

ATTRIBUTES OF EFFECTIVE ECONOMICS EDUCATION

INSTRUCTORS: A CASE STUDY AT THE ECONOMICS EDUCATION

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Abstract

The purpose of this study was to discover the attributes of economics instructors that are associated with teaching effectiveness using responses from students evaluations of teaching effectiveness (SETE) surveys at the Economic Education Department Social Sciences and Economics Faculty Yogyakarta State University. This study modifies and adopts L. F. Jameson Boex's model that examines attributes of effective economics instructor at Georgia State University. This models defines six broad instructor attributes and estimates how each of these attributes to the effectiveness of economics instructors as perceived by students. To examine the attributes of economics instructors and how these attributes are associated with the effectiveness of instruction, I used data from student evaluations of teaching effectiveness (SETE) questionnaires for economics instructors at Economics Education Department Social Sciences and Economics Faculty Yogyakarta State University. In this study, I defined and quantified six instructor attributes. I define and qualified six composite instructor attributes. Subsequently, the effects of the six instructor attributes, as well as selected course, student, and instructor characteristics, on the teaching effectiveness ratings were determined using an ordered probit model.

Keywords: teaching, learning, attribute, instructional

Introduction

Nowadays many universities in Indonesia realize that student evaluation teaching is critical for the continued improvement and success of their courses. The demands for increasing student enrollments, the pressure to satisfy the student's desires for higher grades, and using student evaluations of faculty performance or student evaluations of teaching effectiveness (SETE) have become increasingly common on universities across the nation. There are several dimensions taken together at varying of degrees that embody the effective teacher.

Many students argue that teaching is a multidimensional process comprising a number of separable dimensions or instructor attributes (Arreola 1995; Centa 1993; Marsh 1987). A broad consensus within the education literature recognizes that an instructor's overall effectiveness depends on a combination of these instructor attributes, such as clarity of the instructor's lectures, the course's organization, the degree to which the instructor motivates the students, and the instructor's success in building an interpersonal rapport with the students. The aim of this study was to discover the attributes of economics education instructors that are associated with the teaching effectiveness using responses from student evaluations of teaching effectiveness (SETE) at the Economics Education Department Social Sciences and Economics Faculty Yogyakarta Indonesia State University. I adopted and modified *L.F. Jameson Boex's model* that defined six broad instructor attributes and estimated how each of these attributes contributed to the effectiveness of economics instructors as perceived by their students.

Literature Review

The teaching dimension can be answered from two point of views. Some experts argue that teaching is multidimensional, while the others support the opinion that teaching is unidimensional. Marsh (1987) has been a major proponent of the idea that teaching is multidimensional. He identified nine separate dimensions of teaching, namely: learning, enthusiasm, organization, group interaction, individual rapport, width of coverage, examination, and work load. *L.F. Jameson Boex* (2002) examined six dimensions of teaching, i.e. presentation ability, organization and clarity, grading, assignments, intellectual/scholarly, interactions with students, and students motivation. Abrami and d'Apollonia (1997), acknowledged the multidimensionality of teaching. They argued that the specific attributes of good teaching vary across courses and instructors and recommended the use of global evaluation items whenever summative judgements about teaching effectiveness are called for. A compromise between these positions has recently been suggested, calling for student evaluation of teaching items to be weighted to calculate an overall evaluation measure. Generally the studies about instructor effectiveness rely on two approaches. Some of the studies tend to employ the approach that relies on the opinions of students and faculty obtained through surveys about the characteristics of effective instructors. Schmelkin, Spencer, and Gellman (1997) found that the usefulness of student feedback is viewed differentially by faculty. Feldman (1988) presented a synthesis of studies that employed surveys to examine the attributes of effectiveness instructors. In most of the studies, students, and faculty were simply asked to specify the practices, behaviors, and attitudes of teachers that they felt were most important to teaching effectiveness. Spencer and Schmelkin (1995) found that students considered issues of clarity, fairness, and respect to be paramount in the determination of instructor effectiveness. A second approach that is also popularly used among researchers is the regression technique which reveals the relationship between overall effectiveness ratings and specific questionnaire items. DeCanio (1986) focused on the comparison of the multinomial logit and linear regression specifications for the purpose of analyzing student evaluation data. He found that, regardless of the model's specification,

many of the questionnaire items had a significant influence on ratings of instructor effectiveness. Mason, Steagall, Fabritius (1995) examined the influence of instructor characteristics on instructional quality. They measured the impact of numerous instructor, student, and course characteristics on the effectiveness ratings received by economics instructors. Identification of instructor attributes that were more important in determining instructor effectiveness was hindered by the inclusion of a large number of closely related explanatory variables.

Proponents of the multidimensional view of the education process argue that instruction simply cannot be captured by one single measure, such as an effectiveness rating because teaching is multidimensional in nature (Marsh 1987). Instead, they argue that multiple measures of instructor attributes are needed to characterize appropriately the effectiveness of the instructor. Therefore, they have focused on defining and quantifying the various attributes of instructors, without relating these attributes to a single measure of overall effectiveness. Abrami (1989) considers teaching to be a unidimensional process that can be appropriately represented by a single effectiveness measure. Many literature reviews that use student evaluation of instructor data to assess instructor effectiveness conclude that student evaluation surveys are generally consistent and valid (Arreola 1995; Marsh and Roche 1997; Seldin). However, more recent studies challenge this view and suggest that effectiveness ratings are indeed biased by instructor characteristics unrelated to teaching effectiveness, such as instructor's popularity among his or her students, the grades that students expect to receive, or the difficulty of the material presented. Based on this new evidence, a consensus seems to have been reached that more effort should be directed toward ensuring a more careful interpretation of student ratings. Moreover, to get more precise results, if possible, student evaluation of instructor ratings should be supplemented with other measures of teaching effectiveness (Emery, Kramer, and Tian n.d.).

Dan Goldhaber (2002) stated that the instructor's characteristics made in relation to student learning were associated with teacher experience, degree attained, and other readily observable characteristics. The teacher's education (degree) and experience levels are probably the most widely studied teacher attributes, because they are easy to measure. *Subject-matter knowledge*: The evidence is somewhat mixed, but it suggests that the teacher's knowledge of their subject matter, as measured by degrees, courses, and certification in that area, is associated with high performance. Studies with more detailed measures of the teacher's education levels and coursework in subject areas found that, at least in math and science, academic preparation does positively influence student achievement. *Teacher's pedagogical knowledge*: The value of teaching teachers how to teach, or pedagogy, is more hotly debated. Since there is little research directly assessing the influence of pedagogical training on student outcomes, this debate tends to focus on the impact of teachers' performance on licensure exams and the merits of licensing teachers. A number of studies have found that fully certified teachers influence student achievement positively.

Methodology

To examine the attributes of economics instructors and how these attributes are associated with the effectiveness of instruction, I used data from SETE questionnaires for economics education instructors at Economics Education Department Social Sciences and the Economics Faculty Yogyakarta State University. The instrument is a modified version of the instrument developed by the Georgia State University. Responses were measured on a 4-point scale, ranging from 1 (*not at all descriptive*) to 4 (*all descriptive*). In addition, each student self reports two items: the student's grade point average (GPA) on a 4.0 scale and the expected course grade. The student count for each course section was established by combining the SETE data with enrollment data for all relevant academic terms. In addition, this study collect information about instructor characteristics that could potentially influence effectiveness ratings, such as the experiences, education level, and education background (whether the instructor has a teacher training diploma or not) of the instructor. The data set used in this study comprised 1,591 SETE surveys at Economics Education Department Social Sciences and the Economics Faculty Yogyakarta State University. The survey responses were from 796 regular class students and 795 non-regular class students taking 18 different course sections and 17 different instructors.

I estimated the empirical model separately for each of the two groups of students (Regular class and non-regular class). Although the course characteristics and instructional settings were similar within each of the two student groups, instructor effectiveness and attribute ratings could possibly have been influenced by a number of course characteristics. To control for the possible presence of selection bias, I included the SETE response rate in the model as an explanatory variable. To control for some of the effects that student characteristics could have on effectiveness ratings, I included two additional explanatory variables in the model: the student's GPA, and the course grade expected by the student. In order to control for some of the effects that instructors characteristics could have on effectiveness ratings, I included several additional explanatory variables in the model: the instructor's education level, education background (1= if the instructor holds education diploma, and 0 if otherwise), and experiences. Because the model's dependent variable (the instructor effectiveness rating) was categorical, I estimated the probability of receiving a certain overall effectiveness rating using an ordered probit model.

Finding and Discussion

The analysis of the economics education instructors effectiveness in this paper is based on student evaluation of teaching effectiveness (SETE) survey conducted at the of semester. The following is descriptive information concerning SETE at the Economics Education Department Social Sciences and the Economics Faculty.

Table 1: Instructors Effectiveness Survey Descriptive Information

Course Sections Code	Course Sections	Students respondents		Response rate	
		Regular (Morning class)	Non-Regular (Afternoon Class)	Regular (Morning Class)	Non-Regular (Afternoon Class)
PDU	2	102/123	93/104	82,9	89,4
ISP	1	61/66	46/50	92,4	92
PEP	15	643/720	656/730	89,3	81,4
TOTAL	18	796/909	795/884	87,6	89,9

Note: PDU: subjects taught for students under ex-PDU Department, ISP subject taught for FISE's student, PEP: subjects taught for Economics Education Department's students.

Table 2 presents the results of the ordered probit estimation for two groups of students. In the probit model, the parameter estimates indicate how each independent variable influences the probability of achieving a higher overall effectiveness rating. As such, a positive parameter estimate indicates that as the rating for each attribute increases, the probability of receiving a higher effectiveness rating also increases. The instructor attributes consistently have a statistically significant influence on instructor effectiveness ratings. Although some differences in the size and significance of the parameter estimates exists between the two groups of the students. Based on the data in table 2, it is implied that the most important attribute of an effective economics education instructor as perceived by students is organization and clarity. The finding is consistent with the earlier studies (Mason, Steagall, and Fabritius 1995). The variable of organization and clarity is more important for Non-regular students that for Regular students. The regression results further suggest that the second most dominant attribute of effective economics instructors as perceived by students is intellectual/scholarly for regular students, and grading and assignment for non-regular students.

Table 2: Estimated Ordered Probit Result: Overall Effectiveness of Economics Education Instructors by Attributes and Characteristics

Variable	Regular		Non Regular	
	Coef.	t-value	Coef.	t-value
Instructor Attributes				
Presentation ability	0.617	2.91***	0.692	2.34**
Organization and clarity	0.336	5.20***	0.251	4.14***
Grading and assignments	0.033	2.31**	0.057	3.79***
Intellectual/scholarly	0.086	3.48***	0.045	2.75***
Interaction with students	0.055	1.29*	0.106	0.94
Student motivation	0.259	2.90***	0.38	3.1***
Course Characteristics				
Class size	-0.032	-3.81***	-0.035	-4.16***
SETE rate	0.015	0.08	0.111	0.62
Student Characteristics				
GPA	0.23	6.5***	0.26	3.2***
Good Grade dummy	0.178	1.97**	0.139	1.12
Instructor Characteristics				
Experiences	0.417	5.61***	0.408	3.87***
Education Background	0.232	0.11	0.334	0.21
Education Level	0.121	1.78*	0.480	2.86***

Notes: *** = significant at the 1% level
 ** = significant at the 5% level
 * = significant at the 10% level

The student evaluation data indicate that a third attribute of an effective economics instructor is the presentation ability for regular students, and student motivation for non-regular students. The fourth attribute, the student intellectual/scholarly, is an important and significant determinant of effectiveness rating for economics education instructors of regular students. The fourth attribute, the presentation ability, was an important and significant determinant of effectiveness rating for economics education instructors of non-regular students. The fifth instructor attribute considered is the grading and assignment for regular students, and intellectual/scholarly dimension. Although instructor-student interaction is a significant determinant of effectiveness rating for regular students, this attribute has no significant impact on effectiveness ratings provided in non-regular students.

The result from the course characteristic data reveal the following information. Both for regular and non-regular students, the regression estimates suggest that class size has a statistically significantly impact on instructor effectiveness ratings. The parameter estimate for the response rate fails to attain statistical significance in both regressions.

The student's overall grade point average has a positive and significant impact on effectiveness ratings for both regular and non-regular students regressions. This suggests that, when all other factors are held constant, better performing students generally give their instructors higher effectiveness ratings. The student's self-reported expected course grade also has a statistically significant impact on the instructor's effectiveness rating in regular students regressions. An expected course grade above the student's GPA only improved the effectiveness ratings for regular class instructors. This finding is consistent with that in a study conducted earlier (Mason, Steagall, and Fabritius 1995).

Ultimately, for instructor characteristics, two attributes—experience and education level are important and significant determinants of instructor effectiveness. This suggests that the longer the instructor's teaching experience is the higher effectiveness rating, and the higher the education level of instructor the higher the effectiveness rating. Unlike two other instructor characteristics attribute, the education background of the instructors has no significant impact on the effectiveness ratings provided in both the regression categories (regular class and non-regular class).

Conclusion and Future Work

Student evaluations of teaching effectiveness (SETE) surveys at the Economics Education Department of the Social Sciences and Economics Faculty Yogyakarta State University data have been used in this paper to examine the factors affecting effectiveness of the economics education instructors. The results obtained from the study confirm that students perceive the most dominant attributes of an effective economics instructors to be organizational skills and clarity. The study results indicate that all six instructor attributes affected effectiveness ratings for the regular class. Although student-instructor interaction was found to have a significant positive impact on effectiveness ratings in the regular class, this was not the case for non-regular class. Furthermore, a good grade dummy variable was found to have a significant positive impact on effectiveness ratings in the regular class only.

In the future, it would be much better if the analysis do not use student ratings as the only measure of teaching effectiveness, since they do not provide evidence in all areas relevant to teaching effectiveness. In other words it would be useful to test further the robustness of the analysis by putting additional data for teaching effectiveness measurement, such as the instructor's teaching portfolio, and student achievements.

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