Instructor Evaluation System

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ABSTRACT

This paper explores and analyzes a latest and exciting source of instructor evaluation data that is available on the World Wide Web; online instructor ratings. The authors analyze the relationships between different online student rating measures of instructor performance. They investigate how student ratings of instructor easiness, clarity, and helpfulness are interrelated. The result of the analysis provides insights into student perceptions of instructors.

INTRODUCTION

Student instructor evaluations are an important measure of instructing effectiveness and are a consideration for promotion at many educational institutions. Given the importance that student's instructor evaluation can have on an instructor's promotion and tenure, it is essential that we understand how these biases can impact their construct validity. In line with this need, extensive research has been done already conducted on student evaluations of instructor by J. Martin in 1998. Our research extends this knowledge by exploring and analyzing an exciting source of instructor evaluation data that has recently become available on the World Wide Web; online instructor evaluation/rating sites.

These rating sites include www.ratemyprofessor.com, www.passcollege.com and many others. These web sites are not part of the formal instructor evaluation process but as far as the amount of traffic at these sites is concerned, these cannot be ignored. For example, Ratemyprofessor.com has received over 2 million ratings on over 4,00,000 instructors at 4000 schools. In this paper, we have focused on www.ratemyprofessor.com because it is the largest, growing, and most popular web site. Our research involves 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 have 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 an instructor, it must be realized that evaluations from online instructor rating sources may differ from traditional instructor 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.

Representation:

There are certain policies about who can rate a instructor online. According to the online Ratemyprofessor.com help page, “You are not required to log in or enter your name or email address.” Thus, anyone can rate a instructor. For an instance, a non-student, such as an angry spouse or a instructor himself might enter a rating, or even multiple ratings, in order to improve 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 instructor, other instructors, parents, dogs, cats, etc.” This is quite different from traditional instructor 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 instructor 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.

Bias

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

Results Availability

An advantage of online rating sites is that the ratings are publicly available at any time to anyone with access to Internet. This is not the case with traditional instructor evaluation ratings that are usually only available to the rated instructor and his/her upper managers.

Criteria and 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 instructor. On the other hand, traditional evaluation ratings are designed to help the instructor improve their performance.

APPROACH AND RESULTS

The rating categories are:

Ease: 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 take it in consideration, it is certainly true that many students decide what class to take based on the difficulty of the instructor. When rating an instructor's easiness, ask yourself "How easy are the classes that this instructor teaches? Is it possible to get an A without too much work?"

Supportive: This category rates the instructor's helpfulness. Is the instructor supportive and nice? Is the instructor willing to help you after class?

Clarification: This is the most important of the three categories to many people. How well does the instructor convey the topics? Is the instructor clear in his/her presentation? Does the instructor use class time effectively?

Overall Quality: The Overall Quality rating is the average of an instructor's Helpfulness and Clarity ratings, and is what determines the type of "smiley face" that the instructor receives. Another reason for not considering the Easiness rating is “an Easiness of 5 may actually mean the instructor is TOO easy” and so, rating will have significance.

Our analysis objective is to test the following assumptions:

Assumption 1: Clarification and Supportive factors will be genuinely related

Instance: If a instructor is clear, but unhelpful, his/her helpfulness rating will not suffer as much as it might otherwise, because clear instructors do not need to be as helpful. If a instructor is unclear, but helpful, then the helpfulness of the instructor will improve his/her clarity rating because the instructor works with the student to make the doubts 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.

Assumption 2: Ease and clarification can be related (though ease is not used in analysis)

Instance: If a instructor is clear, then this makes a course easier for the students.

Assumption 3: Ease on relation with helpfulness

Instance: If a instructor is willing to help a student understand the problem, this will be perceived as easier than when a instructor is unwilling to support.

Assumption 4: Clarification can be highly correlated with easiness than supportiveness

Instance: If a student requires a instructor to be helpful, then this is more work than if the instructor is clear in the first place.

Taking an instance of assumption 4 above, below table can give better understanding:

Clear	Helpful	Easiest for Student
Clear	Not Helpful	Easier for Student
Not clear	Helpful	Harder for Student
Not clear	Not Helpful	Hardest for Student

(*Table 1*)

For analysis, we have sampled ratings from ratemyprofessor using random selection technique. In other words, we first randomly selected a school say CMU from ratemyprofessor and then, randomly selected an instructor say Prof. Whitney from the selected school and use his/her average rating values.

So, a sample statistics looks like this:

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	Mean 'Ease'	Mean 'Supportive'	Mean 'Clarity'
Mean	3.2	3.7	3.7
Standard Error	0.13	0.16	0.15
Median	3	4	4
Mode	3	5	5
Standard Deviation	1.16	1.46	1.39
Range	4	4	4
Minimum (smallest)	1	1	1
Maximum (largest)	5	5	5
Sum	274.7	316.9	319.5
Count (Samples)	85	85	85
Confidence Level	0.25	0.32	0.30

(*Table 2*)

Then, we have done analysis on sampled data using R as summarized in Table 3. From the values in the table below that associates Ease and Supportive (.46), Ease and Clarification (.52), and Supportive and Clarification (.86), it can be concluded that assumption 1 through 3 are accepted.

	Mean Ease	Mean Supportive	Mean Clarification
Mean Ease	1		
Mean Supportive	0.46	1	
Mean Clarification	0.52	0.86	1

(*Table 3*)

CONCLUSIONS

1. From our analysis, we can see that there is a relationship between each of the ease, supportive, and clarification factors.

2. Clarification and helpfulness are strongly correlated. This conclusion is consistent with most of the researches that shows clarity and helpfulness does associate with student learning process. This also means that online ratings do have an impact on student learning. Students may be rating instructors because they learned a lot from them.

3. Our conclusions agree with Felton's (2004) findings that ease on ratemyprofessor.com are related to overall quality (which is the average of the other two rating components). It also agrees with Wilson (1998), who discovered that 'instructors who always gave good grades, received better evaluations from students.

4. Our conclusions do not suggest that ease is more related to clarity than to supportiveness. Both clarity and supportive are related to ease with not much difference. It appears to be easier for the students if the instructor is clear up front as well as helpful later to make things clearer. This finding implies that instructors have a variety of methods for helping their students. They could work more on being initially clear and/or they could be more helpful.

5. The relationships between ease and the other factors suggest that students may find that clear instructors make a course easier and/or that an instructor 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 an instructor produces results faster (because the syllabus is more simple).

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