

The Job Characteristics Model: An Extension to Physical education Teachers Motivation

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Abstract

This article is designed to enhance understanding about how job characteristics motivate physical education teachers. This is an important area of research because Ministry of Education Malaysia invest so much time and money into the creation and development of their physical education teachers and it is important to understand how the work they do relates to their motivation. We applied the organizational behavior concepts of the Job Characteristics Model developed by Hackman and Oldham (1975) to physical education teachers in order to better understand the work of physical education teachers and raise awareness of this important gap in the literature. Our hope is that the proposed research agenda will spark interest in and contribute to the legitimacy of physical education as a field of research.

Keywords: Job characteristic, motivation, physical education, organization behavior concept, awareness

Introduction

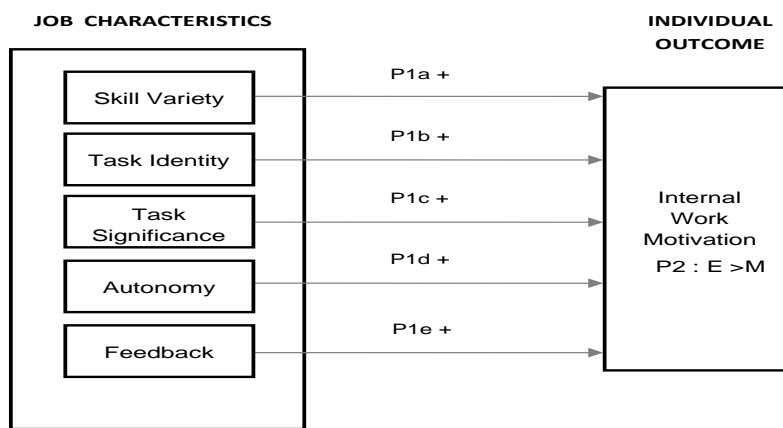
Physical education teachers continue to be a popular research area with a number of academicians studying the differences between physical education teachers and academics teachers (e.g., Blanchflower, 2004; Hamilton, 2000; Schjoedt, 2009). As reflected in the opening quote from the Ministry Of education Malaysia, physical education teachers often appear to be motivated by some of the same job characteristics as school principal, such as task significance and autonomy. This study examines physical education teachers and their work using a job characteristic, or “work itself” (Hackman & Oldham, 1980, p.4), perspective of physical education field. Hackman and Oldham (1975) developed the job characteristics view as an alternative to job design for conceptualizing traditional jobs as well as the utility of certain aspects of work in achieving positive outcomes, such as motivation and satisfaction. We extend this work to the realm of physical education, specifically to the work performed by the physical education teachers himself or herself. We propose that the characteristics of physical education teachers work are unique as compared to that of other teachers performing similar duties within traditional organizations (tradition school), Further, we propose that although the work of physical education teachers is unique, the conceptual framework of the Job Characteristics Model, originally designed for traditional workers, still applies in a Physical education setting. Finally, we argue that the work performed by the physical education teachers has the potential to influence their feeling and behaviors to a greater extent than that of academic teachers.

Previous findings on job characteristics, with samples of those employed by others, show that certain job characteristics

can lead to desirable outcomes such as high levels of motivation, performance, and satisfaction (Fried & Ferris, 1987). Research within the field of physical education has shown that the promise of more desirable job characteristics can motivate those currently employed by others to start their own ventures (Cromie, 1987). Further, Schjoedt (2009) was the first to test whether the job characteristics findings of previous studies concerning academic teachers were generalizable to physical education teachers. His findings were that while the job characteristics of physical education teachers and academics teachers were significantly different from one another, they still were significant predictors of job satisfaction for physical education teachers.

The purpose of this paper is to develop a theory that builds and extends upon previous findings regarding the unique job characteristics of physical education teachers. First, we recommend that researchers verify previous findings showing that certain job characteristics (skill variety, task identity, autonomy, and feedback) are significantly different for physical education teachers working for private school than those engaging in Ministry Of education activities. Second, we explore how these characteristics may predict physical education teachers internal work motivation, and finally, we suggest that physical education teachers may experience higher levels of internal work motivation than School Principal.

The conceptual model is shown in Figure 1. A list of JCM milestones relevant to the current study is found in Table 1. Propositions are offered to guide research, and implications for research and practice are discussed.



E = PE Teachers M = School Principal
 MPS = Motivating Potential Score (Hackman & Oldham, 1975)

Figure 1: Conceptual Model

Table 1: Brief List of JCM Milestones Relevant to the Current Study

Author	Year	Contribution
Hackman & Oldham	1974	Job Diagnostic Survey (Assessment tool for JCM)
Hackman & Oldham	1975	Model for diagnosing job
Hackman & Oldham	1976	Motivating Potential Score - Score for motivating potential of a job
James & Tetrick	1986	Established temporal relationship for job characteristics and satisfaction
Fried & Ferris	1987	Stronger relationship between job characteristics and then psychological outcomes
Behson, Eddy, & Lorenzet	2000	Two stage model of JCM without critical psychological fit than states results in better three stage model (SEM)
Humphrey, Nahrgang, & Morgeson	2007	Proposed expanded JCM
Schjoedt	2009	Extended JCM research into the field of entrepreneurship

Literature Review

The Physical Education Teachers

Early studies of physical education teachers tried to identify the personality characteristics that differentiate physical education teachers from the academic teachers. This trait approach, focusing on the physical education teachers, has proven unfruitful (Gartner, 1988) with most researchers abandoning efforts to identify the personality traits of those likely to become physical education teachers. The behavioral approach is offered as an alternative to the failed trait approach (Gartner, 1985). This method's primary focus is on new organization creation from the perspective of the venture; hence, the physical education teachers is viewed as a catalyst for the creation process (Gartner, 1985, 1988). When viewing physical education teachers from this perspective, the question changes from "What are the characteristics of the physical education teachers?" to "What causes an individual to create a new venture?" To answer the latter, investigating the job characteristics of the physical education teachers may be a logical step (See Schjoedt, 2009). Specifically, we encourage researchers to study the characteristics of PE teachers' activity that leads someone to seek new job (private School).

When most people think of physical education teachers, they conjure thoughts of successful, famous, highly intelligent, and extremely wealthy individuals such as Rex Ryan and Bill Yoast who started their physical education carrier journey in their early twenties at the college. Reality paints a different picture: the typical physical education teachers are a man in his forties who has no intentions of obtaining great wealth and is married to someone who works. The typical physical education teachers are just trying to make a living (Shane, 2008). This second, more factual portrait of what a physical education teachers is should lend itself well to the framework of the Job Characteristics Model proposed by Hackman and Oldham (1975).

Job Characteristics Model

As the names imply, the Job Characteristics Model (JCM), and more specifically the Job Diagnostic Survey (JDS), were designed to evaluate and improve the "jobs" of those employed by others. The primary purpose is to diagnose existing jobs and evaluate the effects of job changes on employees for outcomes such as motivation, productivity and satisfaction (Hackman & Oldham, 1975). This approach focuses on the work of the job itself as opposed to other job design focused perspectives (Hackman & Oldham, 1980). The JCM is identified as one of the key employee motivation theories for organizations (Ramlall, 2004). The tenets of this approach are that the characteristics of a job lead to critical psychological states which lead to personal and work outcomes with each step being moderated by one's need for growth. The core job characteristics are skill variety, task identity, task significance, autonomy, and feedback. Critical psychological states are "experienced meaningfulness of work", "experienced responsibility for outcomes or work," and "knowledge of results." Personal and work outcomes are high internal work motivation, high quality work performance, high satisfaction with work, and low absenteeism and turnover (Hackman & Oldham, 1975, 1976). While these characteristics were originally designed for the jobs of those employed by others, they also apply to the self-employed. In particular, autonomy is identified as a primary motivator by entrepreneurs for creating their own venture (Kuratko, Hornsby, & Naffziger, 1997).

Application to Physical Education Teachers

The JCM is used primarily within existing organizations, focusing on those employed within them. This concept is still new to the field of physical education. Schjoedt (2009) is one of the few physical education researchers to use the JCM to understand the job characteristics of physical education teachers. His analysis focused on one outcome measure satisfaction. The results of Schjoedt's study found that the mean differences of job satisfaction and four job characteristics did differ significantly between physical education teachers and academic teachers. Further, he found that autonomy, variety, and feedback were significant predictors of job satisfaction. One goal of the current paper is to build upon the foundation laid by Schjoedt (2009) by further extending the application of the JCM to physical education teachers through examination of the additional outcome measure of motivation. To do so, we begin with an explanation of how the five job characteristics of the JCM specifically apply to physical education teachers.

Propositions

When developing the JDS, Hackman and Oldham (1975) described skill variety as the “degree to which a job requires a variety of different activities in carrying out the work, which involves the use of a number of different skills and talents of the employee” (p.161). As the job characteristics model shows, the variety of skills necessary to perform a job is one of three factors, along with task identity and task significance, that leads to desirable personal and work outcomes through the mediating psychological state of experienced meaningfulness of work. Thus, all else being equal, increased skill variety should lead to individuals experiencing higher levels of key outcomes such as motivation and satisfaction. Chandler (1996) found that a broad variety of skills are necessary for physical education teachers to achieve growth, and a diversity of skills are necessary for flexibility and growth. He further suggests that physical education teachers who were previously academic teachers may be entrenched in their previous job specific behaviors thus inhibiting the performance of their new venture. Thus, to be effective, physical education teachers must break the reliance on a narrow array of task competencies developed while working for ministry of education school. Additionally, empirical findings indicate that physical education teachers do report higher task variety than do academic teachers (Schjoedt, 2009). Taken as a whole, this discussion indicates that skill variety is a concept that applies to both physical education teachers and academic teachers. While physical education teachers seem to experience higher levels, the effect of the characteristic is similar enough to extend the JCM to apply to entrepreneurs, hence:

Proposition 1a: Skill variety will have a positive relationship with internal work motivation for physical education teachers

Task identity is conceptualized as “[t] The degree to which the job requires completion of a ‘whole’ and identifiable piece of work – that is doing a job from beginning to end with a visible outcome” (Hackman & Oldham, 1975, p.161). Finishing a task is inherent in the “completion of a whole.” For the most part, physical education teachers are a never-ending struggle for survival. Physical Education Field is the discovery, evaluation, and exploitation of opportunities (Shane & Venkataraman, 2000; Venkataraman, 1997), each of which can provide a sense of completion. While physical education teachers itself is not a specific task, there are specific tasks required when engaging in physical education curriculum, such as SEGAK for student. At the base level of analysis, for example, in task specific area of teaching such as teach accounting, completion of a tax season may allow physical education teachers to experience a sense of completion. Other physical education teachers may view themselves as having only one task, a never-ending struggle to stay in teaching field. Here we see that the perspective taking of the physical education teachers should determine their level of task identity. A parallel is easily drawn to academics’ teachers. They may perceive each day as a struggle to maintain students or view each student as a separate task with a beginning and end of years.

Proposition 1b: Task identity will have a positive relationship with internal work motivation for physical education teachers

Task significance reflects the “degree to which the job has a substantial impact on the lives or work of other people - whether in the immediate organization or in the external environment” (Hackman & Oldham, 1975, p.161). There is a dirt of research investigating this conceptualization of task significance to physical education field. In Schjoedt’s (2009) study, applying the JCM to physical education teachers, the job dimension of task significance was omitted from consideration. Pull theory is one of the few avenues of physical education teachers’ research that is applicable to how Hackman & Oldham’s conceptualization of task significance applies to physical education teachers. This theory contends that physical education teachers may be pulled into physical education field because they are attracted to desirable outcomes such as self-fulfillment (Keeble, Bryson, & Wood, 1992; Segal, Borgia, & Schoenfeld, 2005). Thus, if physical education teachers is driven by a desire to help others either within or peripheral to his or her organization, task significance will serve to motivate their actions. Indeed, Burch, Batchelor, and Humphrey (2013) propose that the lack of organizational restrictions on physical education teachers’ behavior allow them the freedom to conduct themselves in a way that provides greater benefits to society than academics teachers. From this perspective, physical education teachers have greater latitude in how their jobs impact those around them than do management job, allowing them to mostly choose tasks they deem significant. At first, it seems that this latitude will result in strong range restriction for physical education teachers. However, while physical education teachers are generally not assigned tasks by others, they do have stakeholder obligations that result in performing what they perceive to be low-significance tasks, such as filling out student attended forms, and other mundane but necessary paperwork.

Proposition 1c: Task significance will have a positive relationship with internal work motivation for physical education teachers.

Within the context of the JCM, autonomy is characterized as the “degree to which the job provides substantial freedom, independence and discretion to the employee in scheduling the work and in determining the procedures to be

used in carrying it out” (Hackman & Oldham, 1975, p.162). Autonomy is one of the most widely researched characteristics of physical education activity. Research has identified autonomy is an important factor for becoming a physical education teachers (Utsch, Rauch, Rothfufs, & Frese, 1999). Many physical education teachers mention issues related to autonomy such as flexible schedules and supervisors as influential reasons for pursuing self-employment (Shane, 2008). Thus, the perception of greater autonomy pulls many PE teachers into physical education field.

Lumpkin, Cogliser, and Schneider (2009) argue that autonomy is a key element to maintaining a physical education orientation. They describe a physical education orientation as practices allowing decision makers to focus on parent’s needs, industry changes and opportunity identification in order to increase performance. Further, they point to how the autonomy inherent in physical education field has made this concept the envy of many schools’ principal causing them to adopt a physical education orientation toward their management. Lim and Seers (1993) found that future orientation, autonomy of time use, and allocation of time, together predicted performance. While this study focused on physical education teachers, it is clear that these three predictors are characteristic of physical education activity. This discussion highlights that autonomy is a key job dimension of physical education teachers that further justifies extending the JCM to this field of research.

Proposition 1d: Autonomy will have a positive relationship with internal work motivation for physical education teachers

Feedback identified as the “degrees to which carrying out the work activities required by the job results in the employee obtaining direct and clear information about the effectiveness of his or her performance” (Hackman & Oldham, 1975, p.162). Again, this concept was originally conceptualized for employees working for others but can easily be extended to physical education teachers. Physical education teachers receive feedback from the outcomes that result in construction and maintenance of their school (Aldrich & Martinez, 2001). Because this feedback occurs while procedures are being developed it can be viewed as feedback of the process. This feedback may range from the first district office, career growth, available bonus, and management structure. The primary goal of any physical education teachers is survival. From this perspective, merely staying in teaching line is a form of feedback.

There is a growing body of physical education teachers’ research investigating physical education legitimacy, which can be viewed as a form of feedback. The main tenants of physical education legitimacy are that until stakeholders (Ministry Of education Malaysia) view a venture as a legitimate curriculum, the venture will have difficulty obtaining the resources needed to survive, such as bonus, parents, and friends (Rutherford, Buller, & Stebbins, 2009). Parents play an especially important role in legitimizing a firm as they use familiarity with the new venture’s curriculum and experience with or awareness of the firm itself and those who manage it to make final decisions (Shepherd & Zacharakis, 2003). Thus, parents provide critical feedback for the physical education teachers because they are providing assessments on the outcomes of the physical education teachers’ product, firm, and management team. Although the mechanism of supervisor compared to stakeholder feedback is different, the concept still applies in the same sense that they both send a clear message to the recipient of the effectiveness of their performance.

Proposition 1e: Feedback will have a positive relationship with internal work motivation for physical education teachers

The preceding discussion places the five core job characteristics in the context of physical education field. Next, we look at internal work motivation, which is the outcome variable of interest in this study. Hackman and Oldham’s (1975) definition of this construct pertaining to employees is the “degree to which the employee is self-motivated to perform effectively on the job – that is, the employees experience positive internal feelings when working effectively on the job, and negative internal feelings when doing poorly” (p.162). At its very base, performing effectively for a physical education teacher is surviving. When investigating motivation from physical education fields perspective, Shane, Locke, and Collins (2003) first outline the stages of the physical education fields process: recognition of opportunity, development of an idea, evaluation of feasibility, development of a confident for parents, assembly of resources, organizational design, and finally, pursuit of parents. They outline these steps to point out that physical education teachers are performing effectively, thus demonstrating internal work motivation, when they are moving through this process. Here it seems reasonable that physical education teachers will experience positive feelings when moving through this process and negative feeling when process stalls, indication that high internal work motivation is an important outcome for physical education teachers.

Precursors to Internal Work Motivation Outcomes

The original JCM proposed by Hackman & Oldham proposes “a set of features that should be built into jobs in order that they be satisfying and motivating” (Ramlall, 2004: 57). The features are the job dimensions elaborated upon in the

previous section. James and Tetrick (1986) found empirical support that these job characteristics are precursors for job satisfaction. This process is further mediated by what they term “critical psychological states,” specifically, experienced meaningfulness of work, experienced responsibility for work outcomes, and knowledge of results.

While there is clear empirical support that covariation exists between the core job characteristic and outcomes (Fried & Ferris, 1987; Loher, Noe, Moeller, & Fitzgerald, 1985), support for the mediating effects of the critical psychological states is sparse (Hogan & Martell, 1987). Hackman and Oldham (1976, 1980) show that the critical psychological states may only partially mediate the entire model, which leaves open the possibility that they do not mediate the specific relationship between the five core job dimensions and the focus of this study, internal work motivation. Additionally, a meta-analysis by Behson, Eddy, and Lorenzet (2000) find that a two-stage JCM, without the critical psychological states, may provide a better fit than the original three-stage model. For this reason, we follow the lead of other physical education field’s researchers, such as Schjoedt (2009), investigating the effects of job characteristics on other outcomes identified in the JCM and looking at the direct effects of the job characteristics on internal work motivation for physical education teachers.

Prior research shows that both male and female physical education teachers are motivated by influences such as autonomy, achievement, and other non-economic reward (this list is very similar to that of the JCM) (Cromie, 1987). This research shows that physical education teachers are not only motivated to perform their work because of these desires but also that these desires caused them to initially become school example teachers or excellence teachers. Thus, since most teachers were previously employees of others (Shane, 2008), the characteristics of being employed by another must not have satisfied their needs. Thus, we propose that the nature of physical education activity may provide a more conducive environment for internal work motivation than comparable work in the employment of others.

Proposition 2: Physical education Teachers will experience more internal work motivation than academics teachers.

In his book, Shane (2008) states many times that the reason most people choose to become self- employed is because they do not like working for others. He points out that Physical education Teachers generally earn less than they would if employed by someone else. If money is not what draws them into teaching field, it may be the characteristics of Physical education Teachers itself. Motivating Potential Score (MPS), an index where the overall potential of a job to influence an individual’s feelings and behaviors, is an equation built from the five job characteristics: skill variety, task identity, task significance, autonomy and feedback (Fries & Ferris, 1987). This index was created by Hackman & Oldham (1975) and used in conjunction with the JCM in the evaluation of work design. Thus, someone employed at a job with a high MPS should experience high levels of outcomes such as internal work motivation and job satisfaction. Building upon the proposition that Physical education Teachers experience higher internal work motivation than academic teachers and upon previous research showing that Physical education Teachers experience higher levels of job satisfaction than academics teachers, it follows that if these two outcomes are higher, the values used to determine their score (MPS components) will also be higher. Therefore, we propose that, on average, Physical education Teachers will experience higher overall levels of the job characteristics than academics teachers as reflected by relative MPS (Hackman & Oldham, 1975).

Proposition 3: Physical education Teachers will experience higher overall MPS than academic teachers.

Discussion

A recent Gallup poll found that physical education teachers experience higher levels of well-being than any other occupation (Pelham, 2009). Yet, physical education teachers earn less (Hamilton, 2000) and work more hours (Blanchflower, 2004) than those working for others. Contemporary research in physical education field has found that the job characteristics of physical education teachers do significantly differ from those of private physical education teachers who work for others (Schjoedt, 2009). The authors believe that the characteristics of physical education teachers lend themselves to more desirable outcomes. Hackman and Oldham’s (1975, 1976) Job Characteristics Model (JCM) are relevant in the field of physical of education. We use the extant literature as a foundation for further illustrating how this highly regarded organizational behavior model can be applied to physical education teachers. Additional research in testing propositions identified in this paper can add to our understanding physical education teachers internal work motivation. We will have a better understanding of job characteristics and how these characteristics differ between a physical education teacher and an academic teacher. We will have a better understanding of which of the job characteristics is a more significant contributor to work motivation. The testing of the propositions will provide additional insights on the similarities and differences between job motivation between a physical education teacher and an academic teacher.

Implications

Our research propositions encompass the relationships between the factors in the JCM (skill variety, task identity, task significance, autonomy, and feedback) and the physical education teachers internal work motivation. We suggest that physical education teachers pursue these types of opportunities because the physical education environment is more conducive for internal work motivation than environments offered to private physical education teachers who work for private school. We conclude the proposed research agenda by positing that physical education teachers will experience overall MPS than private physical education teachers who work for private school.

Completion of this research agenda would guide future research in several ways. First, results would help with theory building in the area of physical education teachers' motivation. Second, examining the relationship between job characteristics and internal work motivation for physical education teachers would likely yield additional areas of future research. Specifically, researchers should engage in endeavours that measure the MPS of both physical education teachers and academic teachers and then compare the results. Finally, academic researchers could use these findings to further enrich the learning experience for students who are interested in pursuing physical education as a degree program.

Since Ministry of Education Malaysia are credited with generating more jobs (Neumark, Wall, & Zhang, 2008) additional research into this important area is warranted. These research findings could be converted into a survey (such as MPS) and / or a questionnaire that could be utilized by agencies, such as the EPRD (Bahagian Perancangan dan Penyelidikan Dasar Pendidikan, Kementerian Pendidikan Malaysia), to help physical education teachers understand the "why" of their need to become physical education teachers. The relationships between the job characteristics and motivation could also be used to provide physical education teachers with tools on how to be more successful in his / her field of endeavour. Existing physical education teachers could further benefit from understanding how job characteristics affect their interest in physical education field as well as the importance of these characteristics in jobs within their own job scope. The research agenda proposed here can provide researchers and practitioners alike with valuable tools and information. These findings would extend our understanding of the field of physical education.

Summary Writing

A better understanding about how job characteristics motivate physical education teachers and ministry of Education to invest so much time and dollars into the creation of new way of teaching is an important area of research. We intended to apply accepted theoretical models from organizational behavior to physical education teachers in order to raise awareness of this important gap in the literature. Our hope is that the proposed research agenda will spark interest in and contribute to the legitimacy of physical education as a field of research.

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