THE IMPACT OF PERCEIVED INSTRUCTOR ENGAGEMENT ON STUDENT PERFORMANCE IN ONLINE COURSES

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Abstract

This paper addresses a timely topic: Do students' perception of the level of instructor engagement in online courses impact students' final grades in online courses? A thorough review of the literature finds a number of ways to enhance positive perceptions by students in an online class. In addition, previous research shows an expected grade can impact student evaluations of faculty. This study utilizes data from two distinct course sections of the same class, in which the same faculty member had already employed two types of feedback to determine significant differences on students' perceived engagement (Trumpy & Portolese Dias, 2013). After data collection, this recent study utilized a one-tailed t-test to determine if a significantly high level of students' perceived instructor engagement also had a positive impact on student performance (final grades), as distinguished between two sections of the same course. The results were very close to significant, at $p=0.05154$.

Introduction

The focus of this research is to determine if student perceptions of faculty engagement positively impact student final grades, in the online class environment. Extensive research has explored what affects student satisfaction in online courses, how to measure student performance in online classes, and the relationship between expected grade and student evaluations. However, little research has been performed to measure if student perception of instructor engagement in an online class impacts the final grade of the student. The paper will first discuss the literature on this topic, address the purpose statement, research question, discuss the study methodology, and address the results.

Literature Review

This section will address literature available from a variety of courses on online course growth, factors affecting student satisfaction in online courses, and measurements of student learning in online courses. In addition, expected grades and student evaluation of instruction will be addressed.

Online Course Growth

According to a 2013 survey by Babson Survey Research Group, 7.1 million students in the United States are taking at least one online course. This is a 6.1 percent growth rate over the previous year. In fact, in a survey of chief academic officers, 69% stated online courses and programs are part of their long term strategy, (Babson Research Group, 2012). Because of this extreme growth over the last decade, understanding of how online classes, instructor engagement within the online class, and student success impact each other in the online environment is imperative to ensure student success in an online format.

Factors Affecting Student Satisfaction in Online Courses

Since it has been established that online courses can be the key to instructional strategy and growth, ensuring student satisfaction is an important consideration in online courses. Early research by Pascarella (1980) suggests the quality of student-faculty informal contact can create positive associations for students. Positive associations, for example, impact student attitudes toward college and their academic achievement. This early research can be applied to current research regarding instructor social presence in the online classroom. Social presence
is defined as, “a measure of the feeling of community that a learner experiences in an online environment” (Tu & McIssac, 2002, p. 131).

Richardson and Swan report in a 2003 study that student perceptions of social presence impacted perceived learning, and perceived satisfaction with the instructor. In another study, clarity of course design, interaction with instructor, and active discussion among classmates also contributed to perceived learning and satisfaction within online courses (Swan, 2001). Research by Bolliger (2004) supports Swan's (2001) earlier conclusion, in that student satisfaction with online courses is influenced by instructor variables, technical issues, and interactivity. Because social presence is deemed important in online learning and outcomes, understanding how faculty can measure student performance in online classes is another important aspect to address.

Lastly, a 2013 study by the authors (Trumpy & Portolese Dias, 2013) explored the impact of two types of instructor feedback on student satisfaction of the instructor. As measured by a standard student evaluation of instructor (SEOI) survey, administered after completion of the class, the study showed a significant difference (p= 0.048) in positive evaluation of instructor engagement, using personal feedback, plus a class-wide comment on assignments as a whole; vs. personal feedback on the assignments only. A second study in 2014 on this topic compared perceived instructor engagement using written versus audio feedback for group feedback. Inclusion of audio group feedback indicated audio feedback resulted in greater social presence, and therefore, greater perceived instructor engagement (Portolese Dias & Trumpy, 2014).

**Measures of Student Performance in Online Courses**

When rating learning outcomes in online education, 74 percent of academic leaders rated online courses the same or superior to traditional face-to-face courses, an increase from 57 percent in 2003 (Babson Research Group, 2013). In order to effectively measure learning outcomes, a number of researchers (Phipps, Wellman, & Merisotis, 1998), (Shea, Fredericksen, Pickett, Pelz, & Swan, 2001), (Hanson, at al., 1997) have addressed the need for variety in assessments, such as tests, written assignments, and projects. Research shows that individual feedback results in higher student satisfaction as opposed to group feedback only (Gallien & Oomen-Early, 2008), and timely, meaningful instructor feedback is important (Eom & Wen, 2006) can assist in achieving student learning outcomes in online courses. Despite these measures of student performance, actual grade received in comparison to student evaluations is an important question, addressed next.

**Expected Grade and Student Evaluations of Instructors**

Early research around grades and student evaluations shows students’ actual grade in a course has little or no relationship to the evaluation of the instructor or the course (Feldman, 1976). However, more recent research has found the opposite effect. For example, research by Greenwald and Gilmore (1997), suggests student evaluative ratings of instructors correlate positively with expected course grade. Similarly, research by Krautmann and Sander (1999) suggest grades do impact an instructor’s evaluation. Although expected grade can affect instructor evaluations by students, little research has been done to compare final student grades with increased perceived instructor engagement.

As the literature review suggests, the growth of online courses, factors contributing to student satisfaction with online courses, and the importance of measuring student success in online courses, all create a need to illustrate how students’ perception of online instructor engagement affects a students’ final grade in a course.
Purpose Statement and Research Question

The purpose of this study is to determine if student perceptions of instructor engagement affect student performance within online classes. Therefore, the research question is:

Does perceived instructor engagement positively impact final student grades in online classes?

Study Design

This is a re-visiting of the data from the authors’ study mentioned previously (Trumpy & Portolese Dias, 2013). As discussed, the purpose of the original study was to determine if students rated the faculty member’s perceived instructor engagement higher when receiving both personal and class-as-a-whole comments. Examples of class-as-a-whole comments included: feedback on common successes and mistakes, purpose of the assignment, and comments on application of the assignment. The control group received detailed feedback only on their individual assignment, and did not receive group-as-a-whole feedback.

The data was collected during the fall 2012 quarter at Central Washington University, using two class sections of ADMG 385: Business Communication students as the subjects of the data collection (n=47). The class section receiving both types of feedback was the experimental group, while the section receiving only the personal feedback on assignments was used as the control group. Both sample groups were taught by the same instructor, while using the same assignments through an identical learning management system (LMS).

After each quarter ended, the results of the student evaluation scores (Student Evaluation of Instructors: SEOI) were compared using an independent sample t-test (one-tailed), exploring the following instructor engagement measures:

#2: Instructor seemed genuinely concerned with whether students learned.
#5: Instructor was actively engaged in class.
#10: Instructor provided useful feedback on student work.
#11: Instructor provided timely feedback on student progress.

While the results of this initial study (Trumpy & Portolese Dias, 2013) showed positive differences in all four questions areas, a significant result (p= 0.048) appeared for question two, “instructor seems genuinely interested in whether students learned.”

Methodology and Results

Given one group of students had significantly more positive feelings of instructor engagement with a combination of feedback types, compared to those who only received personal feedback, and the follow-up study testing the use of audio feedback versus written feedback, the authors chose to explore whether these two samples of students differ in the major learning outcome of final grades, as a factor of perceived instructor engagement.

Therefore, two samples of students’ grades, represented by the high instructor engagement group receiving both assignment feedback types (experimental), and the group who received personal assignment feedback only (control), were compared using a one-tailed t-test.

Using the institution’s letter grade to GPA point conversion (e.g. A=4, A-=3.7, B+=3.3, B=3.0, etc.), a standard one-tailed t-test was employed to determine the differences between the two samples. As shown in figure 1, the differences approached significance at the p= 0.05154, for a positive impact of students’ perceived instructor engagement on final grades.
**Figure 1:** Experimental and control group significance

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<thead>
<tr>
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<th>Experimental Group</th>
<th>Control Group</th>
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<tr>
<td>n=</td>
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<td>24</td>
</tr>
<tr>
<td>Standard Deviation</td>
<td>0.66553</td>
<td>1.19655</td>
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<tr>
<td>Standard Error</td>
<td>0.13877</td>
<td>0.24424</td>
</tr>
<tr>
<td>p=</td>
<td>.05154</td>
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**Possible Errors**

Internal validity issues may stem from the four questions picked to reflect perception of student engagement in the 2013 study. Lack of variance in responses could also impact potential errors, since many of the responses on a 1-5 scale were a 5.

Additional validity issues could have occurred due to social desirability and feelings toward the instructor, in addition to the common confounding variables not controlled with convenience sampling in causal-comparative research findings.

It is questionable whether this study could be generalized over long periods of time, and the two classes studied may not be a representation of the general population. In addition, the impact of a fall quarter class could have affected the study.

**Discussion and Recommendations**

Combined with the lessons and outcomes from the positive “on-line environmental” impact on perceived instructor engagement, in giving both personal and class-wide feedback on each assignment, a principled argument exists in extending this positive impact to one of our most important measurements of student learning—final grades. While being very close to significant, the data shows that adding one additional level of assignment feedback to a class-as-a-whole, not only significantly increases levels of perceived instructor engagement (Trumpy & Portolese Dias, 2013), but can greatly influence student learning, in the form of increasing final course grades.

Therefore, instructors in the on-line environment would be wise to employ assignment feedback that includes both personal comments on individual assignments, and class-wide comments exploring the assignment’s application, purpose, and general class performance as a whole. Doing this should increase both student success, resulting in higher final grades and instructors’ positive impact on student learning. Finally, doing so can create greater perceived instructor engagement (Trumpy & Portolese Dias, 2013), resulting in a positive outcome for any instructor: higher student evaluations and student success.

**References**


