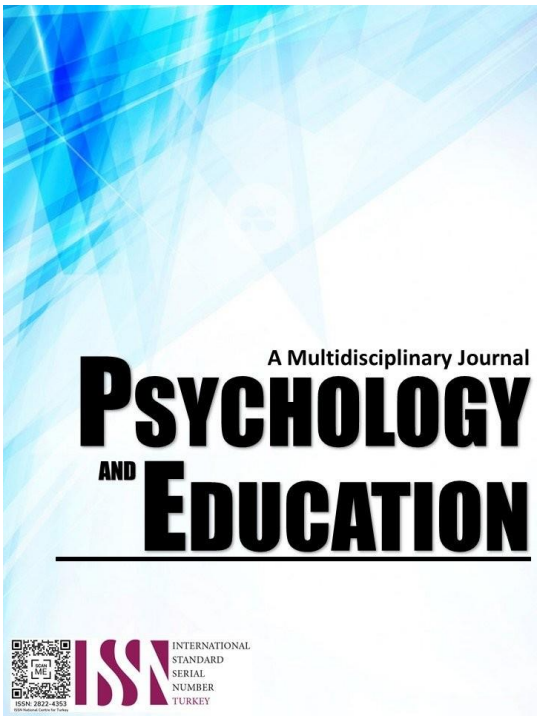
STUDENTS' PERCEPTIONS IN COLLEGE TEACHERS' EVALUATION: DEVELOPMENT AND VALIDATION OF INSTRUMENT



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Research Article

Students' Perceptions in College Teachers' Evaluation: Development and Validation of Instrument

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Abstract

This study developed and validated a scale for college teachers' evaluation. The scale was developed considering existing literature on the student's perceptions of effective college teachers and from the perceptions of students through focus group discussion. Initially, 37 items were generated using a 5-point Likert scale for validation. The data then collected and proceeded to construct validation using Exploratory Factor Analysis (EFA) with Principal Component Analysis for Extraction using Varimax rotation method. Data analysis was done using SPSS. Based on the validation process of the instrument, three (3) dimensions were identified with 12 items for the evaluation of college teachers' performance. The said dimensions were Effective Communication, Professionalism, and Instructional Alignment. This instrument is feasible to be used as a tool in assessing performance by college teachers, especially by the students.

Keywords: *teacher evaluation, college teacher, student perception, development of instrument, validation*

Introduction

Evaluation of quality in universities has been established with research and teaching (Pozo-Munoz et al., 2000). Evaluation of instruction at the university level has developed into a common occurrence including teacher evaluation involving collecting data from different stakeholders in order to increase the teaching-learning process' quality (Altaf et al., 2013).

One of the vital stakeholders in higher education institutions are the students, the clientele. Since teachers are the key individuals in the learning process, there should be a crucial need for the assessment of their qualities, traits, and characteristics, which have a significant effect on students' learning. Students clearly are the only ones who can determine whether or not teachers helped in their learning. With this, student evaluation of teachers is one of the most significant ways of assessing teacher performance (Gomez & Gaviria, 2004).

According to Wellein et al. (2009), several sources of data are necessary for evaluation which include self-evaluation by the teacher and hetero-evaluation by students, peers, and experts. Hetero-evaluation considers opinions of students about their learning, the attainment of course goals, and how the teaching-learning activities and resources aided them to achieve the program outcomes (Gomez & Valdes, 2019).

In the study of Akram (2019), it was also found out that students' perceptions of teacher's effectiveness have a significant relationship in student achievement. In the paper of Onwuegbuzie et al. (2007), they conducted a validity study of a teacher evaluation instrument in a university by considering students' perceptions of effective college teachers using mixed-method technique. The results of the study showed questionable validity of the instrument leading to a reduced number of indicators.

In another study of Archibong and Nja (2011), they developed and validated instruments for teachers' effectiveness and course's evaluation in public universities in Nigeria. The study showed that the instrument was adequate to generate information on the teacher and course effectiveness. However, the said instrument was developed by the researchers themselves, where students were not involved.

Research Questions

This study's primary purpose is to develop and validate a scale for college teachers' evaluation. The scale was developed considering existing literature on the student's perceptions of effective college teachers.

Methodology

Respondents

The study sampled 213 college students from one of the private higher education institutions in Bohol. Simple random sampling was used in identifying the said participants from the six (6) colleges of the institution. Informed consent was obtained by the participants and assured that their responses were kept private and will only be utilized for research.

Procedure

In this study, the development and validation of the evaluation instrument will be carried out in two steps. First, the researcher developed Students' Perception in College Teachers' Evaluation Tool based on literature review and focus group discussion. Initially, 37 items were generated using a 5-point Likert scale for validation. The study sampled 213 college students from one of the private higher education institutions in Bohol. Informed consent was obtained by the participants and assured that their responses would be kept private and will only be utilized for research. Second, the data collected then proceeded to construct validation using Exploratory Factor

Analysis (EFA) with Principal Component Analysis for Extraction using Varimax rotation method. Data analysis was done using SPSS.

Ethical Considerations

A permit from the respondents' school was secured through letters addressed to the institution's research director, college dean, and the Vice president for academics. Informed consent from the participants to be part of the study was obtained. All of the participants' information gathered were handled with care and kept private and were used solely for the study only. Additionally, all of the data were discarded after this study was completed in compliance with the Data Privacy Act of 2012.

Results and Discussion

Exploratory Factor Analysis

Tests were run to ensure that the sample size and data quality were appropriate for EFA. By looking at the Kaiser-Meyer-Olkin (KMO), which should be less than 0.50, we may evaluate the adequacy of the sampling. It is also important to perform the Bartlett test in order to show the item correlation matrix and meet the requirement that the chi-square output value be significant (p-value < 0.05), The analysis showed a meritorious value of KMO = 0.883, which is appropriate, and a p-value of less than 0.001 from Bartlett's Test (See Table 1). Based on the tests carried out, Exploratory factor analysis was deemed an adequate approach to understand the factors and loadings.

Table 1. *KMO and Bartlett's Test*

Kaiser-Meyer-Olkin Measure of Sampling Adequacy		0.883
Bartlett's Test of Sphericity	Approx. Chi-Square	781.988
	df	66
	Sig.	.000

Evidence of factor analysis and loadings can be given in a form of scree plot. The scree plot graphs the eigenvalues against the factor number. A scree plot displays the eigenvalues (greater than 1) associated with a component or factor in descending order versus the number of the component or the factor. A factor analysis was conducted on 37 items. The scree plot then showed 3 factors explaining most of the variability.

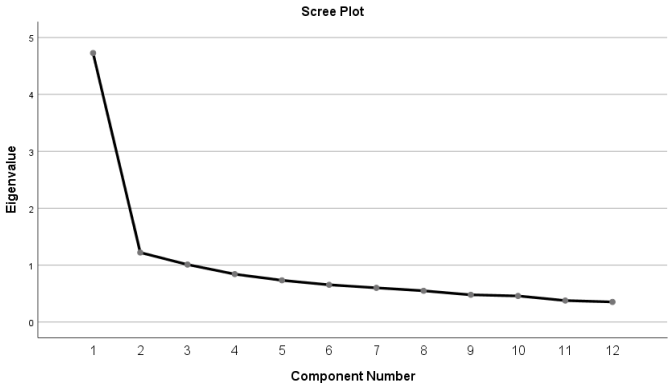

Figure 1. *Scree plot showing eigenvalues greater than 1*

Principal component analysis was performed using the varimax rotation method for factor extraction on the items. A principal component analysis uses eigenvalues, which represents the proportion of variance accounted for by the factors. The eigenvalues greater than 1 showed that there were 3 factors that represented 57.98% of the variance.

Table 2. *Structure of rotated factor*

Item No	*F1*	*F2*	*F3*
Q3	0.664		
Q4	0.681		
Q6	0.562		
Q7	0.686		
Q15	0.663		
Q20		0.578	
Q21		0.757	
Q22		0.757	
Q23		0.636	
Q33			0.767
Q34			0.726
Q36			0.757

**Scores indicate the factor loadings*

After extraction, there were 25 items removed and 12 items retained. Based on Table 2, it can be seen that there are 12 items making up 3 factors.

Table 3. *Items extracted with factor names*

Factor 1: Effective Communication	
Q3	The teacher speaks English Comprehensively.
Q4	The teacher communicates the purposes of class sessions and instructional activities.
Q6	The teacher uses examples and illustrations which help clarify the topic being discussed.
Q7	The teacher clears up points of confusion.
Q15	The teacher encourages class discussion.
Factor 2: Professionalism	
Q20	The teacher actually knows and understands what he/she is teaching.
Q21	The teacher treats the students fairly and gives everyone a chance.
Q22	The teacher appears well organized.
Q23	The teacher controls the class effectively.
Factor 3: Instructional Alignment	
Q33	The teacher makes sure that course objectives are covered.
Q34	The teacher covers course content that matches the stated course objectives.
Q36	The teachers make sure that examination captures the course objectives.

As shown in Table 3. Factor 1 labeled as Effective Communication with 5 items, Factor 2 labeled as Professionalism with 4 items and Factor 3 labeled Instructional Alignment with 3 items. These are now the components after instructional for the evaluation of college teachers after the process of validation.

Numerous studies on the validity of questionnaires, item grouping, and respondent students' preferences have shown student opinion on teacher performance (Gomez & Valdez, 2019). According to Molero and Carrascosa (2005) citing Gillmore that students are considered to be the most comprehensive observers of instruction by nature, which puts them in a unique position to evaluate the quality of the course as well as the preparedness and commitment of the teachers.

Effective communication involves using language that is appropriate for the ability levels of students, parents, and coworkers (Cornett-DeVito & Worley, 2005). Another important attribute of effective teachers is their capacity to communicate (Fullan, 1993). They actively listen to their pupils and respond in an encouraging manner. They also model standard language usage (Stronge & Tucker, 2003). The findings of Catt et al. (2017) study showed that having friendly and open communication with students actually improved their performance. These findings show how crucial effective communication is in the quality of teaching and learning.

Professionalism, in the context of teaching, as mentioned in the study of Onwuegbuzie et. al. (2007) encourages active learning, shows empathy for students, and portrays attitudes and actions that are thought to be exemplars in the college teaching profession. An instrument for effective school-based agricultural education teacher validated in the study of Eck et. al (2020) also showed a factor of professionalism with components, patience and empathy.

When teachers observe instructional alignment, they incorporate significant curriculum components with prior knowledge and experience, showing current and relevant content. Stronge (2010) stated that effective teachers use tools to establish expectations for students. Students are actively involved in the learning process in the classroom when assessments are regularly provided and in alignment with learning objectives (Black & William, 1998). This aids in students' retention of what they have learned.

The construction of a teacher evaluation instrument considering students' perceptions shows that there are 12 valid items. Based on the stages of development and validation testing, the instrument can be used to assess college teachers' performance.

Conclusions

This study conducted construct validity using Exploratory Factor Analysis (EFA) with Principal Component Analysis for Extraction using Varimax rotation method showed 12 items for college teachers' evaluation. The EFA was used as the data fulfilled the requirement as shown in Table 1 in KMO and Bartlett's Test of Sphericity.

Based on the validation process of the instrument, three (3) dimensions were identified with 12 items for the evaluation of college teachers' performance. The said dimensions are Effective Communication, Professionalism, and Instructional Alignment. This instrument is feasible to be used as a tool in assessing performance by college teachers, especially by the students.

This study however can be used for further study. The college teacher's evaluation instrument can be further validated through Confirmatory factor analysis (CFA) to re-examine existing constructs and to undergo reliability testing to measure the intended latent construct. The researcher hopes that in the future, researchers will develop this instrument using better methods for better instrument development.

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