



Perception of Students Teaching Quality Determinants and Effectiveness

Zaliha Hj Hussin

Faculty of Administrative Science & Policy Study
Universiti Teknologi MARA Kedah
Kampus Sungai Petani, P.O.Box 187, 08400 Merbok, Kedah
Tel: 60-4-456-2222 E-mail: drzaliha@kedah.uitm.edu.my

Kamaruzaman Jusoff (Corresponding author)

Tropical Resources Institute
School of Forestry & Environmental Studies
370 Prospect Street, New Haven, CT 06511 USA
Tel: (203) 432-3772 (voice) E-mail: jusoff.kamaruzaman@yale.edu

Maznah Wan Omar

Faculty of Business Management
Universiti Teknologi MARA Kedah
Kampus Sungai Petani, P.O.Box 187, 08400 Merbok, Kedah, Malaysia
Tel: 60-4-456-2550 E-mail: maznah199@kedah.uitm.edu.my

Abstract

The purpose of this study is to examine the perceptions among students from three public Universities, particularly students from Universiti Teknologi MARA, Universiti Sains Malaysia, and Universiti Utara Malaysia towards lecturers teaching Quality determinants. A field survey among students from different field of studies (Social Sciences and Pure Sciences) was conducted through a questionnaire. The data were factor-analyzed to determine the key dimensions of lecturers teaching quality. The resulting dimensions were applied in the subsequent discriminant and univariate analysis conducted to determine which factors discriminate between students on the basis of perceived students-lecturers interaction. The result shows that seventeen dimensions, namely: clarity, practicality, exercises, attention, enthusiasm, creativity, feedback, syllabus, motivation, extra reading, availability, technology, punctuality, current issue, approachable, language use, and communication discriminate between students in terms of lecturers teaching performance and students perceptions of teaching quality. Findings suggest that the lecturers can promote and enhance teaching effectiveness by applying clarity, practicality, exercises, attention, enthusiasm, creativity, feedback, syllabus, motivation, extra reading, availability, technology, punctuality, current issue, approachable, language use, and communication to students during lecturer-student interaction in the classroom. This study add value by unveiling the key antecedents and predictors of students perceptions thus confirm the plateau of confirmation and disconfirmation theory development.

Keywords: Teaching, Quality determinants, Student's perception, Confirmation, Disconfirmation paradigm

1. Introduction

A recent survey of all higher education institutions in the United Kingdom concerning promotion practices showed that despite 96% of institutions including teaching excellence in their criteria, only 11% of promotion decisions were being made on the grounds of teaching excellence, and 38% of institutions reported no promotions at all on the grounds of teaching excellence, Adams (1993). As stated by Adams et al., (1993) one of the most important elements in Strategic Planning in Study Effectiveness is the quality of instruction given by the instructor of the education. To take full

advantage of this strength the effort to improve quality instructions must be continuous. This continuous improvement can take place through harnessing in its behalf the same high level of intellectual energy, imagination, and resources that enables the University's many accomplishments in research. Ramsden as stated in Franklin et al., (2000) indicates that teachers may see themselves as transmitters of information, thereby reflecting the wider expectation, as opposed to that of transformers of students' learning. The teacher is portrayed in one of three roles-the manager of the learning environment, the facilitator of learning, and the spoon-feeder role. Recent study that was carried out at the author's University (MacAlpine, 2001) in determining the views of the lecturers, peer review were used as a tool for evaluating their teaching. The results showed that they generally recognized the potential benefits of peer review of their teaching as a formative tool for improving their teaching practice while, at the same time, having serious doubts about its use in summative judgments about their teaching performance, MacAlpine (2001).

In MacAlpine's study, a Teaching Evaluation Index (TEI) was developed. The basic idea behind the Teaching Evaluation Index was to combine an index figure derived from Student Feedback Questionnaires (SFQ) results with one derived from In-class Peer Evaluations (IPEs) reports and one derived from Teaching Portfolios (TPs). Why TPs? The intention was that the TPs would cover all the areas indicating a lecturer's dedications and good intentions, which might not (immediately) affect his SFQs and IPEs. According to Leckey and Neill (2001), Higher education institutions throughout the United Kingdom are now scrutinized by assessors from the Quality Assurance Agency. The Agency's mission is to promote public confidence that quality of provision and standards of awards in higher education are being safeguarded and enhanced. Nightingale and O'Neil (1994) indicate that there are 5 different ways of defining quality, that is: (1) quality equal to high standards (can be high marks; high ethical standards), (2) quality linked to consistency and zero defects (a standard approach to curriculum, content and processing), (3) quality related to fitness for the purpose, (4) quality equal to value for money and (5) quality as a transformative process. Nightingale and O'Neil (1994), suggest that in looking for a meaningful definition of quality in learning among higher education, we should be looking at education as a transformative process involving a change in roles of the student and the teacher, and geared to an assumption of quality being part of a continuous improvement process. Teaching Experience other studies of the effects of teacher on student learning have found a relationship between teachers' effectiveness and their years of experience (Hammond, 2000). While studies dated back to the 1940s have found that there are positive correlations, between teaching performance and measures of teachers' intelligence which is usually measured by IQ or general academic ability, (Hammond, 2000), most relationships are small and statistically insignificant.

Acosta (2000) states that University teaching usually takes the form of one of three methods: the lecture; tutorial work; and practical and projects. Despite the changes in mentality fostered by the information era, the statistics class still takes the form of the classical lecture in the great majority of cases. The effectiveness of the lecture for transmitting information to a large number of students, the uncertainty surrounding the results in the use of alternative methods, the lack of incentives for the adoption of alternative methodologies together with a great cultural inertia are sufficient reasons for this method to continue playing the chief role in university education on the threshold of the 21st century. It follows the importance of taking into consideration those factors that may help to improve it in carrying out its task, namely the presentation of relevant topics in an understandable and stimulating way for the student. Our experience supports that of other authors (Acosta, 2000; Hammond, 2000; MacAlpine, 2001), thus the general objective of this study is to suggest considering a series of elements to improve a lecture addressed to an audience of students in order to enhance teaching effectiveness. The specific objectives are two-folds, namely to determine (1) the teaching quality factors among lecturers from the social science and pure science students' perspective, and (2) the best predictors of teaching quality factors in the perceptions of the students.

2. Methodology

The scope of study encompasses pure and social students from Universiti Teknologi MARA Kedah, Universiti Teknologi MARA, Pulau Pinang, Universiti Teknologi MARA, Perlis, Universiti Sains Malaysia, and Universiti Utara Malaysia. The study looks into students' perspective on teaching quality determinants and discriminate the importance of seventeen different dimensions of teaching quality determinant.

A sample of 500 students from social and pure science background was collected base on systematic random sampling. Sample list were obtained from the University Registrar office, whereby samples were picked at random by using SPSS software.

Subsequently, samples were distributed with the help of the lecturers from the Universities chosen and answers to the questionnaire were collected immediately. Thus, a late and early response analysis was not necessary.

Data collected were analyzed by using SPSS V.11. The data analysis conducted was factor analysis, reliability test, normality test, univariate analysis and descriptive analysis.

3. Results and discussion

As a University lecturer we are expected to deliver our material in a quality manner. Thus, the researcher is trying to plot out the best criteria that a lecturer should possess in order to be effective. By testing 17 different determinants, we found that only 8 determinants are significant, which indicates that a lecturer should apply these 8 determinants, in order to be effective. Lecturers need to be more creative in presenting their materials by using different approaches to adjust their teaching, to meet the needs and backgrounds that the students bring with them to class. An expert educator will employ cognitive strategies and approaches quite differently from the novice. These approaches involve a combination of acquisition of knowledge in the classrooms, experiential cases, case study, presentations, problem solving approach, problem identification skills approach etc. The lecturer's role is also to realize that individual students may approach a topic in quite a unique way, to learn how individual students understand the topic, and work with the student in adding to or reconstructing the students' understandings.

In reference to Table 1 below, Independent group t-test were used to test for homogeneity of variance. If the test is significant ($p < .05$), then we reject the null hypothesis and accept the alternative hypothesis that the variances are unequal. In these instances the unequal variance estimates are consulted. If the test is not significant ($p > .05$), then we accept the null hypothesis that there are no significant differences between the variances of the groups. Given that Levene's test has a probability greater than .05; we can assume that the population variances are relatively equal. Therefore, t-value can be used, the degree of freedom and two-tail significance for the equal variance estimates to determine whether difference in opinion on the determinants between social science and pure science exist.

In order to determine the differences in the opinion between social science and pure science students with regard to the level of importance for each of the teaching quality determinants, we used a 1% significant level on Mann-Whitney test ($p\text{-value} < 0.001$). The output shows that both social science and pure science students rank more or less on the similar scale of importance for the following variables: 1) Feedback, 2) Syllabus, 3) Creativity, 4) Exercises, 5) Enthusiasm, 6) Availability, 7) Technology, 8) Approachable and 9) Language Use. All the above variables have a Mann-Whitney reading of more than 0.005 ($p\text{-value} > 0.005$). Meanwhile, the variables Clarity, Practicality, Attention and Communication have a Mann-Whitney reading of more than 0.001 ($p\text{-value} > 0.001$) but less than 0.005 ($p\text{-value} < 0.05$). On the other hand, there are four variables that show a gap in terms of ranking they received for their level of importance as indicated by both groups of students. The four variables show a Mann-Whitney reading of 0.00 to 0.001 (2-tailed $p\text{-value}$). The variables are: 1) Motivation ($p\text{-value} = 0.000$), 2) Extra reading ($p\text{-value} = 0.000$), 3) Punctuality ($p\text{-value} = 0.001$) and Current issue ($p\text{-value} = 0.000$). But, there is no doubt that the above variables are perceived as very important for both groups.

4. Conclusion

It should realize that student's perceptions are important in assessing and evaluating the quality of teaching as they formed the end part of the process whereby a high quality of teaching is expected to transform into a better performance in students.

The quality of teaching may be improved, among others, by encouraging the academician to use as many teaching methods in the classroom and by providing training and support to them from time to time. By realizing the factors that affect the level of their teaching quality, the lecturers are expected to make continuous improvement from time to time in order to be a quality educator.

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Table 1. Levene's test for Equality of Variances

Teaching Determinants	Quality	F	Sig.	t	df	Sig.(2-tailed)	Mean Difference	Std. Error Difference
Clarity		.707	.401	-1.648	408	.100	-.1108	.06723
Practicality		.053	.819	2.631	408	.009	.2034	.07731
Exercises		2.941	.087	.696	408	.487	.0570	.08195
Attention		5.735	.017	2.414	408	.016	.2112	.08747
Enthusiasm		.282	.596	.188	408	.851	.0139	.07360
Creativity		5.355	.021	1.942	408	.053	.1621	.08347
Feedback		.109	.741	1.877	408	.061	.1415	.07539
Syllabus		7.685	.006	1.263	408	.207	.0937	.07421
Motivation		1.510	.220	4.855	408	.000	.4046	.08334
Extra Reading		19.719	.000	4.191	408	.000	.3363	.08026
Availability		2.472	.117	1.451	408	.148	.1163	.08016
Technology		.598	.440	1.143	408	.254	.2675	.23403
Punctuality		7.900	.005	3.855	408	.000	.3464	.08985
Current Issue		.101	.750	5.234	408	.000	.7116	.13596
Approachable		1.429	.233	.769	408	.442	.0618	.08029
Language Use		4.005	.046	-.055	408	.956	-.0040	.07173
Communication		.055	.815	3.243	408	.001	.2640	.08139

In relation to the determinant **Clarity** above, Levene's test was not significant and thus we interpret the equal variance estimates. Consulting our t-value, df (standard deviation) and two-tail significance, again no significant differences were apparent ($p > .05$). Therefore, there is no significant difference in student's opinion from two different background of study that is from social science and pure science. Both agree that the determinant **Clarity** is insignificant, which means that there are no significant differences between the variances of the groups.

Other determinants that are not significant ($p > .05$), are: Practicality, Exercises, Enthusiasm, Feedback, Motivation, Availability, Technology, Current Issue, Approachable, and Communication.

The t-test for Equality of Means, presented in the above table 4.7 was used to further support the test that was done before i.e ANOVA.

Based on the readings from ANOVA test and t-test for Equality of Means, both tests indicate that there are 4 determinants which have the most perfect significant value, where $p = .000$. They consist of: 1) Motivation, 2) extra Reading, 3) Punctuality, and 4) Current Issue.