Analysis Of Online Student Ratings Of University Faculty

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ABSTRACT

This article explores and analyzes a new, exciting, and quite different source of faculty evaluation data that has recently become available on the world wide web; online faculty evaluation/ratings. The authors analyze the relationships between different online student rating measures of faculty performance. They investigate how student ratings of faculty easiness, clarity, and helpfulness are interrelated. The results of the analysis provides insights into student perceptions of faculty and suggest implications for the practice of teaching.

INTRODUCTION

*S*tudent faculty evaluations are an important measure of teaching effectiveness and are a consideration for promotion and tenure at many educational institutions. Unfortunately, they are an imperfect measure as biases have been detected for such factors as student academic ability (McKeachie, 1997), grading policy leniency (Greenwald & Gillmore, 1997), workload and grades received (Wallace & Wallace, 1998), and class size (Liaw and Goh, 2003).

Given the importance that student faculty evaluations can have on a faculty member's promotion and tenure, as well as to our understanding of teaching effectiveness, it is essential that we understand how these biases can impact their construct validity. In line with this need, extensive research has been done conducted on student evaluations of faculty (Read et al., 2001; Martin, 1998). Our research extends this knowledge by exploring and analyzing a new, exciting, and quite different, source of faculty evaluation data that has recently become available on the world wide web; online faculty evaluation/rating sites.

These faculty rating sites include RateMyProfessor.com, PassCollege.com, ProfessorPerformance.com, RatingsOnline.com, and Reviewum.com (Stone, 2003; Foster, 2003). One may argue that these sites, since they are not part of the formal faculty evaluation process, can be ignored. However, this argument loses strength when one examines the amount of traffic at these sites. For example, RateMyProfessor.com has received over 2.7 million ratings on over 478,000 professors at better than 4000 schools ("RateMyProfessor Statistics," n.d.). Apparently the site is popular with students and thus should perhaps be taken seriously by faculty.

In this paper we have focused on RateMyProfessor.com because it is the largest, fastest growing, and most popular site (Stone, 2003). We discuss differences between the online faculty evaluation data and the typical university evaluation data and we analyze the online data to discover what insights it might provide.

To date, a large body of research (Read et al., 2001; Martin, 1998) has been conducted on data derived from faculty evaluation forms that are filled out anonymously by students in the classroom using a formal, well defined, and controlled process. Little research has been done on online faculty rating data, except for the analysis of professor overall quality ratings as a function of easiness and sexiness ratings (Felton et al., 2004).

Our research extends Felton's (2004) analysis by examining the relationships amongst the easiness rating and the constituent ratings of overall quality (the helpfulness and clarity ratings). Note that overall quality is a derived

rating (the average of helpfulness and clarity ratings). By examining the component variables, we can understand some important relationships amongst easiness, helpfulness, and clarity and their implications for practice.

We also extend their work by broadening the sample universe used in the analysis. They analyze professors with at least 10 rating posts that are from the top 25 universities with the most student posts overall. We used a pseudorandom method to pick our ratings for analysis from RateMyProfessor.com.

STUDENT EVALUATION DATA SOURCES

While online ratings may provide valuable insights for faculty, it must be realized that evaluations from online faculty rating sources may differ from traditional faculty evaluations received at the end of the semester. Additionally there are issues related to the validity of online ratings. These differences and issues (as they relate specifically to RateMyProfessor.com) are discussed below.

Sample Representation

There are few controls about who can rate a professor online. According to their online RateMyProfessor.com help page, "You are not required to log in or enter your name or email address." Thus, theoretically anyone can rate a professor. Thus, a non-student, such as an angry spouse or a professor himself might enter a rating, or even multiple ratings, in order to skew the results. This issue is addressed by RateMyProfessor.com, which states that, "Remember, we have no way of knowing who is doing the rating - students, the teacher, other teachers, parents, dogs, cats, etc." This is quite different from traditional faculty evaluations that are completed in the classroom and controlled as to who can fill them out. Additionally, since students are asked to fill out the traditional faculty evaluations in the classroom, and since many students may not be familiar with online rating services, formal evaluations are more likely to have larger and more complete sample sizes.

Sample Bias

By definition, online raters are a self-selected sample. The raters must know about the web site, have access to a Web browser, and take the time and effort to access and fill out an online rating form. This contrasts with traditional classroom rating forms which are provided to the students in-class and usually given class time to fill out the forms.

Results Availability

A significant advantage (or perhaps disadvantage) of online rating sites is that the results are instantly publicly available at any time to anyone with access to a browser. This is not typically the case with traditional faculty evaluation results which are usually only available to the rated faculty member and his/her supervisors.

Rating Criteria and Student Comments

According to RateMyProfessor.com, "The purpose of the site is to be a resource for students. Where else can you find out what others think of an instructor?" Thus, comments and rating criteria are focused on helping students make informed decisions concerning faculty. On the other hand, traditional evaluation ratings are designed to help the faculty improve their performance.

OBJECTIVE, APPROACH, AND RESULTS

For our research, we analyzed rating information from RateMyProfessor.com because it is the largest and most well known of the online faculty rating sites. Descriptions of the rating categories is provided in Table 1, where a rating of 1 is worst and a rating of 5 is best.

Table 1: RateMyProfessor.com Rating Category Descriptions

Easiness: This is definitely the most controversial of the three rating categories, which is why it is NOT included in the "Overall Quality" rating. Although we do not necessarily condone it, it is certainly true that many students decide what class to take based on the difficulty of the teacher. When rating a teacher's easiness, ask yourself "How easy are the classes that this professor teaches? Is it possible to get an A without too much work?"

Helpfulness: This category rates the professor's helpfulness and approachability. Is the professor approachable and nice? Is the professor rude, arrogant, or just plain mean? Is the professor willing to help you after class?

Clarity: This is the most important of the three categories, at least to many people. How well does the professor convey the class topics? Is the professor clear in his presentation? Is the professor organized and does the professor use class time effectively?

Overall Quality: The Overall Quality rating is the average of a teacher's Helpfulness and Clarity ratings, and is what determines the type of "smiley face" that the Professor receives. Due to popular demand, a teacher's Easiness rating is NOT used when computing the Overall Quality rating, since an Easiness of 5 may actually mean the teacher is TOO easy.

Source: http://www.ratemyprofessor.com

Our analysis objective is to test the following hypotheses:

Hypothesis 1: Clarity and helpfulness will be positively correlated.

Rationale: If a professor is clear, but unhelpful, his/her helpfulness rating will not suffer as much as it might otherwise, because clear professors do not need to be as helpful. If a professor is unclear, but helpful, then the helpfulness of the professor will improve his/her clarity rating because the professor works with the student to make the material clear. Thus, a high clarity rating will 'pull up' a low helpfulness rating and a high helpfulness rating will pull up a low clarity rating.

Hypothesis 2: Easiness will be correlated with clarity.

Rationale: If a professor is clear, then this makes a course easier on the student.

Hypothesis 3: Easiness will be correlated with helpfulness

Rationale: If a professor is willing to help a student understand the material, this will be perceived as easier than when a professor is unwilling to be helpful.

Hypothesis 4: Clarity will be more highly correlated with easiness than helpfulness.

Rationale: If a student requires a professor to be helpful, then this is more work than if the professor is clear in the first place as summarized in Table 2 below.

Table 2: Rationale for Hypothesis 4

Clear	Helpful	Easiest For Student
Clear	Not Helpful	Easier For Student
Not Clear	Helpful	Harder For Student
Not Clear	Not Helpful	Hardest For Student

We sampled 85 ratings from the web site using a two step pseudorandom selection technique. That is, we first randomly selected a school from those available in RateMyProfessor.com. We then randomly selected a professor from the selected school and use his/her average rating values. Descriptive statistics of the samples for the three rating components (Easiness, Helpfulness, and Clarity) are provided in Table 2.

Table 3: Descriptive Sample Statistics

	Average Easiness	Average Helpfulness	Average Clarity
Mean	3.2	3.7	3.76
Standard Error	0.13	0.16	0.15
Median	3	4	4
Mode	3	5	5
Standard Deviation	1.16	1.46	1.39
Sample Variance	1.34	2.1	1.92
Kurtosis	-0.63	-0.70	-0.63
Skewness	-0.09	-0.84	-0.82
Range	4	4	4
Minimum	1	1	1
Maximum	5	5	5
Sum	274.7	316.9	319.5
Count	85	85	85
Largest(1)	5	5	5
Smallest(1)	1	1	1
Confidence Level(95.0%)	0.25	0.32	0.30

We then subjected the sample data (N = 85) to analysis as summarized in Table 3. As can be seen from the R values associating Easiness and Helpfulness (.45), Easiness and Clarity (.53), and Helpfulness and Clarity (.88), all exceed the critical value of 0.217 (alpha = .05). Thus, hypotheses 1 through 3 are accepted.

Table 4: Component Rating Correlations

	Average Easiness:	Average Helpfulness:	Average Clarity:
Average Easiness:	1		
Average Helpfulness:	0.45	1	
Average Clarity:	0.53	0.88	1

To test hypothesis 4, that the correlation between clarity and easiness will be higher than between helpfulness and easiness, we first transformed the correlations using the Fisher r-to-Z transformation and testing for a significant difference between the Z values (Hays, 1994: 849). The t-test shows that hypothesis 4 is not supported (t=0.95, p > 0.10).

IMPLICATIONS FOR PRACTICE

From our analysis, we can see that there is a relationship between each of the easiness, helpfulness, and clarity factors. The results raise a number of possible implications for practice.

Clarity and helpfulness are strongly correlated. This finding is consistent with a large number of studies showing that clarity and helpfulness associate with student learning. This finding may mean that online ratings do reflect student learning. Students may be rating professors because they learned a lot from them, or not, and they want

to spread the word about the professor. To investigate this possibility, we are developing a series of focus groups to determine why students put ratings on RateMyProfessor.com.

Our results show that easiness is related to both clarity and helpfulness. This agrees with Felton's (2004) finding that easiness on RateMyProfessor.com is related to overall quality (which is the average of the two rating components). It also agrees with Wilson (1998), who found that faculty who were easier graders received better evaluations.

The positive relationships between easiness and the other factors suggest that students may find that clear professor's make a course easier and/or that a professor willing to help them makes the course easier. Alternatively, the results could suggest that easier courses are, by their nature, simpler to understand and thus more clear and that any help given by a professor produces results faster (because the material is more straightforward).

The results do not suggest that easiness is more related to clarity than to helpfulness. Both clarity and helpfulness are related to easiness with no significant difference. It appears to be easier for the students if the professor is clear up front as well as helpful later to make things clearer. This finding implies that professors have a variety of methods for helping their students. They could work more on being initially clear and/or they could be more helpful.

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