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Student Evaluation of Teaching Effectiveness: Does Faculty Profile Really Matter?

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Abstract

The purpose of this study was to examine whether faculty profile plays a role in student's evaluation of teaching effectiveness. Specifically, this paper looks into the level and significant difference of teaching effectiveness among Western Visayas College of Science and Technology (WVCST) faculty when grouped according to gender, age, highest educational degree, length of service, academic rank and discipline. The samples were WVCST faculty members and students. Samples were derived by systematic and stratified and convenience sampling, respectively. Students were asked to evaluate and rate their teacher using "The QCE of NBC 461 Instrument for Instruction/Teaching Effectiveness". Findings reveal that teaching effectiveness when grouped as to gender, age, highest educational degree, length of service, academic rank and discipline was "outstanding". Teaching effectiveness yielded statistical difference between faculty gender, length of service, academic discipline and rank, but no statistical differences were found between age and highest educational degree.

Keywords: *Teaching effectiveness, faculty, evaluation*

Introduction

Evaluating faculty effectiveness is important in nearly every institution of higher education. Assessing the effectiveness with which various functions are performed is essential to a variety of important administration recommendations and decisions. It also provides feedback which influences the faculty member's self-image and professional satisfaction. It establishes a climate which communicates the institution's commitment to professional improvement and confidence that every faculty member will make a valuable contribution to the achievement of shared goals (Hoyt & Pallet, 1999).

Statement of the Problem

Generally, this study looks into the level of teaching effectiveness among Western Visayas College of Science and Technology Faculty as perceived by their students.

Specifically, this study aimed to answer the following questions:

1. What is the demographic profile of the faculty involved in the study?
2. What is the level of teaching effectiveness among faculty when grouped according to gender, age, highest educational degree, length of service, academic rank and discipline?
3. Is there significant difference in the level of teaching effectiveness among faculty when grouped according to gender, age, highest educational degree, length of service, academic rank and discipline?

Objectives of the Study

The objectives of this research are the following:

1. To examine whether the level of teaching effectiveness among faculty differ in terms of gender, age, highest educational degree, length of service, academic rank and discipline as perceived by the students.

2. To inform WVCST administration and academic community about the research findings and make use of the findings as a tool for faculty assessment and development.
3. To come up with a recommendation for the improvement of the level of teaching effectiveness among WVCST faculty.

Significance of the Study

The result of the study may be helpful to the School Administrator and Faculty as this will provide them an information on the level of teaching effectiveness among WVCST faculty as perceived by WVCST students. Also, this will provide them a thought of revisiting faculty teaching methodology and propose a strategy for the improvement of faculty teaching.

Review of the Literature

In the Philippines, student ratings of instruction are widely employed in colleges and universities across the nation. Student ratings of teaching effectiveness have been shown to be valid measures of effective teaching. They are not only used in university settings but are also thoroughly reviewed in the literature. Cohen (1981), in a meta-analysis that examined the relationship between student ratings and student achievement, concluded that students are well equipped to rate their teachers when the criterion is student learning. Marsh (1987) reviewed student evaluation literature and, advocating the multi-method multi-trait technique to establish validity, found strong evidence of construct validity for the use of his instrument, Student Evaluation of Educational Quality (SEEQ). According to Greenwald and Gillmore (1997), validity of student ratings has been supported by reviews of research conducted since about 1980. Others (Feldman, 1988; Hativa, 1996; Murray, Rushton, & Paunonen, 1990) reported that student ratings were stable over time and consistent with ratings of others (peers, self-evaluations). Braskamp and Ory (1994) offered the opinion that "most faculty view student ratings as one important indicator of teaching ability," (p.101) and that student ratings of teaching are both a valuable and credible source of information.

In probing the influence of instructor gender on student evaluations, some researchers have found that female instructors are rated lower than their male colleagues (Bennett 1982; Basow & Silberg, 1987; Sandler, 1991; Kierstead, D'Agostino, and Dill 1988; Koblitz 1990; Rutland 1990); other researchers (e.g., Basow & Distenfeld, 1985; Feldman, 1983, 1993; Goodwin & Stevens, 1993; Hancock, Shannon, & Trentham, 1992) were unable to find evidence of gender differences. Still others, such as Feldman (2007), Bachen, McLouglin, and Garcia (1999) and Tatro (1995) found that college students rated female instructors higher than male instructors. Thus, it is probable that gender is a factor in students' evaluations of teaching, but that the relationship is a complex one (Basow, 2000). Students may associate certain types of behavior, such as teacher expressiveness, with gender; students' confusion of teaching styles and gender may also impact their evaluations (Arbuckle & Williams, 2003; Centra & Gaubatz, 2000). The setting in which such evaluations take place may also be important. Feldman, for example, conducted two reviews of literature examining how students rated male and female instructors in different ways. He found that very little gender bias was evident in classrooms in which extraneous variables were tightly controlled (Feldman, 1992), whereas a slight bias in favor of same gender preference took place in studies carried out in classrooms without such controls (Feldman, 1993).

In terms of academic rank, several studies found that full, associate and assistant professors were rated more highly by students in comparison with teaching assistants (Centra & Creech 1976; Brandenburg, Slinde & Batista 1977; Marsh & Dunkin 1992). However, Feldman (1983) concluded that the majority of studies showed no significant correlation between academic rank and student ratings. Feldman also found that the majority of studies yielded no significant correlation between age/experience of the teacher and student ratings.

Research has also been carried out into how student ratings may be affected by the academic discipline of the subject matter, and the findings indicate that teachers in humanities and social sciences usually receive higher ratings than those in engineering and sciences (Feldman 1978). Moreover, Cashin (1990) analyzed the course average ratings of different fields of study for two large sets of student ratings in the USA and divided the ratings into three groups: high, medium and low. He found that consistent with Feldman's (1978) findings, the arts and humanities were likely to fall into the 'high' group and English language, literature, history, social sciences and health most often fell into the 'medium' group, whereas business, economics, computer

science, mathematics, physical sciences and engineering most often fell into the 'low' group.

Methodology

The population involved in the research study were Faculty (N=255) and Students (N=6,731) as of second semester 2012-2013 of Western Visayas College of Science and Technology – Main Campus, La Paz, Iloilo City, Philippines. The samples involved were 127 faculty members and about 3,810 students. The faculty samples were generated using systematic random sampling, while student samples were found using stratified and convenience sampling.

In order to obtain student's rating on teaching effectiveness, the researchers made use of the common evaluation instrument entitled "The Qualitative Contribution Evaluation (QCE) of National Budget Circular (NBC) 461 Instrument for instruction/Teaching effectiveness" prepared by joint committee of Commission on Higher Education (CHED), Philippine Association of State Universities and Colleges (PASUC) and Technical Education and Skills Development Authority (TESDA). The instrument consists of twenty (20) statements divided into four (4) assessment areas which are the commitment, knowledge of subject, teaching for independent learning and management of learning. All items were rated on a scale from one to five, where one is "poor" and five "outstanding". The questionnaire was distributed to the students and were asked to rate their teachers objectively. The result of the level of teaching effectiveness is interpreted on a five-point likert scale as follows:

Scale	Description
1.00 – 1.80	Poor
1.81 – 2.61	Fair
2.62 – 3.42	Satisfactory
3.43 – 4.23	Very Satisfactory
4.24 – 5.00	Outstanding

The distribution and collection of instruments took place between February to March 2013. The faculty profile was obtained from the WVCST Human Resource Management Office (HRMO), WVCST, La Paz, Iloilo City.

After the faculty profile was obtained and the evaluation instruments were completed, the data were then uploaded to the Statistical Package for the Social Science (SPSS) program for analysis purposes. The test of significance was conducted at 0.05 level. Each of the above statement of the problem was analyzed by applying the appropriate statistical technique. Statement of the problem 1 and 2 were descriptive in nature and were analyzed using descriptive statistics. Selected faculty demographic profiles were categorized and summarized using frequencies and percentages. The level of teaching effectiveness was measured and summarized using means and standard deviations. Statement of the problem 3 was inferential in nature and was analyzed using inferential statistics. Independent T-test was used to determine the significant difference in the level of teaching effectiveness when faculty was classified according to Gender. Analysis of Variance (ANOVA) was utilized to determine the significant difference in the level of teaching effectiveness when faculty were grouped as to age, highest educational degree, length of service, academic rank and discipline.

Results and Discussion

This chapter presents the findings of the study. The findings are presented and arranged based on the statement of the problem.

Descriptive Statistics

Table 1. Demographic Profile of Faculty

Categories	n	Percent
Entire Group	127	100
Gender		
Male	66	52.0
Female	61	48.0
Age		
≤ 29 yrs old	21	16.5
30 - 39 yrs old	32	25.2
40 - 49 yrs old	37	29.1
50 - 59 yrs old	26	20.5
≥ 60 yrs old	11	8.7
Highest Educational Degree		
Baccalaureate	50	39.4
Masteral	52	40.9
Doctoral	25	19.7
Length of Service		
≤ 5 yrs	47	37.0
6 - 10 yrs	24	18.9
11 - 15 yrs	15	11.8
16 - 20 yrs	9	7.1
21 - 25 yrs	6	4.7
≥ 26 yrs	26	20.5
Academic Rank		
Instructor I - III	18	14.2
Assistant Professor I - IV	34	26.8
Associate Professor I - V	28	22.0
Professor I - VI	6	4.7
Substitute/Part Time Instructor	41	32.3
Academic Discipline		
Arts and Sciences	57	44.9
Engineering and Architecture	22	17.3
Industrial Technology	31	24.4
Education	17	13.4

Table 1 shows the demographic profile of the faculty sample. The faculty samples were categorised according to gender, age, highest educational degree, length of service, academic rank and academic discipline. Of the 127 faculty sample, 52% (n=66) were male and 48% (n= 61) were female. When grouped according to age, majority of the faculty sample were 40 to 49 (n=37 or 29%), followed by 30 to 39 (n=32 or 25%), 50 to 59 (n=26 or 20%), 29 years old and below (n=21 or 17%) and 60 years old and above (n=11 or 9%). In terms of highest education degree, 41% (n=52) were masters degree, 39% (n=50) were baccalaureate and 20% (n=25) were doctoral degree holder. When classified according to length of service, 37% (n=47) were 5 years and below, 20% (n=26) were 26 years and above, 19% (n=24) were 6 to 10 years, 12% (n=15) were 11 to 15 years, 7% (n=9) were 16 to 20 years and 5% (n=6) were 21 to 25 years of service. As to academic rank, 32% (n=41) were substitute/part time instructors, 27% (n=34) were Assistant Professor I to IV, 22% (n=28) were Associate Professor I to V, 14% (n=18) were Instructor I to III and 5% (n=6) were Professor I to VI. Lastly, when classified according to academic discipline, 45% (n=57) were Arts and Sciences, 24% (n=31) were Industrial Technology, 17% (n=22) were Engineering and Architecture and 13% (n=17) were Education faculty.

Table 2. Level Teaching Effectiveness among WVCST Faculty

Categories	Teaching Effectiveness		
	Mean	S.D	Description
Entire Group	4.47	0.33	Outstanding
Gender			
Male	4.54	0.32	Outstanding
Female	4.38	0.32	Outstanding
Age			
≤ 29 yrs old	4.43	0.37	Outstanding
30 - 39 yrs old	4.52	0.28	Outstanding
40 - 49 yrs old	4.50	0.34	Outstanding
50 - 59 yrs old	4.38	0.33	Outstanding
≥ 60 yrs old	4.44	0.31	Outstanding
Highest Educational Degree			
Baccalaureate	4.43	0.37	Outstanding
Masteral	4.50	0.28	Outstanding
Doctoral	4.47	0.34	Outstanding
Length of Service			
≤ 5 yrs	4.57	0.29	Outstanding
6 - 10 yrs	4.44	0.31	Outstanding
11 - 15 yrs	4.27	0.39	Outstanding
16 - 20 yrs	4.64	0.23	Outstanding
21 - 25 yrs	4.52	0.33	Outstanding
≥ 26 yrs	4.35	0.32	Outstanding
Academic Rank			
Instructor I - III	4.42	0.38	Outstanding
Assistant Professor I - IV	4.34	0.36	Outstanding
Associate Professor I - V	4.49	0.29	Outstanding
Professor I - VI	4.60	0.24	Outstanding
Substitute/Part Time Instructor	4.56	0.28	Outstanding
Academic Discipline			
Arts and Sciences	4.34	0.34	Outstanding
Engineering and Architecture	4.48	0.33	Outstanding
Industrial Technology	4.69	0.18	Outstanding
Education	4.48	0.30	Outstanding

Table 2 shows the level of teaching effectiveness among WVCST faculty as rated by the students from different classes across the college. As a whole, the level of teaching effectiveness of the faculty was “outstanding”. When grouped according to gender, age, highest educational degree, length of service, academic rank and discipline, the level of teaching effectiveness were all “outstanding”.

Inferential Data Analysis

Table 3. Comparison of the Level of Teaching Effectiveness by Gender

Gender	Teaching Effectiveness				
	n	M	SD	t	p
Male	66	4.54	0.32	2.83	0.01
Female	61	4.38	0.32		

As shown in table 3, significant difference existed in the mean level of teaching effectiveness when faculty were grouped according to gender (males, M = 4.54, SD = 0.32; Females, M = 4.38, SD = 0.32, t = 2.83, p = 0.01). Thus, the mean level of teaching effectiveness of male was statistically higher than female as rated by their students.

Table 4. Analysis of Variance of the Level of Teaching Effectiveness When Grouped According to Age, Highest Educational Degree, Length of Service, Academic Rank and Discipline.

Categories	Teaching Effectiveness				
	N	Mean	SD	F	p
Age					
≤ 29 yrs old	21.00	4.43	0.37	0.89	0.47
30 - 39 yrs old	32.00	4.52	0.28		
40 - 49 yrs old	37.00	4.50	0.34		
50 - 59 yrs old	26.00	4.38	0.33		
≥ 60 yrs old	11.00	4.44	0.31		
Highest Educational Degree					
Baccalaureate	50.00	4.43	0.37	0.51	0.60
Masteral	52.00	4.50	0.28		
Doctoral	25.00	4.47	0.34		
Length of Service					
≤ 5 yrs	47	4.57	0.29	3.41	0.01
6 - 10 yrs	24	4.44	0.31		
11 - 15 yrs	15	4.27	0.39		
16 - 20 yrs	9	4.64	0.23		
21 - 25 yrs	6	4.52	0.33		
≥ 26 yrs	26	4.35	0.32		
Academic Rank					
Instructor I - III	18	4.42	0.38	2.66	0.04
Assistant Professor I - IV	34	4.34	0.36		
Associate Professor I - V	28	4.49	0.29		
Professor I - VI	6	4.60	0.24		
Substitute/Part Time Instructor	41	4.56	0.28		
Academic Discipline					
Arts and Sciences	57	4.34	0.34	9.31	0.00
Engineering and Architecture	22	4.48	0.33		
Industrial Technology	31	4.69	0.18		
Education	17	4.48	0.30		

Table 4 shows the result of the analysis of variance of the level of teaching effectiveness when grouped according to age, highest educational degree, length of service, academic rank and discipline.

No significant differences were found on the mean level of teaching effectiveness between faculty age (F= 0.89, p = 0.47) and highest educational degree (F=0.51, p = 0.60). On the other hand, the level of teaching effectiveness yielded statistical difference between faculty length of service (F= 3.41, p = 0.01), academic rank (F= 2.66, p = 0.04) and academic discipline (F= 9.31, p = 0.00)

To determine which pairs of means of length of service, academic rank and academic discipline were significantly differ from each other, Scheffe post hoc pair wise comparison test was performed. In terms of length of service and academic rank, scheffe post hoc comparisons test result showed that the variance between groups is not really big enough to make a difference. However, in terms of academic discipline, scheffe post hoc comparisons test result showed that the mean level of teaching effectiveness of the industrial technology faculty (M=4.69) was statistically higher than the Arts and Sciences faculty (M=4.34), p=0.00 (two-tailed).

Conclusion

The results indicated that the level of teaching effectiveness among Western Visayas College of Science and Technology faculty as whole and when classified according to gender, age, highest educational degree, length of service, academic rank and academic discipline was "outstanding". Moreover, there was also a statistical evidence to show that the level of teaching effectiveness of male faculty was higher over their female colleagues as rated by their students. In terms of academic discipline, it was also concluded that the Industrial Technology faculty has a higher level of teaching effectiveness versus the Arts and Sciences as rated by their students. Significant differences on the level of teaching effectiveness based on length of service and academic rank were also found but the variance between groups is not really big enough to make a difference. Lastly, no statistical differences were found on the level of teaching effectiveness between age and highest educational degree of the faculty.

Recommendations

Based on the findings and conclusions, the following are recommended:

1. Follow up research study be conducted and use the current results as a baseline data to establish the consistency of the results.
2. Instructors from different academic discipline and fields to revisit their teaching methodology and reflect if there is a need for change to improve their teaching method.
3. A "paperless or internet-based approach of evaluation is highly recommended to reduce cost in terms of printing and labor, elimination of data coding and faster data collection.

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