

Dressed for Success: Increasing Student Participation and Performance

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Abstract

This research explores the selective use of costume to increase student participation in online posting and onsite examination performance, and included a survey of student attitudes on the costume experiment itself. Data for the independent variable of student participation and student performance was collected across five sections of two courses at a state university on the Eastern seaboard of the United States during spring and fall semesters of 2016, and spring semester 2017. Results included increased participation and mixed results on increased student performance on examination.

1. Introduction

It is generally agreed techniques from the theater can be used advantageously in the classroom to engage students in learning where the classroom is seen as a stage with actors and audience. Role-playing is often written about as an important technique in the toolbox of 'active learning' whereby students become engaged in the material [1]. The hot topic de jour in academia is using sociodrama technique of role playing, first developed in psychology, as a teaching device in college classrooms [2]. Role-playing, scripting, commercials, etc., are theatre devices used for teaching, and over the decades have accrued a literature base documenting their utility and reflecting upon their effectiveness. However, there is one facet of dramatic performance which does not have developed literature, and is not well documented: the use of costume to accentuate education.

The gathering of data to assess the use of costumes to improve student performance and participation in the classroom is still in its infancy. Research on the pedagogical advantages of using costumes in the classroom are rather spartan as its utility has heretofore remained being relegated to anecdotal human interest news, or, more seriously, to an intervention strategy for extreme cases. For example, Kelly Steeples' success as a teacher is noted first while her use of costume in the classroom serves as an ad joiner, which is tangential [3]. Moises Vazquez, an instructor at Mexico City's National Autonomous

University, routinely teaches sciences classes in full Spiderman costume, but his story remains a news curio, not an object of pedagogical study [4].

Besides human interest stories, costumes have been used in extreme educational cases. For example, costumes have been used as attention focusing devices to improve the instruction of young adults with autism [5]. Elementary school math teachers have used dressing up as historical figures, such as Pythagoras, to improve student interest and retention [6], and health instructors have used costumes of hamburgers and common foods to improve pass rates for food safety classes [7]. However, even with the successful use of costume in extreme cases there remains a paucity of research in the use of costume to improve learning outcomes in mainstream courses.

In this context, my research in gathering primary data on the use of costume to improve student performance and participation in mainstream college courses remains selective and exploratory. I call this use 'selective' because my use of costume was neither to re-emphasize information being delivered nor to get the student's attention, but was used once at the end of the semester as an incentive to experiment with increasing performance and participation. I employ action learning in the classroom emphasizing team activities and classroom cohesion [8], and used costume as an incentive to motivate teams to participate in online posting. Teams posting generates student investment in reviewing for the final examination and should likewise lead to improved performance on the final examination. Thus, the hypothesis to be tested in this experiment is the independent variable, the incentive of the instructor wearing a costume to administer the final examination, increasing the dependent variable of teams posting online, herein defined as participation, and increasing participation would likewise increase student test scores on the final examination, herein defined as student performance. Data for this experiment was gathered from classes at a mid-sized, public state university with approximately 6,000 students on the Eastern seaboard of the United States.

2. Methods

The three elements measured in this experiment included student performance, as measured in test scores, participation, as measured by number of teams posting online, and perception, as measured by a survey. Performance and participation data were gathered from a junior level sociology business course of three sections over three semesters, hereafter referred to as junior level sections, and a freshman level introduction to social science course from two sections across two semesters, hereafter referred to as freshman level sections. The control courses without the use of costume were one junior level section and one freshman section during spring 2016. The experimental costume courses involved one junior level section in fall 2016 and another in spring 2017, and also involved one freshman section in spring of 2017. Perception data was only gathered from the spring 2017 sections.

Data collection across two courses and five sections is limited, but this arrangement has advantages involving the use of the same books and instructor for each course across sections. This allows comparison of data from sections without costume of the same course to sections of the same course employing costume. However, the selective use of costume also allows us to compare data within sections where costume was used because the midterm examination did not involve costume as an incentive while costume as an incentive was used for the final. Thus, data within a section between midterm and final examinations may also be compared.

The independent variable of costume was employed in the following selective fashion to facilitate increasing the dependent variables of performance and participation. In the fall 2016, the junior level course section engaged in the 'Bop and Hop Review' for the final examination where the instructor agreed to dress up as a rabbit to administer the final if all teams posted their questions, with answers and page numbers where answers could be found, to the online discussion within a given time period, usually three days. These online discussion postings serve as the study guide for examinations in all my classes.

Action learning is employed in all sections taught by the instructor where students construct the study guide and up to 60 percent of the exam. Examinations are 30 points in total, and have two parts, the multiple choice, short answer, and fill-in question section, and the essay section. The multiple choice, short answer and fill-in question section is worth 16 points, and the instructor uses student created questions to construct this section. The essay question is constructed from two writing assignments classes have submitted prior to the test. The essay section of the test is generated by the instructor, and is worth 14 points.

In spring 2017, both the freshman and junior level course sections engaged in the 'It's About Time Review' for the final examination where the instructor agreed to dress up as Father Time if all teams were to post their questions with answers and page numbers where answers could be found to the online discussion. This selective use of costume incentive only on the final allows us to compare it to midterm examinations, where costume incentive was not used, within the same sections. Thus, we have a unique situation where we can do both intersection and intrasection participation and performance data comparison on online postings and examination scores, where point totals for midterms and finals have equal point totals.

Participation was measured by recording the number and percentage of teams posting online questions with answers and page numbers of where answers could be found. In each section, both control and experimental, classes are organized into teams of 3 to 6 students and have 40 minutes to create questions with answers and page numbers. Teams then have three days to post their questions with answers and page numbers online. In addition to data on the number of teams posting, data was collected on the time it took for teams to post. Under the rules of the 'Review', teams have three days to post online in order for the class to 'win' the challenge. In the control challenge, if 90% of the teams post within three days the class gets 2 extra credit points added to their overall semester point total. In the costume experiment, 100% of the teams must post within the given time frame in order to win and have the professor be in costume when conducting the final. Extra credit points were not added into student examination scores, so extra credit points were not measured in results for test scores and performance.

Perception of the costume experiment was measured in a Likert scale survey comprised of four questions that was administered after the final examination to the two spring 2017 sections where the costume experiment took place. The survey was comprised of the following four questions: 1. Were you curious as to what the instructor would look like dressed as Father Time?; 2. Did you smile or laugh when you first saw the instructor as Father Time?; 3. Did seeing the instructor as Father Time help to lighten the 'mood' of finals tension?; and 4. Would you recommend the instructor do this for other courses he teaches? The five point scale response contained the following choices: A. Strong yes; B. Somewhat yes; C. Neutral; D. Somewhat no; and E. Strong no. The first question was to measure student interest in the costume challenge prior to the final. The second question was to measure initial response of the student upon seeing the instructor in costume. The third question was to measure the student perception of the effectiveness of the costume in lowering the level of stress and test anxiety that often takes on a life

of its own on college campuses. The fourth question was to measure student perception of should the costume experiment be done for future students.

The survey was kept to a minimum of number of questions because student attention span and patience after taking a final during spring finals week is extremely low, and it was thought the response rate would drop significantly if the survey were comprised of ten or more questions. Thus, response rate and having a low number of questions were given a priority over having control questions and other factors, which would require employing a longer survey. It needs to be noted the finals for sections being surveyed in spring 2017, both the junior and freshman level sections, took their finals on Thursday and Friday respectively. The end of finals week in the spring semester is particularly notorious for students and faculty to be 'burned out.' Hence, this abbreviated survey of four questions has its own limitations by virtue of its brevity, but this brevity was utilized to ensure a higher response rate.

3. Results

The results of this exploratory experiment included strong data showing selective use of costume increased participation, but data for increasing student performance was less conclusive than increased participation, and the survey showed student perception was strongly in favor of the experiment. Participation was measured in terms of teams posting online, and for the two control sections in spring of 2016 there were a total of 11 teams with 9 teams, or 82 percent, posting over a span of two days. The most significant difference was in the fall 2016 junior section when the costume experiment was tried for the first time with Bop and Hop Review. Students were excited and determined to see if the instructor would dress in a rabbit costume, and they organized posting during class time using laptops and smart phones.

In the fall 2016 junior level section 100 percent of the six teams posted online within one hour of announcing the challenge. This less than one hour posting stands in stark contrast to the non-costume midterm review for the same class where seven teams did post, but it took them 2 days. In the spring of 2017, the sections likewise achieved 100 percent of teams posting in the non-costume midterm review, but it took place over 8 hours for one section and 5 hours for teams in the other section. Meanwhile, for the costume final review both sections in spring 2017 achieved 100 percent team participation in posting that took place in less than one hour. Thus, speed of participation was increased in all situations when costume was used as an incentive in comparison to control sections. The increased in speed and consistency of 100 percent of teams posting remains unequivocally significant.

Results for student performances, as measured by examination test scores with a base score of 30, were mixed, with some indications of selective costume use having positive impact on test scores and some indications being negative. In the control sections of spring 2016, scores between the midterm and the final went up an average 1.17 for the freshman section and 4.75 points for the junior section. The score for the first semester of the experiment in the junior section of fall 2016 experienced the most dramatic increase of all sections with a rise in average score of 7.44 points between the midterm and the final. However, in spring 2017, the freshman section experienced an average decline of -2.00 points between the midterm and final, and the junior level section only showed an increase of 4.68, which is 0.07 points lower than the 4.75 increase achieved in the junior control section of spring 2016. Potential explanations for these mixed results on performance data will be explored in the discussion section.

Student perception of the costume experiment was extremely supportive on the survey, as measured in question four "Would you recommend the instructor do this for other courses he teaches?" The mean on this question for the spring 2017 junior level course with 19 respondents was 1.05, with 1.00 being a 'strong yes' for recommending the instructor do this for other courses and 5.00 was a 'strong no.' The mean for the spring 2017 freshman level course recommending the instructor be in costume for future classrooms was 1.22 with 41 respondents. Interesting to note is two respondents in the freshman level course gave the lowest score possible, 5.00 or strong no, for the survey question were they curious how the instructor would look, but both of these respondents gave the highest support, a strong yes, for recommending the instructor do this for future courses.

Results for question for question one, were you curious as to what the instructor would look like dressed as Father Time, were not as strong as question four. The mean for the junior level course was 1.40, and was 1.90 for the freshman level course, and indicate a portion of the students were interested in how the challenge would turn out visually.

Results for question two, did you smile or laugh when you first saw the instructor as Father Time, were stronger than question one, but were not as strong as question four. The mean for the junior level course was 1.15, and for the freshman level course it was 1.41. These numbers indicate the majority of students found the costume challenge amusing, and indicate to some degree the experiment was successful in lightening the mood of a stressful finals week.

Results for question 3, did seeing the instructor as Father Time help to lighten the 'mood' of finals tension, were almost as strong as the results for question four. The mean for the junior level course was 1.05, and for the freshman course it was 1.41.

These numbers remain significant as responses indicate students were strongly in agreement with the experiment breaking through the usual doldrums of taking another final at the end of a long week.

4. Discussion

Results for the experiment of selective use of the independent variable of costume experiment to test increasing the dependent variable of participation was undeniably strong as participation increased from 81 percent in control sections to 100 percent of teams posting for all sections in the costume experiment, and times for team posting was reduced from 8 hours and 48 hours in control groups to less than one hour for all sections in the costume experiment. These results are quite dramatic in view of the extreme improvement.

These numbers indicate costume, in its use as an incentive to increase participation, is an effective tool for instructors to employ. Anecdotally, I have heard common lamentations from colleagues that trying to get students to participate, especially online, is “like pulling teeth.” Costume provides another option for instructors to use to in combating complacency and apathy.

Erving Goffman noted, in his conception of dramaturgy, we are all actors and we use costumes, scripts, and props to carry out our daily functions in defining situations [9]. Using character costuming may redefine the situation as being exceptional, different from the routine and the mundane, and connote a special event which in turn may make the student’s education special, maybe even exceptional. This may be part of the spark that motivates 100 percent participation by teams across all sections involved in the costume experiment.

Less spectacular are the mixed results for student performance as measured in examination points. As stated before, the score for the first semester of the experiment in the junior section of fall 2016 experienced the most dramatic increase with a rise in average score of 7.44 points between the midterm and the final. However, in spring 2017, the freshman section experienced an average decline of -2.00 points between the midterm and the final, and the junior level section only showed an increase of 4.68, which is 0.07 points lower than the 4.75 increase achieved in the junior control section of spring 2016.

One difference between the freshman control section and the freshman experimental section was the control section was a class of 30 while the experimental section was a class of 50. Any instructor knows the difference between 30 and 50 students is tremendous where the class of 50 allows for significantly less individual time, and makes learning every student’s name, especially students that rarely show up, nearly impossible. Meanwhile, a class of 30 is more manageable, and it is more difficult for a student to become nameless and feel lost. Even with

the same instructor and using the same books, the issue of class size brings up the issue of other factors that cannot be controlled by the instructor when issues of budget concerns are prescient.

Likewise, the difference between the dramatic increase in final scores for the fall 2016 junior experimental course and the less dramatic increase in the spring 2017 junior level score, classes of the same size, indicate other factors were involved. This could be due to the quality of students in the classroom or the classroom cohesion. The instructor's observation of the fall junior level course after announcing the Hop and Bop Review challenge and of dressing in costume was it energized the classroom. Meanwhile, the instructor's perception of the spring semester junior level course was the class was worn out from an intense school year, and after announcing the It's About Time challenge it peaked students' interest, but it did nothing to change the fact they were collectively tired or ‘burned out’.

The lethargic collective energy level in the spring of 2017 had a large impact on the choice to limit the survey on perception of the experiment to four questions. Statisticians and methodologists can debate the utility of conducting such a limited survey of only having four survey items, but the researcher reasoned some data was better than no data, especially with the exploratory nature of this endeavor. This limited data from the survey demonstrated the experiment made them smile, lowered the tension common to finals week, and they overwhelmingly recommended the instructor continue to engage in the experiment for future courses.

Perhaps more informative are the anecdotal comments made by students across the semesters. The first semester of the experiment, fall 2016, as previously stated, the announcement set the classroom abuzz and electrified the atmosphere with comments such as, “Are you serious? You would do that for us?” and “If you do that I am definitely going to be here!” These comments indicate something special was taking place, and the students appreciated an instructor willing to do something special for them.

More interesting were the comments that were heard the first day of class in spring 2017 in both the freshman and junior level course with questions, “Did you really dress as a rabbit last semester?” being asked in both courses. This means news of the costume experiment traveled among students on campus. The in between the lines reading of these comments, indicating this was ‘news,’ is the students in the experimental courses felt like something special and unique was taking place in their class, and this made their educational experience special and unique. This is further reinforced by the number of students requesting to take ‘selfies’ with the instructor in costume, selfies usually being reserved for ‘Kodak’ moments of events and locations that are special and memorable.

Gorham, Cohen, and Morris have written extensively about the importance of instructor attire in the classroom, and have noted Hicks and Stacks “concur that even if an instructor’s dress is not selected with intent to communicate, its interpretation as a function of personal choice and its decoding as having meaning give it communicative relevance [10]”. The use of dramatic, character costume, such as Father Time, takes on new meaning congruent with past events and personalities in the classroom. Codes embedded in Father Time include remembering the past while thinking about the future, and it was precisely for the reflective qualities of this coding that Father Time was chosen. The nature of the costume must be congruent with the instructor’s presentation of self during the semester, and serve as a continuation, not a violation, of the ‘immediacy’ of their past presentation.

The use of costume in this experiment was interpreted as clearly increasing student participation while its impact on student performance contained mixed results and needs further research. The selective use of costume in this experiment was used to motivate, and in this case it definitely improved participation. The next step would be to employ the use of costume to reinforce course material, such as using period costumes to reinforce historical figures in math or using conceptual costumes to reinforce themes or topic, for this would seem to be more directly linked to performance in accelerating learning.

5. References

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