perception of classroom engagement as it related to classroom learning. On average, as perceived engagement increased, perceived knowledge also increased. However, the link is weaker than expected.

The second learning objective was to discover what type of activities students found most engaging. The top four activities in perceived engagement were group activities. These four activities also required students to move around the room. When showing videos, it is important to have videos that keep the students' attention and are interesting and on topic.

The third learning objective was to discover what type of activities students found were most conducive to learning. As already stated, the activities with higher perceived engagement were generally those with higher perceived knowledge. An exception to this association was the lecture, which had higher perceived learning, but low perceived engagement.

The final learning objective was to use the information gathered to adjust improve teaching and learning in future classes. To enhance teaching and learning, more intentional and appropriate lecturing should be considered. The lecturing should be kept brief, 10 minutes or less, and focus on how to apply and create, instead of regurgitating information from the textbook. Although a positive association between engagement and learning was expected, finding more engaging activities tied directly to the learning outcomes of the course continues to be a focus for class preparation.

A lesson learned from this exercise was the importance of explaining and debriefing each activity. When facilitating each activity, the debriefing focused on teaching students the desired learning from the activity. In the flipped classroom, finding active learning activities can sometimes unintentionally become more important than meeting learning outcomes. This exercise helped balance the focus on engagement and learning.

Limitations and direction for future study

A limitation of the study might be the bond that forms between faculty and students. As the semester progresses, relationships are built between instructor and students and there could be a halo or horn effect; that is, students might have selected a response based on the overall feeling for the class and the instructor rather than carefully consider the differences between each activity.

Another limitation of the study would be sample size. This study was done for one semester and two classes of approximately 25 students. There were some significant differences in results from the same activity in the different classes.

A final identified limitation was the results were aggregated. Rather than look at each student and the relationship between perceived engagement and perceived learning, this was consolidated be class.

Future studies could use more instructors using the same activities. It would help to increase the number of classes and participants. A final recommendation would be to keep track of the relationship of perceived engagement and perceived learning by individual participant rather than by class.

APPENDIX A
ACTIVITY LIST

A short description of each activity. An asterisk (*) appears on the activities in which research using a search engine is likely to provide multiple links for activity details.

Alligator River Case*: A short scenario in which five individuals interact such that all five individuals make questionable ethical decisions. Students are asked to rate the character's behaviors

anonymously. The first name listed is most unethical, second name listed is the second most unethical, and so on. All five characters are listed with a name for number 1, number two, number three, number four, and number five. After all students are finished, there is a discussion as to why students chose the character as most unethical. Activity objectives are for students to understand that based on background, experiences, and ethical understanding that there will be a variety of rankings and that compelling arguments exist for different characters to be identified as most unethical.

Course Content Lecture: A 10 to 15-minute lecture without interactive discussion. Activity objective is to cover course content without using an active learning technique.

Veil of Ignorance*: Four economic policies are presented. Each economic policy has two options. Students are asked to select from the two options in two rounds. In the first round, they are assigned a role with family, occupation, and wealth information. In the second round, they are not assigned a role. Activity objective is to demonstrate that it is often natural to select between options based on how the decision will affect one personally rather than how the decision will change society.

Diamond 9 Ethical Activity*: Nine ethical business positions (for example not testing on animals, donating money to charity, etc.) are printed on diamond shapes. Students are asked to construct a large diamond using all nine smaller diamonds with the diamond that is most important to them personally on the top and the position least important on the bottom. Activity objective is for students to examine motives for position rankings and understand there are benefits and costs associated with an ethical stance in business.

Personal Experience of Unethical Activity: Split students into groups of four. Have them discuss any unethical behaviors they have witnessed in the workplace. After they have talked for five minutes, instruct them to choose a situation that they feel will be debated regarding whether the behavior is ethical or unethical. Write down the scenario. After each team has completed documenting the case, have teams trade scenarios with other teams. Once traded, teams are to discuss the situation and discuss which behaviors (if any) were unethical. Activity objective is for students to understand that they have been involved in or witnessed ethical decisions and that discerning if behaviors are unethical can be difficult.

Creating Ethical Cultures in Business (TedTalk Video) *: After viewing the video, ask students to share personal revelations related to course content. Activity objective is for students to apply course concepts to personal experiences based on information from the video.

Cookie Conspiracy: Recruit three to four students to partner on this activity. Bring in a container of cookies and give to one of the students. This student will bring the cookies into class and set them on the table/desk in front of him or her. Once class starts, have the student leave the room leaving the cookies behind (student forgot textbook or needs to take a phone call). Have one of the students (or the instructor) open the container, grab a cookie and take a bite, and then ask who else would like a cookie. Immediately the other recruited students agree to take, and eat, a cookie. Cookies are then given to any student who agrees to take a cookie. The student who left the room now returns, pretends to be angry (or disappointed) because these cookies were for a project in the student's next class. After some awkward silence, the instructor debriefs and explains that this was a setup but asks why no one objected. A discussion to emphasize that courage is needed to stand up and stop the unethical behavior; it is not enough to not participate. Activity objective to understand that personal action is often required to prevent and discourage unethical behavior.

Vail Resorts Crisis Management (NJVID Video) *: This video describes an eco-terrorist attack at Vail Resorts, the ethical issues leading up to the attack, crisis management planning, and the organization's response. Activity objective is to understand the importance of crisis management planning and how social and ethical audits are needed to anticipate possible risks.

Harassment Case Study: In class case study to walk through the following five steps: problem, people (stakeholders), ethical principles, moral philosophies, and plan (solutions/recommendations). Activity objective is to follow a process to make informed recommendations.

Ashley Madison Case: Discuss businesses with goods or services that many perceive as unethical, though legal. Who is more at fault, the company or the customers? Activity objective is to understand the similarities and differences between legal, illegal, ethical, and unethical.

Powerbase Role Play: Split students into five to seven groups. Assign or have them randomly pick from reward, coercive, legitimate, referent, expert, informational, and connection. Give them time to create a skit in which the power base is used unethically. After each team presents, have the class identify the powerbase used and if the example used was unethical. Activity objective is to understand that power can be abused, and care should be taken when using power in the workplace.

Industry Analysis: Split students into groups. Have groups select from the following industries: Advertising & Marketing, Construction, Financial Services, Energy, Human Resources, Consumer Products & Services, Logistics & Transportation, Business Products & Services, IT Services, and Health. Using technology, have students search for scandals or ethical issues unique to the industry (for example, healthcare privacy – minors and parents). Activity objective is to identify unique ethical issues to provide a broader understanding of ethics in the workplace.

Multidiscipline Mingle: Partner with another class. Combine classes. Create groups with students from each class. For example, combine an ethics class with a communications class. Provide case studies and have groups provide solutions. Each group will present their solutions. The communications class will make recommendations on how to effectively communicate the solutions and the ethics class will make recommendations on concepts to support proposals. Activity objective is for students to be experts in their course content and teach to other students.

Country Culture Role Play*: Split students into groups. Assign or let students select a foreign country. Using Hofstede's cultural dimensions, role play a workplace scenario in which a manager uses a home country behavior that may make a foreign worker uncomfortable (for example, public praise for a worker from a culture where individual recognition is not used). Activity objective is to consider the ethical implication of understanding the role of culture in international business situations.

Michael Sandel's Justice Video Series*: Interactive use of segments of this video series. Stop the video and interact with students and then compare class discussion with the responses from Sandel's class. Activity objective is for students to understand that the concepts being discussed are also being presented at other universities. A secondary objective is for students to gain confidence by having similar thoughts and insights to students from one of the top Universities in the United States.

Ethical Challenge – What Would You Do? Anonymous interactive survey tool is used for students to select from multiple actions to perform from short cases. After picking, students discuss the reasons for their selection. Activity objective is for students to see the variety of responses, to understand how people view ethical situations differently, and to attempt to persuade others to change answers.

Multidiscipline Simulation: The simulation used was provided as instructor materials by the textbook publisher. A basic scenario with ethical issues is shared with all students. Separate information is provided to groups of students by job title, for example, the Vice President of Sales and Marketing, General Counsel, Vice President of Finance, Vice President of Human Resources, and so on. Students are broken into groups by job title and asked to make recommendations based on the information they have and assumptions they make. Each group shares their recommendations. Next, groups are formed with one person from each job title and information is shared and the groups are asked to make a recommendation. Activity objective is to understand the importance of sharing information with other departments when making ethical decisions. A secondary objective is to understand the importance of assumptions in decision making and that assumptions need to be validated when possible.

APPENDIX B
POLL EVERYWHERE QUESTIONS

On a 4-point scale, how engaged were you in the activity?
Little to no engagement
Basic engagement
Good engagement
Excellent engagement

On a 4-point scale, how much did you learn from the activity?
Little to no learning
Basic learning
Good learning
Excellent learning

APPENDIX C
ACTIVITIES RANKED
Weighted ranking – 0 points for little to no, 1 point for basic, 2 points for good, 3 points for excellent.

ENGAGEMENT RANKINGS

	Engaged					Weighted Engagement
13. Multidiscipline Mingle	11	4	3	0		2.44
01. Alligator River	18	27	3	1		2.20
14. Country Culture Role Play	9	5	1	1		2.19
03. Veil of Ignorance	15	21	3	1		2.18
04. Diamond 9 Ethical Activity	5	11	2	0		2.17
15. Michael Sandel's Video (Justice Series)	7	12	4	0		2.13
09. Harassment Case Study	16	22	4	3		1.93
05. Personal Experience	9	24	8	1		1.90
16. Ethical Challenge	4	11	6	0		1.90
08. Vail Resorts Crisis Management Video	2	8	5	0		1.80
17. Multidiscipline Simulation	7	6	3	2		1.67
10. Ashley Madison Case	3	10	5	1		1.63
12. Industry Analysis	3	10	6	1		1.60
02. Course Content Lecture	7	16	12	2		1.59
06. Creating Ethical Culture Video	8	20	12	4		1.45
11. Powerbase Role Play	6	15	11	5		1.19
07. Cookie Conspiracy	8	4	2	5		1.00
	138	226	90	27		1.82

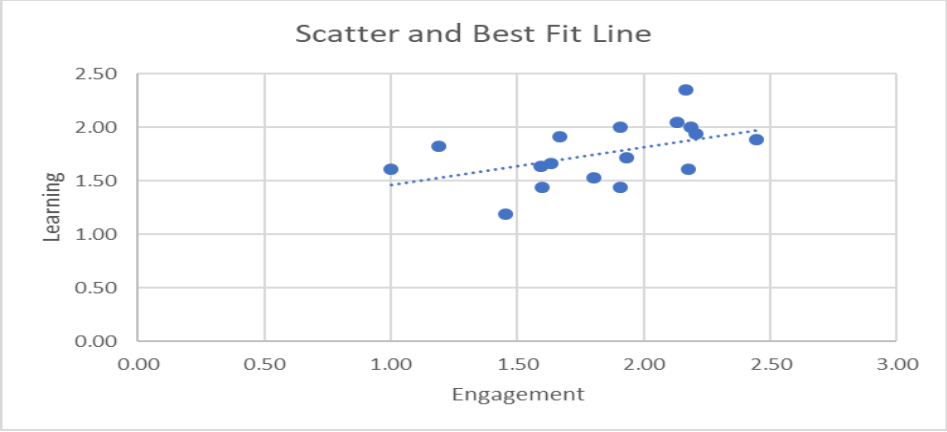
LEARNING RANKINGS

	Learning					Weighted Learning
14. Country Culture Role Play	4	6	8	1		2.35
03. Veil of Ignorance	4	8	4	0		2.05
02. Course Content Lecture	9	25	7	0		2.00
04. Diamond 9 Ethical Activity	10	19	10	0		2.00
17. Multidiscipline Simulation	3	10	5	3		1.94
01. Alligator River	12	3	1	1		1.92
05. Personal Experience	6	8	2	1		1.89
07. Cookie Conspiracy	8	28	8	1		1.83
09. Harassment Case Study	10	20	6	3		1.72
08. Vail Resorts Crisis Management Video	6	11	5	1		1.67
16. Ethical Challenge	4	7	3	2		1.64
15. Michael Sandel's Video (Justice Series)	8	16	18	3		1.61
11. Powerbase Role Play	3	12	6	1		1.61
10. Ashley Madison Case	2	6	7	0		1.53
06. Creating Ethical Culture Video	9	30	8	1		1.44
13. Multidiscipline Mingle	6	18	10	2		1.44
12. Industry Analysis	4	11	16	0		1.19
	108	238	124	20		1.76

	Engaged					Learning					Weighted Engagement	Weighted Learning
	Excel	Good	Basic	None		Excel	Good	Basic	None			
01. Alligator River	18	27	3	1		9	30	8	1		2.20	1.92
02. Course Content Lecture	7	16	12	2		10	19	10	0		1.59	2.00
03. Veil of Ignorance	15	21	3	1		9	25	7	0		2.18	2.05
04. Diamond 9 Ethical Activity	5	11	2	0		4	8	4	0		2.17	2.00
05. Personal Experience	9	24	8	1		8	28	8	1		1.90	1.89
06. Creating Ethical Culture Video	8	20	12	4		8	16	18	3		1.45	1.44
07. Cookie Conspiracy	8	4	2	5		6	11	5	1		1.00	1.83
08. Vail Resorts Crisis	2	8	5	0		2	6	7	0		1.80	1.67

Management Video												
09. Harassment Case Study	16	22	4	3		10	20	6	3		1.93	1.72
10. Ashley Madison Case	3	10	5	1		4	6	8	1		1.63	1.53
11. Powerbase Role Play	6	15	11	5		6	18	10	2		1.19	1.61
12. Industry Analysis	3	10	6	1		3	10	5	3		1.60	1.19
13. Multidiscipline Mingle	11	4	3	0		4	7	3	2		2.44	1.44
14. Country Culture Role Play	9	5	1	1		12	3	1	1		2.19	2.35
15. Michael Sandel's Video (Justice Series)	7	12	4	0		4	11	16	0		2.13	1.61
16. Ethical Challenge	4	11	6	0		3	12	6	1		1.90	1.64
17. Multidiscipline Simulation	7	6	3	2		6	8	2	1		1.67	1.94
	138	226	90	27		108	238	124	20		1.82	1.76

APPENDIX D
SCATTER GRAPH AND BEST FIT LINE



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