



UNIVERSITI PUTRA MALAYSIA

***A MULTILEVEL ANALYSIS OF INDIVIDUAL AND SCHOOL LEVEL
INFLUENCE ON JOB STRESS AMONG SECONDARY SCHOOL
TEACHERS IN KELANTAN, MALAYSIA***

NUR SYAHMINA BINTI RASUDIN

FS 2016 69



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By

NUR SYAHMINA BINTI RASUDIN

**Thesis Submitted to the School of Graduate Studies,
Universiti Putra Malaysia, in Fulfilment of the
Requirements for the Degree of Doctor of Philosophy**

September 2016

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Abstract of thesis presented to the Senate of Universiti Putra Malaysia in
fulfilment of the requirement for the degree of Doctor of Philosophy

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NUR SYAHMINA BT RASUDIN

September 2016

Chair: Shamarina Shohaimi, PhD
Faculty: Science

Stress is known as a worldwide psychological problem. Stress that relates to the workplace is known as job stress. The teaching profession has been identified as one of the most stressful professions. Thus, the objectives of this study are to validate the instruments of Career Commitment Questionnaire (CCQ), Job Satisfaction Questionnaire (JSQ), School Level Environment Questionnaire (SLEQ) and Job Stress Level Inventory (JSLI) using Structural Equation Modeling (SEM), to determine the prevalence of job stress among secondary school teachers in Kota Bharu, Kelantan and to identify the most significant predictors at the individual level and school level on teachers' job stress among secondary school teachers in Kota Bharu, Kelantan. One thousand questionnaires were distributed to respondents from 30 secondary schools in the Kota Bharu district by using multistage stratified cluster sampling in this cross-sectional study design. Individual level variables consisted of sociodemographic factors, the history of chronic diseases which were high blood pressure, asthma and diabetes, teachers' career commitment and the teachers' job satisfaction. School-level variables consisted of type of school location, school size and teachers' perception of their school environment.

Validation study shows that CCQ, JSQ, SLEQ and JSLI were validated instruments. All questionnaire had fulfilled the model fitness requirements with CCQ (Chi-square:1.631, RMSEA: 0.078, CFI: 0.971 and TLI: 0.967), JSQ (Chi-square: 1.20; RMSEA:0.045; CFI:0.996; TLI:0.988), SLEQ (Chi-square:1.417; RMSEA:0.063; CFI: 0.973; TLI:0.965) and JSLI (Chi-square: 1.488, RMSEA: 0.069, CFI: 0.944 and TLI: 0.934). All questionnaires also had good reliability with Cronbach alpha value greater than 0.70. The overall response rates is 89%. The job stress prevalence of secondary school teachers in Kota Bharu District is

45%. Final model of multilevel analysis shows that age, monthly income, gender, marital status, teachers who had high blood pressure, teachers' career commitment and the teacher's job satisfaction had a significant influence on teacher's job stress at the individual level while type of school location becomes the only significant predictor at school level variables that predict teachers' job stress among secondary school teachers in Kota Bharu, Kelantan. To recapitulate, this study shows the importance of using multilevel analysis to analyze nested data and shows that school characteristics also had influences on teachers' job stress. Thus, this model is expected to make a significant contribution to the literature of teachers' job stress in using advanced statistical analysis to analyze the data and contribute in identifying the significant predictors of teachers' job stress at individual and school-level among secondary school teachers.



Abstrak tesis yang dikemukakan kepada Senat Universiti Putra Malaysia
sebagai memenuhi keperluan untuk ijazah Doktor Falsafah

**KAJIAN ANALISIS BERPERINGKAT TERHADAP PENGARUH INDIVIDU
DAN SEKOLAH TERHADAP TEKANAN PEKERJAAN DI KALANGAN GURU
SEKOLAH MENENGAH DI KELANTAN, MALAYSIA**

Oleh

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September 2016

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Stress diketahui sebagai salah satu masalah psikologi yang berlaku di seluruh dunia. Stress yang berkait dengan tempat kerja dikenali sebagai stress pekerjaan. Profesion perguruan telah dikenalpasti sebagai salah satu profesion yang mempunyai kadar stress pekerjaan yang tinggi. Objektif kajian ini ialah mengesahkan instrumen Soal Selidik Komitmen Kerjaya (CCQ), Soal Selidik Kepuasan Kerja (JSQ), Soal Selidik Persekitaran Tahap Sekolah (SLEQ), dan Inventori Tahap Tekanan Kerja (JSLI) menggunakan Pemodelan Persamaan Struktur (SEM) dan untuk mengetahui prevalens tekanan pekerjaan dan mengenalpasti faktor paling signifikan pada peringkat individu dan peringkat sekolah berkaitan tekanan kerja dalam kalangan guru sekolah menengah di Kota Bharu, Kelantan. Dalam kajian keratan rentas ini, sebanyak 1000 borang kaji selidik telah diedarkan kepada guru-guru di sekolah Daerah Kota Bharu menerusi kaedah persampelan bebrbilang strata cluster. Seribu salinan kaji selidik diedarkan kepada responden di 30 buah sekolah menengah di daerah Kota Bharu dengan menggunakan persampelan kluster berbilang strata berdasarkan reka bentuk kajian keratan lintang. Pembolehubah peringkat individu terdiri daripada faktor sosiodemografi, sejarah penyakit kronik iaitu tekanan darah tinggi, lelah dan diabetes; komitmen kerjaya guru serta kepuasan kerja guru. Pembolehubah peringkat sekolah terdiri daripada lokasi sekolah, saiz sekolah dan persepsi guru terhadap persekitaran sekolah.

Kajian pengesahan menunjukkan CCQ, JSQ, SLEQ dan JSLI adalah instrumen yang disahkan. Kesemua borang soal selidik memenuhi keperluan kesesuaian model dengan CCQ (khi kuasa dua:1.631, RMSEA:0.078, CFI:0.971 dan TLI: 0.967), JSQ (Khi-kuasa dua: 1.20; RMSEA: 0.045; CFI: 0.996; TLI: 0.988), SLEQ (khi kuasa dua 1.417; RMSEA: 0.063; CFI: 0.973; TLI: 0.965), dan

JSLI (khi kuasa dua: 1.488, RMSEA: 0.069, CFI: 0.944; TLI: 0.934). Kesemua borang soal selidik memiliki kebolehpercayaan yang baik dengan nilai alfa Cronbach melebihi daripada 0.70. Keseluruhan kadar sambutan ialah 89%. Prevalens tekanan kerja guru sekolah menengah di daerah Kota Bharu ialah 45%. Keputusan daripada analisis berperingkat menunjukkan bahawa umur, pendapatan bulanan, jantina, taraf perkahwinan, komitmen terhadap karier, kepuasan terhadap pekerjaan menjadi faktor signifikan pada peringkat individu manakala lokasi sekolah menjadi faktor signifikan pada peringkat sekolah yang menyumbang kepada tahap stress pekerjaan dalam kalangan guru sekolah menengah di Kota Bharu. Kesimpulannya, kajian ini menunjukkan kepentingan penggunaan analisis berperingkat dalam menganalisa data berstruktur, maka, diharapkan model berperingkat dalam kajian ini dapat menyumbang kepada kajian yang telah sedia ada dari segi penggunaan analisis statistik dan dengan mengenalpasti faktor-faktor pada peringkat individu dan sekolah yang mempengaruhi stress pekerjaan dalam kalangan guru sekolah menengah.

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LIST OF ABBREVIATIONS

CCQ	Career Commitment Questionnaire
CCM	Career Commitment Measure
JSQ	Job Satisfaction Questionnaire
SLEQ	School Level Environment Questionnaire
JSLI	Job Stress Level Inventory
TSLI	Teacher Stress Level Inventory
SEM	Structural Equation Modeling
CFA	Confirmatory Factor Analysis
EFA	Exploratory Factor Analysis
HPA	Hypothalamic-pituitary Adrenocorticol
SNS	Symphatetic Nervous System
CRF	Corticotrophin-releasing Factor
ACTH	Adrenocorticotrophin
SAM	Symphatetic-adrenal Medullary System
P-E	Person-Environment Fit Model
ANS	Autonomic Nervous System
MLR	Multiple Linear Regression
PSU	Primary Sampling Unit
SSU	Secondary Sampling Unit
PCA	Principal Component Analysis
KMO	Kaiser Meyer Olkin
PGFI	Parsimony Goodness of Fit Index
PNFI	Parsimony Normed of Fit Index
GFI	Goodness of Fit Index
NFI	Normed of Fit Index
RMSEA	Root Mean Square of Error Approximation
CFI	Comparative Fit Index
TLI	Tucker-Lewis Index
SD	Standard Deviation
SE	Standard Error
AVE	Average Variance Extracted
MI	Modification Indices
VPC	Variation Partition Coefficient
ICC	Intraclass Correlation Coefficient
AIC	Aiken Information Criteria
BIC	Bayesian Information Criteria
LL	Log-Likelihood



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CHAPTER 1

INTRODUCTION

1.1 Background of the Study

Stress is a basic term applied when people feel pressure in their lives. Any response to a stressor that caused changes in their emotional state, cognition and psychological reactions are known as stress (Jon et al., 2009). A person will probably develop stress symptoms when he or she has to face an extraordinary demand and constraint in his or her life (Hans et al., 2014). Danielsson et al. (2012) stated that any adaptive response to factors that caused the imbalance between demands such as an excessive physical and psychological demand on the individuals can lead to the individual's stress. Besides, less ability or capacity to manage the demands could also lead to the situation known as stress (Joseph, 2013).

As well as stress, job stress problems also have received a great attention from researchers for many years (Ghani et al., 2014; Khan 2012). Jeyaraj (2013) described job stress as a production of strain within individuals caused by any forces that push psychological and physical factors behind their range of stability. Naidoo et al. (2013) emphasized job stress as a stimulation of physical and mental state of individuals which can cause positive or negative impact on personal lives, work performance, individual's productivity and organizational goals. In addition, Moss (2008) summarized stress as changes in an individual's ongoing life pattern due to any changes in the work environment that are perceived as potentially harmful, challenging, threatening or frustrating or any circumstances that are related to work. Job stress also happens when there is a negative reaction shows by the employee, such as anxiety, anger or feel of tension that resulted as a reaction to certain events in the environment including workplace (Joseph, 2013).

1.2 Problem Statements

Job stress has been considered as one of the most serious issues that create many problems for workers. Job stress is categorized as a problem that needs special attention among employees, including school teachers (Ismail et al., 2014). In general, job stress is well-known by the negative effect it has on employees; however, it also has a positive side. For example, teachers who are aware and can cope with small job stress at the workplace will get benefits by improving their performance at work. Otherwise, excessive amount of stress and failure to cope with job stress will reduce the teachers performance and harm their mental and physical condition (Yusof, 2011).

The problems caused by job stress may result in either psychological or physiological effects, or both (Mkumbo, 2014). For an example, the negative

feelings experienced by teachers could lead to the feeling of nervousness and anger, which become a part of psychological job stress symptoms (Mkumbo, 2014). Moreover, negative impact on human psychology can be described when teachers develop serious mental illness such as burnout and depression (Obiora and Iwuoha, 2013). Burnout is defined as a psychological syndrome that resulted from prolonged response of chronic emotional and stressor on the job that is commonly interpreted as a response to intolerable work situation (Steinhardt et al., 2011). According to Schwarzer and Hallum (2008), job stress has been identified as mediator for teacher burnout.

Burnout syndrome has three major components, which are emotional exhaustion, depersonalization and reduced personal accomplishment (Mukundan, 2009). Emotional exhaustion is described as a situation when teachers feel extremely exhausted and fatigued due to the work overload, while depersonalization is a development of native attitude such as feelings of irritability and negative perception towards others (Mukundan, 2009). Reduced personal accomplishment is a self-evaluation components where teachers suffer incompetence and less productivity at work (Maslach and Leiter, 2008). Teachers who experienced burnout may have a lack of interest in teaching, communicating and conveying the lesson of the day, hence will reduce the quality in teaching, which may affect the learning process by students. Teacher efficacy also reduced when they experienced high burnout level and probably will experience greater health problems (Pas et al., 2012). Furthermore, a study by Kokkinos et al. (2005) showed that there is a significant relationship between teacher burnout and the ratings of antisocial and oppositional student behavior. This study revealed that teacher who burns out may have less tolerance for classroom behavior problems, and this suggests that as teacher experiences a higher degree of stress and burnout, they challenge their students less.

A study among 184 Malaysian English teachers in primary and secondary schools showed that the score of reduced personal accomplishment was the highest among three components of burnout (Mukundan, 2009). This study also revealed that female teachers with less than 25 years of teaching experience were more likely to have emotional exhaustion, while both genders were identified to develop reduced personal accomplishment. In addition, a study among 437 female teachers from Klang Valley, Malaysia, reported that the percentage of teachers experiencing reduced personal accomplishment was the highest among three burnout dimensions.

This study also showed that married female teachers with more than two children and with less teaching experience were more likely to develop burnout syndrome. Overall, female teachers in Klang Valley were said to have a moderate level of burnout (Mukundan, 2011). These findings indicated that Malaysian teachers also suffered from burnout syndrome. To avoid the increasing number of burnout syndrome, the prevalence of job stress among school teachers need to be reduced first. Another serious negative effect of the psychological side of human was the development of mental illness known as a depression (WHO, 2012). Depression is defined as an illness of the brain, also

known as a mental health disorder accompanied by unstable mood, having low energy, low self-esteem, sleeping disturbance, and lack of concentration. Depression often comes with the emotional, behavioral, mental and physical symptoms such as loss of interest, feeling of guilt, unhappy, pessimistic and hopeless (WHO, 2012).

It is important to realize that high stress level has been recognized as one of significant predictors for the development of depression (Maideen et al., 2014). Since burnout is a part of the development of depression, a positive relationship was found between burnout and depression. This relationship showed that there was a connection between job stress, burnout and depression (Melchior et al., 2007).

WHO (2012) reported that depression is expected to be the leading cause of worldwide disability by the year 2020. Notably, Malaysian teachers also have the risk of getting depression. About 2.3 million people in Malaysia are projected to be affected by depression where depression has been identified as one of the most mental illness reported in Malaysia (Mukhtar and Oei, 2011). The bad effects of this psychomatic disorder do not just influence individuals, but also affect family members, the people surrounding them, the community and country, that may lead to the deterioration in social and family relation (Shah et al., 2010). Moreover, there was an increase in individuals taking sick leave due to psychiatric problems, from 0.11% in 1993 to 0.39% in 2004 (Nagai et al., 2007). A study by Bakir (2005) showed that the depression level of urban teachers is higher than rural teachers and female teachers had a higher level of depression compared to male teachers. Teachers with depression commonly have interaction problems with their peers, feeling not satisfied with their job, develop negative self-perception and loss of focus on their teaching. As a result, the educational environment is negatively affected by the reduction of student achievement and school success (Humensky et al., 2010).

In a physiological aspect, the job stress responses may be expressed in common physiological symptoms such as muscular tension, stomach ailments, uncontrollable faster breathing and vomit (Mkumbo, 2014). Additionally, the physiological effects of job stress may also create health problems like headache, high blood pressure and hypertension. In addition, in terms of physiological consequences, a variety of physical illnesses may develop due to the change in bodily function that resulted from the job stress problems. Physical illness includes migraine, sleep difficulties, stomach ulcers, excessive appetites or loss of appetite and recurrent viral infection (Salleh, 2008). Other consequence of job stress was behavioral consequences. Examples of behavioral consequences are consumption of alcohol or smoking, experiencing appetite disorder and violence that may a harm stressful person or others surrounding them. According to Gershon et al. (2009), perceived work stress was strongly associated with negative coping behaviors.

Job stress exists in every organization and it has a significant relationship with employee job performance. Job stress does not just influence the individual's

personal life, but also affects the individual's performance in the workplace. Moreover, besides the individual concerned, job stress also has an impact on the organization of the workplace. In the organization, if stress affects a large number of workers, it will decrease the job performance, increase unsafe job practices and increase staff turnover (Ismail et al., 2014). In fact, job stress has been recognized as a major cause of lack of performance and productivity by employees (Obiora and Iwuoha, 2013). Once teachers develop job stress problems, their performance and satisfaction level will decrease. As a consequence, the overall productivity of the educational institution will suffer (Khan et al., 2012).

In addition, job stress also has been identified as a factor that leads to the increasing number of resignation among teachers. About 25% to 40% of beginning teachers left their careers in the first 3 to 5 years of teaching, due to the job stress problem (Masilamani et al., 2012). A study by Liu and Onwuegbuzie (2012) in China revealed that 40.4% from 510 middle school teachers certainly would leave the teaching profession for another occupation if they had the chance. This was due to the high level of stress that was associated with their job. The effects of resignation among school teachers, especially the resignation of expert teachers who had a lot of experience in teaching, will cause serious educational problems. The quality of education system is being threatened when the teaching and learning process becomes less productive. As a result, students will receive a low quality of education, thus affecting the overall academic school achievement. (Levi et al., 2006).

1.3 Significance of the Study

There are many studies that have been done by previous researchers on teachers' job stress. However, until now, the research about teachers' job stress is still gaining interest from other researchers (Hadi et al., 2009; Jeyaraj, 2013 and Hans et al., 2014). In this study, a few justifications were explained with the intention to justify the relevance of the present study as well as the filling of gap for this study area. The first reason why this study must be conducted was due to the prevalence of job stress among school teachers worldwide including Malaysia. At the international level, a study by Shkembi et al., (2015) found that teachers in Kosovo experienced high job stress level with prevalence rates of 71.21%. Among 799 school teachers from primary and secondary schools in Kosovo, 33.2% of them reported experience high stress level while 38% reported moderate stress level. Two variables were identified as significant contributors to high stress prevalence among Kosovo teachers namely; residence and level of education (Shkembi et al., 2015). Meanwhile, a study by Philips et al. (2007) among 290 school principals in West Sussex, United Kingdom found that the prevalence of work stress was 43%. Work overload and work-imbalance were recognised as the key significant stressor for prevalence of work stress among school principals in West Sussex. According to Health and Safety Executive (2016), the prevalence rate of work-related stress in Great Britain was 1510 per 100,000 workers.

Meanwhile, in local studies, several findings of recent studies revealed that Malaysian teachers had experienced a high and moderate level of job stress. To

emphasize, Yusof (2011) in his study to determine the relationship between the style of headmaster leadership and teacher stress level in eight primary schools in the West Coast of Malaysia, found that teachers were having a moderate job stress level. These findings also explained that teachers were not able to handle the pressure when there were any changes in the school system, and their coping ability was low by being ill-prepared to face any problem at the school, thus causing emotional problems among the teachers at school. Meanwhile, a cross-sectional study design among 471 secondary school teachers through a cluster sampling in the Federal Territory of Malaysia found that the prevalence of job stress among teachers was 20.2% (Masilamani et al., 2012).

In addition, a study by Ghani et al. (2014) among 92 special education teachers from 20 schools in the state of Penang had categorized stress prevalence based on the five teacher's stress factors, which were pupil misbehaviour, teacher workload, time and resource difficulties, interpersonal relationship and recognition. The results of this study showed that for pupil misbehaviour, 41.3% teachers had a mild stress level, while for teacher workload, about 58.7% of teachers' experienced a moderate stress level and 17.4% had a severe stress level. According to the time and resources and difficulty factor, results showed that 58.7% of respondents had a moderate stress level, while for the interpersonal relationship factor, 48.9% teachers had been identified to have a moderate stress level, and for the recognition factors, it showed that 47.8% of respondents had a moderate stress level. The overall results indicated that 92 special education teachers were in a moderate stress level. Moreover, a study by Samad et al. (2010) among 272 teachers in Klang Valley reported that about 71.7% of teachers had experienced a medium stress level. Additionally, the latest study of teachers' job stress in Kota Bharu, Kelantan examined that the prevalence of job stress among 508 secondary school teachers accounted for 34% (Abdul Hadi et al., 2009). All these findings indicated that this study is significant to be conducted due to the high and moderate levels of teachers' job stress prevalence in Malaysia.

A new predictive model needs to be developed to determine the factors that may influence teachers' job stress in order to reduce the job stress prevalence in the future. Risk factors or the associated factors that contribute to the teacher's job stress need to be identified clearly. Despite the increased number of attempts and interests to study job stress among teachers, there has been a limited number of studies focused on identifying the group-level factor as a predictor variable on teacher job stress (Pas et al., 2012). In this study, group-level is known as a school-level factors. Most of the previous researches, especially in Malaysia, focused on an individual-level or sociodemographic factors such as age, gender, monthly income, race, number of children, years of teaching, educational level and types of graduate degree as the predictive factors for teacher job stress (Samad et al., 2010; Abdul Hadi et al., 2009; Mukundan, 2011).

In other words, greater attention should be focused on the school-level factor. This reason was supported by the limited study being reported about the

relationship between the school environment and teachers' stress (Pas et al., 2012). Instead of focusing only on sociodemographic factors, this present study also included the school-level factors as a potential predictor of teachers' job stress. School-level factors in this study was defined as variables or characteristics of the workplace that may influence job stress level among school teachers. School-level factors consisted of school size, school location and teachers' perception of their school environment. To emphasize, school-level factors were included in this study, according to the previous study that had identified the work environment as a source of social and psychological stress (Jeyaraj, 2013). In other words, by including individual and school-level factors in the model, the most significant factors that may have a greater influence on teachers job stress can be assessed.

The determination of significant predictors of job stress at the individual-level and school-level had led to the choice of advanced statistical analysis known as multilevel analysis, which had become another reason to conduct this study. Over the past 10 years, the popularity of multilevel analysis has rapidly increased (Twisk, 2006). Multilevel analysis has become a mainstream data analysis, emerging from a niche technique to a technique that is now figuring prominently in a range of social, behavioral science, public health and also medical disciplines (Heck et al., 2010). Multilevel analysis has appeared under a variety of names including the hierarchical linear model, random effect model, random coefficient model, covariance component model or mixed effect analysis (Twisk, 2006). There are many types of multilevel analysis, such as linear multilevel analysis, logistic multilevel analysis, multinomial logistic multilevel analysis, multivariate multilevel analysis, multilevel analysis in the longitudinal study, multilevel analysis of categorical repeated measure outcome and multilevel analysis with count data (Twisk, 2006; Heck et al., 2012).

There is a gap revealed in terms of statistical analysis of multilevel data where very limited number of research was reported to use a multilevel analysis (Ellonen and Kaariainen, 2008). This is due to having the most previous research use a simple statistical method to analyse the nested data instead of using multilevel analysis. In a situation when data contain more than one level, the most appropriate statistical analysis to be used is multilevel analysis because the examination of the effects of individual-level and school-level factors can be assessed simultaneously. Moreover, the contribution of individual-level and school-level factors to the variation can also be examined separately when the dependency of observation within groups or between individuals in a group is accounted for (Robson and Pevalin, 2016). Hence, it is clear that when individuals are nested within a group, the best analysis to be used is the multilevel analysis.

In this study, validation analysis and determination of instruments' internal consistency were also given great attention with the aims to provide validated and reliable instruments to be used among local respondents in the future. The validation analysis was conducted based on two reasons. The first reason was about the respondents. Although some of the instruments had been validated by

previous researches, yet none of the instruments were validated using local respondents such as Career Commitment Measure (CCM) and Revised School Level Environment Questionnaire (SLEQ) (Carson and Bedeian, 1994; Blau 1989; Johnson et al., 2007). All instruments needed to be validated again using local respondents, because of the differences in culture, religions and education system with other countries. Moreover, the validity of all instruments needed to be determined due to the incomplete report of validation analysis by previous researchers, for example, Tsan (1998) reported only the results of reliability analysis, but none of the information of model fitness of Job Stress Level Inventory (JSLI) was provided.

The second reason was because of the statistical analysis. In this study, all instruments were validated using Structural Equation Modeling (SEM). SEM is used to validate the instruments because it is more powerful and provides more accurate results in determining the confirmatory factor analysis (CFA). SEM has several aspects that distinguish it from the traditional statistical analysis, where the SEM procedure is capable to take measurement error into account by assessing and correcting measurement error variance that corresponds to the measurement error of the observed variables, so that the conclusion about the relationship between constructs is not biased by the measurement error (Werner and Karin, 2009). Moreover, SEM can incorporate both observed and unobserved variables together in a model, compared to a former method that is only based on observed variables. SEM can also easily model the multivariate relations such as analyzing multiple regression model simultaneously, analyzing the path analysis with multiple dependents and effectively address numerous research problems (Barbara, 2010). Other advantages of using SEM are it provides an overall test of model fit and individual parameter estimates test simultaneously, has an ability to fit the non-standard model, including data with non-normally distributed variable and incomplete data and graphical interface software such as AMOS boost creativity and facilitate rapid model debugging (Division of statistic and Scientific Computation, 2012).

According to all these justification, this present study had been carried out to determine the most significant factors at the individual-level and school-level that may have an influence on job stress among secondary school teachers in Kota Bharu, Kelantan, using a multilevel analysis. The output of this study would be an additional contribution to the already existing body of knowledge about teachers' job stress.

1.4 Objectives of the Study

The general objective of this study was to determine the relationship between individual-level factor, school-level factor and teachers' job stress. The specific objectives of this study were:

- 1) To validate the Job Satisfaction Questionnaire (JSQ), Career Commitment Questionnaire (CCQ), School Level Environment Questionnaire (SLEQ) and Job Stress Level Inventory (JSLI) using Structural Equation Modeling (SEM).
- 2) To determine the job stress prevalence among secondary school teachers in Kota Bharu, Kelantan.
- 3) To identify the significant predictors of teachers' job stress at an individual-level and school-level among secondary school teachers in Kota Bharu, Kelantan.

1.5 Research Question of the Study

- 1) What are the reliability and validity of the Job Satisfaction Questionnaire, Career Commitment Questionnaire, School Level Environment Questionnaire and Job Stress Level Inventory?
- 2) What is the prevalence of teacher's job stress?
- 3) What are the significant predictors of teachers' job stress at the individual- level and school- level among secondary school teachers in Kelantan?

1.6 Hypotheses of the Study

The hypotheses of the study were based on the research questions and objectives of the study. Therefore, the hypotheses of this study are:

1. Job Satisfaction Questionnaire, Career Commitment Questionnaire, School Environment Level Questionnaire and Job Stress Level Inventory are reliable and valid instruments.
2. There is a significant relationship between individual-level variables and school-level variables and the teacher's job stress at a multilevel analysis.

1.7 Scope of the Study

This study involves secondary school teachers in the Kota Bharu District as the study respondents. The focus of this present study is divided into a validation study, the determination of teachers' job stress prevalence, and the determination of the relationship between individual-level variables and school-level variables with teachers' job stress with multilevel analysis. Thus, this study is relevant to be applied on the secondary school teachers in identifying significant predictive factors on job stress by using multilevel analysis.

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