JOB SATISFACTION AND TEACHING ROLE ATTRIBUTES OF INSTRUCTORS IN HIGHER LEARNING INSTITUTIONS OF MALAYSIA

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ABSTRACT

The purpose of the study is to examine the relationships between job satisfaction and four teaching role attributes of instructors. The study was conducted in Malaysia and the respondents (sample of 292 instructors) were instructors in the higher learning institutions who are working in universities and university colleges. Four instructor roles were studied (pedagogical, managerial, technical and subject designing) and their characteristics are individually measured using Hackman and Oldham' Job Diagnostic Survey (1980). Each instructor role was measured for their degree of skill variety, task significance, task identity, autonomy and feedback from the job. The correlation tests indicate that all the four role attributes are significant and positively related with job satisfaction. Multiple linear regression tests output show pedagogical role attributes serve as the strongest predictor of job satisfaction (beta = .289, p = .000) followed by subject design role attributes (beta = .199. p = .000).

Key Words: job satisfaction, instructors, pedagogical role, managerial role, technical role and subject designing role

INTRODUCTION

Ample evidence in previous research (for example Hackman & Lawler, 1971; Hackman & Oldham, 1976; Hackman & Oldham, 1980; Barnabe & Burns, 1994) suggest that jobs that have high degree of skill variety, task significance, task identity, autonomy and feedback result in higher intrinsic rewards among job incumbents. The theory has been tested in recent studies conducted within contemporary work settings and the outcomes are still consistent with the prior findings (De Varo, Li & Brookshire, 2007; Clegg & Spencer, 2007; Wegge, Van Dick, Fisher, Wecking & Moltzen, 2006; Thakor & Joshi, 2005; Winter & Sarros, 2002; Boonzaier, Ficker & Rust, 2001). All these research found that job incumbents tend to experience improved job performance resulting in positive internal reinforcement. This positive reinforcement would then serve as an incentive to further enhance on their job performance. Past studies on job satisfaction also found significant relationships with employee turnover (Griffeth, Hom & Gaertnet, 2000), absenteeism (Hackett & Guion, 1985), organizational citizenship behavior (Organ & Ryan, 1995), and performance and motivation (Ostroff, 1992). That is, job satisfaction is influenced by 'motivating' factors such as interesting work, challenging task, opportunities to make decisions and accountability (Herzberg, 1987). In educational settings, there have been numerous studies conducted on job satisfaction in schools (Zembylas & Papanastasiou, 2006; Delle Fave & Massimini, 2003; Ellis, 1986; Khmelkov, 2000; Kim & Loadman, 1996; Street & Licata, 1988) and higher educational institutions (Iiacqua & Schumacher, 1995; McKeachie, 1997; Tepstra & Honoree, 2004; Oshagbemi, 2000; Winter &

Sarros, 2002; Rosser, 2005). These studies findings were consistent with those conducted in non-educational setting and they provide further support to the theory that enhanced job characteristics result in higher intrinsic rewards and eventually improving job performance.

Nevertheless, one cannot ignore the fact that all these studies only examined the attributes of the whole job but neglect the distinct attributes of various roles or tasks performed within a job. A jobholder carries out different roles, duties and responsibilities that require different types of characteristics. The characteristics can be measured in terms of skill variety, significance, identity, autonomy and feedback gained from the job (Hackman and Oldham, 1976, 1980). The job of a teacher or university instructor is considered a complex job as it consists of diverse tasks such as teaching, research and services. This study only focused on teaching as it is the major task that teachers and instructors have to perform. The literature so far indicate ample studies and research have been conducted in identifying various roles that make up the teaching job. Scholars and researchers' discussions reveal that teachers and instructors play a number of distinct roles with regard to their teaching task and their discussions were mainly centered around four major roles, namely, pedagogical role, managerial role, technical role and subject-designing role (Bennet & Lockyer, 2004; McMann, 1994; Goodyear, Salmon, Spector, Steeles & Tickner, 2001; Bunker & Vardi, 2001; Harden & Crosby, 2000). This implies that these roles may have different levels of skills required, significance, identity, autonomy and extent of feedback received. Based on this premise, this study seeks to measure the different role attributes and examine how they influence job satisfaction of instructors.

LITERATURE REVIEW

Job Characteristics

According to Hackman and Oldham (1980), there are five different job attributes that influence employee satisfaction and motivation; 1) *skill variety*; 2) *task identity*; 3) *task significance*; 4) *autonomy*; and 5) *feedback*. The authors proposed that the first three attributes contribute to the *overall meaningfulness of the job*. *Experienced meaningfulness* of a job is when a person feels that his job performance has a significant impact on the safety or well being of others. For instance, an instructor is expected to be able to facilitate class discussions, design course materials and use computer technology to perform his job. This would require various skills and new responsibilities that may influence his work outcomes.

An employee who is given more *autonomy* or freedom in how he wants to conduct a job will get the feeling of *experienced responsibility.* For example, someone who is responsible to decide important matters pertaining to what tools or methods to use for his class and is personally responsible for any failure or success of the learning activity. Finally, *feedback* from the job gives an employee the information of how well good or badly he is performing. Such information provides the person with the *knowledge of the results.* These attributes are likely to influence the worker's job satisfaction and internal motivation. The more positive feelings and experience an employee derives from a job, the more satisfied and motivated he will be. It is thus expected that the person would continue the good performance and eventually the internal rewards would serve as incentives for continuing to do well in the future.

Instructors' Roles

There are four major roles teachers or university instructors have to carry out in performing their duties and responsibilities. These four roles are: pedagogical, managerial, technical and subject-designing (Bennet & Lockyer, 2004; McMann, 1994; Goodyear, Salmon, Spector, Steeles & Tickner, 2001; Bunker & Vardi, 2001; Harden & Crosby, 2000).

Pedagogical Role

The traditional role of an instructor is to be the "sage on the stage" and act as the authority figure who perceives himself as the source of knowledge. Instructions come from the instructor and students are expected to listen and receive information. It is further noted by Miller and King (2003) that the key to success in most courses, regardless of the type of technology or method used, is the instructor's pedagogical skill. Even if an instructor has the technical skill and competency, lacking in such skill will result in frustration and disappointment (Knowlton & Weiss, 2000). This role is very significant because instructors are expected to teach and impart knowledge to students. Their communication skill is crucial and they should be able to give instructions, provide support and directions (Merrit, 1985). Facilitation and consultation are among the main parts of this role that requires instructors to be able to assist students, stimulate their thinking, give advice and more importantly guide students in their learning process (Gregory, 2002). In terms of feedback, the instructor can gauge their teaching effectiveness from students' bodily expressions and verbal reaction. The immediate feedback is important for the instructor as a measure of his ability to perform this pedagogical role.

Managerial Role

According to Sadker and Sadker (1991), an effective teacher must be a good manager who will organize the academic content and students' records. Farris (1999) and Anderson (1993) further mentioned the importance of maintaining teaching portfolios. As an instructor, he is responsible for regulating and administing the learning environment by formulating rules, regulations, policies as well as timelines to ensure the smooth running of the course (Flake, Kuhs, Donnelly & Ebert, 1995). Monitoring and disciplining students are one of their duties but that should not be the only focus because as noted by Evertson and Harris (1992), educators nowadays have shifted from controlling students' behavior to creating and maintaining an environment that supports learning. The managerial role of instructors then requires skills to administer and organize learning resources and environment. Given the responsibility to monitor and discipline students' behavior and learning, instructors have to admit that their roles are very important and significant. In some universities, the role to manage and organize resources is not only confined to managing the students as the instructors may as well be required to coordinate students in different geographical locations. In some cases, the remote students are taught by their respective instructors or tutors. This adds more responsibility for instructors in the main campus to coordinate the activities of the students as well as to administer the remote tutors. Thus, instructors have to have the independence and freedom to perform their tasks. At this juncture, the level of feedback they get from the job is important so that they know how effectively and efficiently they are performing.

Technical Role

To have effective classroom instruction, most instructors use various teaching aids such as visuals, handouts, audiocassettes and power point slides (Bennet & Lockyer, 2004; Noe, 2005, Goodyear et al, 2001). Nowadays, there are more varieties that are available for use ranging from the least sophisticated like transparencies, television and audiocassettes to the more sophisticated ones like video conferencing and online tutorial. It is thus important for instructors to have the skills in using different teaching aids. However, it should be noted that instructors do not have to master the technology, as being a competent technology user is different from knowing how to use it effectively (Salmon' 2000). Given the various teaching aids, instructors should be able to assess the suitability of the media with the lessons, practicality and students' readiness. Mismatch between these aspects would result in ineffective teaching. For example, Gordon (1970) and Tyler (1975) noted that the inability of instructors to use television as a medium for teaching resulted in resistance among the students and instructors. This is further supported by Yusup's (1998) survey that indicated despite the availability of such resources in higher learning institutions, the level of usage was still relatively low. Goodyear et al (2001) contended that instructors should have the technical skills to assess the capability and weaknesses of certain media before deciding to choose which medium to use. Therefore, instructors should have the skill in assessing which aids to use in order to exercise their autonomy to choose which technology is practical for teaching. Their role in

this aspect is very significant due to the fact that students' readiness to learn greatly depends on the instructors' ability to guide them (Miller & King, 2003).

Subject-Design Role

Another important role performed by instructors is designing or planning the course (Jaffee, 2003; Black & Holford, 2002; Bennet & Lockyer, 2004). Even though some aspects of the course planning is beyond their control such as university timelines, course syllabus and faculty policies, they still have the opportunity to use their discretion on how to design the course for the semester. For instance, instructors are responsible to design the course activities throughout the semester. They should allocate the time for classroom instructions, discussions, consultations, excursions and other students' activities. The course content should be developed according to students' readiness and the type of suitable teaching aids should also be determined. Another factor that should not be taken for granted is the change in pedagogy from "teacher-centered" to "student-centered" (Ahmed, 2003). The shift requires instructors to be knowledgeable in designing courses that promote interactive learning and critical thinking. This may influence the type of teaching approaches and teaching aids. Instructors' role at this juncture is becoming very significant and their ability to exercise their independence in making choices is highly required.

Job Satisfaction

Herzberg (1976) noted that "motivator" factor highly influences employees' job satisfaction. The "motivator" factor is derived from the job itself such as a sense of accomplishment, level of responsibility, job challenges, task complexity, pride and the passion for the job. These motivator factors are expected to result in satisfaction. On the other hand, "hygiene" factors greatly influence the employees' job dissatisfaction. The sources for dissatisfaction are like salary, relationships with peers and superiors, physical work environment and job security. These job aspects are referred to as "work context" by Hackman and Oldham (1980). They posited that employees will only experience internal motivation and job satisfaction when they are satisfied with the "work context". Further, they suggested that certain jobs should be redesigned by re-examining the job attributes in order to make the jobs more challenging, meaningful and satisfying.

Job Characteristics and Job Satisfaction of Instructors

There were numerous studies conducted that examined the relationships between instructors' job characteristics and job satisfaction (Iiacqua & Schumacher, 1995; McKeachie, 1997; Tepstra & Honoree, 2004; Oshagbemi, 2000; Winter & Sarros, 2002; Rosser, 2005). For example, a study by Iiacqua and Schumacher (1995) among university instructors indicated that job satisfaction is highly associated with challenges in the job and the various skills required. This is further supported in a study by Rosser (2005) that showed the faculty members derived job satisfaction from teaching, advising students and making decisions related to the subjects taught.

As expounded earlier, instructors derive their job satisfaction from the positive experiences from the job. Their job satisfaction is highly influenced by the characteristics of the roles they perform every day. Given the different roles instructors perform in their work this study seeks to examine the relationships between each of the four roles and job satisfaction.

RESEARCH METHODS

Samples and Data Collection

The population under study, which becomes the unit of analysis in this study, is all lecturers in the higher learning institutions in Malaysia. The higher learning institutions include universities and university colleges. Based on the statistics (Ministry of Higher Education Malaysia, 2006), as at 31 December 2003, there are 20,878 academic staff in universities and 2992 in non-universities. In total, there is 32,067 academic staff all over Malaysia. There are 22 public universities, 16 private universities and 14 private university colleges. For the purpose of the study, samples were drawn from those who are teaching in Business and Management related areas only. The reason for restricting to such areas is because the type of technologies and methods used in teaching and learning is basically about the same. Statistical data for instructors teaching business and management related subjects in Malaysian public and private institutions are very limited and thus, the researcher initiated the effort to go through all the identified institutions' websites in order to ascertain the estimated figures. In cases of those without such online information, the researcher personally contacted the faculties concerned to get the approximate numbers of instructors. Finally, the rough figures were obtained and in total there were approximately 2397 instructors teaching business and management subjects in the institutions (1447 instructors in public universities, 795 instructors in private universities and 155 in private university colleges). All public and private institutions of higher learning were identified and samples were drawn from faculties and/or department of interest. In each faculty, lecturers were chosen using simple random sampling. As this study was about teaching roles and responsibilities, only those academic staff or faculty members who have a teaching load of at least 50 percent of their total work load were included in the study.

Questionnaires were distributed online, by regular mail and personal visits. Approximately 1000 emails were sent out to the target instructors and they were required to fill in the online questionnaire. Their online responses were automatically stored in a database that secured anonymity. The response obtained from the method was only 8% of the total number of instructors contacted (80 online responses). The other method used was regular mail. About 500 questionnaires were mailed to the heads of the faculties and this method generated 137 responses (response rate of 27.4%). The third method employed was to personally distribute the questionnaire and 200 questionnaires were used. This method yielded 75 responses (37.5% response rate). In total, 292 responses were collected and it took about 6 months to complete.

Measurement Instruments and Statistical Techniques

The instrument used in the study is adopted from the Job Diagnostic Survey (JDS) developed by Hackman and Oldham (1980). There are 15 items (3 items to measure each of the 5 dimensions – skill variety, task significance, task identity, autonomy and feedback from the job) that are used to measure each teaching role attributes (pedagogical, managerial, technical and subject designing) and 5 items to measure job satisfaction. All the items are expressed on 7-point scales, where 1 is low and 7 is high. Brief explanations on each of the four teaching role attributes were provided to ensure respondents understood the survey objectives and to make it clear to the potential respondents that they were required to evaluate the teaching role attributes individually across the 15 items. The last section of the questionnaire asked for the demographic information of the respondents.

Statistical Package for the Social Sciences 16.0 for Windows was used to analyze the data. Pearson correlation tests and regression test were used to examine the relationships between variables.

DATA ANALYSIS

Respondents' Demographic Analysis

Approximately 1000 emails sent out to respondents to fill up online questionnaires and 700 units of questionnaires were distributed (via regular mail and visits) to universities and university colleges in Malaysia. A total of 292 university instructors responded. The majority of the respondents were from public universities (48.6%), 28.1% were from private university colleges, 22.6% from private universities and the rest (0.7%) were from public university colleges. In terms of teaching experience, 29% of the instructors had more than 11 years, 36.3% have between 6 to 10 years and 34.6% have 1 to 5 years. Out of the 292 respondents, 176 of them (60.3%) possessed Master degree, 19.9% with doctorate, and 19.2% with bachelor degree. The majority of the respondents were from the age group of 30 to 39 years old (52.4%), 21.2% in age group of 40 to 49 years, 19.5% were between 20 to 29 years old and only 6.8% were those above 50 years of age.

Factor Analysis and Reliability Tests

The factor analysis output on the sixty items that measured instructors' four teaching role attributes resulted in 11 factors, which explained 71.21% of the total variance. The Bartlett test of sphericity is significant and that the Kaiser-Meyer-Olkin measure of sampling adequacy is 0.917 which was far greater than 0.6. Inspection of the anti-image correlation matrix revealed that all the measures of sampling adequacy were well above the acceptable level of 0.5. In selecting items for each scale, two criteria were used. Firstly, items on a single factor with factor loading of 0.3 or less were dropped (Hair et al, 1998), and secondly, to improve scale reliability, items with less than 0.3 item-to-total correlations were deleted from the scales (Nunnally, 1978).

The factor analysis output indicated unclear cut factor loadings and the items were not appropriately loaded in the expected groups. Several factors were found containing items from different teaching roles. Nevertheless, for the sake of the present study, regardless of the dimensionality, four factors with items which indicate common teaching role were used and seven others were dropped as they did not provide meaningful interpretation. Despite the high loadings and since all the items within the respective factors were not appropriately loaded in the expected group, all these factors had to be dropped from further analyses. Subsequently, reliability tests were conducted to measure the Cronbach's coefficient alpha for each factor items. Factor 1 consisted of 10 items was labeled *subject design role attributes* with Cronbach's coefficient alpha of 0.936. Factor 2 that contained 8 items was named *pedagogical role attributes* and the reliability coefficient for the scale was 0.907. Factor 3 was labeled *technical role attributes* had 6 items with Cronbach's coefficient of 0.885. Factor 5 consisted of 8 items with reliability coefficient of 0.894 was labeled *managerial role attributes*.

Job Satisfaction construct was measured using the items in JDS that contain 5 items. Previous studies using these items measuring job satisfaction indicate coefficient alpha ranged from 0.55 to 0.92 (for example Munz et al, 1996; Adkins, 1995; Mannheim et al, 1997; Mathieu et al, 1993). Reliability test conducted in the present study indicated coefficient alpha of 0.784.

Correlations between Job Satisfaction and the Respective Instructor Roles

To examine the relationships between the four teaching role attributes and job satisfaction, Pearson correlation tests were performed. To use this test, a number of underlying assumptions must be examined (Tabachnick & Fidell, 2001; Coakes, 2005) such as normality, linearity and homoscedasticity of residuals. However, according to Tabachnick & Fidell (2001), when all the variables are normally distributed, linearity

and homoscedasticity are assumed. This is because homoscedasticity is related to the assumption of normality that when the assumption of multivariate normality is met, the relationships between variables are homoscedastic. Therefore, in order to test whether the variables are normally distributed, a descriptive statistics of the data was examined and shown in Table 1 below.

Table 1

Descriptive Statistics of Job Satisfaction and the Four Teaching Role Attributes

	N	Mean	Std. Deviation	Skewness		Kurtosis	
	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
Job Satisfaction	292	5.0795	1.00909	-.594	.143	.448	.284
Pedagogical role attributes	292	5.6289	.82476	-.223	.143	-.767	.284
Managerial role attributes	292	5.5218	.77867	-.271	.143	-.614	.284
Technical role attributes	292	5.4058	.94996	-.716	.143	.801	.284
Subjectdesign role attributes	292	5.5233	.98382	-.771	.143	.226	.284
Valid N (listwise)	292						

As shown in Table 1, all z values of skewness and kurtosis were within the range of -2.58 and +2.58. Thus, it is evident that all variables were relatively normally distributed and, linearity and homoscedasticity of residuals were assumed (Hair et al, 1998). The relationships between job satisfaction and the four teaching role attributes were assessed using Pearson Product Moment correlation as shown in Table 2 below.

Table 2

Pearson Correlation Tests Output (Dependent Variable: Job satisfaction)

Independent variable	R	P value*
Pedagogical role attributes	.456	.000
Managerial role attributes	.357	.000
Technical role attributes	.311	.000
Subject design role attributes	.421	.000

*P value is significant at .05

The above correlation tests indicated that all the four teaching role attributes are significant and positively related to job satisfaction. However, the strength of the relationships ranges from low to moderate (pedagogical role attributes and job satisfaction: $r = .456$, $p < .05$; managerial role attributes and job satisfaction: $r = .357$, $p < .05$; technical role attributes and job satisfaction: $r = .311$, $p < .05$; subject designing role attributes and job satisfaction: $r = .421$, $p < .05$). Despite the low-to-moderate relationships between the four teaching role attributes and the job satisfaction, the significant relationship suggested that the higher the degree of role attributes, the higher the job satisfaction would be.

To further examine which role attributes serve as the strongest predictors for job satisfaction, a standard regression analysis was performed. As shown in Table 1, normality, linearity and homoscedasticity of residuals were assumed.

Table 3 below provides the model summary and it indicated that all the four teaching role attributes together explained 23.6% of the total variance in job satisfaction, with F-value of 22.215 (refer to Table 4). Table 5 indicates that only two teaching role attributes are significant (pedagogical and subject design role) and the other two teaching role attributes (managerial and technical role) are no longer significant when all the four roles are entered into the regression equation simultaneously.

Table 3

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.486[a]	.236	.226	.88790

b. Dependent Variable: job satisfaction

Table 4: ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	70.055	4	17.514	22.215	.000[a]
	Residual	226.262	287	.788		
	Total	296.317	291			

a. Predictors: (Constant), subject design, technical, pedagogical, managerial
b. Dependent Variable: job satisfaction

Table 5: Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.547	.406		3.813	.000
	Pedagogical	.354	.093	.289	3.810	.000
	Managerial	.063	.101	.048	.618	.537
	Technical	.012	.077	.012	.162	.871
	Subject design	.204	.073	.199	2.797	.006

Dependent variable: job satisfaction

DISCUSSION OF FINDINGS

The major findings in this study generally support previous findings that suggested positive relationships between job attributes (skill variety, task identity, task significance, autonomy and feedback from job) with job satisfaction (Iiacqua & Schumacher, 1995; McKeachie, 1997; Tepstra & Honoree, 2004; Oshagbemi, 2000; Winter & Sarros, 2002; Rosser, 2005; Hackman & Oldham, 1980; Barnabe & Burns, 1994; Winter & Sarros, 2002). Tasks or jobs that obtained higher degree of the five attributes have the potential to provide positive feelings such as motivation and satisfaction to the incumbents. As regards to instructors, their role in giving lectures, consultation and guidance to students significantly influence their job satisfaction. Their pedagogical role is very important in assisting the students in their process of learning especially when it comes to stimulating the students' mind to think critically so that they can derive their own knowledge from the learning experience (Merrit, 1985; Gregory, 2002). Consistent with the traditional role of a teacher as the authority figure to impart knowledge (Miller & King, 2003; Knowlton & Weiss, 2000), the study findings lend a strong support to the conventional notion.

Subject designing role attributes is another important role that significantly contributes to job satisfaction of instructors. Other than teaching and facilitating class discussion, instructors are also responsible to plan and design the teaching content (Jaffee, 2003; Black & Holford, 2002; Bennet & Lockyer, 2004). This part of instructors' job is imperative as it would somehow determine the quality of the learning process. Without good lecture notes, meaningful assignments and constructive activities to reinforce learning, students may find the learning process unstimulating and uninteresting. Despite the fact that certain things are fixed like predetermined syllabus and semester timeline, instructors still have the freedom to plan and design the teaching assignment according to their creativity and discretion. Nevertheless, the low R^2 (0.236, refer to Table 3) derived from the regression output indicated that the four teaching role attributes only explained a small variance in job satisfaction. This indicates that there are other factors that could contribute significantly to job satisfaction. Thus, future research should research on other instructor roles that make up their job such as involvement in research and development activities, administrative tasks and professional activities.

Managerial role attributes of instructors is another significant factor that influences job satisfaction. Notwithstanding the weak relationship with satisfaction, one cannot underestimate the importance of the role to manage students' records, teaching portfolios and time. But maybe due to lack of challenges and varieties derived from the role, the impact on satisfaction is rather small.

Technical role attributes on its own has the potential to contribute to job satisfaction (r = .311, refer to Table 2) but when combined with all other teaching roles, it is no longer a significant predictor for job satisfaction. It is possible, that an instructor may perceive the role to assess the suitability of certain teaching technology like videos, PowerPoint slides, computers and online materials as interesting. Furthermore, the extra skills and abilities required from them make their job more challenging. However, when instructors are loaded with other tasks like teaching, consulting, managing teaching resources and designing learning content, the technical role becomes a burden and the instructors could only derive more satisfaction by performing the other three roles.

Limitations of the Study and Recommendations for Future Research

The present study only focuses on the teaching part of an instructors' job that are made up of four major roles; pedagogical, managerial, technical and subject designing. Other parts of instructor's job that are equally significant are involvement in research and development, providing consultations to industries and performance of administrative duties required by the faculty/university. Future research in this area should look into the other parts of the job in order to examine the impact on job satisfaction. More importantly, it is interesting to study which part of instructors' job that contribute more to satisfaction. Another limitation of the study is it only looks at the intrinsic rewards in instructors' job and not the extrinsic ones. Thus, more studies should be conducted not only to examine the intrinsic factors but also the extrinsic factors such as salary, promotion opportunity, working environment and relationships with superiors and co-workers.

CONCLUSION

The present study aimes to examine the relationship between four teaching role attributes of instructors and their job satisfaction. The results indicate that of the four roles, pedagogical role attributes is the one that can best predict the variance in job satisfaction followed by subject design role attributes, managerial role attributes and technical role attributes. The findings support the notion that all the four role attributes (pedagogical, managerial, technical and subject designing) contribute to job satisfaction. However, the strength of the relationships is from low to moderate. Pedagogical role attributes is significantly related to job satisfaction and this is not surprising as instructors' major role revolves around guiding and giving knowledge to students. Subject design and managerial role attributes are also motivating and moderately related to job satisfaction. Indeed, these three role attributes are very significant in teaching and learning. The findings suggest that technical role attributes of instructors provide relatively low motivation level and is marginally related to job satisfaction. This may be due to the fact that instructors nowadays are expected to diversify their use of technology for teaching and that requires some skills and abilities to use certain tools. Training and technical support may be required to assist instructors. This is imperative as instructors are the ones who will be there to apply the technology and get students to benefit from it for the sake of learning.

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