IRRATIONAL BELIEFS AS MEDIATOR IN THE RELATIONSHIP BETWEEN ACTIVATING EVENT AND STRESS AMONG SECONDARY SCHOOL TEACHERS

KHOO HUI XIAN

UNIVERSITI TEKNOLOGI MALAYSIA

IRRATIONAL BELIEFS AS MEDIATOR IN THE RELATIONSHIP BETWEEN ACTIVATING EVENT AND STRESS AMONG SECONDARY SCHOOL TEACHERS

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DEDICATION

I would like to dedicate this thesis to my beloved friends and family.

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First, I would like to express my gratitude and appreciation to my warmhearted supervisor, who is also my mentor, Dr. Mastura Binti Mahfar for always ready to share, guide, and encourage me during the completion of this dissertation.

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ABSTRACT

The main purpose of this study is to identify to what extent irrational beliefs act as mediator in the relationship between activating event and stress among secondary school teachers. The research objectives of this study are to identify the different levels of irrational beliefs (B) and also level of stress among secondary school teachers, to identify the effect of activating event (A) on stress (C), the effect of activating event (A) on irrational beliefs (B), the effect of irrational beliefs (B) on stress (C) and also to identify irrational beliefs (B) as mediator in the relationship between activating event (A) and stress (C) among secondary school teachers. A total of 250 teachers from five secondary schools were selected as the respondents for this study. The measurements employed for the data collection were Soal Selidik Sistem Kepercayaan Guru (SSKG) and Soal Selidik Peristiwa dan Tekanan Guru (SPTG). The data were analyzed using descriptive and inferential analyses. The Rasch analysis was employed in the pilot test of the study. The analyses comprised of normality, simple regression and hierarchical multiple regression. The results of hierarchical multiple regression were verify by applying the Sobel Test. The findings of the study indicate that activating event (A) act as significant predictor of stress (C), activating event (A) as significant predictor of irrational beliefs (B) and irrational beliefs (B) as significant predictor of teacher stress (C). The findings of the study reveal irrational beliefs to be partial mediator in the relationship between activating event and stress. The ABC model of the REBT approach was found to be suitable for studying secondary school teachers undergoing irrational beliefs and stress. The awareness of teachers regarding irrational beliefs must be enhanced so that more can be done to change irrational beliefs into rational beliefs and hence reduce the stress level perceived by secondary school teachers.

ABSTRAK

Tujuan utama kajian ini adalah untuk mengenal pasti sejauh mana kepercayaan tidak rasional bertindak sebagai pengantara dalam hubungan antara peristiwa dan tekanan di kalangan guru sekolah menengah. Objektif kajian ini mengenal pasti tahap kepercayaan tidak rasional dan juga tahap stres di kalangan guru-guru sekolah menengah, untuk mengenal pasti kesan peristiwa pada tekanan, kesan peristiwa pada kepercayaan tidak rasional, kesan kepercayaan tidak rasional pada tekanan dan juga untuk mengenal pasti kepercayaan tidak rasional sebagai pengantara dalam hubungan antara peristiwa dan tekanan di kalangan guru sekolah menengah. Seramai 250 orang guru dari lima buah sekolah menengah Skudai dipilih sebagai responden kajian. Soal Selidik Sistem Kepercayaan Guru (SSKG) dan Soal Selidik Peristiwa dan Tekanan Guru (SSPTG) merupakan ukuran yang digunakan bagi pengumpulan data. Data dianalisis dengan menggunakan analisis deskriptif dan inferensi. Selain itu, analisis Rasch telah digunakan dalam ujian perintis kajian. Analisis yang dijalankan dalam kajian ini termasuk regresi mudah dan regresi berganda hierarki. Keputusan regresi berganda hierarki disahkan oleh Ujian Sobel. Dapatan kajian menunjukkan peristiwa bertindak sebagai peramal signifikan kepada tekanan, peristiwa sebagai peramal signifikan kepada kepercayaan tidak rasional dan kepercayaan tidak rasional sebagai peramal signifikan kepada tekanan guru. Dapatan kajian telah menunjukkan kepercayaan tidak rasional bertindak sebagai pengantara separa dalam hubungan antara peristiwan dan tekanan. Demi itu, Model ABC dalam pendekatan REBT didapati sesuai untuk kajian kepercayaan tidak rasional dan tekanan guru sekolah menengah menjalani. Kesedaran terhadap kepercayaan tidak rasional guru perlu digalakkan supaya dapat diubah kepada kepercayaan rasional dan dengan itu mengurangkan tahap tekanan yang dihadapi oleh guru-guru sekolah menengah.

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in the Relationship between Activating Event and Stress.

LIST OF ABBRREVIATIONS

DV = Dependent variable

 H_0 = Null hypothesis

 H_1 = Alternative hypothesis

IV = Independent variable

IRT = Item Response Theory

CBS = Common Beliefs Survey

CTT = Classical Test Theory

MV = Mediating variable

QTAES = Questionnaire of Teacher's Activating Event and Stress

QTIB = Questionnaire of Teacher's Irrational Beliefs

REBT = Rational Emotive Behavior Therapy

Sig. = Significant

SPM = Sijil Pelajaran Malaysia

SPSS = Statistical Package for Social Sciences software

STPM = Sijil Tinggi Pelajaran Malaysia

LIST OF SYMBOLS

& = And

% = Percent

= = Equal

- = Minus

+ = Total

< = Less than

> = More than

/ = Divide

f = frequency

r = Pearson's correlation coefficient

p = Significant level

N = Total

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CHAPTER 1

INTRODUCTION

1.1 Introduction

This study aims to explore the relationship between irrational beliefs, activating event and stress experienced by secondary school teachers in Skudai, Johor Bahru, Malaysia. The purpose of this study was to examine irrational beliefs as mediator in the relationship between activating event and stress among secondary school teachers through extensive theoretical study of irrational beliefs and teacher stress. The study begins with the research background, statement of problem, objectives and hypotheses, significance of the study, scope of the study and its limitations. Conceptual and operational definitions of irrational beliefs, activating event and stress are also described in this chapter.

1.2 Research Background

The teaching profession is an occupation exposed to high risk for stress (Azlihanis *et al.*, 2009). Teaching has been proven to be a stressful job by many researchers in previous studies (Shirley & Kathy, 2002) and treated as the field most affected by stress (Lucica, 2012). Sveinsdottir, Gunarsdottir, and Fridriksdottir (2007) state that, the working environment for teacher is highly stress-provoking. Teachers have to cope well with their task, including provide knowledge and educate students at the same time, marking homework, handling student discipline problem, dealing with parents, student performance, paper works etc. Teachers in Malaysia have to respond to the increasing demands of students and parents, as well as the job requirements imposed by Ministry of Education Malaysia. Therefore, the stress levels of teachers in Malaysia are steadily increasing (Nurul Izzah *et al.*, 2010). In addition, mental illness among teachers has became an increasing problem in many countries (Bauer *et al.*, 2005; Bauer *et al.*, 2007; Webber, Weltle and Lederel, 2006), and situations such as psychiatric and psychosomatic disorders can worsen and lead to premature retirement (Sveinsdottir *et al.*, 2007).

Stress has been generally defined as an unpleasant emotional experience associated with feelings of anger, anxiety, tension, and frustration and linked with specific environmental triggers (Kyriacou, 2001). In situations where demands are high, the amount of control within the individual was low, and limited support or help is available, stress is most likely to occur (Nurul Izzah *et al.*, 2010). An individual may be stressed when they experienced unpleasant emotional triggered by environmental factor. Teaching is among one of profession where teacher need to balance physical, emotional and mental strain between students, workload, colleagues and administrations in daily life. The differences of stress experienced by teachers may lay in how they perceive and cope with the change they faced (Ellis *et al.*, 1997). According to Kyriacou (2001), teacher stress is defined as experiences among teachers which are associated with unpleasant and negative emotions resulting from the working environment, such as anxiety, anger, frustration, depression and nervousness.

"Teacher stress" has become a field of study for many researchers in many countries recently and this scenario can be clearly seen from the increased amount of studies on teacher stress (Kyriacou, 2001; Hanizah, 2003). According to Health and Safety Executive (2000) from the United Kingdom, teaching is the most stressful occupation when compared to other occupations, such as nursing, managing, professional and community service occupations. The Health and Safety Executive (2000) also reveals that two out of five teachers in the United Kingdom suffer from stress, compared one out of five workers from other occupations. According to Meehan (2011), teachers are under a great deal of pressure due to the increasing state mandates and emphasis on student performance. The idea of the performance of their students being made public can be very over overwhelming for teachers. Thus, the risk of burnout and stress are increasing. Therefore, the measuring of teacher stress is essential and plays an important role in understanding the process that lead to teacher stress (Azlihanis *et al.*, 2009).

The factors that lead to stress are called stressors and or "activating event" in this study, based on the Rational Emotional Behaviour Therapy (REBT) approach. According to National Union of Teachers (2009), stressors such as disruptive student, workload and lack of support had put teachers' mental health in danger. These circumstances can increase the level of stress when an individual receives a stressor. The model for teacher stress proposed by Richard and Christine (1989) includes teaching history and personal factors as the stressor for job stress. Dealing with students' problem behavior is also considered as an important source of teacher stress as shown in studies on the teaching profession (Kokkinos, 2007). Gutpa (1981) emphasizes that environmental, organizational, and individual are the three major types of stressor. Meanwhile some urban teachers are burdened by policies emphasizing test scores, teaching a high numbers of students with complex learning and mental health needs unmet, and they reported high rates of job dissatisfaction when compared with their suburban and rural counterparts (Kataok *et al.*, 2002).

However, irrational belief was found to behave as mediator in the relationship between activating event and stress (Jacofsky, 2005). "Irrational beliefs" are defined by Dryden and Neenan (2004) as unhealthy beliefs that will contribute to low performance. Anderson (2000) advocated that irrational beliefs are unrealistic, illogical, and often lie on inaccurate premises or deductions. "Irrational beliefs" are command and not true, and will lead to disturbed emotions, and do not help in attaining goals (Walen et al., (1992). Rational beliefs and irrational beliefs are basically the two types of beliefs that lie within an individual. According to REBT theory, "stress" is determined by how individuals perceive and evaluate stressful events, and not determined by actual event occurred in their daily life (Ellis et al., 1997). In other words, stress was not determined by the activating event in a person's life but by a person's beliefs. This statement is further supported by Long (2010) who states that teacher lack awareness of thoughts and emotions often have difficulties in responding to adverse student behavior. Thus, the need to study on teacher irrational beliefs is urged as this will affect the performance of student and teachers in future and was supported by Ellis (2006) who theorizes that decreasing irrational beliefs leads to healthier expressions of emotions and more functional classroom behaviors among teachers.

However, "stress", "activating event", and "irrational beliefs" do not only behave independently but influence each other in different situations also. Ellis and Bernard (2006) assert that the relationship between activating event and stress variables are supported REBT approach especially the ABC Model. Some researcher revealed irrational beliefs and stress (Mastura *et al.*, 2010). Laura and Mar \(\hat{a}\) (2006) found that teacher irrational beliefs correlate significantly and positively with teacher distress, as well as with the psychological variables, and with the data on absenteeism, and significant relationships between irrational beliefs, burnout, somatisation, depression, anxiety, and role-related stress.

Meanwhile, Meehan (2011) and Lucica (2012) justified the relationship between irrational beliefs and stress which revealed teachers recorded high number of irrational beliefs suffered from high level of burnout and the possibility of teachers having high level of irrational beliefs may view themselves as having high level of stress. Dryden (2012) states that stress are largely determined by cognitive factors of beliefs held by individuals whether rational or irrational. Therefore, it is required to determine of the existence of the relationship between irrational beliefs and stress. ABC Model is the main component of REBT that shows a significant relationship between emotional disturbance or stress and the belief systems towards events that occur in individual's daily life. Thus, the study of irrational beliefs and stress was supported to be carried out by employing Model ABC in REBT approach.

According to Marić (2000), individuals with high levels of irrational beliefs will develop unhealthy negative emotional response in the presence of negative activating events. Hence, it was believed that individuals with irrational beliefs have a higher tendency toward holding unhealthy beliefs regarding negative event compared to individuals with rational beliefs. The stress faced by individuals has a significant relationship with their beliefs system toward event that occurs to them (Ellis, 2002). David *et al.* (2005) also revealed high level of stressful event associates with high level of irrational beliefs with both functional and dysfunctional negative feelings. Since individuals may have rational beliefs or irrational beliefs towards an event that has happened to them, the level of irrational beliefs held among secondary school teachers were studied. Therefore, in this study the researcher is interested in determining the relationship between activating event and consequences of teacher stress as a whole.

The occurrence of activating event may trigger the beliefs of individuals towards the event and how they react as consequences according to Model ABC developed by Ellis and Bernard (1983). Model ABC of Ellis and Bernard (1983) was developed based on the REBT approach where the happening of A (happening event) will trigger the B (beliefs) of individual and will contribute to the C (consequences). Ellis (1991) has also found that different stress situations have significant relationship with individual's perception of that particular situation.

REBT can be applied in educational field and the extension of REBT can be denoted by rational-emotive behaviour education and also consultation (Bora *et al.*, 2009). Hence, the study of activating event, irrational beliefs and teacher stress was carried out in REBT approach by employing Model ABC and discuss: stressor in context of activating event (A), irrational belief in context of beliefs (B) and stress in context of consequences (C). The usage of REBT approach and Model ABC are able to avoid the general assumption of stress being caused by activating event. Researcher became interested in the issues of how irrational beliefs can mediate in the relationship between activating event and stress.

Up to now, researcher has not yet found any study related to the three variables among the secondary school teachers. Hence, this study will explore to what extent irrational beliefs act as mediator in the relationship between activating event and stress among secondary school's teachers. The objective of this study is to study the irrational beliefs (B) as a mediator in the relationship between activating event (A) and stress (C) among secondary school teachers.

1.3 Statement of Problems

Teachers have come under fire for student's achievement gaps and reformed policies enacted by the government to enhance schools and teachers effectiveness (Shernoff *et al.*, 2011). Similar situation take place in Malaysia, where teachers have to cope with daily teaching sessions, students affair, paper works, providing student academic information required by ministry, being responsible for student's performance, and other tasks in daily routine. Some teachers even have to bring their works home in order to complete task on time and these situations had led to experience of stress among teachers. An unproductive level of stress may be a risk to teachers as it can affect teaching performance, personal life, and also students (Swortzel, 1999). The increase in teacher stress is not surprising, as a large

population of teachers face psychological distress, mental and physical fatigue when compared to other professions (Shernoff *et al.*, 2011). Thus, teachers' risk of experienced stress is increasing, and therefore it is important in understanding the process that lead to teacher stress (Azlihanis *et al.*, 2009).

Local research has revealed the situation of teacher stress among primary and secondary schools. Nurul Izzah *et al.* (2010) report that 71.7 percent teachers experience moderate level of stress, while 12.1 percent reported a low mental health status among primary school teachers in Klang Valley, Malaysia. Another researcher has revealed 34 percent of stress prevalence, 17.4 percent of mild-stress suffered by secondary school teachers in Kota Bharu, Malaysia, and that non-job-related factor such as age, duration of work and psychological job demands are significantly associated with stress level of teachers (Azlihanis *et al.*, 2009). Hence, it is important to study teachers' stress in individual countries especially among secondary schools teachers who also need to handle teenager's issues such as discipline, juvenile crime, gangsters and vandalism besides daily workload. Thus, local circumstances must be taken into account in design of study so the problem of teachers stress can be solved from the root. The design of the study was correlation in order to study the factors that influence stress among teachers.

However, study regarding stressors and levels of stress among teacher was not enough as there are other indirect causes contributing to teacher's stress other than activating event. Therefore, the influence of any mediator in the relationship between activating event and stress among teacher can be studied. This has led to the misconception that stress is caused by activating event without influenced by other aspects. According to the REBT theory, "stress" is determined by how individuals perceive and evaluate stressing events, not by the actual event (Ellis *et al.*, 1997). This means that when teachers faced with a task, the stress they experience were different depending on how they treat the given task.

Therefore, there is a gap or issue that there are other indirect causes contributing to teacher's stress other than activating event. For example, some teacher felt more stressed and some felt less stressed when given similar task (which act as an activating event). This issue was in line with Nurrul Iza (2013) who found irrational beliefs as partial mediator to activating event (A) and stress (C) among fully residential school teachers in Johor. Moreover, irrational beliefs act as a convincing mediator variable than as a moderator in the relationship between events (activating events, A) and emotional reactions (irrational beliefs, B) (Jacofsky, 2005). Thus, this study will focus on to what extent irrational beliefs (B) acts as mediator in the relationship between activating event (A) and stress (C) by using hierarchical multiple regression in the Mediation analysis. However, there is possibility of different results regarding the impact of irrational beliefs as mediator which either no mediation, partial mediation or full mediation in the relationship between activating event and stress in this study.

Meanwhile, irrational belief is one of main idea in Rational Emotional Behavioral Therapy, REBT. REBT can be applied in educational field and the extension of REBT can be denoted by rational-emotive behaviour education and also consultation (Bora *et al.*, 2009). Hence, the researcher was interested to carry out the study using REBT approach; other suitable theory will also be studied and compared to be used as the theoretical guidelines of the study. The overriding problem of this study is to study irrational beliefs as mediator, and to what extent does it influence the relationship between activating event and stress among secondary school teachers.

The study was carried out qualitatively so that the level of stress and the impact of irrational beliefs can be measured. Since there is no study has yet been carried out related to the influence of irrational beliefs in the relationship between activating event and stress among teachers in Skudai, Johor Bahru, hence researcher takes the initiative in conducting this study among secondary school teachers in Skudai, Johor Bahru. This study has been conducted to find out the level of irrational beliefs and stress among teachers based on the REBT theory, and to examine irrational beliefs as mediator between the activating event and stress.

1.4 Purpose of Study

The purpose of this study is to study irrational beliefs among secondary school teachers and identify to what extent the irrational beliefs act as a mediator in the relationship between activating event and stress among secondary school teacher.

1.5 Research Questions

Abdul Halim Abdul Raof (2007) defines the research question as the enquiry needed by researcher to find out the answer for a study. The research questions for this study are extended from problem of statement so that the result of this study will reveal the answer of research questions precisely following the core of this study. The research questions of this study are:

- 1. What is the level of irrational beliefs (B) among secondary school teachers?
- 2. What is the level of stress (C) among secondary school teachers?
- 3. What is the impact of activating event (A) on stress (C) among secondary school teachers?
- 4. What is the impact of activating event (A) on irrational beliefs (B) among secondary school teachers?
- 5. What is the impact of irrational beliefs (B) on stress (C) among secondary school teachers?
- 6. To what extent do irrational beliefs (B) act as mediator in the relationship between activating events (A) and stress (C) among secondary school teachers?

1.6 Research Objectives

Research objectives are what is to be achieved through the study and should be related to the research questions (Abdul Raof, 2007). The research objectives should be derived based on the research questions to ensure that the study is carried out according to its main purpose. The objectives of this study are:

- 1. To identify the different levels of irrational beliefs (B) among secondary school teachers.
- 2. To identify the different levels of stress (C) among secondary school teachers.
- 3. To identify the impact of activating event (A) on stress (C) among secondary school teachers.
- 4. To identify the impact of activating event (A) on irrational beliefs (B) among secondary school teachers.
- 5. To identify the impact of irrational beliefs (B) on stress (C) among secondary school teachers.
- 6. To identify irrational beliefs (B) as mediator in the relationship between activating event (A) and stress (C) among secondary school teachers.

1.7 Hypotheses of the Study

According to Salkind (2009), the definition of "hypothesis" is stated as an educated guess to be tested. Salkind (2009) also states that a null hypothesis refer to a statement of equality between variables in an investigation. The hypotheses of this study are:

- **H_a1**: There is significant impact of activating event (A) on stress (C) among secondary school teachers in Skudai, Johor Bahru.
- **H_a2**: There is significant impact of activating event (A) on irrational beliefs (B) among secondary school teachers in Skudai, Johor Bahru.
- **H_a3**: There is significant impact of irrational beliefs (B) on stress (C) among secondary school teachers in Skudai, Johor Bahru.
- **H_a4**: There is significant impact of irrational beliefs (B) as mediator in the relationship between activating event (A) and stress (C) among secondary school teachers in Skudai, Johor Bahru.

1.8 Significance of the Study

This study will contribute significantly to all units and fields involving researchers into secondary schools in Skudai, Johor Bahru and their management, education field, and also for general knowledge enlargement.

In terms of knowledge, especially in the emotional and behavioral psychology fields, the result of this study contributes empirical evidence concerning the relationship between activating event, and stress based on irrational beliefs as a mediator among teachers. The aim of this study is to increase the number of studies related to the three variables: activating event, irrational beliefs, and stress, as there are only few studies that have been carried out regarding these three variables in Malaysian context.

Based on the academic or research perspectives, this study directly provides the findings on the relationship between activating event (A) and stress (C), relationship between irrational beliefs (B) and stress (C), and the relationship between activating event (A) and irrational beliefs (B) with statistic explanation based on teacher's irrational belief. Through this study, the researcher has obtained better understanding to what extent irrational beliefs act as mediator in the relationship between activating event and stress held by secondary school teachers.

The results of this study also provide constructive ideas and practical recommendations for secondary schools administration in providing stress management courses for teachers. They may utilize the information obtained by this study as a guideline to associate activating event (A) and stress (C), irrational beliefs (B) and stress (C), and activating event (A) and irrational beliefs (B) among teachers.

The results of this study may also assist teachers in Skudai to identify what contributes to their stress most at their workplace. The identification of stressor that contribute to stress not only helps to enhance a healthy working environment, quality education is also being ensured and delivered to students under stress-free condition.

The results obtained through this study benefit the target schools by helping their administrations in obtaining a clearer picture of the levels of stress and irrational beliefs faced by the teachers in their school. Furthermore, the school administrations can further understand the importance of teachers' beliefs and how teachers' irrational beliefs can play a mediator role in the relationship between activating event and stress. By this, the school administrations recognize the need of minimizing irrational beliefs in order to decrease the level of irrational belief and stress among the teachers in their school.

1.9 Scope of Study

This study is focused on investigating the irrational beliefs as mediator in the relationship between activating event and stress among secondary school teachers in Skudai, Johor Bahru. In this study, a total of 250 teachers were selected as the respondents.

The demographic factors are not limited in this study, as it consists of differences in gender, age, races, academic qualifications and teaching experience, all of which can have affected the respondent's irrational beliefs and stress. The variables of this study include activating event, irrational beliefs, and stress. The independent variable, mediator, and dependant variable of this study are respectively activating event, irrational belief, and stress. The irrational beliefs of teachers were measured by four dimensions: demandingness, awfulizing, low frustration tolerance, and global evaluation.

The data of the respondents were collected through a set of questionnaire to determine the relationship between irrational beliefs systems and stress among boarding school students. Research design of the study was correlational and the data collected from the respondents were then analyzed using Statistical Package for Social Sciences (SPSS) software. The time taken to conduct this study was approximately three months.

1.10 Conceptual and Operational Definitions

Both conceptual and operational definitions for each variable involved in this study were elaborated as below. There are terms that require detailed definition as there may be difference between a general definition and a definition of variables in this study. According to Sabitha Marican (2005), a conceptual definition is general as it refers to the theoretical definition that has to be stabilized by previous study. As for operational definitions, Sabitha Marican (2005) refers to it as a definition that is being used by a researcher to explain to the respondents the variables that are being studied. These definitions give a brief picture about how the studied variables shall be understood and manipulate.

1.10.1 Activating Event (A)

Grieger and Woods (1993) described an activating event as the trigger of a person's belief system at point "A" of Model ABC. An activating event may be an activity, action, agent, experience, object, person, situation, or stimulus in the ABC model that disturb an individual (Ellis and Dryden, 1997).

An activating event is any event that happens under the circumstances that a person will perceive, evaluate and trigger their beliefs about the event. Stressors of teachers may include conflict with the school's administration, unmotivated students and work overload (Byrne, 1999). An event cannot be taken as an activating event if the individual does not perceive any emotional information or emotional disturbance from it.

In this study, an activating event is adapted to the concept of "A" which is an activating event in the ABC framework of REBT. An activating event in this study is being used to address causes, stressors, impacts, and factors of stress. This allows and fulfills the requirement of relationship between stressors (activating event) and stress for mediator analysis. From the perspectives of stress, activating event may be the stressor experienced by an individual. Therefore, the activating events experienced by respondents were measured by employing an instrument, namely *Questionnaire of Teacher's Activating Event and Stress (SPTG)* which consist of 34 items. This instrument requires the responses of respondents regarding activating event based on the dimensions of stress such as: workload, student's attitude, administrator's attitude, and teacher's attitude.

1.10.2 Irrational Beliefs (B)

According to Dryden and Neenan (2004), irrational beliefs are any ideas or beliefs which are rigid and extreme, illogical., not consistent with reality empirically and hinder an individual from achieving goals. On the other hand, rational beliefs are ideas or beliefs that are flexible, pragmatic, logic, consistent with reality not extreme and assist individuals towards achieving goals.

According to DiGiuseppe (1996), irrational beliefs refer to beliefs that can have impacts on emotion that is maladaptive and inappropriate, behavior that prevent individuals from achieving their objectives. In contrast with irrational beliefs, rational beliefs are those where individuals can think rationally even when encountering negative event or unexpected situation.

In this study, irrational beliefs refer to the scores obtained using the *Questionnaire of Teacher's Irrational Beliefs (SSKG)*. The *SSKG* consists of 49 items which include four subscales of irrational beliefs based on the REBT approach, namely: demandingness, awfulizing, low frustration tolerance, and global evaluation as stated below:

i. Demandingness:

A rigid idea whereby individual absolutely prioritize a certain situation so that it "must" or "must not" happen.

ii. Awfulizing:

The idea, evaluation or belief that is extreme toward a negative event.

iii. Low frustration tolerance:

An idea or extreme belief that occurred when a situation does not fulfilled an individual.

iv. Global evaluation:

A negative evaluation made on oneself, others or the overall living conditions.

1.10.3 Stress (C)

According to Hans Selye (1974), demands for physiology, psychology, and environment causes stress. Selye (1974) states that individual body tends to create extra energy when dealing with stressors, and stress occurs due to fact that individual bodies do not utilize all the energy created when dealing with stressor or activating event.

David (1984) asserts that occupational stress has two conceptual definitions. Firstly, occupational stress refers to physiological responses of individuals such as increased heart rate, blood pressure, as well as the release of cortisol hormone into

the blood stream that resulted from individual's frustrations caused by the interaction with the environment. Secondly, it refers to the negative appraisal from the environment itself such as workload, inadequate resources and time associated with the current job that lead to anxiety and chronic pressure in meeting the job demand. In this study, stress refers to the items scores obtained using *Questionnaire of Teacher's Activating Event and Stress (SPTG)*, which consist of 34 items.

1.11 Summary

In conclusion, this chapter has explained the research background, statement of problem, research objective, research hypotheses, conceptual and operational definitions of variables in details. There are three variable in this study: activating event as independent variable, irrational beliefs as mediator variable and teachers stress as dependent variable. The main purpose of this research is to discuss how irrational beliefs can affect relationship between activating event and stress. Teachers' irrational beliefs play the role of mediator between activating event and stress can be identified through this research.

REFERENCES

- Abdul Halim Abdul Raof (2007). *Academic Report Writing: From Research to Presentation*. (2nd ed.). Selangor, Malaysia: Pearson Malaysia Sdn. Bhd.
- Allen, M., Mathieu, J., and Rapp, A. (2007). To Empower or Not to Empower Your Sales Force? An Empirical Examination of the Influence of Leadership Empowerment Behavior on Customer Satisfaction and Performance.
- Anderson, D. (2000). Coping Strategies and Burnout Among Veteran Child Protection Workers. *Child Abuse and Neglect*, 31(6), 839-848.
- Azizi Yahya and Fariza Kassim. (2006). "Faktor-faktor yang Mempengaruhi Pelajar Tingkatan Empat Memilih Aliran Kejuruteraan Elektrik and Elektronik Sebagai Pembentuk Awal Kerjaya di Sekolah Menengah Teknik di Tawau, Sabah". Tesis Sarjana, Universiti Teknologi Malaysia, Skudai.
- Azlihanis Abdyk Hadi, Nyi Nyi Niang, Aziah Daud, Rusli Nordin, and Mohd Rahim Sulong (2009). Prevalence and Factors Associated with Stress Among Secondary School Teachers in Kota Bharu, Kelantan, Malaysia. *Southeast Asian Trop Med Public Health*, 40(6), 1359-70.
- Baharin Bin Abu and Mariam Binti Aziz (2010). Stress Dalam Kalangan Guru di Dua Buah Sekolah Menengah Kebangsaan di kawasan Skudai. Fakulti Pendidikan, Universiti Teknologi Malaysia, Skudai.
- Baker, F. B. (2001). *The Basics of Item Response Theory* (2nd ed.). College Park, MD: ERIC Clearinghouse on Assessment and Evaluation.
- Baron, R. M., and Kenny, D. A. (1986). The Moderator-Mediator Variable Distinction in Social Psychological Research: Conceptual, Strategic and Statistical Considerations. *Journal of Personality and Social Psychology*, 51, 1173-1182.
- Bauer, J., Stamm, A., Virnich, K., Kriston, L., Muller, U., Weng, G., Strumlinger, R., Wirsching, M., and Schaarschmidt, U. (2005). Correlation Between Burnout Syndrome and Psychological and Psychosomatic Symptoms Among Teachers. *International Archives of Occupational Health*, 79, 199-204.
- Bauer, J., Unterbrink, T., Hack, A., Pfeifer, R., Griebaber, V. R., Helmut, W., Frommhold, M., Seibt, R., Scheuch, K., Muller, U., and Wirschong, M. (2007). Working Conditions, Adverse Events and Mental Health Problems

- and a Sample of 949 German Teachers. *International Archives of Occupational Health*, 80, 442-449.
- Beck, A. T., Rush, A. J., Shaw, B. F., and Emery, G. (1979). *Cognitive Therapy of Depression*. New York: Guilford.
- Bennett, J. A. (2000). Focus on Research Methods: Mediator and Moderator Variables in Nursing Research, Conceptual and Statistical Differences. *Research in Nursing & Health*, 23, 415-420.
- Bernard, M. E. (1990). *Taking The Stress Out of Teaching*. Melbourne, Vic: Collins-Dove.
- Bernard, M.E., and Joyce, M.R. (1984). *Rational-Emotive Therapy with Children and Adolescents: Theory, Treatment Strategies, Preventative Methods.* New York: John Wiley & Sons.
- Bond, T. G. and Fox, C. M. (2008). *Applying the Rasch Model Fundamental Measurement in the Human Sciences*. (2nd Ed.). New Jersey: Lawrence Erlbaum Associates.
- Bora, C., Bernard, M. E., Trip, S., Decsei-Radu, A., and Chereji, S. (2009). Teacher Irrational Belief Scale-Preliminary Norms for Romanian Population. *Journal of Cognitive and Behavioral Psychotherapies*, 9(2), 211-220.
- Breakwell, G. M., Hammond, S., Fife-Schaw, C., and Smith, J. A. (2006). *Research Methods in Psychology* (3rd Ed.). London: Sage Publication Ltd.
- Bynoe, G. (1994). Stress in Woman Doctors. *British Journal of Hospital Medicine*, 51(6), 267-26.
- Byrne, B. M. (1999). The Homological Network of Teacher Burnout: A Literature Review and Empirically Validated Model. In R. Vandenberghe and A. M. Huberman. (Eds.), *Understanding and Preventing Teacher Burnout* (pp. 15-37). Oxford, England: Cambridge University Press.
- Cahir, N., and Morris, R. D. (1991). The Psychology Student Stress Questionnaire. *Journal of Clinical Psychology*, 47(3), 414-417.
- Coakes, S. J., Steed, L., and Czidic, P. (2006). SPSS Version 13.0 for Windows: Analysisi Without Anguish. Australia: John Wiley and Sons Australia Ltd.
- Cooper, L. and Bright, J. (2001). Individual Differences in Reactions to Stress. In F. Jones and J. Bright (Eds.). *Stress: Myth Theory and Research* (pp. 111-131). New York, NY: Pearson Education Limited.

- David, D., Schnur, J., and Belloiu, A. (2002). Another Search for The "Hot" Cognitions: Appraisal, Irrational Beliefs, Attributions, and Their Relation to Emotion. *Journal of Rational-Emotive and Cognitive-Behavior Therapy*, 29, 93–131.
- David, D., Szentagotai, A., Eva, K., and Macavie, B. (2005). A Synopsis of Rational-Emotive Behavior Therapy (REBT): Fundamental and Applied Research. *Journal of Rational-Emotive & Cognitive-Behavior Therapy*, 23(3), 175-221.
- David, J. L. (1984). A Model of Teacher Stress and its Implications for Management. The Journal of Educational Administration, 2(2), 157-172.
- Demaria, T. P., Kassinove, H., and Dill, C. A. (1989). Psychometric Properties of The Survey of Personal Beliefs: A Rational-Emotive Measure of Irrational Thinking. *Journal of Personality Assessment*, 53, 329-341.
- Derogatis, L. R. (1977). SCL-90-R, Administration, Scoring and Procedures Manual I for the Vevised Version of the SCL-90. Baltimore: Johns Hopkins University Press.
- Dewe, P. (1997). The Transactional Model of Stress: Some Implications for Stress Management Programs. *Asia Pacific Journal of Human Resources*, 35, 41-51.
- DiGiuseppe, R. (1996). The Nature of Irrational and Rational Beliefs: Progress in Rational-Emotive Behavior Theory. *Journal of Rational-Emotive and Cognitive-Behavior Therapy*, 14 (1), 5-28.
- DiGiuseppe, R. (2007). Rational-Emotive Behavioral Approaches. In H.T. Prout & D.T. Brown (Eds.), *Counseling and Psychotherapy with Children and Adolescents: Theory and Practice for School and Clinical Settings* (pp. 279-308). New York: John Wiley & Sons, Inc.
- DiLorenzo, T. A., Bovbjerg, D. H., Montgomery, G. H., Valdimarsdottir, H., and Jacobsen, P. B. (1999). The Application of a Shortened Version of the Profile of Mood States in a Sample of Breast Cancer Chemotherapy Patients. *British Journal of Health Psychology*, 4, 315–325.
- DiLorenzo, T.A., David, D., and Montgomery, G.H. (2007). The Interrelations Between Irrational Cognitive Processes and Distress in Stressful Academic Settings. *Personality and Individual Differences*, 42, 765-776.
- Dryden, W. (1999). *Rational Emotive Behaviour Therapy in a Nutshell*. United Kingdom: Winslow Press Limited.

- Dryden, W. (2012). The "ABC" of REBT III: A Study of Errors and Confusions May by Ellis and Joffe Ellis (2011). *Journal of Rational-Emotive Cognitive-Behavior Therapy*, 30, 188-201.
- Dryden, W. (2012). The "ABCs" of REBT I: A Preliminary Study of Errors and Confusions in Counseling and Psychotherapy Textbooks. *Journal of Rational-Emotive & Cognitive-Behavior Therapy*, 30, 133-172.
- Dryden, W., and Digiuseppe, R. (1990). *A Primer on Rational-Emotive Therapy Champaign*. IL: Research Press
- Dryden, W., and Neenan, M. (2004). *The Rational-Emotive Behavioral Approach to Therapeutic Change*. London: SAGE.
- Edward, C. C. (1997). Irrational Beliefs and Negative Life Stress: Testing a Diathesis-Stress Model of Depressive Symptoms. *Person Individual Difference*, 22(1), 115-117.
- Ellis, A. (1958). Rational Psychotherapy. *Journal of General Psychology*, 59, 35-49.
- Ellis, A. (1962). Reason and Emotion in Psychotherapy. New York: Stuart.
- Ellis, A. (1977). The Basic Clinical Theory of Rational-Emotional Therapy. Handbook of Rational-Emotional Therapy, 1, 3-34.
- Ellis, A. (1978). What People Can Do for Themselves to Cope with Stress. In C. Cooper & R. Payne (Eds.). *Stress at Work* (pp. 209-222). New York: Wiley.
- Ellis, A. (1984). Rational-Emotive Therapy. In R. J. Corsini, *Current Psychotherapies* (3rd ed.) (pp. 196-238). Itasca, IL: F.E. Peacock Publishers.
- Ellis, A. (1985). Overcoming Resistance: Rational-Emotive Therapy with Difficult Clients. New York: Springer Publishing Company.
- Ellis, A. (1991). *Reason and Emotion in Psychotherapy*. (Revised and updated). New York: Carol Publishing Group.
- Ellis, A. (1993). Changing Rational-Emotive Therapy (RET) to Rational-Emotive Behaviour Therapy (REBT). *The Behaviour Therapist*, 16(10), 257-258.
- Ellis, A. (2002). Overcoming Resistance: A Rational Emotive Behavior Therapy Integrative Approach (2nd ed.). New York: Springer Publishing Company.
- Ellis, A., and Bernard, M.E. (1983). *Rational-Emotive Approaches to the Problems of Childhood*. New York: Plenum Press.
- Ellis, A., and Bernard, M.E. (2006). *Rational Emotive Behavioral Approaches to Childhood Disorders: Theory, Practice and Research.* New York: Springer Publishing Company.

- Ellis, A., and Dryden, W. (1997). *The Practice of Rational Emotive Behaviour Therapy*. New York: Springer Publishing Company.
- Ellis, A., and Wildle, E.J. (2002). *Case studies in rational emotive behavior therapy with children and adolescents*. New Jersey: Upper Saddle River.
- Folkman, S., and Lazarus, R. S. (1991). Coping and Emotion. In A Monat & R.S. Lazarus (Eds.), *Stress and Coping: An Anthology* (pp. 207-227). New York: Columbia University Press.
- Forman, S. (1994). Teacher Stress Management: A Rational-Emotional Therapy Approach. In M. E. Bernard & R. Di Giuseppe (Eds.). *Rational-emotional Consultation in Applied Settings*. New Jersey: Lawrence Erlbaum Associates.
- Gale, H. R., and Thomas, M. H. (1982). *A Technology for Test-Item Writing*. New York: Harcourt Brace Jovonavich Publishers.
- Gazibara, T. & Ross, S. R. (2007). *The Road to Tolerance: The Philosophy of Rational Emotive Behavior Therapy*. New York: Prometheus Books.
- George, D., and Mallery, P. (2003). SPSS for Windows Step by Step: A Simple Guide and Reference 11.0 Update (4th ed.). Boston: Pearson Education.
- Grieger, R., and Woods, P. (1993). *The Rational Emotive Therapy Companion*. Roanake, VA: The Scholars Press.
- Gutpa, N. (1981). Some Sources and Remedies of Work Stress Among Teachers. (ERIC Document Reproduction Service No. Ed21496). National Institute of Education.
- Hair, J. F., Barry, B., Arthur, H. M., and Philip, S. (2003). *Essential of Business Research Method*. Denver: Wiley.
- Hanizah MY. (2003). The Effect of Information Technology Usage on the Prevalence of Stress Among School Teachers in Selangor and Factors Affecting the Stress. Kuala Lumpur: Universiti Kebangsaan Malaysia.
- Health and Safety Executive (2000). *Stress At Work: Who is Affected Most?* Press Release E 246:00.
- Hinkle, D. E., Wiersma, W., and Jurs, S. G. (2003). *Applied Statistics for the Behavioral Sciences* (5th ed.). Boston, MA: Houghton Mifflin.
- Hollon, S., and Kendall, P. (2007). *Chestionarul Gandurilor Automate*. In David, D. (Ed.). (2007). Sistem De Evaluare Clinică. Editura RTS: Cluj Napoca.

- Ivancevich, J. M. and Matteson, M. T. (1980). *Stress and Work*. Glenview, IL: Scott, Foresman.
- Iwanicki, E. F. (1983). Toward Understanding and Alleviating Teacher Burnout. *Theory into Practice*, 22, 27-32.
- Jacofsky, M.D. (2005). Mediating and Moderating Effects of Irrationality on Stress in School Psychology Students. Unpublished Doctoral Dissertation. St. John's University.
- Jayakaran, M., and Koroush, K. (2010). Burnout among English Language Teachers in Malaysia. *Contemporary Issues in Education Research*, 3(1), 71-76.
- Judd, C. M., and Kenny, D. A. (1981). Process Analysis: Estimating Mediation in Evaluation Research. *Evaluation Research*, 5, 605-619.
- Kataoka, S. H., Zhang, L., and Wells, K. B. (2002). Unmet Need for Mental HealthCare among U.S. Children: Variation by Ethnicity and Insurance Status.American Journal of Psychiatry, 159, 1548-1555
- Koffler, A.M. (2005). Perception of Beliefs in Rational Emotive Therapy among College Students: A multidimensional Scaling Analysis. Unpublished Doctoral Dissertation Hofstra University.
- Kokkinos, C. M. (2007). *Job Stressors, Personality and Burnout in Primary School Teachers. British Journal of Education Psychology*, 77, 229-243.
- Krejcie, R. V., and Morgan, D. W. (1970). Determining Sample Size for Research Activities. *Educational and Psychological Measurement*. *30*, 607-610.
- Kristensen, T. S., Borritz, M., Villadsen, E., and Christensen, K. B. (2005). The Copenhagen Burnout Inventory: A New Tool for the Assessment of Burnout. *Work and Stress*, 19(3), 195-205.
- Kyriacou, C. (2001). Teacher Stress: Direction for Future Research. *Educational Review*, 53(1), 27-35.
- Kyriacou, C., and Sutcliffe, J. (1978). The Nature and Prevalence of Teacher Stress.In Jennifer, L. M., Ralph, O. M., and Dean, L. M. (1991). The Effect of Teaching Experience and Grade Level Taught on Teacher Stress: A Lisrel Analysis. *Teaching and Teacher Education*. 7, 57-62.
- Laporan Analisis Kesahan Kandungan Soal Selidik Kepercayaan Guru dan Soal Selidik Peristiwa dan Tekanan Guru (2011)
- Laura, B. T., and Mar á, P. U. (2006). Teachers' Irrational Beliefs and Their Relationship to Distress in the Profession. *Psychology in Spain*, 10(1), 88-96.

- Lazarus, R. S. (1990). Stress, Coping and Illness. In H. A. Friedman (Ed.), *Personality and Disease*. New York: Wiley
- Lazarus, R. S., and Folkman, S. (1991). The Concept of Coping. New York: Columbia University Press.
- Lazarus, S. and Folkman, R. S. (1988). The Relationship Between Coping and Emotion: Implications for Theory and Research. *Social Science Medical*, 26(3), 309-317.
- Leary, M. R. (2004). *Introduction to Behavioral Research Methods*. (4th ed.) MA, USA: Pearson Education, Inc.
- Linder, H., Kirkby, R., Wertheim, E., and Birch, P. (1999). A Brief Assessment of Irrational Thinking: The Shortened General Attitude and Belief Scale. Cognitive Therapy and Research, 23, 651-663.
- Long, N. J. (2010). Why Competent Persons Have Meltdowns Working with Troubled Students. *Reclaiming Children and Youth*, 18(4), 40-43. http://reclaimingjournal.com
- Lucica, E. C. (2012). Cognitive and Emotional Distress Evaluation for Undergraduate Teachers. *Social and Behavioural Sciences*, 33, 203-207.
- Macavei, B. (2002). Scale de Atitudini si Convingeri (ABS II) Date Preliminare Pentru Populatia de Limba Român å *Romanian Journal of Cognitive and Behavioral Psychotherapies*, 2, 105-122.
- Mastura, M., Sidek, M. N., Jamaludin, A., and Wan Marzuki, W. J. (2012). The Relationship between Irrational Beliefs System and Stress among Fully Residential School Students in Johor. *Journal Technology*, 59, 115-123.
- Meehan, K. E. (2011). Examining the Relationship between Irrational Beliefs, Rational Emotive Coping Strategies, and Teachers Burnout. New York: ProQuest.
- Ministry of Education Malaysia. (2013). *Malaysia Education Statistics*. Putrajaya: Ministry of Education Malaysia
- Monnete, D. R., Sullivan, T. J., and DeJong, C. R. (2010). Applied Social Research:

 A Tool For The Human Services (8th ed.). USA: Brooks/Cole, Cengage Learning.
- Moreno-Jim énez, B., Garrosa, E. and Gonz ález, J. L. (2000). La evaluación del estr és y el burnout del profesorado: el CBP-R. Revista de Psicolog á del Trabajo U de las Organizaciones, 16 (2), 151-171.

- National Union of Teachers. [Online] Available: http://www.teachers.org.uk (December 10, 2009).
- Nucci, C. (2002). The Rational Teacher: Rational Emotive Behavior Therapy in Teacher Education. *Journal of Rational-Emotive & Cognitive Behavior Therapy*, 20(1), 15-32.
- Nurul Iza, M. S. (2013). Kepercayaan Tidak Rasional Sebagai Perantara antara Perisitwa Tekanan dan Tahap Tekanan dalam Kalangan Guru Sekolah Berasrama Penuh di Johor, Malaysia. Ijazah Sarjana Pendidikan, Universiti Teknologi Malaysia, Skudai.
- Nurul Izzah Abdul Samad, Zailina Hashim, Saidi Moin, and Haslinda Abdullah. (2010). Assessment of Stress and Its Risk Factors among Primary School Teachers in the Klang Valley, Malaysia. *Canadian Center of Science and Education*, 2(2), 163-171.
- Ohue, T., Moriyama, M., and Nakaya, T. (2011). Examination of A Cognitive Model of Stress, Burnout, and Intention to Resign for Japanese Nurses. *Japan Journal of Nursing Science*, 8, 76-86.
- Opris, D., and Macavei, B. (2007). The Profile of Emotional Distress: Norms for the Romanian Population. *Journal of Cognitive and Behavioural Psychotherapies*, 7(2), 139-158.
- Pallant, J. (2005). SPSS Survival Manual (2nd ed.). New York: Open University Press.
- Polit, D. F., Beck, C. T., and Hungler, B. P. (2001). *Essentials of Nursing Research:*Method, Appraisal and Utilization (5th ed.). Philadelphia: Lippincoot Williams & Wilkins.
- Popov, B., and Popov, S. (2013). Adverse Working Conditions, Job Insecurity and Occupational Stress: The Role of (Ir)rational Beliefs. Journal of Rational-Emotive Cognitive-Behavior Therapy, 31, 27-38.
- Rasch, G. (1980). *Probabilistic Models for Some Intelligence and Attainment Tests*. Chicago: The University of Chicago Press.
- Richard, S. D., and Christine, A. S. (1989). Teacher Stress and Health: Examination of A Model. *Journal of Psychosomatic Research*, 33, 99-109.
- Riffe, D., Lacy, S., and Fico, F. (2005). Analyzing Media Messages: Using Quantitative Content Analysis in Research (2nd ed.). New Jersey: Lawrence Erlbaum Associates, Inc.

- Rosenberg, T., and Pace, M. (2006). Burnout among Mental Health Professionals: Special Considerations for the Marriage and Family Therapist. *Journal of Marital and Family Therapy*, 32(1), 87-99.
- Sabitha Marican (2005). *Kaedah Penyelidikan Sains Sosial*. Pearson Prentice Hall, Malaysia Sdn. Bhd.
- Salkind, N. J. (2009). *Exploring Research* (7th ed.). New Jersey: Person Education, Inc.
- Sarason, I. G., Johnson, J. H., and Siegel, J. M. (1978). Assessing the Impact of Life Changes: Development of the Life Experience Survey. *Journal of Consulting and Clinical Psychology*, 46, 932-946.
- Sebastian, V., and Mirela, C. O. (2013). From Plato to Ellis. A Short Investigation of the Concept of Emotions. *Social and Behavioral Sciences*, 78, 571-575.
- Selye, H. (1974). Stress without Distress. New York: J. B. Lippincott.
- Shernoff, E. S., Mehta, T. G., Atkins, M. S., Torf. R., and Spencer, J. (2011). A Qualitative Study of the Sources and Impact of Stress among Urban Teachers. *School Mental Health*, 3, 59-69.
- Shirley, L. K., and Kathy, M. H. (2002). Stress Hormones: How Do They Measure Up? *Biological Research for Nursing*, 4(2), 92-103.
- Sidek Mohd Noah (2005). "Perkembangan Kerjaya: Teori dan Praktis". Serdang: Penerbit Universiti Putra Malaysia.
- Smith, T. (1984). Endorsement of Irrational Beliefs as a Moderator of the Effects of Stressful life Events. *Cognitive Therapy and Research*, 8(4), 363-370
- Sobel, M. E. (1982). Asymptotic Confidence Intervals for Indirect Effects in Structural Equation Models. In S. Leinhardt (Ed.), Sociological Methodology 1982 (pp. 290-312). Washington, DC: American Sociological Association.
- Sveinsdottir, H., Gunarsdottir, H., and Fridriksdottir, H. (2007). Self-Assessed Occupational Health and Working Environmental of Female Nurses, Cabin Crew and Teachers. *Scandivian Journal of Caring Science*, 27, 262-273.
- Swortzel, K. (1999). Vocational Teacher Stress and Internal Characteristics. *Journal of Vocational and Technical Education*, 16(1), 1-15.
- Tee, S. K. (2006). Stres Kerja di Kalangan Guru Aliran Teknik di Sekolah Menengah Teknik di Negeri Johor, Melaka dan Negeri Sembilan. Ijazah Sarjana Muda Teknologi Serta Pendidikan, Universiti Teknologi Malaysia, Skudai.

- Thorpe, G. L., McMillan, E., Sigmon, S. T., Owings, L. R., Dawson, R., and Bouan,
 P. (2007). Latemt Trait Modelong with The Common Beliefs Survey III:
 Using Item Resopones Theory to Evaluate an Irrational Beliefs Inventory.
 Journal of Rational-Emotive & Cognitive-Behavior Therapy, 25(3), 175-189.
- Thorpe, G. L., Parker, J. D., and Barnes, G. S. (1992). The Common Beliefs Survey III and its Subscales: Discriminant Validity in Clinical and Nonclinical Subjects. *Journal of Rational-Emotive & Cognitive Behavior Therapy*, 10, 95-104.
- Walen, S. R., DiGiuseppe, R., and Dryden, W. (1992). *A Practitioner's Guide to Rational Emotive Therapy* (2nd Ed.). New York: Oxford University Press.
- Walen, S. R., DiGiuseppe, R., and Wessler, R. (1980). *A Practitioner's Guide to Rational Emotive Therapy*. New York: Oxford University Press.
- Webber, A., and Coleman, M. (1988). Using Rational-Emotive Therapy to Prevent Classroom Problems. *Exceptional Children*, 21(1), 32-35.
- Webber, A., Weltle, D., and Lederel, P. (2006). Ill Health and Early Retirement among School Principals in Bavaria. *International Archives of Occupational Health*, 78, 325-331.
- Wiersma, W. (2000). *Research in education: An introduction*. Boston: Allyn and Bacon.
- Young, J. E., Klosko, J. S., and Weishaar, M. E. (2003). *Schema Therapy: A Practitioner's Guide*. New York: Guilford Press.