

Motivating Potential Score of Malaysian Secondary School Teachers: A Case Study

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Abstract: Teacher's motivation not only have a significant impact on students but also as a predictor on attainment of a high standard of education. Thus, teacher have to be highly motivated to pursue quality teaching. Job motivation is the most crucial factor affecting their performance in practicing best teaching. High Motivating Potential Score (MPS) is needed in promoting high job motivation. The purpose of this study is to assess the current state of secondary school teacher's motivating potential based on core job characteristic proposed by Oldman and Hackman and to examine the differences between motivating potential score in terms of gender and age group. The study was conducted amongst secondary school teachers in Malaysia with the sample comprises of the 497 respondents selected through random sampling. A Work Design Questionnaire (WDQ) adapted from Morgeson and Humphrey is used in this study. The result revealed that teacher's MPS is slightly moderate. Task significance plays an important role in promoting teacher's motivation compared to autonomy which has the lowest mean score. The results also show that teacher's MPS differs in terms of gender and age group. The study concludes that MPS proposed by Hackman and Oldman has a significant impact on the teaching profession. Hence, it is useful for the educational leaders to imbed, respectively according to the needs of the teacher and nature of the organization.

Key words: Motivating potential score, skill variety, task identity, task significance, autonomy, feedback from job

INTRODUCTION

In today's increasingly competitive global economy, knowledge, skills and competencies of its people are the fundamental aspect in promoting the nation's success. According to Gouvias (2007), most of the developed country strived towards knowledge-based economy. Hence, education as a critical agenda plays a central role in the quest for economic growth and national development. The aspiration demands a lot of effort and changes in the teaching framework which are often contradictory and are rarely capable of being implemented (Sahlberg, 2006) especially if the teachers are not well motivated. Thus in the process of transformation of Malaysian education, Malaysian Ministry of Education, 2012) has launched a new comprehensive National Education Blueprint with the aspiration of better preparing Malaysia's children for the needs of the 21st century which focuses on teaching and learning.

With regard to sustaining the quality of teaching, Ministry of Higher Education (MoHE) has conducted a research in 2011. About 125 lessons have been observed in 41 schools across Malaysia. The results revealed that 50% of the lessons were delivered unsatisfactorily and only 12% of lessons were delivered at a high standard,

utilizing many best-practice pedagogies while 38% met satisfactory standards. As a result, lessons had not sufficiently engaged students. Instead, it had relied on passive lecture format of content delivery by the teachers (Ministry of Education, 2012).

Another issue is that the quality of teaching is unpredictable. Studies show that teacher motivation was a crucial factor related to teaching and learning (Morgeson and Humphrey, 2006). Teacher motivation is shown through their behaviour. Previous studies found that teacher's motivation has a significant impact not only on the students but also towards educational leaders (Seebaluck and Seegum, 2013; Ruey, 2010). Low teacher motivation not only has an adverse effect on student motivation and performance but also on attainment of high standards of education (Seebaluck and Seegum, 2013).

Currently, teaching is not only a process of imparting knowledge and instructions. It involves a lot of administrative work. In Malaysia, it is expected that teachers do not only spend time on instructional activities such as lesson planning, classroom teaching and grading homework but also on tasks such as running co-curricular activities, attending or facilitating professional development activities and engaging with parents. Based

on a survey, it is found that administrative duties are taking up a larger portion of teacher time (from 15-30%) than were desired (Moe). Being overburdened will lead teachers to be demotivated and cause a negative effect to the core job characteristics proposed by Hackman and Oldham (1976, 1980) and Champoux (2011).

Thus based on the issues mentioned, the purpose of this study is to assess the current state of secondary school teacher's motivating potential based on core job characteristic proposed by Oldman and Hackman (1976, 1980) and to examine the differences between motivating potential score in terms of gender and age group.

Hypotheses:

- H₁: There is significant differences between MPS in terms of gender
- H₂: There is significant differences between MPS in terms of age group

Theoretical background

Job characteristic theory: The Job Characteristics Theory (JCT) studies the factors that make a particular job satisfying. The theory was developed Hackman and Oldham (1976) and then refined in 1980. The five core job characteristics tend to act as a tool in measuring job objectively in transforming individuals into a high motivated worker. The job characteristics defined by Hackman and Oldman (1976, 1980) are as follows.

Skill variety: The degree to which job requires the employee to draw from a number of different skills and abilities as well as on a range of knowledge.

Task identity: The extent to which an individual can complete a whole and identifiable piece of work that is doing a job from the beginning until the end with visible outcome.

Task significance: The degree to which the job has a substantial impact on the lives of other people, whether those people are in the immediate organization or in the world at large.

Autonomy: The degree to which the job provides substantial freedom, independence and discretion to the individual in scheduling the work and in determining the procedures to be used in doing the work.

Feedback from the job: The degree to which carrying out the activities inherent to the job provide clear information to the employee about the effectiveness of their performance.

Motivating potential score: The most important element of this theory is the measurement of Motivating Potential Score. Hackman and Oldham (1976, 1980) combine the five characteristics into a single index termed Motivating Potential Score (MPS) that reflects the motivational potential of a job. The five major model variables can be viewed as either task-related (skill variety, task identity and task significance) or job management-related (autonomy and feedback). The model posits a multiplicative relationship between the major components. This type of relationship means that when any of the components are low, there is a significant impact on the MPS score. The equation of MPS is as follows:

$$\text{MPS} = \frac{(\text{Skill variety} + \text{Task identity} + \text{Task significance})}{3} \times \text{Autonomy} \times \text{Feedback from job}$$

MATERIALS AND METHODS

The present study was conducted amongst secondary school teachers in the Northern state of Malaysia. The 600 teachers from 20 secondary schools were selected using random sampling to participate in this study. Data was collected through Work Design Questionnaire (WDQ) adapted from Morgeson and Humphrey (Ministry of Education, 2012). After data screening, only 497 sets of data (N = 497) were used in this study.

The instruments consist of 19 items, scored according to Likert 5 point scale ranging from "1 = Strongly Disagree" to "5 = Strongly Agree" and it is used to calculate "Motivating Potential Score (MPS)" (Casey and Robbins, 2011; Hackman and Oldman 1976, 1980). Maximum and minimum possible MPS scores are 125 and 1, respectively. MPS scores are interpreted as follows: scores below 50 is considered as low, 50-87.5 as moderate and >87.5 as high MPS. Scoring for all five core job characteristics is the same as the MPS calculation method and there are three levels of low, moderate and high MPS for each job characteristics.

Descriptive statistics were used in analysing the score of core job characteristics dimension and MPS, meanwhile inferential statistic such as independent t-test and Anova was used to test the hypotheses.

RESULTS

Teachers motivating potential score: Table 1 shows the distribution of mean scores and motivating potential score of the secondary school teachers on skill variety, task identity, task significance, autonomy, feedback. The overall mean score for core job dimension is

Table 1: Mean score of core job characteristics and motivating potential score

Variables	Mean	Low value (%)	Moderate value (%)	High value (%)
Skill variety	4.07 (SD = 0.66)	8 (1.61)	94 (18.91)	395 (79.48)
Task significance	4.17 (SD = 0.54)	3 (0.60)	57 (11.47)	460 (87.93)
Task identity	4.05 (SD = 0.60)	6 (1.21)	79 (15.90)	412 (82.89)
Autonomy	3.38 (SD = 0.96)	107 (21.53)	171 (34.41)	219 (44.06)
Feedback	4.10 (SD = 0.55)	-	84 (16.90)	413 (83.10)
MPS	56.73 (SD = 19.13)	95 (19.11)	268 (53.92)	134 (26.96)

Table 2: Descriptive statistics: mean score of skill variety, task significance, task identity, autonomy and feedback from job and mps value according to gender

Gender/ test	Skill variety	Task significance	Task identity	Autonomy	Feedback from job	MPS
Male						
Mean	4.22	4.18	4.09	3.41	4.17	59.33
SD	0.53	0.66	0.58	0.99	0.57	
Female						
Mean	4.14	4.03	4.02	3.37	4.06	55.52
SD	0.54	0.65	0.60	0.94	0.53	

M = 3.95, SD = 0.36. As indicated in Table 1, task significance contributes the highest score (M = 4.17, SD = 0.54) whilst the least is autonomy (M = 3.38, SD = 0.96). According to Hackman and Oldham (1976, 1980) the higher the score of the dimensions the more important it becomes for the teachers. Therefore, task significance is the most important dimension amongst Malaysian secondary school teachers. The findings also reveal that autonomy seems to be the problematic area that matters most to teachers. With regard to motivating potential score, the result indicates that Malaysian teacher's MPS is at a moderate level (56.73 points). The findings show that out of 497 teachers involved in the study, 53.92% have moderate value, 19.11% have low value and only 26.96% have high MPS value.

H₁: motivating potential score differs in terms of gender:

Table 2 shows the mean score of skill variety, task significance, task identity, autonomy and feedback from job and MPS value according to gender. The findings reveal that the MPS value of male teachers are slightly higher (MPS = 59.33) compared to female teachers (MPS = 55.52). Both of the MPS value either for male or female teachers is slightly moderate (MPS value between 55 and 87.5). An independent sample t-test was used to test if there is a significant difference between the motivating potential score of male and female teachers (Table 3). The results indicate that statistically the scores are significantly higher for male (M = 59.33, SD = 20.72) than for female teachers (M = 55.22, SD = 18.25), at (497) = 2.07, p<0.05 (d = 0.20). The effect size for this analysis (d = 0.20) is found equal to Cohen (1988)

Table 3: Independent sample t-test between motivating potential score and gender

Gender	N	Mean	SD	df	t-value	p-value
MPS						
Male	158	59.33	20.72	495.00	2.07	0.04
Female	339	55.52	18.25			

Table 4: Descriptive statistics: Mean score of skill variety, task significance, task identity, autonomy and feedback from job and MPS value according to age group

Age	Skill variety	Task significance	Task identity	Autonomy	Feedback from job	MPS
Below 30 year						
Mean	4.22	4.25	4.19	3.55	4.06	60.74
SD	0.64	0.51	0.62	0.99	0.62	
30-39 year						
Mean	4.06	4.14	4.08	3.20	4.05	52.66
SD	0.67	0.54	0.62	0.95	0.53	
40-49 year						
Mean	4.06	4.16	4.00	3.46	4.13	58.30
SD	0.65	0.57	0.57	0.98	0.53	
Above 50 year						
Mean	4.02	4.16	3.98	3.39	4.13	56.98
SD	0.68	0.49	0.59	0.82	0.55	
Total						
Mean	4.07	4.17	4.05	3.38	4.10	56.73
SD	0.66	0.54	0.60	0.96	0.55	

Table 5: One way ANOVA test between Motivating Potential Score (MPS) and age group

Age groups	Sum of squares	df	Mean square	F-value	Sig.
MPS					
Between groups	4036.5100	3.0000	1345.50	3.74	0.01
Within groups	177563.09	493.00	360.170		
Total	181599.60	496.00			

convention for a small effect (d = 0.20). Statistically the result indicates that gender factor has a small effect on MPS. Therefore, H₁ stated motivating potential score differ in terms of gender is accepted at the 5% level of significance.

H₂: motivating potential score differs in terms of age group:

Table 4 shows the highest Motivating Potential Score (MPS) of teachers is 60.74 representing the group of age below 30 years, meanwhile MPS for those within 30-39 years is 52.66, 40-49 years is 58.30 and above 50 years is 56.73. The findings reveal that MPS of a new teacher is slightly higher than the other age group of teachers.

Based on the one way analysis of variance (ANOVA) as shown in Table 5, the result shows that the effect of age factor on MPS is statistically significant (F (3.493) = 3.74, p = 0.01) with the effect size of $\eta^2 = 0.15$. According to Cohen (1988) the effect size is large if η^2 is equal or >0.138 and statistically the result indicates that age factor has a large effect on MPS. Therefore, the second hypothesis stated motivating potential score differ in terms of age group is accepted at the 5% level of significance.

DISCUSSION

This study attempts to examine teacher's motivation through Hackman and Oldman Job Characteristics Theory. The model is tested at two levels, at an aggregated MPS and at a disaggregated level (five job characteristics separately). The result shows that teacher's MPS value is moderate. The result is similar to the studies conducted in the United States by Fournier (1990) and Lawrence (2001). However, the finding is contrary to studies conducted in Hong Kong (Tang, 2000) and Tehran (Porhadi *et al.*, 2009). Both of their studies demonstrated a high MPS.

In this study, task significance has the highest influence ($M = 4.17$, $SD = 0.54$) towards their job amongst Malaysia teachers. The findings reveal that they feel strongly that the job has a large impact on people in the organization ($M = 4.26$, $SD = 0.56$). Meanwhile, the lowest score for job characteristic dimension is autonomy ($M = 3.38$, $SD = 0.96$). Teachers feel least strongly about their sense of work responsibility due to the autonomy experienced in doing the job when they are not allowed to make decisions about methods used in completing their work ($M = 3.35$, $SD = 1.10$).

The findings contradict with the JCT model and studies in the United States that proposed the feelings towards work responsibility are the strongest (Fournier, 1990; Hackman and Oldham, 1976, 1980; Soleimani and Zanganeh, 2013). When autonomy seems to be the most problematic area for most teachers in Malaysia. In Malaysia, school leaders have been given the autonomy to shape the learning environment of their respective schools (Ministry of Education, 2012). Therefore, the issues of autonomy should not be a big deal because the issues can be solved through collaborative efforts within the faculty. The same scenario also occurred amongst teachers in India. Element of autonomy is completely restricted (Nargunde, 2013).

The study also attempts to seek whether there is a significant difference between the teachers MPS in terms of gender and age group. It can be concluded that both of the hypotheses are accepted when the study shows statistically teacher's MPS differ in terms of gender and age group are significant ($p < 0.05$). However, the findings contradict with the past studies from the different field (Soleimani and Zanganeh, 2013; Rahman and Nurullah, 2014). Their studies exhibit that there is no significant difference either in gender or age group.

CONCLUSION

As a conclusion, MPS is a critical agenda that should be considered at any organization in promoting job

motivation among workers especially teachers. Teachers are classroom leaders that play a crucial role in pursuit of quality teaching and thus they need to be highly motivated.

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