3rd World Conference on Learning, Teaching and Educational Leadership (WCLTA-2012)

The relationship between instructor and course characteristics and students' perception of instructional quality

Sevgi Özgüngör *,

Department of Education, Educational Sciences, Pamukkale University, Kinikli, Denizli 20700, Turkey

Abstract

The main purpose of this study was to determine the predictive value of course and instructor characteristics which has not been linked to student evaluations yet or expected to show a different pattern in Turkish higher education context for students' perception of instructors' effectiveness. These included class size, academic rank, instructors' workload, instructor's total number of students, instructor's gender and students' disciplines. According to the regression analysis, class size, instructors' total number of students, work load, year of experience and students' disciplines were predictive of students' perceptions of instructors' effectiveness. However, these effects were not consistent across disciplines and instructors' gender.

1. Introduction

The unprecedented rapid technological changes of today's world forced restructuring of social, political, economical and even psychological structures of the societies, transferring their defining knowledge into something lucid, changeable and temporary. Within an educational context wherein almost everything prone to change, the goal of transferring existing knowledge to the students lost its importance and was replaced by the aim of helping students to develop cognitive structures to create knowledge. This new understanding necessarily required better prepared college instructors, who have to keep up with new knowledge and be able to teach students the way to produce knowledge. Along with this demand to be "highly qualified educators", instructors also feel the pressure to be more productive in academic writings. In spite of this pressure, being a good instructor and producing academically is no easy job given the still increasing number of students both in classes and increasing workloads of the instructors. According to Higher Education Board in Turkey (YOK, 2007) 73 % of the instructors feel the pressure of heavy course loads. Therefore, the question of whether the unsupporting instructional context (e.g., crowded classes, high workloads) has debilitating effects on instructional performance or teachers' innate characteristics such as dedication and effort could overcome the disadvantages posed by a poor instructional context becomes an important one. The existing literature on the effect of instruction and course characteristics on student

_____

* Sevgi Özgüngör. Tel.: +0-090-258-296 1051
  E-mail address: sozgungor@pau.edu.tr

perceptions of instructors indicates that the effects are either little or inconsistent (Hanushek, 2002; Marsh & Roche, 1997). However, the findings of this research are primarily based on samples from U.S. or western cultures, whose instructional conditions are different from those of Turkish higher educational system. For example, existing literature based on American samples indicates that class size has little or inconsistent effects on students' perception of instructors' efficiency (Hanushek, 2002). However, in America crowded classes could be a result of popularity of the instructor since the students have privilege to choose their instructors, unlike in Turkey. Similarly, in many of western countries and the USA, student evaluations play an important role in administrative decisions such as employment and promotion of the instructors. However, in Turkey, student evaluations have no utility other than providing student feedback to instructors about their teaching behaviors' efficiency. Also, although effects of class size, discipline and gender were widely studied, there is little research regarding the effect of instructor's academic rank (title) or total workload in the literature. Therefore, the main purpose of this study was to determine the predictive value of course and instructor characteristics which has not been linked to student evaluations yet or expected to show a different pattern in Turkish higher education context for students' perception of instructors' effectiveness. These variables include class size, academic rank, instructors' workload, instructors' total number of students, instructor's gender and students' disciplines. Also, based on findings showing differences across disciplines (Cashin, 1990; Obenchain, Abernathy & Wiest, 2001; Theall & Franklin, 2001), the effects of interactions between discipline and class size, instructor's gender and course load were included in the analysis. By the same token, interaction between gender and workload were also included in the analysis since women, even working, generally are the main figures in charge of child care and daily household chores in Turkey. Therefore, students might be less strict or demanding to female instructors' performances.

2. Method

2.1. Participants

This study used the data collected as a part of 'Pamukkale University Teaching Staff's Instructional Process Evaluation and Improvement Project'. The project started in 2009-2010 Fall Semester and data were obtained from all students attending to the university with the exception of Medical School students. For this study, only the data obtained from the faculties (Faculty of Science and Letters, Faculty of Education, Faculty of Economics and Administrative Sciences, Faculty of Engineering, Faculty of Technical Education) were used. There were a total of 15.384 students (46.6% male and 53.4% female) who provided a total of 47719 ratings for 430 instructors (304 male and 126 female).

2.2. Materials

2.2.1. Demographics

Course characteristics (e.g. class size) and instructors' demographics (e.g. gender, workload) were obtained from university's data processing unit.

2.2.2. Evaluation of Instructor's Teaching and Educational Process

Student evaluations of the instructors' performances were measured by a scale developed through modification of SEEQ (Marsh, 1980; 1984; 1987) based on three experts' suggestions based on universities' features and needs and a pilot study. The resulting scale had 20 items containing 6 subscales (effective teaching, planning and organization, evaluation and exams, relations with students, class interaction and contribution of generic skills). Both test retest and internal reliability values were satisfactory, ranging between .81 and .98 for all subscales. Similarly, factor analysis with principal component revealed 6 subcomponents explaining 82% of total variance.

3. Results

At the first step of the regression analysis, all the demographics including class size, total number of students, title, experience (in years), gender, students' discipline and workload entered the equation. Results indicated that all variables with the exception of workload and title were significant. At the second step of the analysis when the interaction terms were entered, class size, gender, workload and experience along with 2 interaction terms (genderXworkload, disciplineXclass size) were significant. Finally, after entrance of the teaching dimensions at the third step, workload, total number of students, discipline, interaction term for genderXworkload and all the teaching dimensions were significant. Although demographics explained only about 1 percent of the total variance, teaching dimensions explained 60% of the total variance (see Table 1).

Table 1. Course and instrcutors' demographics predicting perceptions of instructors' effectiveness

	Variables	**B**	**SEB**	**Beta**	**p**
Step 1	Class size	.000	.000	-.012	.020*
	Title (instructor's rank)	.001	.001	.005	.312
	Gender	-.030	.012	-.012	.012*
	Course load	.001	.001	.007	.194
	Experience	-.011	.001	-.048	.000***
	Instructor's total number of students	-.000	.000	-.013	.028*
	Discipline	-.062	.005	-.063	.000***
Step 2	Class size	-.012	.004	-.270	.001***
	Title (instructor's rank)	.000	.001	.001	.865
	Gender	-.082	.235	-.033	.728
	Course load	-.004	.002	-.040	.008**
	Experience	-.058	.030	-.259	.050*
	Instructor's total number of students	-.000	.000	-.015	.015*
	Discipline	-.095	.020	-.096	.000***
	GenderX Course Workload	.004	.001	.060	.001***
	DisciplineXClass size	.001	.000	.259	.001***
	DisciplineXGender	-.002	.012	-.019	.835
	ExperienceXTitle	.000	.000	.211	.117
Step 3	Class size	.000	.002	.009	.865
	Title (instructor's rank)	.000	.001	-.003	.328
	Gender	-.273	.148	-.111	.066
	Course load	-.003	.001	-.024	.013*
	Experience	-.004	.019	-.016	.851
	Instructor's total number of students	-.000	.000	-.012	.002**
	Discipline	-.028	.012	-.028	.023*
	GenderX Course Workload	.002	.001	.035	.003**
	DisciplineXClass size	-.000	.000	.009	.857
	DisciplineXGender	.010	.007	.081	.166
	ExperienceXTitle	-.000	.000	.005	.956
	Effective Teaching	.277	.006	.291	.000***
	Class Interactions	.047	.005	.050	.000***
	Relationships with Students	.088	.005	.094	.000***
	Contribution to Generic Skills	.079	.005	.087	.000***
	Evaluations and Exams	.082	.005	.090	.000***
	Planning and organization	.229	.006	.240	.000***

Note: Step 1 $R^2 = 007$, (p <.001), Step 2 $R^2 = .008$ (p <.001) and step 3 $R^2 = 61$ (p <.001).

In order to understand the observed findings better, a series of post hoc analyses was run. According to post hoc analysis for class size, those instructors who have either less than 20 students in the class or those who have more than 150 received the highest evaluation points. Post hoc analysis for experience indicated a reverse relationship in that the higher the years of experience the lower the instructors' evaluations points. As for academic disciplines,

results showed that Education Department students evaluated the instructors the most favorably whereas Engineer and Technical Education students awarded the lowest scores. According to analysis regarding course loads, instructors with 45 and more hour workload weekly received the lowest evaluations. Finally, as to interaction terms, while for male instructors, the higher the workload, the lower was their evaluation points, for female instructors, those who have lower than 15 hours had the lowest evaluations followed by those who have 45 hours and more workloads weekly. Similarly, while increasing class size had no debilitating effect on instructor's ratings for Engineer Department, for both Education and Technical Education Departments, increasing class size was related to decreasing evaluation points with the exception that for Education Department when class size exceeded 100, ratings were similar to less crowded classes' instructors' ratings.

4. Discussion

This study's main purpose was to determine the predictive value of course and instructional characteristics as well as teaching dimensions to predict student evaluations. Regression analysis revealed that although predictive values were very small, total number of students, workload and students disciplines were predictive of students' evaluations. The higher the number of students and workload, the less favorable was the instructor's ratings. In addition, although workload had negative effect on student evaluations for both female and male instructors, the effects were linear for only male instructors. For female instructors, both instructors with 15 and less hours workloads and those who have 45 and more hours of workloads had lower ratings than other groups. More importantly, the predictive value of the demographics changed across disciplines. First, students from Education Department gave the highest ratings while students of Engineering and Technical Education provided the lowest ratings. Second, the effect of class size were minimal for Engineering department, even useful after some point, whereas both Education and Technical Education Department students gave lower ratings to the instructors who have crowded classes. Given different structures of the disciplines, these results seem reasonable since the engineering education consists of more knowledge-based and less interpersonal content, whereas in Education, especially because of constructive approach's prevalence nowadays, higher levels of in class interactions and student participation became crucial elements of the instructional process, making class size more important. In addition to disciplines, effect of demographics on student ratings also changed based on instructor's gender. For instance, even though workload had a steady, linear and negative effect on instructors' ratings for males, the effect was more like a curvilinear relationship for female instructors. Both light and heavy workloads had a negative effect on female instructors' ratings, whereas average workload was associated with the highest ratings. These results indicated that in spite of the doubts about student ratings, students seem to be taking into account of course's debilitating factors such as crowded classes, high workloads or even perhaps unique conditions of the instructor during evaluations. Still, the most remarkable finding was that demographics and course characteristics' effects were very small compared to the effect of instructors' own academic behaviors even in case of high workload or crowded classes. Taken together, these results confirm the validity hypothesis of the ratings and suggest that effective instruction is much more important component of the student evaluations than course and instructors' demographic characteristics.

References

Cashin, W. E. (1990). Students do rate different academic fields differently. In M. Theall & J. Franklin (Eds.), *Student ratings of instruction: Issues for improving practice* (pp. 113-122). San Francisco: Jossey-Bass.

Hanushek, E.A. (2002). Evidence, politics, Oxford and the class size debate. In L. Mishel & R. Rothstein (Eds.), *The class size debate* (pp. 37-65). Washington, DC: Economic Policy Institute.

Marsh, H. W. (1980). The influence of student, course and instructor characteristics on evaluations of university teaching. *American Educational Research Journal*, *17*, 219-237.

Marsh, H. W. (1984). Students' evaluations of university teaching: Dimensionality, reliability, validity, potential biases, and utility. *Journal of Educational Psychology*, *76*, 707–754.

Marsh, H.W. (1987). Students' evaluation of university teaching: Research findings, methodological issues, and directions for future research. *International Journal of Educational Research*, *11*, 253-388.

Marsh, H. W., & Roche, L. A. (1997). Making students' evaluations of teaching effectiveness effective. *American Psychologist*, *52* (11), 1187-1197.

Obenchain, K. M., Abernathy, T. V., & Wiest, L. R. (2001). The reliability of students' ratings on faculty teaching effectiveness. *College Teaching, 49*(3), 100-105.

Theall, M., & Franklin, J. (2001). Looking for bias in all the wrong places: A search of truth or a witch hunt in student ratings of instruction? *New Directions for Institutional Research*, *109*, 45-56.

YÖK (2007). *Türkiye'nin Yükseköğretim Stratejisi*. Ankara. Yayın No: 2007/1. T.C. Yükseköğretim Kurulu.