

**WORK STRESS LEVEL AMONGST SECONDARY SCHOOL TEACHERS  
IN THE STATE OF MALACCA: IMPLICATIONS TO  
HUMAN RESOURCE DEVELOPMENT**

**A thesis submitted to the Graduate School in  
partial fulfillment of the requirements for the degree  
Master of Business Administration (MBA)  
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**by  
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## **ABSTRAK (BAHASA MALAYSIA)**

Tujuan utama kajian ini adalah untuk mengkaji aras tekanan kerja keseluruhan dan sub-dimensinya: Salah Laku Pelajar, Beban Kerja, Kekangan Masa dan Sumber, Penghargaan Profesyen, dan Perhubungan antara Personal dikalangan 1209 guru-guru sekolah menengah di Negeri Melaka yang dipilih secara rawak.

Kajian menunjukkan wujud perbezaan dan perhubungan yang signifikan diantara aras tekanan kerja dan pemboleh-pemboleh ubah bebas seperti umur, jantina, status perkahwinan, pengalaman mengajar, subjek yang diajar, pendapatan bulanan, kelulusan akademik dan gred sekolah. Bagi mengukur aras tekanan kerja, borang soal selidik yang dihasilkan oleh Mokhtar (1998) (Cronbach Alpha=0.9568) telah digunakan dalam kajian. Alat statistik yang digunakan ialah pengiraan frekuensi, peratus, purata, Ujian-t, ANOVA sehalu, Pearson's r, dan Ujian Khi-kuasa dua. Analisis ditetapkan pada aras kebolehpercayaan 0.05 dengan menggunakan Program SPSS (Versi 11.0).

Aras tekanan kerja keseluruhan bagi responden ialah sederhana. Bagi sub-dimensi aras tekanan kerja seperti **Beban Tugas**, **Kekangan Masa** dan **Sumber**, **Penghargaan Profesyen**, dan **Perhubungan antara Personal** mencatat aras tekanan sederhana. Walaubagaimanapun sub-dimensi **Salah Laku Pelajar** mencatat aras tekanan yang tinggi.

Terdapat perbezaan yang signifikan diantara aras tekanan kerja (keseluruhan) dan (a) umur, (b) pengalaman mengajar, (c) subjek pengajaran, (d) pendapatan bulanan, dan (e) kelulusan akademik; diantara aras tekanan kerja (Salah Laku Pelajar) dan (a) umur, (b) pengalaman mengajar, (c) subjek pengajaran, (d) pendapatan bulanan, dan (e) kelulusan akademik; diantara aras tekanan kerja (Beban Kerja) dan (a) umur, dan (b) subjek pengajaran; diantara aras tekanan kerja (Kekangan Masa dan Sumber) dan (a) umur, (b) pengalaman mengajar, (c) subjek pengajaran, dan (d) kelulusan akademik; diantara aras tekanan kerja (Penghargaan Profesyen) dan (a) umur, (b) subjek pengajaran, dan (c) pendapatan bulanan; dan diantara aras tekanan kerja (Perhubungan Interpersonal) dan (a) umur, (b) taraf perkahwinan, (c) pengalaman mengajar, (d) subjek pengajaran, (e) pendapatan bulanan, dan (e) kelulusan akademik.

Terdapat perhubungan yang signifikan diantara aras tekanan kerja (keseluruhan) dan (a) jantina, (b) taraf perkahwinan, (c) subjek pengajaran, (d) kelulusan akademik, dan (e) gred sekolah; diantara aras tekanan kerja (Salah Laku Pelajar) dan (a) umur, (b) pengalaman mengajar, (c) pendapatan bulanan, (d) jantina, (e) taraf perkahwinan, (f) subjek pengajaran, (g) kelulusan akademik, dan (h) gred sekolah; diantara aras tekanan kerja (Beban Kerja) dan (a) jantina, (b) taraf perkahwinan (c) pendapatan bulanan (d) subjek pengajaran (e) kelulusan akademik, dan (f) gred sekolah; diantara aras tekanan kerja (Kekangan Masa dan Sumber) dan (a) umur, (b) pengalaman mengajar, (c) jantina, (d) taraf perkahwinan, (e) subjek pengajaran, (f) kelulusan akademik, dan (g) gred sekolah; diantara aras tekanan kerja (Penghargaan Profesyen) dan

(a) jantina, (b) taraf perkahwinan, (c) subjek pengajaran, (d) kelulusan akademik, and (e) gred sekolah; dan diantara aras tekanan Ikerja (Hubungan antara Personal) dan (a) jantina, (b) taraf perkahwinan, (c) subjek pengajaran, (d) kelulusan akademik, dan (e) gred sekolah.

## **ABSTRACT (ENGLISH)**

The main purpose of this study was to determine the level of work stress amongst 1209 randomly selected secondary school teachers in the State of Malacca, and across these sub-dimensions: Students' Misbehaviour, Workload, Time and Resource Difficulties, Professional Recognition, and Interpersonal Relationship. The study also investigated differences in work stress levels, and the relationships between levels of work stress and the following independent variables: age, gender, marital status, working experience, subject taught, monthly income, academic qualification, and school grade.

In assessing work stress, a questionnaire (Cronbach Alpha=0.9568) developed by Mokhtar (1998) was adopted in the research. Statistical tools used were frequency counts, percentages, means, t-test, One-Way ANOVA, Pearson's  $r$ , and Chi-square. Analyses were set at 0.05 level of significance using the SPSS for Windows (Version 11 .0) computer software.

The overall work stress level of respondents was "moderate". Across the Sub-Dimensions of work stress, the respondents experienced "moderate" stress level in terms of Workload, Time and Resource Difficulties, professional Recognition, and Interpersonal Relationship. However, the respondents demonstrated "high" level of work stress in terms of Students' Misbehaviour.

There were significant differences between work stress (overall) and (a) age, (b) teaching experience, (c) subject taught, (d) monthly income, and (e) academic qualification.

In terms of the sub-dimensions of work stress, significant differences were also noted between work stress (Students' Misbehaviour) and (a) age, (b) teaching experience, (c) subject taught, (d) monthly income, and (e) academic qualification; between work stress (Workload) and (a) age, and (b) subject taught; between work stress (Time and Resources Difficulties) and (a) age, (b) teaching experience, (c) subject taught, and (d) academic qualification; between work stress (Professional Recognition) and (a) age, (b) subject taught, and (c) monthly income; and between work stress (Interpersonal Relationship) and (a) age, (b) marital status, (c) teaching experience, (d) subject taught, (e) monthly income, and (e) academic qualification.

There were significant relationships between work stress (overall) and (a) gender, (b) marital status, (c) subject taught, (d) academic qualification, and (e) school grade.

Across the sub-dimensions of work stress, there were significant relationships between work stress (Students' Misbehaviour) and (a) age, (b) teaching experience, (c) monthly income, (d) gender, (e) marital status, (f) subject taught, (g) academic qualification, and (h) school grade; between work stress (Workload) and (a) gender, (b) marital status (c) monthly income (d) subject

taught (e) academic qualification, and (f) school grade; between work stress (Time and Resource Difficulties) and (a) age, (b) teaching experience, (c) gender, (d) marital status, (e) subject taught, (f) academic qualification, and (g) school grade; between work stress (Professional Recognition) and (a) gender, (b) marital status, (c) subject taught, (d) academic qualification, and (e) school grade; and, between work stress (Interpersonal Relationship) and (a) gender, (b) marital status, (c) subject taught, (d) academic qualification, and (e) school grade.



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**DEDICATION**

**This piece of work is humbly dedicated to these  
people closest to my heart...**

*My parents...*

**Encik Bahari Bin Haji Abdul Hamid**

**Puan Hafipah Bte Alwi**

*My loving brother and sisters...*

**Encik Nazri Bin Bahari**

**Puan Siti Suhaila Bte Supian**

**Puan Hazlyn Bte Bahari**

**Encik Noordin Bin Abdul Rahman**

**- Fazli Bin Bahari  
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## **CHAPTER I**

### **INTRODUCTION TO THE STUDY**

#### **1.0 Overview**

Chapter I includes six parts: (1) Background and Theoretical Framework of the Study, (2) Research Objectives, (3) Hypotheses of the Study, (4) Significance of the Study, (5) Definition of Terms, and (6) Scope of the Study.

Part One, Background and Theoretical Framework of the Study, discusses the rationale for choosing the research as well as the theoretical framework of the study. Part Two, Research Objectives, presents the aims of the study. Part Three, Hypotheses of the Study, lists down the hypotheses tested in the research. Part Four, Significance of the Study, presents the benefits that can be derived from the findings of the study. Part Five, Definition of Terms, defines the important terms used in the research. Part Six, Scope of the Study, defines the scope and coverage of the study.

## **1.1 Background and Theoretical Framework of the Study**

Teaching is generally reported to be a very stressful occupation (Borg and Riding, 1991). In recent years, in some parts of the world at least, the problem seems to have grown worse (Manthei and Gilmore, 1994). Durkheim (1970) suggested that, stress is as much a social and historical issue as it is a psychological one.

There are tough times to be a teacher. The nature and organisation of the job make teaching inherently difficult. Teachers face new challenges and opportunities from increasingly diverse and needy student populations. Generally, the issue of work-related stresses and stress in teachers' work is viewed by a number of literatures as problematic (Kyriacou and Sutcliffe, 1978).

Teachers begin their work with enthusiasm, dedication and high motivation, with a sense that their work is socially meaningful and will yield great personal satisfaction. However, the inevitable difficulties of teaching interact with personal issues and vulnerabilities, as well as social pressures and values, to engender a sense of frustration and force reassessment of possibilities of the job and the investment one wants to make in it. The tasks of educating children seem overwhelming and one's effort becomes virtually useless (Abdul, 1996).

The primary setting of teachers' work -- the classroom -- has distinctive properties that are potential sources of stress (Doyle, 1986). Classrooms are said

to be crowded places in which many people with different preferences and abilities must use a restricted supply of resources to accomplish a broad range of social, institutional, and personal objectives. They are places where many things happen at once, at a very rapid pace, with unexpected turns, and in view of many people. In addition to these classroom conditions, the goals of teaching are often vague and conflicting (Lieberman and Miller, 1984). The knowledge-based strategies that teachers could use to achieve these goals are uncertain. The effects of teachers work with students are often difficult to detect (Lortei, 1975). Teachers' impact on students may not be readily apparent for a very long time. Furthermore, teachers frequently work in isolation from other teachers, receive little feedback concerning their performance from administrators and colleagues, and experience few meaningful opportunities for ongoing professional learning and development (Smylie, 1989).

In Malaysia, issues about the teachers having stress-related problems have been talked about and discussed recently. It was mentioned that the number of teachers suffering from psychological disturbances has increased. For instance, Hamdiah (1996) quoted the Deputy Education Minister of Malaysia, saying that over the past five or six years, about 1000 teachers were found to be mentally unstable. Many of the affected teachers suffered from manic depression and other forms of illness, which were not violent in nature. Hamdiah also emphasized that, the day-to-day interaction with students and colleagues and the incessant and fragmented demands of teaching often led to overpowering pressure and challenges that result in stress.

Workload was found as one of the factors that can influence teachers' work stress level (Siti, 1991). The media also stated that every secondary school teacher in Malaysia will be having problems with their psychological and mental health because of the workload and the responsibilities become more from day to day (Omar, 1993). Seemingly, the profession itself actually cannot be separated from work stress. This is because teaching is inherently prone to stress. It has been characterized historically by role conflict, ambiguity, and overload (Liebermann and Miller, 1984). Teachers are asked to assume multiple and often contradictory roles, including, among other things, providing academic instruction; maintaining order in the classroom; attending to social and emotional well-being of students, and meeting sometimes conflicting expectations of students, administrators, parents, and the community. Teachers must often reconcile the different demands of school, district, state and national policies. They are often bound by decisions in which they have little or no inputs (Heck and Williams, 1984). According to Maslach (1982), when people are exposed to high levels of stress over prolonged periods of time, they may experience burnout. This syndrome involves physical, mental and attitude exhaustion, plus feelings of low personal accomplishment and will give impact to the teachers' work performance.

McGrath (1983) stated that, workers could look at perceived threat factors to understand why the conditions of work may be stressful. Additionally, in theory, stressful work conditions, real or perceived, may threaten individuals' psychological needs and values. There are many needs and values held by individuals but three general psychological needs particularly influence the stress



at work. One of these needs is to establish and maintain order, rationality, and meaning for what individuals may perceive as vague (Weick, 1979).

Lack of preparedness and capacity (real or perceived) may also reduce both the perceived possibilities for instrumentality and the accomplishment of specific task. Perceived lack of preparedness may suggest to individuals that they lack the knowledge and skills necessary for the organisation. A diminished sense of organisation may reduce effort and therefore accomplishment. Beyond a diminished sense of organisation, actual lack of knowledge and skills may reduce the real and the perceived possibilities of goal accomplishment (Smylie, 1999).

Lack of supervision and support reduces individuals' access to important sources of information and motivation. It reduces the feedback available to individuals for assessing their accomplishments, reduces knowledge available to them for assessing their accomplishments and the relationship of their efforts to those accomplishments and reduces knowledge available about how their work relates to the broader goals of the organisation. Moreover, it also reduces knowledge available to individuals about how specific tasks may be accomplished (Smylie, 1999).

Theoretical role conflict may challenge the values, orientations, and identities that individuals have developed to give orders and meaning to their work, their work environments and their place in those environments. It may threaten accomplishment through overload, creating additional and contradictory

demand on scarce which available to the individual (e.g. knowledge, skill, effort, time). Ambiguity may blur the relationship between individuals' efforts and the outcomes of those efforts. It may also obscure the goals and technologies necessary for accomplishment in work. Loss of autonomy and self-determination may suggest to individuals that the outcomes of work are attributable to external forces such as family or financial problem (Bandura, 1986).

The above situation has also been observed in Malaysia. Tan (1996) in his study about work stress among teachers in SRJKC (Sekolah Rendah Jenis Kebangsaan Cina) identified the factors that caused work stress, namely: teaching too many students in a single classroom, inadequate income, students' bad attitude to their studies, low chances for promotion, dealing with students with different abilities and interests, dealing with students' misbehaviour, replacing other teachers to teach, too many administrative work, uncooperative parents, and shortage of time to rest because of packed teaching schedule.

According to Smylie (1999), the perceptions and consequences of stress depend on an individual's real and perceived capacity to deal with stressful situation, reactively or proactively, which may have as much to do with whether the consequences of stress are positive or negative as the type or intensity of the stress itself.

Generally, the most negative consequences are expected to occur under conditions in which stress exceeds individuals' capabilities to mediate it. In these

circumstances, work-related stress could lead to varying levels of psychological tension and frustration. The literature suggests that in its most excessive forms, stress can lead to “job burnout”, a psychological state of failure and exhaustion (Freudenberger, 1974).

Maslach and Jackson (1984) found the primary manifestations of burnout as emotional exhaustion, depersonalisation of clients, and feeling of reduced personal accomplishment. Others have identified more specific symptoms. Cherniss (1980a), for example, associated job burnout with increased apathy, negativism, cynicism, pessimism, and fatalism about work as well as associated it with decreased motivation, effort and involvement in work and with preoccupation with one’s own comfort and welfare on the job.

Cherniss (1980a) concluded that excessive stress could lead to fear and anxiety, anger, guilt and depression, physiological problems, and impairment of skills, cognitive functioning and social behaviour. These aspects of burnout can readily compromise an individual’s job performance and quality service provided to clients.

Teachers now face new complex challenges arising from changing student populations (Pallas et al., 1995) and heightened expectations for performance and accountability (Firestone et al., 1992). Teachers must navigate the ambiguities of “post modern” shifts in social, political, economic and cultural relations and contend further with concurrent challenges to long standing, taken-for-granted

knowledge, assumptions and values concerning teaching and schools as institutions. When taken together, these general conditions and current challenges present potentially stressful situations for teachers, those that may have deleterious consequences for them and for their work with students (Hargreaves, 1994).

Due to the seriousness and extent of these stress-related problems, a concerted effort should be made to provide help for teachers. Thus, the primary interest of this research was to find out teachers' level of work stress and to determine the factors that can influence stress in their job.

This study was anchored on the work stress theory proposed by Boyle, Borg, Falzon, and Baglioni (1995), who espoused the five factors which may influence teachers' stress level. According to Boyle et al. (1995), the five factors that may influence work stress level are students' misbehaviour, workload, time and resource difficulties, interpersonal relationship, and professional recognition. A number of researchers also revealed that the level of teachers' works stress was constituted differently in some of the teachers' demographics characteristics such as age, gender, marital status, subject taught and monthly income (Borg and Falzon, 1989). Dobson (1982) reported that female teachers found several items regarding students' misbehaviour as greater sources of stress than their male colleagues. Additionally, the author also found that in terms of teaching experience, younger and less experienced teachers were more stressed than their

colleagues on a number of items: students' misbehaviour, workload and professional recognition.

Based on the model developed by Boyle et al. (1995), the researcher has been motivated to assess the level of work stress among the teachers. The researcher also wanted to identify whether there are significant differences in work stress based on demographic factors like age, gender, marital status, teaching experience, subject taught, monthly income, academic qualification, and school grade.

According to past studies by Boyle et al. (1995), Hart et al. (1995), Laughlin (1984), and Trendall (1989), the researchers designed a framework using dependent variable (the level of work stress) and independent variables (characteristics of teachers' demography and factors that caused work stress among teachers). These studies concentrate on how deep the factors of work stress as suggested by Boyle et al. (1995) become the causal factors of work stress among teachers in Malaysia.

This present study focused on work stress and its dependent variable as postulated by Boyle et al. (1995) namely, Students' Misbehaviour, Workload, Time and Resources Difficulties, Professional Recognition, and Interpersonal Relationship. The independent variables of this study were age, gender, marital status, teaching experience, subject taught, monthly income, academic

qualification and school grade. Figure 1.1 illustrates the relationships of the variables in the study.

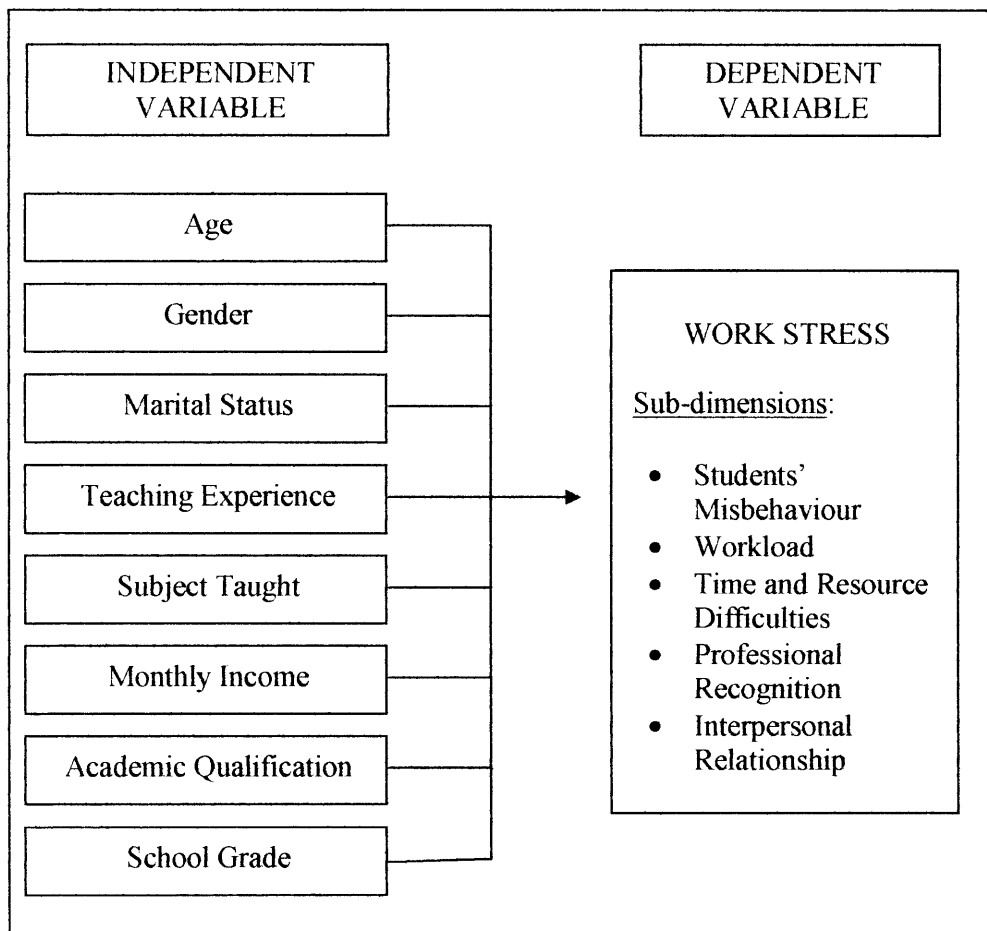


Figure 1.1: Research Framework

## 1.2 Research Objectives

This study aimed to determine the level of work stress of secondary schools teachers in the State of Malacca and the factors related to it, and to investigate the relationship between level of work stress and demographic factors

such as age, gender, marital status, teaching experience, subject taught, monthly income, academic qualification and school grade. Specifically, this study attempted to:

1. Determine the overall level of work stress among secondary school teachers in the State of Malacca and across these sub-dimensions:
  - a. Students' Misbehaviour
  - b. Workload
  - c. Time and Resource Difficulties
  - d. Professional Recognition
  - e. Interpersonal Relationship
  
2. Ascertain the differences in the overall work stress level among secondary school teachers and the sub-dimensions Students' Misbehaviour, Workload, Time and Resources Difficulties, Professional Recognition, and Interpersonal Relationship, when the teachers were grouped by:
  - a. Age
  - b. Gender
  - c. Marital status
  - d. Teaching experience
  - e. Subject taught
  - f. Monthly income
  - g. Academic qualification

h. School grade

3. Find out the relationships between overall work stress level and the sub-dimensions Students' Misbehaviour, Workload, Time and Resources Difficulties, Professional Recognition, and Interpersonal Relationship with:

- a. Age
- b. Gender
- c. Marital status
- d. Teaching experience
- e. Subject taught
- f. Monthly income
- g. Academic qualification
- h. School grade

### **1.3 Hypotheses of the Study**

Based on the objectives of the study, the following hypotheses were formulated:

1.  $H_{01}$ : There are no significant differences in the overall work stress level of the respondents when grouped by:
  - a. Age
  - b. Gender
  - c. Marital status



- d. Teaching experience
- e. Subject taught
- f. Monthly income
- g. Academic qualification
- h. School grade

2.  $H_{02}$ : There are no significant differences in the work stress level of the respondents in terms of the sub-dimension Students' Misbehaviour when grouped by:

- a. Age
- b. Gender
- c. Marital status
- d. Teaching experience
- e. Subject taught
- f. Monthly income
- g. Academic qualification
- h. School grade

3.  $H_{03}$ : There are no significant differences in the work stress level of the respondents in terms of the sub-dimension Workload when grouped by:

- a. Age
- b. Gender
- c. Marital status

- d. Teaching experience
- e. Subject taught
- f. Monthly income
- g. Academic qualification
- h. School grade

4.  $H_{04}$ : There are no significant differences in the work stress level of the respondents in terms of the sub-dimension Time and Resources Difficulties when grouped by:

- a. Age
- b. Gender
- c. Marital status
- d. Teaching experience
- e. Subject taught
- f. Monthly income
- g. Academic qualification
- h. School grade

5.  $H_{05}$ : There are no significant differences in the work stress level of the respondents in terms of the sub-dimension Professional Recognition when grouped by:

- a. Age
- b. Gender
- c. Marital status

- d. Teaching experience
- e. Subject taught
- f. Monthly income
- g. Academic qualification
- h. School grade

6.  $H_{06}$ : There are no significant differences in the work stress level of the respondents in terms of the sub-dimension Interpersonal Relationship when grouped by:

- a. Age
- b. Gender
- c. Marital status
- d. Teaching experience
- e. Subject taught
- f. Monthly income
- g. Academic qualification
- h. School grade

7.  $H_{07}$ : There are no significant relationships between overall work stress level and:

- a. Age
- b. Gender
- c. Marital status
- d. Teaching experience

- e. Subject taught
- f. Monthly income
- g. Academic qualification
- h. School grade

8.  $H_{08}$ : There are no significant relationships between level of work stress in terms of sub-dimension Students' Misbehaviour and:

- a. Age
- b. Gender
- c. Marital status
- d. Teaching experience
- e. Subject taught
- f. Monthly income
- g. Academic qualification
- h. School grade

9.  $H_{09}$ : There are no significant relationships between level of work stress in terms of sub-dimension Workload and:

- a. Age
- b. Gender
- c. Marital status
- d. Teaching experience
- e. Subject taught
- f. Monthly income

- g. Academic qualification
- h. School grade

10.  $H_{010}$ : There are no significant relationships between level of work stress in terms of sub-dimension Time and Resource

Difficulties and :

- a. Age
- b. Gender
- c. Marital status
- d. Teaching experience
- e. Subject taught
- f. Monthly income
- g. Academic qualification
- h. School grade

11.  $H_{011}$ : There are no significant relationships between level of work stress in terms of sub-dimension Professional Recognition and:

- a. Age
- b. Gender
- c. Marital status
- d. Teaching experience
- e. Subject taught
- f. Monthly income
- g. Academic qualification

h. School grade

12.  $H_{012}$ : There are no significant relationships between level of work stress in terms of sub-dimension Interpersonal Relationship and:

- a. Age
- b. Gender
- c. Marital status
- d. Teaching experience
- e. Subject taught
- f. Monthly income
- g. Academic qualification
- h. School grade

#### **1.4 Significance of the Study**

The importance of this study could be expressed in the following context, especially for administrators and policy makers, for secondary school teachers, for students, and for researchers.

For administrators and policy makers. The findings of this study would benefit the Ministry of Education, policy makers, the State Education Department, and school administrators on the whole, because the data generated would enable them to understand the phenomenon of work stress among secondary school teachers. From the data generated, the Ministry of Education, policy makers, the

State Education Department and school administrators can plan, lead, organize, control, and coordinate programs towards the advancement of education and generate information and decision-making especially those that relate to teacher welfare programs.

The study could also highlight the significant consequences of stress among secondary school teachers and the possible implications on the teachers' performance and education system. The stakeholders of the Ministry of Education, and the State Education Department could initiate policies and develop stress management programmes to reduce teachers' stress with the hope that it could lead to increased teaching quality and effectiveness as well as to improve students' performance. From the study, school administrators could also identify strategic measures (e.g. programmes) that could remedy teachers' work stress.

For secondary school teachers. In Malaysia, issues about the teachers especially secondary school teachers having stress-related problems have been talked about and discussed recently. It was mentioned that the number of teachers suffering from psychological disturbances has increased because of work stress. Through the findings of this research, it is hoped that the research would be useful to the teachers themselves. By knowing their level of work stress, they will be more aware of any problems that can influence their stress level and make them more tolerant to stress, which might help them prevent burnout. They will also be more aware and ready to cope with any factors that can worsen their work stress level. The findings will hopefully inject insights as to how this perceived level of

work stress might relate to job performance and their personal life. The study would hopefully generate knowledge about the level of work stress among secondary school teachers in the State of Malacca.

For students. When the teachers know their work stress level, they will try to cope with conditions that cause stress and will try to improve job efficiency. Hopefully, the students would enjoy more the class and with the motivating teachers, they can also improve their performance in their exams. The teachers may inspire students to concentrate well on their class and schoolwork, and eventually develop a positive mental health and attitude towards studies.

For researchers. The findings of this study hope to give insights to researchers about stress levels among the secondary school teachers in the State of Malacca. The findings will also provide them knowledge about work stress as applied to teaching. More importantly, the results of the study will benefit the scholars and researchers by providing them more perspectives and ideas regarding the nature of the variables focused in this study. It is also hoped that the findings would build theories based on the research outcome and generate new framework and hypotheses on teachers' work stress in the context of Malaysia.

### **1.5 Definition of Terms**

For clarity and understanding of the important terms in the study, the following conceptual and operational definitions were provided:



1. Work Stress: the effect of tensions on an employee by job pressure to fulfil job assignments and to respond to deadlines (Micheal et al., 1997).

In this study, work stress level among secondary teachers in the State of Malacca was assessed through a 34-item stress questionnaire adopted from Mokhtar (1998), measuring five dimensions of stress in terms of Students' Misbehaviour, Workload, Time and Resource Difficulties, Professional Recognition, and Interpersonal Relationship.

2. Teacher: is a person whose job is to teach especially in school such as primary school or secondary school (Advance English Dictionary, 2000).

Teachers involved in this study are those who teach in secondary schools in the State of Malacca. Those involved in administrative jobs such as headmasters, and vice headmasters were excluded from this study.

3. State of Malacca: is a state located in the hub of Peninsular Malaysia consisting of three (3) major districts, namely, Alor Gajah, Jasin, and Melaka Tengah. It has a total of 64 secondary schools with 4156 teachers (3690 teachers, 196 administration teachers) (Statistics Report State of Malacca Education Department, 2002).

The above definition was adopted in this study.

4. Students' Misbehaviour: any circumstances where pupils behave badly, having bad manners or refuse to co-operate with the teacher such as making noise during class or when dealing with the students having disciplinary problems (Advance English Dictionary, 2000).

For this study, "Students' Misbehaviour" is the first factor which may influence teachers' work stress as defined by Boyle et al. (1995). This factor was tested by using 8 items relevant to the bad behaviours of students at school such as making noise during class.

5. Workload: the perception that one must to do more of difficult task than time permits which can be categorized as quantitative workload (the amount and pace of work to be done) and qualitative workload (characteristics and difficulties of the work to be done) (Smylie, 1989).

In this study, Workload is the second variable, tested by using 7 items about quantity of task at school as defined by Boyle et al. (1995).

6. Time and Resource Difficulties: a constraint in time to finish the task and constraint in educational facilities such a book, computer or

resource room used by teachers or students to provide information (Dictionary of Contemporary English, 1995).

This is one of the variables in this study tested by using 7 items dealing with constraints of time faced by the secondary school teachers to finish certain jobs or tasks. It is also about the constraints of teaching facilities such as lack of OHP (overhead projector), learning sources, computer and unpleasant circumstances classroom as defined by Boyle et al. (1995).

7. Professional Recognition: professional needs such as adequate pay or income, needs for professional status, needs for involvement in decision making and need for support from administration or top management (Barbara and Lisa, 2000).

In this study, professional recognition was tested by using 3 items which have to do with aspects of the teacher's professional development and recognition (poor career structure and lack of recognition for good teaching) defined as such by Boyle et al. (1995) in their research.

8. Interpersonal Relationship: interaction between two people on one to one basis or in small groups communication (Judith, 1999) and the

way in which two people or two groups behave towards each other (Dictionary of Contemporary English, 1995).

Interpersonal relationship, as a sub-dimension of work stress (Boyle et al. 1995), was tested by using 9 items related to relationship issues such as factor of communication and negotiation between teachers and their colleagues.

### **1.6 Scope of the Study**

This study included only teachers randomly selected from 19 secondary schools in the State of Malacca. Specifically, the respondents were five (5) secondary schools from the District of Alor Gajah, four (4) secondary schools from the District of Jasin, and 10 secondary schools from the District of Melaka Tengah. The findings would reflect only the work stress level of secondary school teachers in the State of Malacca, and could not be generalized to the other school teachers in the other states of Malaysia.

There might be other dimensions of work stress but this study focused only on the five factors that have been introduced by Boyle et al. (1995), namely, Students' Misbehaviour, Workload, Time and Resource Difficulties, Professional Recognition, and Interpersonal Relationship.

## **CHAPTER II**

### **LITERATURE REVIEW**

#### **2.0 Overview**

Chapter II includes seven parts: (1) Definition of Work Stress, (2) Theories on Stress, (3) Models of Work Stress, (4) Teachers' Work Stress, (5) Work Stress Consequences, (6) Stress Management, and (7) Summary.

Part One, Definition of Work Stress, discusses how the concept of work stress is defined. Part Two, Theories on Stress, explains certain theories related to work stress. Part Three, Models of Work Stress, presents some models of work stress. Part Four, Teachers' Work Stress, discusses findings on factors that can influence work stress amongst the teachers. Part Five, Work Stress Consequences, explains the effects and impact of work stress on individuals. Part Six, Stress Management, describes certain techniques of coping work stress. Part Seven, Summary, summarises the literature review.

## 2.1 Definition of Work Stress

There is no specific definition for work stress. Most of the researchers are unable to come up with one accurate definition agreed by all.

Kyriacou and Sutcliffe (1978) stated that teachers' work stress is a negative emotion such as anger, worry, disappointment and sadness. These feelings will occur because of the teachers' work and it seems to be a threat to the happiness and well-being of the teachers' psychology. Dunham (1992) stated that work stress is a reflective process, which is action, emotion, mental and physical mere cause when continuous stress happened or new stress occurs that the stress will be stronger than control significantly.

The literature defines psychological stress in several different but related ways, each grounded in a person – environment – interactions perspective. Cherniss (1980b) contends that environments impose certain demands on individuals at the same time that individuals attempt to influence those environments to conform to the individuals' needs and values. Stress results from an imbalance in this interaction, an imbalance perceived to be detrimental by the individual.

Similarly, Dunham (1992) defines stress in terms of a "goodness-of-fit" between an individual and the environment. Accordingly, stress can result from a

lack of fit between the needs, goals, and abilities of the individual on one hand, and the resources or demand of the environment, on the other (Van Harrison, 1978).

Lazarus (1966) portrays stress as a derivatives of conditions that are perceived to disrupt or pose risk to individuals' personal or social values or to their conceptions of meaning and order. In another view, McGrath (1983) argues that stress may result from an environmental situation perceived as presenting a demand that threatens to exceed the person's capabilities and resources for meeting that demand.

More recently, Beehr (1998) has stated that work stress is an area with the potential to be plagued by confusion, at least partly because of the general, non-technical, popular usage of the word "stress". Even amongst researchers, stress had sometimes been used to mean an environmental "stressor" stimulus and sometimes to mean an individual's strain or distress reactions; this is probably still true in the 1990.

Kyriacou (1987) defines teacher's work stress as the experience that the teachers have regarding the unpleasant emotion such as, worry, anger, disappointment, and sadness related with their work directly. This stress can happen consciously or unconsciously. The potency from somebody to have stress will depend on the individual himself. According to Fisher (1986), stress will occur when there is no balance between the need and the ability of individuals.

For those people who have low self-control, the tendency for stress to occur is higher compared to those who look at the needs at the positive side.

Some researchers have used the term “stress” to refer to the level of pressure and demands made on an individual and have used the term “strain” to refer to the reaction to such stress. Other researchers have defined “stress” in terms of the degree of mismatch between the demands made upon an individual and the individual's ability to cope with those demands. In addition, a number of researchers have focused on the notion of teacher burnout, which is seen to be a state of emotional, physical and attitudinal exhaustion, which may develop in teachers who have been unsuccessful in coping effectively with stress over a long period (Guglielmi and Tatrow, 1998; Vandenberghe and Huberman, 1999).

These definitions suggest that virtually any physical, psychosocial, or cultural factor in an environment or any event that requires coping or adaptation can act as a stressor (Winnubst, 1984). The level of stress experienced depends in large part on how the person perceives and interprets the environmental factor (Cherniss, 1980b; Winnubst, 1984). According to Selye (1976), the “stressfulness” of situation depends on how individuals perceive the demands and opportunities of that situation in relation to their needs and goals. It also depends on how individuals perceive their abilities to deal with those demands and opportunities in ways that are consistent with their needs and goals (McGrath, 1983). Therefore, a condition of work may be considered stressful to the degree



that it is perceived to risk or threaten something of need or value to an individual, a risk beyond the individual's perceived capacity to avoid or abate.

## **2.2 Theories on Stress**

Work stress is now regarded by many commentators as one of the most important issues facing management in this decade. Work stress has the potential to affect the performance of all levels of staff, ranging from senior management to the young and newly employed. All workers in their daily experiences are aware that conflict-filled situations have the potential to produce feelings of physical and psychological discomfort. When an employee is confronted with a situation that poses a threat, such as conflict between staff members or between staff and clients of the organization, the form of physiological and emotional arousal he or she experiences is generally termed stress (Glenn, 1995).

A research on stress further found that stress is the physiological and psychological reaction that occurs when people perceived as imbalance the level of demand placed upon them, and their capability to meet those demands (Dubrin, 1994). This author also defined stress as 'the mental and physical condition that results from perceived threat or demand that cannot be dealt readily. Stress is also defined as a dynamic condition in which an individual is confronted with an opportunity, constraints, or demand related to what he or she desires, and for which the outcome is perceived to be both uncertain and important. According to Nazar (1987), for practical purposes, stress can be understood as a phenomenon,

which results in intense and distressing experience and appears to be of tremendous influence in behaviour. It is the “cause” and “effect” of stress that is important from the view of human experience.

A study of experts on stress showed that stress can be described using the following approaches: stimulus approach, the response approach, or the interactional approach (Cranwell, 1990).

According to Cranwell (1990), the stimulus approach describes stress as an external factor or force. In this theory, stress is considered to be a potential stimulus in the environment. The theory is analogous to an engineering model in that it assumes that people have certain capacity to withstand stress; if a person is stressed more than that amount, the individual begins to deteriorate. Likewise, if a building is subjected to excessive stress, permanent damage will result. This is shown in Figure 2.1.

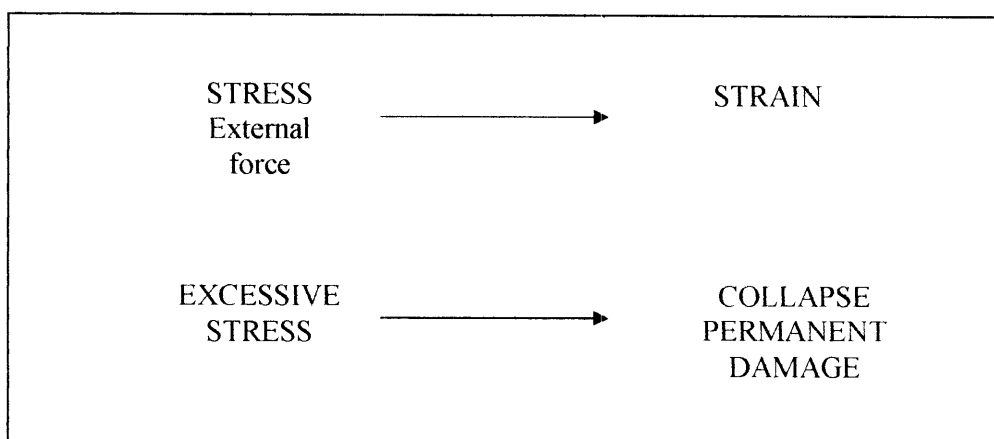


Figure 2.1: The Stimulus Approach to Stress (Cranwell, 1990)

Some researchers have developed this approach further, stating that stress arises when the level of demand on the person departs from optimum conditions. External factors will be referred to as stressors.

The response-oriented theory, which was adopted by Selye (1976), focuses on the reactions made by a person to environmental demands. He called this reaction the general adaptation syndrome (GAS). The response may be physiological or psychological, as shown in Figure 2.2.

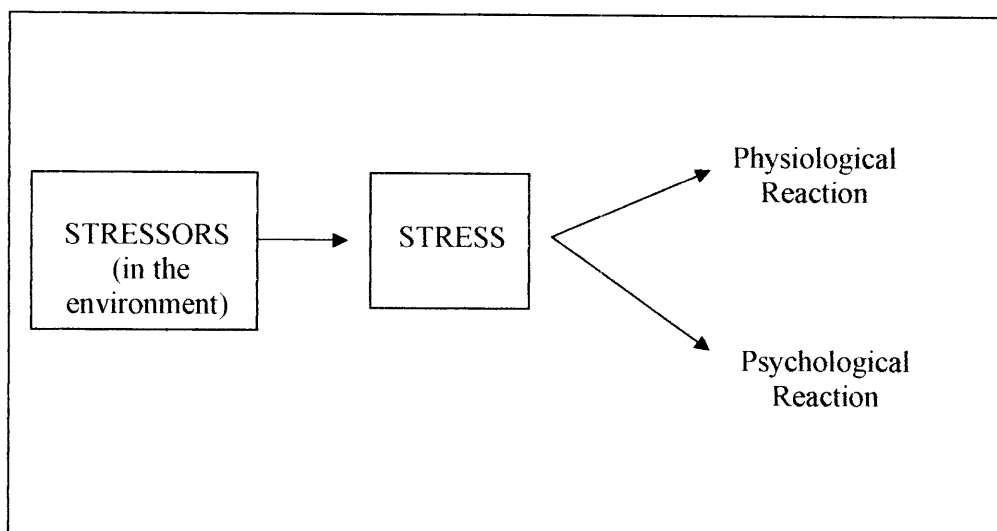


Figure 2.2: The Response Approach to Stress (Selye, 1976)

In psychological research, a variety of response-oriented measures have been used. These measures emphasised the pattern and amplitude of emotional response to stress (Dorin, 1985).

The interactional approach takes the understanding of stress a stage further, by intensively studying the interaction between the person and the environment. This approach describes stress as the result of imbalance between the level of demand placed on people, as they perceive it, and their perceived capability to meet the demands. This is shown in Figure 2.3.

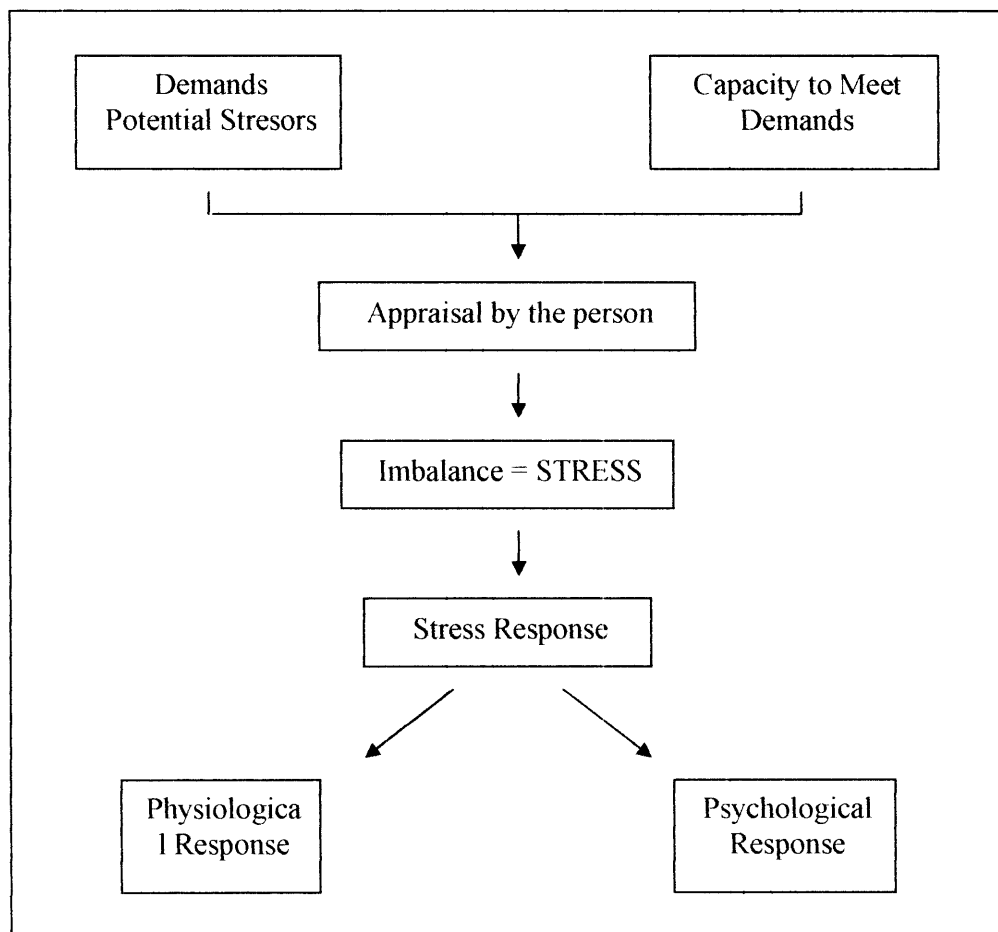


Figure 2.3: The Interactional Approach (Cranwell, 1990)

In the Interactional Approach, people are believed to play a more interactive part, weighing up the demands of the situation in which they find themselves and appraising their own capability to meet those demands. Everyone

perceives situations differently. Even the same person can perceive the same situation differently on separate occasions (Cranwell, 1990).

Theories, concepts and studies on stress indicate three sets of factors: environmental, organisational and individual. However, whether they become actual stress or not depends on individual differences, such as job experiences and personality. Maddens (1979) argued that external stressors are effective, to the extent when are perceived, interpreted and comprehended as dangerous and threatening, that is to the extent that they are cognitively interpreted. People and groups of people differ in their sensitivity and vulnerability to stress, to the type of events that cause stress and their interpretation and reactions to these events (Nazar, 1987).

### **2.3 Models of Work Stress**

This part discusses about work stress models such as following: Robbins Work Stress Model by Robbins (2001), Teachers Work Stress Model by Kyricaou and Sutcliffe (1978), Transactional Model by Janice (1996), NIOSH Model of Work Stress and Health Relationship by Lawrence (1995), Arnold Work Stress Model by Arnold et al. (1995), and Ivancevich Work Stress Model (Ivancevich, 1995).

### **2.3.1 Robbins Work Stress Model**

As shown in Figure 2.4, the model is divided into two parts namely, potential sources and consequences of stress. There are three categories of potential sources of stress, namely, environmental factors, organisational factors, and individual factors. Environmental uncertainties such as changes in economic, political and technological environment may influence the design of an organisational structure and also influences stress levels amongst employees in that organisation. Changes in technology environment may expose the employee with new innovations, which sometimes can be a threat to many people, which can cause them stress. Organisational factors can also be potential sources of stress, such as task demands, role demands, interpersonal demands, organisational structure, organisational leadership, and organisation's life stage. Pressure to avoid errors or complete task in a limited time period, work overload, a demanding and incentive boss, and unpleasant co-workers are few examples of factors may cause stress to employees (Frew and Brunning, 1987).

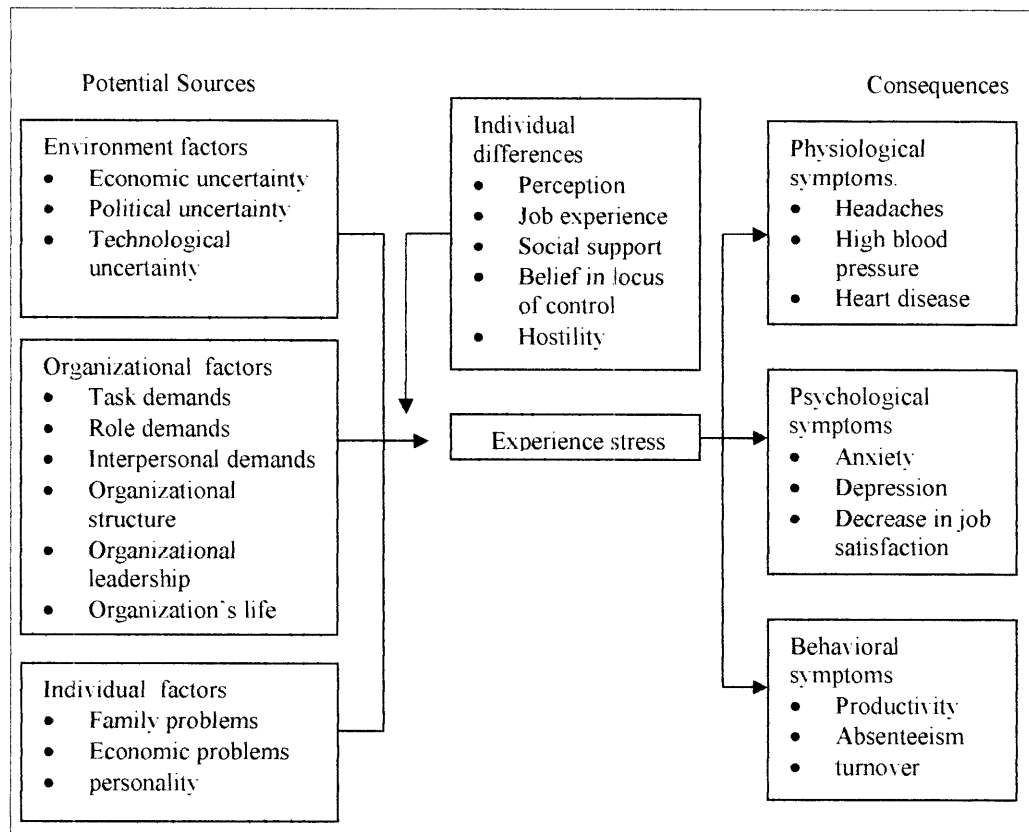


Figure 2.4: Robbins Model of Stress (Robbins, 2001)

The model also proposed that individual factors can also be one of the potential sources of work stress. Family problem, economic problem and personality of the individual may influence the existence of work stress. According to Nelson and Sutton (1990), marital difficulties, the breaking of relationship, and discipline troubles with children are examples of relationship problems that create stress for employees that are not left at the front door when they arrive at work. The model also proposed that individual differences such as perception, job experience, social support, belief in locus of control and hostility are also the factors that can influence work stress.

As shown in Figure 2.4 stress shows itself in a number of ways and consequences. For instance, an individual who is experiencing a high level of stress may develop high blood pressure, ulcers, irritability, difficulty in making routine decisions, loss of appetite, and accident proneness. These can be subsumed under three general categories: physiological, psychological and behavioural symptoms (Nelson and Sutton, 1990).

### **2.3.2 Teachers Work Stress Model**

Kyriacou and Sutcliffe (1978) have developed the teachers' work stress model as a fundamental guide to teacher work stress research. This model was developed based on the concept that work stress is a syndrome of reflection towards negative impact such as anger and sadness. This will be followed by potential changes that cause stress, which can be pathogenic, psychological and biochemical. These factors causing the stress are believed to become a threat to the teachers' self-esteem and life. The teachers will thus try to control and overcome these factors believed to be a threat to them.

According to the Teacher's Work Stress Model, Kyriacou and Sutcliffe (1978) have differentiated between potential causes of work stress from the actual stress factors. Potential cause of stress is defined as the objective aspect of the teachers' work, such as heavy workload that might influence the stress. The potential factors for work stress will only cause stress if the teachers themselves perceive these factors as a threat to their self-esteem and their own well-being.



How the teachers are going to look at the demand or their responsibility will strongly depend on their interaction amongst teacher's details and their assumption.

The "actual work stress" is actually the subset from the potential cause of work stress. It still exists in the teacher's environment, but it is assumed to be different from other sets of potential causes of work stress. Mechanism of action is the ability of individuals to overcome the actual cause of the stress. Based on the model, the teacher's work stress has a direct relationship with the level of disability of mechanism of action to overcome the actual cause of work stress and how the teachers perceive their own threat. The stress can be the responded towards the negative influence such as anger or sadness that usually will be followed by other consequences supposed to be the action of the teacher's work stress. All of these response can be some sort of psychological changes such as work dissatisfaction, and physiological changes such as high blood pressure or changes in attitude like absenteeism. Figure 2.5 shows the model.

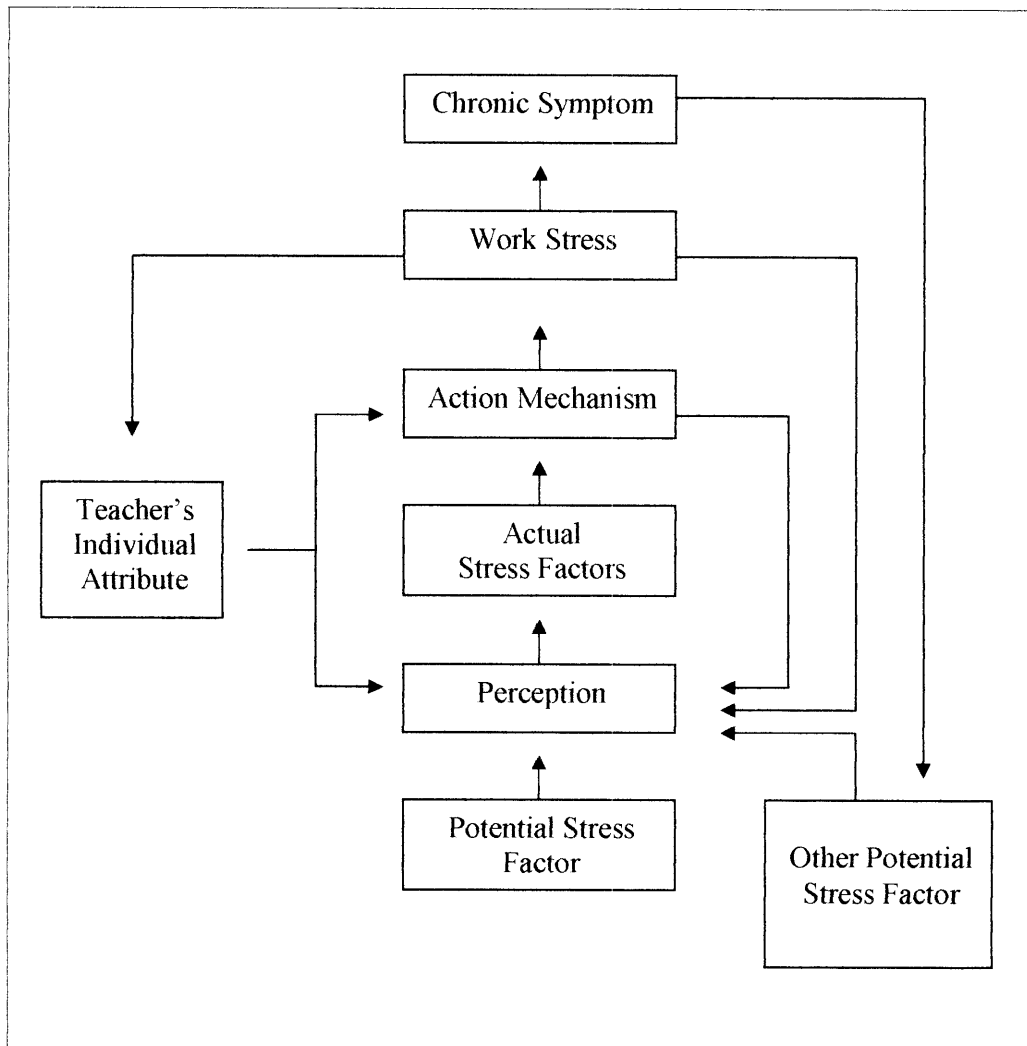


Figure 2.5: Teachers' Work Stress Model (Kyricaou and Sutcliffe, 1978)

### 2.3.3 Transactional Model

Cox (1978), described a "transactional model" of stress that illustrates the dynamic process by which people experience and respond to problems and difficulties. Stress is seen as an individual phenomenon, the result of a transaction between the person and his situation - thus emphasising the active and adaptive nature of the process. The basis for the model is the relationship between four

aspects of the individual and the environment. As shown in Figure 2.6, the person is central to this model, and he/she is continually appraising the demands being made on him/her by the situation and his/her ability to meet those demands.

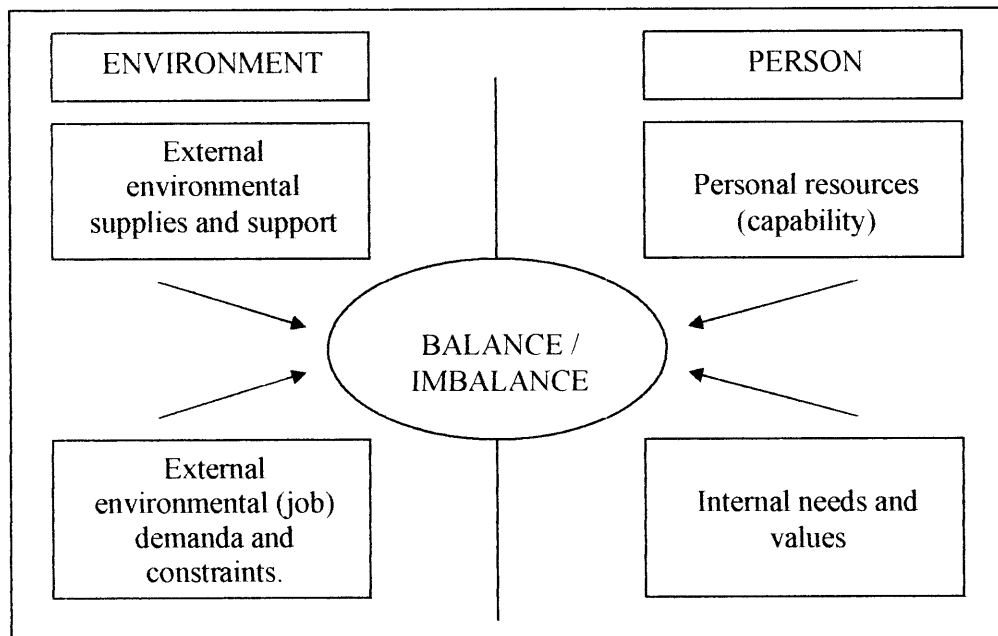


Figure 2.6: The Transactional Model of Stress (Janice, 1996)

Following from this transactional model of stress, the notion of leisure satisfaction as a possible moderator of stress can be explored as part of the "person" aspect of the model. Leisure satisfaction could be viewed as a personal resource or simply ratified needs of the individual, which would then play a part in the person's appraisal of the situation, and the demands made on them (Janice, 1996).

Previous research activities carried out under the notion of the "quality of working life" had virtually a single focus on work as the important point of intervention for improvement of an individual's overall well being (Hackman and Suttle, 1979). Central to the quality of working life literature is the belief that improvements in a person's work experiences will have a substantial impact on other aspects of his/her life (Janice, 1996). However, attempts have also been made to redress the balance so that the non-work side of individuals' lives is viewed as an important contributory factor to general well being (Spink, 1975). Thus, leisure or more specifically, one's satisfaction with one's leisure activities could well be a potential moderator of work stress thus making it a viable coping strategy in stress reduction.

Evidence suggests that the mental health of adults is dramatically influenced by the amount of satisfaction an individual receives from his/her leisure activities. Moreover, the findings from a number of studies suggest that satisfaction with leisure, rather than satisfaction derived from job, family, health, or financial resources, is the foremost determinant of mental well-being (Ragheb and Griffith, 1982).

\* To include the concept of leisure satisfaction in this study of teacher stress is to examine the assumption that social and psychological activities during teachers' leisure time, rest periods or school holidays play a significant role in alleviating the pressures of teaching life. The sparse research in this area seems to indicate that the social and psychological restorative functions of leisure have so

far been largely overlooked. A search of the literature found only one study that directly examined the association between stress and leisure satisfaction. In that study, Cunningham (1989) found a small association between leisure satisfaction and level of stress in the sample of professional persons providing therapeutic recreation for the disabled. It was observed that people having higher leisure satisfaction experienced lower levels of stress.

#### **2.3.4 NIOSH Model of Work Stress and Health Relationship**

Unlike physical and chemical hazards, job stressors respect no occupational boundaries, so the potential for exposure to this class of health risks is high. A model of job stress and health is depicted in Figure 2.7. This model contains the key features of most job stress/health models, and is the model currently used by National Institute for Occupational Safety and Health (NIOSH) in the United States of America to guide its stress research (Hurrell and Murphy, 1992). The core of the model indicates that job stressors produce acute reactions (or strains), and these can lead to chronic illnesses. Although job stressors are listed as a single category, usually they are grouped into several broad categories. For example, Cooper and Marshall (1976) defined five broad categories of stressor such as factors intrinsic to the job, role in the organisation, relationships at work, career development, and organisational structure/climate.

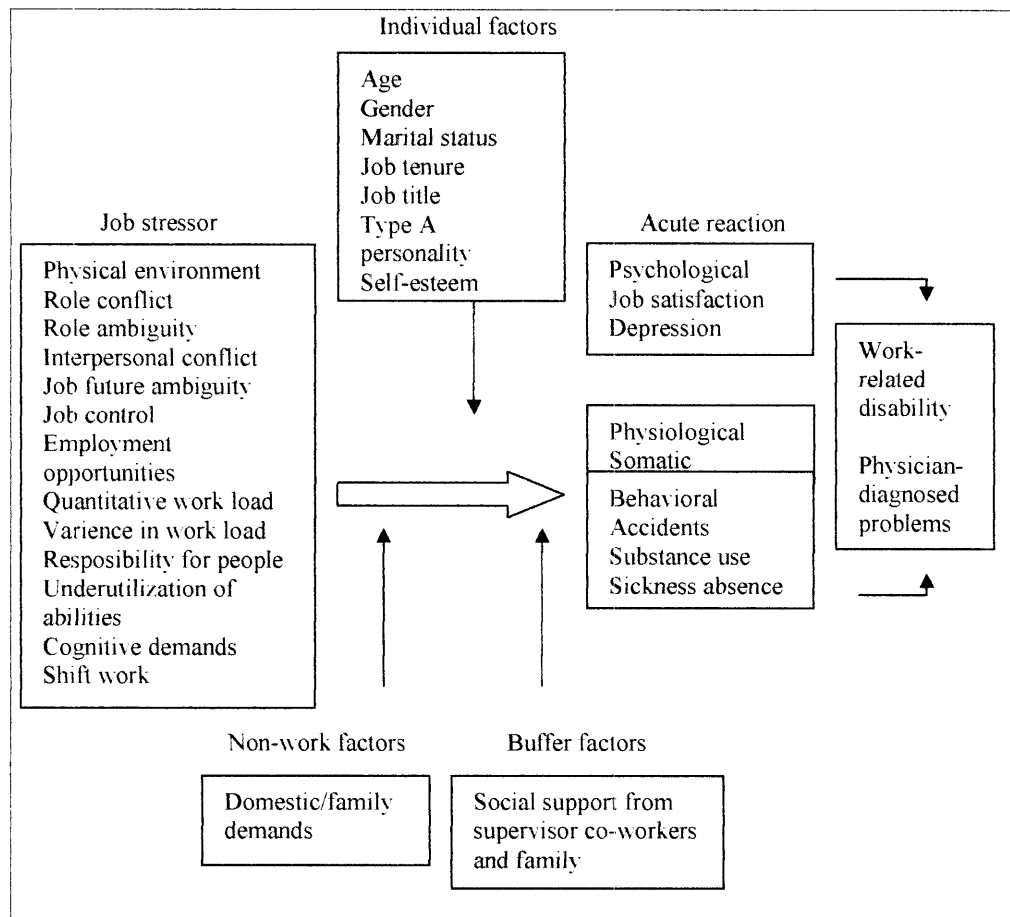


Figure 2.7: NIOSH Model of Job Stress/Health Relationships (Lawrence, 1995)

According to Lawrence (1995), the other boxes in the model describe moderating factors or those factors, which influence job stressor/health relationships. These factors include, Personal Characteristics such as personality traits, Non-Work Factors such as family matters, child-rearing, financial issues and social relationships, and Buffer Factors like social support, coping skills and physical exercise.

These moderating factors operate to strengthen/weaken the relationship between job stressors and health outcomes. The model highlights the complexity

of the problem of stress, as it cuts across work and non-work domains. These crosscutting effects suggest that the study of job stress, and the design of stress management interventions, should be approached from a multidisciplinary perspective, to produce an accurate picture of the nature of stress and how it should be managed. One important perspective is that of the employee assistance programmed (Lawrence, 1995).

### 2.3.5 Arnold Work Stress Model

Figure 2.8 shows the Arnold Work Stress Model (Arnold et al., 1995). This model highlights the potential sources of work stress, symptoms of work stress, and consequences of work stress.

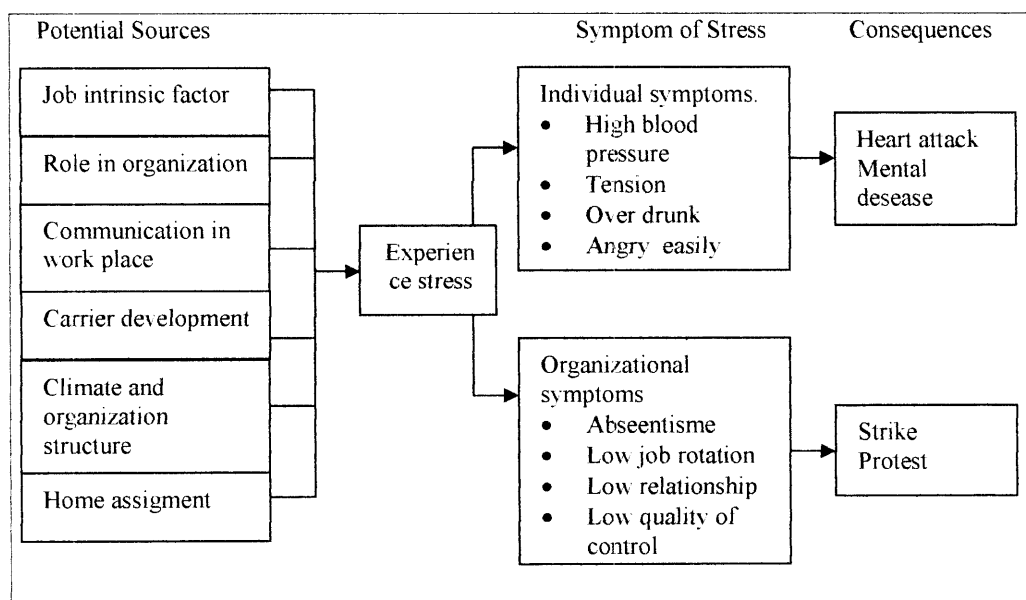


Figure 2.8: Potential Sources, Symptoms and Consequences of Work Stress (Arnold et al., 1995)

Arnold and his friends have identified six potential sources that can influence work stress level such as job intrinsic factor, role in organization, communication in work place, carrier development, organizational climate and structure, and home assignments.

Two types of symptoms have been identified by Arnold and colleagues namely: Individual Symptoms, such as high blood pressure, tension, over drunk and angry easily, and Organizational Symptoms such as absenteeism, low job rotation, low relationship, and low quality of control.

Additionally, Individual Symptoms of stress can cause consequences such as heart attack, and mental disease, and Organizational Symptoms can cause consequences such as strike and protest.

### **2.3.6 Ivancevich Work Stress Model**

Ivancevich (1985) has developed the work stress model that emphasizes on sources of work stress and consequences of the work stress. This model shown in Figure 2.9 was developed based on the three major elements of work stress such as environmental stress sources, individual stress sources, and the stress consequences. According to Ivancevich (1985) work stress may be caused by environmental factors and individual factors. Environmental sources of stress refer to all the environmental elements that can influences workers to have stress in their work place. On the other hand, the environmental factors consist of nature



of the job or work itself, role in organisation, climate and structure, carrier development, non-organisational factor, and relationship with peers.

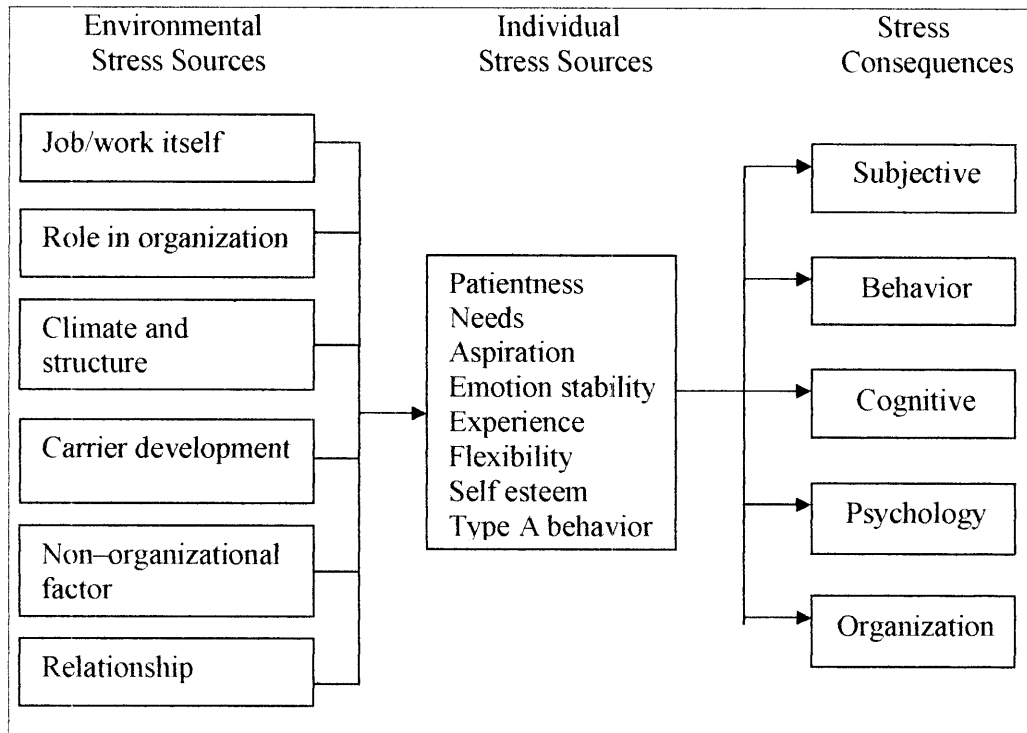


Figure 2.9: Environmental and Individual Work Stress Sources and Consequences of Work Stress (Ivancevich, 1985)

According to this work stress model, patience, needs, aspiration, emotion stability, experience, flexibility, self-esteem, and Type A behaviour are the individual elements that can influence work stress experiences amongst workers. Based in this work stress model, the workers' work stress has a direct relationship with the level of individual ability factor to over come the environmental causes of work stress. The consequences proposed by Ivancevich (1985) are in terms of subjective consequences, behaviour consequences, psychology consequences,

cognitive psychology consequences, and organization consequences. All of these responses can be some sort of psychological changes such as work dissatisfaction, and physiological changes such as high blood pressure or changes in attitude like absenteeism.

## **2.4 Teachers' Work Stress**

Occupational stress in teaching appears to be a widespread, cross-cultural phenomenon (Needle et al. 1980). A number of researchers have reported extent to which teachers perceive their job to be stressful (Laughlin, 1984). Although variation in the proportion of teachers who rate job highly stressful is to be expected, it does appear from the cited studies that about one-fifth to one-third of the surveyed teachers considered their job as being either very stressful or extremely stressful (Borg and Riding, 1991). Numerous surveys have revealed that a majority of teachers experienced job stress and that this resulted in negative physical, emotional and behavioural consequences for these teachers, as well as negative effects on students and the teaching profession.

In order to gain insight into what causes stress in teaching, researchers sought to identify the major sources of stress for teachers and dimensional (factor) structure underlying these sources. Studying the correlates of stress amongst teachers may improve the understanding of stress in the teaching profession and the factors which cause stress on teachers most, as well as the detrimental effects it has on teachers.

The International Labour Organization (ILO) has identified a number of likely stressors, which include: various types of violence in schools, classes which are too large, pressures which occur from long working hours, low salaries of teachers compared with others workers, poor prospect, and job insecurity (Dobson, 1982). The findings by Tuettemann and Punch (1992) are consistent with that identified by the ILO. They singled out the fact that factors in the school environments correlate positively with teachers' stress. The four most salient factors were inadequate access to facilities, students' misbehaviour, excessive societal expectations, and intrusion of schoolwork into out-of-hours time.

Boyes (1993) identified stressors that contributed to teachers' turnover. These were lack of peer support, lack of program leadership and structure, the need to develop curricula and materials, loss of personal time, difficulties in serving multiple schools, heavy teaching assignments, difficulties with teaching both regular and gifted classes, classes, physical demands of the job, inadequate space, and scheduling difficulties with meeting the needs of the gifted.

In Malaysia, Abdul (1996) tried to look at the relationship between work stress and work satisfaction amongst the teachers, which factors affected stress, and the symptoms of stress itself. The results of his study proved that there are no significant differences between the teacher's work stress and the demographic factors such as sex, marital status, and age, working experience, academic qualification, and type of the school. His research also found that there is no significant relationship between stress and job satisfaction. He disclosed that there

are significant relationships between stress and the factors that cause work stress, such as supervising process.

For instance, Boyle et al. (1995) concluded that are there five factors that cause work stress amongst teachers namely, students' misbehaviour, workload, time and resources difficulties, professional recognition, and poor interpersonal relationships.

The effects of stress on teachers vary some perceived high stress levels, others moderate or low stress. Stress can have either short or long-term effects. The effects of stress depend on the degree of individual reactivity to a stressor; the duration of reactivity over time; the background of long-term physiological arousal, and whether the stressors cause greater activation on the pituitary or adrenomedullary system (Pelletier, 1979). Burnout has been identified as one type of chronic response to cumulative, long-term negative impact of work stress amongst teachers.

#### **2.4.1 Students' Misbehaviour**

Students' Misbehaviour is one of the factors very essential amongst most of the schools and most of the teachers said that they always pay most attention on the ability to control and organise the classroom (Merret and Wheldall, 1993). Dealing with trouble may be a source of stress for many teachers, especially those

undergoing their probationary period, and with fewer sanctions available to teachers today, this problem has been aggravated (Dobson, 1982).

Students' disciplinary problems in particular, have frequently been identified as important sources of stress for teachers (Trendall 1989), and any teacher knows that disruptive and badly behaved students are particularly demanding and stressful to deal with (Tuettemann and Punch, 1992).

A research carried out by Kyriacou and Sutcliffe (1979) found that the highest mean value were pupils or students' poor attitude to teaching, poorly motivated pupils, individual pupils who continually misbehave, and pupils who show lack of interest. This makes it that disruptive behaviour of students is an important area of potential stress for many teachers.

#### **2.4.2 Workload**

Borg and Riding (1993) defined workload as having excessive work and too much responsibility. Having too much task can create stress for a person in two ways: first, the person becomes fatigued and thus less able to tolerate annoyances and irritations; second, a person subjected to unreasonable work demands may feel perpetually behind schedule, a situation that itself is a powerful stressor (Dubrin, 1994).

In teachers' perspective, workload refers to the tasks that have to be performed by the teachers, such as the preparation before teaching, checking the files and student's exercises, responsibility to the student (such as to pass the examination) and other administrative work including to fill up the score form, the student's details, and the like (Abdul, 1999).

Cooper and Payne (1988) in their research involving 2,368 respondents (including the head masters, officers and directors from several education institutions in England) found that the main factor that influenced work stress is heavy work requirement. Heavy work requirement means that the teachers have to perform many tasks within a very short time.

Trendall (1989) found that the most apparent stressor is teaching workload. Teachers have to many responsibilities with playing too many role, can lead to diversion of attention over many things. The burden of attending too many responsibilities, if sustained too long, can wear a person out (Yoe, 1985). Borg (1990) cited studies by Cox (1978) that identified workload as the main source of stress. Studies by Punch and Tuettenmann (1992) showed the same findings.

#### **2.4.3 Time and Resource Difficulties**

Time and resources difficulties always were also found to cause stress that can contribute work stress level amongst teachers (Manthei and Gilmore, 1996). Not having enough time for preparation and lack of resources during teaching

process was defined by Manthei et al. (1996) as difficulties of time and resources faced by most teachers, as a constraint in time to finish the task, and constraint in educational facilities such a book, computer or resource room used by teachers or students to provide information (Dictionary of Contemporary English, 1995).

According to Kelly (1988), most of teachers do not have enough time to finish up their task at school, and continued working at home. At the same time, they must prepare for their teaching class the next day. Therefore, the constraints of time faced by the teacher make them stressful.

Moreover, lack of resources during the teaching process can also increase teacher work stress level (Dewe, 1986). The author also found that teaching equipment and education aids such as overhead projector or desktop computer are the teaching equipment that can help teachers to teach more effectiveness and conductively. Siti (1991) found that the teachers feel stressful when there are too many students in one classroom and when teaching equipment are lacking.

#### **2.4.4 Professional Recognition**

The needs for adequate pay or salary, needs for professional status, needs for involvement in decision-making and need for support from administration or top management are considered as professional recognition needs (Barbara and Lisa, 2000). The authors also stated that poor career structure and lack of recognition for good teaching, and poor working conditions such as inadequate

salary and too short rest periods are the potential professional recognition need elements that can contribute to teachers work stress.

The ambivalent attitudes of Americans toward those who choose to be teachers are deeply rooted. In fact, they may even be part of the deep structure of schooling (Barbara and Lisa 2000). A Harvard University report, cited by Barbara and Lisa (2000), equated low pay with low respect, noting that low pay reinforces society's impressions of a lowly group, not quite first-class and deserving of no better than the hand-me-downs of our civilisation.

Margaret and Anthony (1991) stated that the most important problem in education is to get everybody to recognise that teaching really is one of the most important occupations in the country." These statements still hold true today. Apparently, Margaret and Anthony (1991) have not done much as a nation to solve this problem in the intervening decades. This enduring neglect may well be part of the reason that today's teachers are feeling so unhappy and can contribute to the stress (Margaret and Anthony, 1991)

According to Dewe (1986), teachers need the autonomy as professional recognition needs in their organization to involve in any decision making process which can give them opportunity to propose the problem or any suggestion that can give benefit to them. Minimum of autonomy (Hall and Savery, 1986) and less involvement in making decision in their teaching organization (Dewe (1986) also significantly the cause stress amongst teachers.



#### **2.4.5 Interpersonal Relationship**

The social environment especially relationship between teachers is important not only to satisfy the social needs of teachers but also for teachers to be accessible to each other for practical help and support (Janice, 2000). Janice (2000) also found that the social environment plays an important part in teacher well being where colleges with a healthy social environment with good relationship amongst teacher tend to have teachers who are less tense and uptight and report higher job satisfactions levels.

Most interestingly, a health social environment with good relationship amongst colleges, contributed positively to schools' performance in terms of students' grade point average. Some plausible explanations for this outcome is that teachers are not stressed and are most effective operating in an environment which is supportive, harmonious, has low conflict, has sense of perceived helpfulness and conducive to relationship-building (Janice, 2000)

Kelly (1988) have done some research amongst pre-school teachers in Queensland, Australia and found that interpersonal relationship is one of the factors that can cause work stress amongst teachers. Lack of communication and relationship amongst teachers are found to be as the potential sources of stress and these factors bound to be the main factors causing work stress amongst the teachers in this group.

In another study by Rudd and Wisemann (1962), it was found that the factors that bad interpersonal relationship amongst the staff and relationship with the parents can cause stress. Cooper and Kelly (1993) in their research of 2,368 respondents (including the head masters, officers and directors from several education institutions in England) also found that interpersonal relationship amongst the worker or the staff is one of the main factors that influenced work stress amongst teachers.

## **2.5 Work Stress Consequences**

Prolonged exposure to stressful situations has been found to produce serious dysfunctional effects in the individual that can affect job performance and thus overall organisational effectiveness. The rectification of such a situation is thus to the significant advantage of both employees and management. Cooper and Payne (1988) have concluded that a preventive perspective by management has the potential not only to maximise profit margins but also to ensure a satisfied and effective workforce.

The prevalence of occupational stress in the workforce in many countries is now gaining significant recognition. In recent times, many organizations and researchers investigated the problem of stress in terms of lost productivity and low staff morale. Fletcher (1988) has made the point that many occupations, including teaching, nursing, air traffic controllers and transportation personnel, have now

been studied and have revealed high levels of work stress amongst many members, manifested in both physical and psychological symptoms.

Stress can be either temporary or long-term, either mild or severe. The effects on an employee depends mostly on how long its causes continue, how powerful they are, and how strong the employee's recovery powers are. If stress is temporary and mild, most people can handle it or at least recover from its effects or implications rather quickly (John, 1993).

### **2.5.1 Health Problems**

There is no doubt that stress impacts the health of an individual. Stress is a potential source of both anxiety and frustration, each of which, in turn, is capable of breaking down the body's physiological and/or psychological well being over time (Cooper and Payne, 1988).

Wolfe et al. (1987) stated that work-related attitudes and emotions have great impact on workers' health and well-being. Additionally, a fact of organisational life in the 1990s is that employing organisations bear much of the cost for employee health care. A Department of Labour survey, for example, has shown that 96 percent of medium and large firms provide health insurance for all employees (Wolfe et al., 1987).

The term “fringe benefits” hardly applies to health insurance today. It is virtually impossible to attract good talent to one’s organisation if such insurance is not part of the package. Although wages have risen over the last 30 years, the costs of medical fees of doctors, hospitals and other health care personnel and facilities have increased the cost of patient insurance three times much as wage increases (Belcher and Atchison, 1987).

Besides paying for general health insurance, employers are increasingly finding themselves held liable for specific incidents of stress-related illness. The American Occupational Safety and Health Act 1970 (OSHA) and many state laws hold employing organizations accountable “for all diseases arising out of and in the course of employment (Wolfe et al., 1987).

Poe (1987) indicates that there was a strong link between stress and mental disorders. According to this author, it was possible for an overworked advertising executive who was the victim of nervous breakdown to sue his employer. Poe (1987) also stated that indeed, stress-induced mental disorders are the fastest rising category of occupational disease, and the number of lawsuit involving organizations and allegedly stress-damaged employees is increasing at a rapid rate.

Studies have also revealed a link between work stress and actual physical disorders like coronary heart disease, which is one of the major causes of death in the US (Robbins, 2001). According to this author, employers are held increasingly

liable for the onset of this disease and others such as hypertension and ulcer; the financial cost of stress becomes a major problem. Although there is often a trade off between health benefits and company liability, some companies are finding ways to provide quality health care that is also cost effective (Belcher and Atchison, 1987).

Excessive stress can lead to several problems in the form of heart attack, stroke, hypertension, migraine headache, ulcers, drug-alcohol-tobacco abuse, overeating, depression and muscle aches, amongst others (Schermerhorn et al., 1991).

Workers should be alert to signs of excessive stress themselves and persons with whom they work. The symptoms are multiple and varied. When it comes to habits and feelings, people showed for change in eating habits, unhealthy feeling-aches and pains, restlessness, inability to concentrate, tense, uptight, fidgety, or nervous feelings, increase in drinking or smoking, feelings of being disoriented or overwhelmed, sleeping problems, depression or irritability, upset stomach, dizziness, weakness, and light-headedness (John, 1993).

### **2.5.2 Absenteeism and Turnover**

Dissatisfaction and stress not only create direct costs for organisations in term of health care programs. They are also the source of indirect costs, most notably in the form of absenteeism and turnover. Dissatisfaction and stress are the

major reasons for absenteeism and turnover, consider as very costly organizational problems (Wolfe et al., 1987).

Replacing workers who leave the organisation voluntarily is a costly undertaking. Deitsch and Ditts (1981) in their case study indicated that the cost that Hawlet-Packard estimates for replacing one middle level manager was US\$40,000. The replacement costs are not only the issue. If people who leave an organization are better performers than those who stay, turnover lowers the productivity of remaining work force. This kind of negative employee flow is most likely to affect complex jobs that take a long time to learn (Boudreau and Berger, 1985). Under these conditions, companies lose the investment they have made in employee development. In the worst cases, experienced employees not only is lost but actually winds up as an investment in competing firm, that gains access to lot of knowledge of the firm's operations (Deitsch and Dits, 1981).

A recent study of an acquisition done by Wilhelm (1983) reports that the acquired company experienced nearly a 200 percent increase in voluntary turnover in the first two years following the acquisition. This increase was attributed to high levels of stress and reduced levels of satisfaction and commitment. Many changes, like increased performance standards, cut in pay and benefits, and layoffs, had caused the increase in stress and reduced satisfaction and commitment. The turnover and data indicate that many chose to end the stress through resignation and retirement (Wilhelm, 1983).

Dissatisfaction and stress are also a major cause of declining organisational commitment. Organizational commitment is the degree to which people identify with the organisation that employs them. Commitment implies a willingness to put forth a great deal of effort on the organisation's behalf and an intention to stay with the organisation for a long time (Deitsch and Dits, 1981).

### **2.5.3 Burnout**

Burnout is a major pressure that results in stress that is sustained for long periods. Problems predictably arise when high intensity stress continues for an extended duration. According to the theory developed by Selye (1976), human body cannot instantly rebuild its ability to cope with stress once it is depleted. The author also stated that as a result, people become physically and psychologically weakened from trying to combat it. These conditions is called burnout, a situation in which employees are emotionally exhausted, become detached from their clients and their work, and feel unable to accomplish their goals (Cynthia and Thomas, 1993).

John and Keith (2002) stated that in Japan, a tragic product of burnout by workers is called *karoshi*, or sudden death at work. This is believed to be triggered by overwork, culminating in fatal heart attack or stroke. Although *karoshi* was once a source of samurai-like pride, estimates of 10,000 deaths per year have prompted preventive actions. Japanese corporation are increasingly urging

employees to take earned vacation days, moderate their diets, obtain exercise and manage their stress levels (John and Keith, 2002)

According to Maslach (1982), when people are exposed to high levels of stress over prolonged periods of time, they may experience burnout. This syndrome involves physical, mental and attitude exhaustion, plus feelings of low personal accomplishment.

#### **2.5.4 Performance Failure**

Severe levels of stress can affect workers' concentration on their job. At very high levels of stress, a person simply stops concentrating on the task and focuses instead on the stress. In jobs requiring attention to detail, performance may suffer as stress goes beyond a tolerable level. Interestingly, very low levels of stress can have similar effects on task concentration. When a job is so undemanding that workers become bored, they are likely to daydream and to focus on non-job factors, which also lower performance (Cynthia and Thomas, 1993). The inverted-U relationship between stress and job performance is depicted in Figure 2.10.



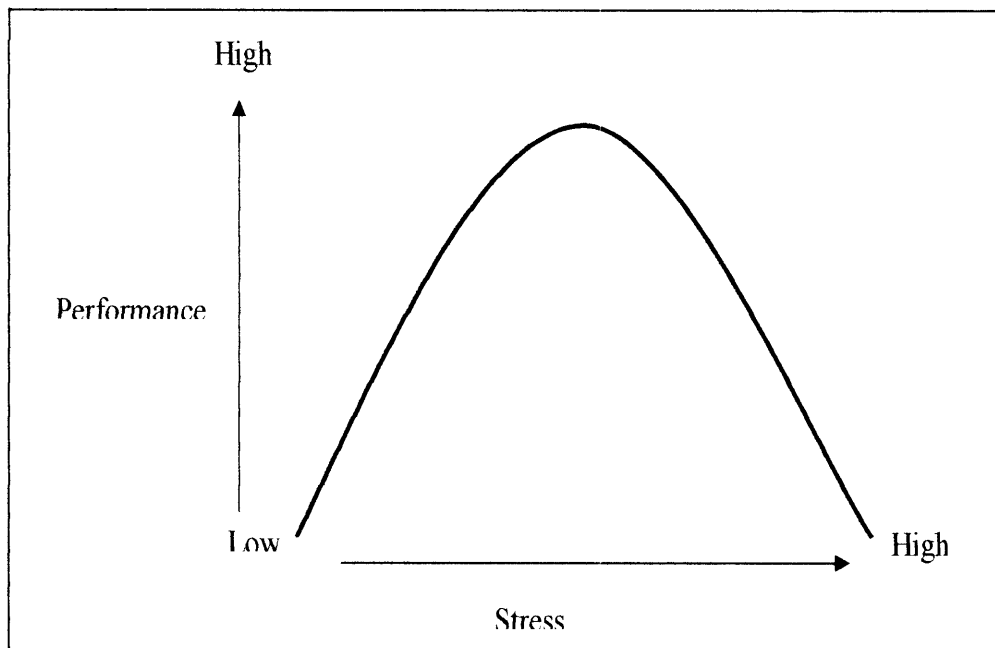


Figure 2.10: Relationship between Stress and Job Performance (Robbins, 1976)

The logic underlying the inverted-U relationship is that low to moderate levels of stress stimulates the body and increase its ability to react. Individuals then often perform their task better, more intensely, or more rapidly. But too much stress places unattainable demands or constraints on a person, which results in lower performance. This inverted-U pattern may also describe the reaction to stress over time as well as to changes in stress intensity. Moderate levels of stress can have a negative influence on performances over the long term as the continued intensity of the stress wears down the individual and saps his or her energy resources (Robbins, 2001).

There are actually two faces of stress, constructive and destructive (Selye, 1976). Constructive stress, or eustress, acts in a positive way for the individual

and or the organization. The figure shows that low to moderate levels of stress act in a constructive or energizing way. According to Schermerhorn (1991), moderate stress can increase effort, stimulate creativity, and encourage diligence in one's work, which can be felt as the tension causes people to study hard before exams, pay attention in class, and complete assignments on time. According to this author, the same positive results of stress can be found in the workplace.

As shown in Figure 2.11, Schermerhorn (1991) stated that destructive stress, or distress, is dysfunctional for the individual and/or the organization, whereas low to moderate levels of stress can enhance performance; excessively high stress can overload and cause a breakdown on the person's physical and mental systems. Performance can suffer as people experience illness brought by very intense stress and or react to high stress through absenteeism, turnover, errors, accidents, and dissatisfaction and reduced performance (Robbins, 2001).

According to Robbins (2001) managers seek the positive performance edge offered by constructive stress, but they must also be concerned about destructive stress and its potential impact on people and their work performance. One of the most difficult tasks is to find the optimum stress points for people and those they supervise (McGrath, 1983).

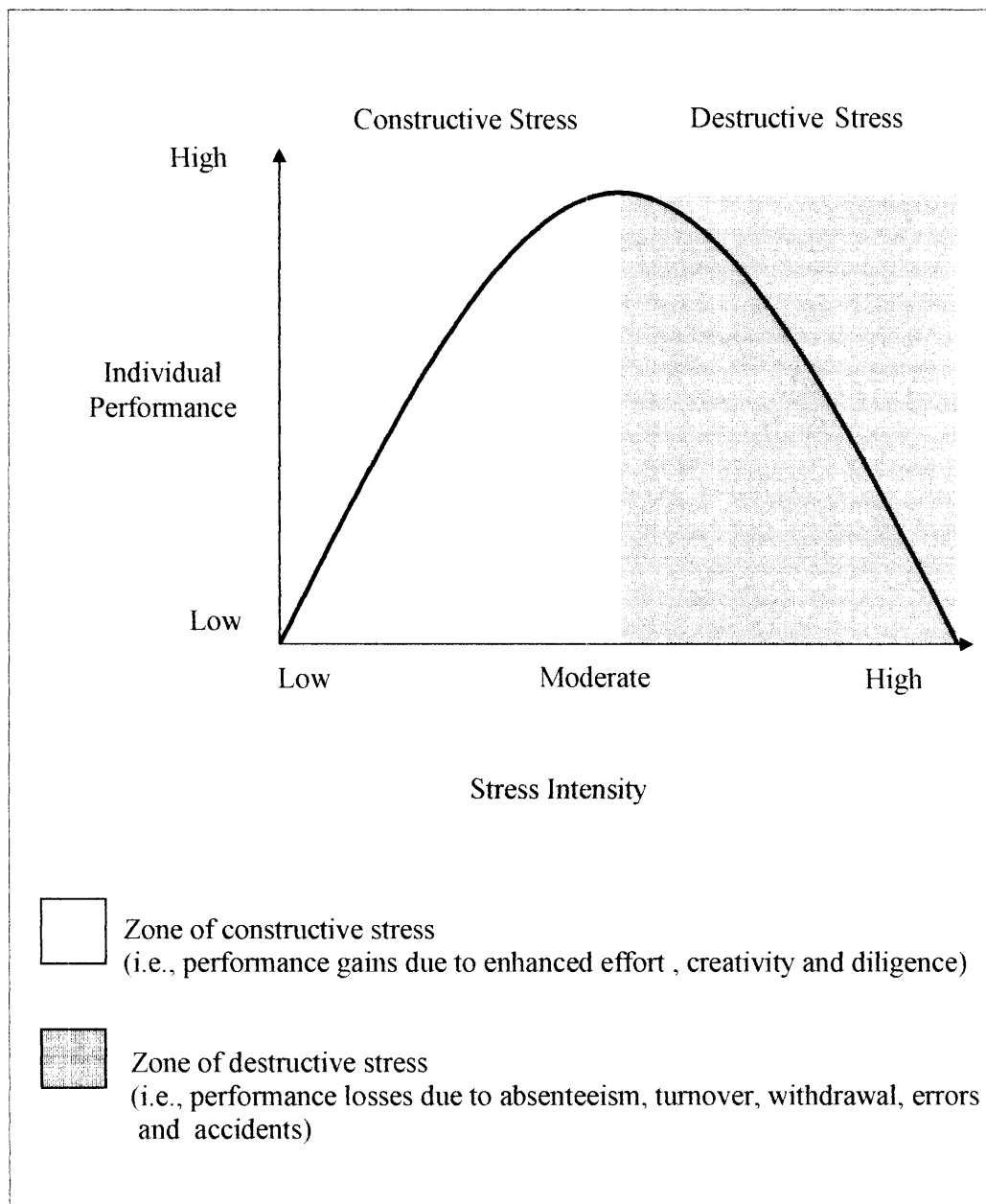


Figure 2.11: The Relationship Between Stress Intensity and Individual Performance (Schermerhorn, 1991)

## 2.6 Summary

This review aimed at identifying theoretical and empirical framework for the present research on work stress level and its sub-dimensions namely, Students'

Misbehaviour, Workload, Time and Resource Difficulties, Professional Recognition and Interpersonal Relationship.

The literature and studies relevant to the present study about work stress level were accounted for to supply clear elucidation of the theories and concepts as well as assumptions and hypotheses, and the importance of the major variables being investigated. Similar or unrelated and apposing or unrelated views are provided.

It was noted that there is still a dearth of studies that pertain to the teachers about their stress at work. The other studies reviewed and examined the work stress with many perspectives. The literature offered valuable insights to improve certain aspects of the present investigation like theoretical framework, research methodologies, and statistical treatment.

Using questionnaire, observations, and interviews were the commonly used data-gathering procedures as in the present research, variables like gender, marital status, teaching experience, monthly salary and any demographic variable were used in the many investigation especially to determine the differences and relationship between work stress level and its sub-dimension and that variables.

In conclusion, the literature cited explained how the employees especially teachers, can experience stress at workplace or school and need to consider the underlying conditions that might contribute and may influence their performance,

efficiency and effectiveness during their job. It was suggested that work stress level was influenced by students' misbehaviour, their workload, constraints of time and resource, needs for professional recognition and relationship at work but focus be further looked into in order to establish a wider generalisation of findings.

## **CHAPTER III**

### **METHODOLOGY**

#### **3.0 Overview**

Chapter III includes six parts: (1) Setting and Source of Information, (2) The Instrument, (3) Reliability and Validity of the Questionnaire, (4) Interpretation of Scores, (5) Data Collection and Administration, and (6) Data Analysis Technique.

Part One, Setting and Source of Information, discusses the unit of analysis, population and sampling techniques used in the study. Part Two, The Instrument, presents the questionnaire on work stress used in the research. Part Three, Reliability and Validity of the Questionnaire, discusses the overall reliability and validity of the questionnaire. Part Four, Interpretation of Scores, explains how the mean scores are interpreted. Part Five, Data Collection and Administration, describes how the researcher obtained the data, necessary for the study facilitated cooperation and support from the target schools and respondents. Part Six, Data Analysis Technique, explains the statistical techniques used in the analyses.

### **3.1 Setting and Source of Information**

This segment discusses about the population and sampling techniques involved in the study.

#### **3.1.1 Population**

Population refers to the entire group of people, events or things of interest that the researcher wishes to investigate (Sekaran, 1992). The population of secondary schools in the State of Malacca was 64 and the total population of teachers in three (3) districts, excluding Headmasters and Vice Headmasters, was 3960 (Statistics Report, Malacca Education Department, 2003).

#### **3.1.2 The Sampling Technique**

Sampling was done by using the lottery “fishbowl” and lottery sampling without replacement techniques (Sevilla et al., 1992). In these methods, codes for the 64 secondary schools in Malacca were first prepared, written on pieces of paper. Arranged according to the three (3) districts, the coded pieces of paper were then put in three (3) large boxes to allow all the rolled papers to move freely in several directions, after which actual sampling was done.

Thirty percent of secondary schools per district was considered as the sampling frame, and based on this acceptable sampling frame for a descriptive study (Sevilla et al., 1992), 1379 (34.8%) out of 3960 secondary school teachers in the State of Malacca became the target sample of the study. With this sampling frame, five (5) out of 17 secondary schools were taken from the District of Alor Gajah, 10 out of 34 from the District of Melaka Tengah, and four (4 ) out of 13 were from the District of Jasin. Hence, based on Statistics Report from the Education Department of the State of Malacca (2003), from a total population of 3960 secondary school teachers, excluding headmasters and vice headmasters, the final sample size in the 19 randomly selected secondary schools was 1379. Table 3.1 shows the data.

### **3.2 The Instrument**

The study used a questionnaire on work stress (Mokhtar, 1998) in collecting the data. The questionnaire consisted of two sections. The first section requested for socio-demographic information on the respondents' age, gender, marital status, teaching experience, subject taught, monthly income, academic qualification and school grade.

The second section comprised 36 items (original version) distributed across five (5) sub-dimensions of work stress: Students' Misbehaviour, Workload, Time and Resource Difficulties, Professional Recognition, and Interpersonal Relationship (adopted from Mokhtar, 1998).



Table 3.1: Population and Sample Sizes of Randomly Selected Schools per District

Secondary School	Target Sample	Final Sample	
		n	%
<u>District of Alor Gajah</u>			
1. Sekolah Menengah Kebangsaan Dato' Haji Talib Karim	70	68	5.62
2. Sekolah Menengah Kebangsaan Seri Pengkalan	62	42	3.47
	95	61	5.05
3. Sekolah Menengah Kebangsaan Teknik Datuk Seri Mohd. Zin	99	87	7.20
4. Sekolah Menengah Kebangsaan Dato' Dol Said	70	60	4.96
5. Sekolah Menengah Kebangsaan Rahmat			
<u>District of Jasin</u>			
1. Sekolah Menengah Kebangsaan Simpang Bekoh	56	45	3.72
	72	66	5.46
2. Sekolah Menengah Kebangsaan Datuk Bendahara	95	89	7.36
3. Sekolah Menengah Kebangsaan Dato Abdul Rahman Ya'kub	36	29	2.40
4. Sekolah Menengah Kebangsaan Nyalas			
<u>District of Melaka Tengah</u>			
1. Sekolah Menengah Kebangsaan Munshi Abdullah	94	77	6.37
2. Sekolah Menengah Kebangsaan Tun Mutahir	79	74	6.12
3. Sekolah Menengah Kebangsaan Bukit Katil	47	42	3.47
4. Sekolah Menengah Kebangsaan Malim	47	40	3.31
5. Sekolah Menengah Kebangsaan Bukit Rambai	38	37	3.06
Total	1379	1209	100

All the 36 items were stated in Bahasa Melayu (Malay Language), the national language, to ensure better understanding and comprehension of the questionnaire (See Appendix A). Respondents were requested to indicate their degree of agreement or disagreement for each item in the questionnaire using a five-point Likert scale given as follows:

1 = Very low stress

2 = Low stress

3 = Moderate stress

4 = High stress

5 = Very high stress

Table 3.2 shows the 36 items distributed into five (5) sub-dimensions, namely: Students' Misbehaviour, Workload, Time and Resource Difficulties, Professional Recognition, and Interpersonal Relationship.

Table 3.2: Distribution of Items According to Sub-Dimensions of Work Stress

Sub-Dimension	Item Number
Students' Misbehaviour	1, 4, 6, 15, 20, 21, 34 and 35
Workload	10, 11, 17, 18, 27, 31 and 33
Times and Resource Difficulties	2, 5, 9, 13, 14, 24 and 30
Professional Recognition	3, 8, 23, 26, and 32
Interpersonal Relationship	7, 12, 16, 19, 22, 25, 28, 29, and 36

As shown in Table 3.2, item numbers 1, 4, 6, 15, 20, 21, 34 and 35 represent the sub-dimension Students' Misbehaviour; item numbers 10, 11, 17, 18, 27, 31 and 33 reflect the sub-dimension Workload; item numbers 2, 5, 9, 13, 14, 24 and 30 measure sub-dimension Time and Resource Difficulties; item numbers 3, 8, 23, 26, and 32 are intended for the sub-dimension Professional Recognition; and item numbers 7, 12, 16, 19, 22, 25, 28, 29, and 36 represent for the sub-dimension Interpersonal Relationship.

### **3.3 Reliability and Validity of the Questionnaire**

Since the study involved respondents with different geographic and socio-demographic backgrounds as well as due to the different time and period of sampling, a pilot study was conducted to establish again the reliability and validity of the questionnaire of work stress devised originally by Mohktar (1998).

According to Sekaran (1992), the reliability of a measure indicates the extent to which the measure is error free (without bias) and is therefore a consistent measurement across time and across the various items in the instrument. Validity, on the other hand, ensures the ability of scale to measure the intended concept "work stress" concept in the present research.

For the purpose of the present study, pilot testing was done on January 8, 2003 using 40 secondary school teachers from Sekolah Menengah Kebangsaan

Naning, Alor Gajah (Those involved in the pilot study were excluded from the final study).

### **3.3.1 Overall Reliability of the Questionnaire**

As shown in Table 3.3, the overall Cronbach Alpha reliability coefficient for 36 items is 0.9497. Generally, the Cronbach Alpha of the 36 items is highly satisfactory and acceptable. According to Maslach and Jackson (1986), the reliability analysis scale can be accepted if the Cronbach Alpha coefficient is between 0.6 and 1.0. Sekaran (2000) stated that the closer the reliability coefficients get to 1.0, the better.

### **3.3.2 Reliability of the Items for Sub-Dimension Students' Misbehaviour**

As shown in Table 3.4, the Cronbach Alpha coefficient value for eight-item Students' Misbehaviour sub-dimension is 0.9174 and considered highly acceptable because the alpha value is in the range of 0.6 to 1.0 and closer to 1.0.

The maximum alpha if item deleted is 0.9171 (item 1) and the minimum alpha if item deleted is 0.8980 (item 35). On the whole, alpha values for all items under the sub-dimension Students' Misbehaviour were lower than the overall alpha of 0.9176 when these item were to be deleted, implying that the items were considered good and important.

Table 3.3: The Cronbach Alpha for Overall Reliability of 36 Items

Item No.	Mean	Standard Deviation	Item-Total Correlation	Alpha Value If Item Deleted
1	3.20	1.04	.5125	.9488
2	2.70	0.99	.4891	.9490
3	3.25	1.10	.0946	.9522
4	3.38	0.87	.6175	.9481
5	3.03	0.92	.7853	.9468
6	3.28	0.96	.5541	.9485
7	1.60	0.50	.4592	.9497
8	2.85	1.05	-.2005	.9542
9	3.50	1.09	.5817	.9483
10	2.38	1.03	.4688	.9498
11	2.55	0.96	.7112	.9473
12	2.45	0.90	.6579	.9478
13	2.93	0.92	.5432	.9486
14	3.10	1.00	.6260	.9479
15	3.55	0.96	.6844	.9474
16	2.50	1.06	.5153	.9487
17	2.83	1.17	.5757	.9483
18	3.25	1.10	.5954	.9482
19	2.88	1.11	.5604	.9484
20	3.33	1.12	.7221	.9471
21	3.23	1.00	.6262	.9479
22	2.78	0.86	.6787	.9477
23	2.63	0.84	.5086	.9488
24	2.75	1.01	.6698	.9476
25	2.40	1.17	.6347	.9479
26	2.40	1.24	.4979	.9492
27	2.70	1.04	.6972	.9474
28	2.25	0.95	.6203	.9480
29	3.10	1.15	.6331	.9479
30	2.85	0.80	.5655	.9484
31	3.08	1.14	.7714	.9467
32	2.55	0.90	.6361	.9479
33	2.80	0.85	.7210	.9475
34	3.08	0.92	.6692	.9477
35	3.43	1.01	.7559	.9470
36	2.93	1.02	.6680	.9476

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Overall Cronbach Alpha for 36 items = 0.9497

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Table 3.4: The Cronbach Alpha for Reliability of Items for Sub-Dimension Students' Misbehaviour

Item No.	Mean	Standard Deviation	Alpha Value If Item Deleted
1	3.20	1.04	.9171
4	3.38	0.87	.9055
6	3.28	0.96	.9137
15	3.55	0.96	.9127
20	3.33	1.12	.9019
21	3.33	1.00	.9009
34	3.08	0.92	.9029
35	3.43	1.01	.8980

Cronbach Alpha for Sub-Dimension Students' Misbehaviour = 0.9176

### 3.3.3 Reliability of the Items for Sub-Dimension Workload

Table 3.5 shows that the Cronbach Alpha coefficient for seven-item Workload sub-dimension is 0.8632 and considered highly acceptable because the alpha value is in the range of 0.6 to 1.0 and closer to 1.0. The maximum alpha if item deleted is 0.8566 (item 18) and the minimum alpha if item deleted is 0.8230 (item 11). On the whole, alpha values for all items under the sub-dimension Workload were lower than the overall alpha of 0.8632 when these item were to be deleted, implying that the items were considered good and important.

Table 3.5: The Cronbach Alpha for Reliability of Items for Sub-Dimension Workload

Item No.	Mean	Standard Deviation	Alpha Value If Item Deleted
10	2.38	1.03	.8489
11	2.55	0.96	.8230
17	2.83	1.17	.8479
18	3.25	1.10	.8566
27	2.70	1.04	.8380
31	3.08	1.14	.8553
33	2.80	0.85	.8373

Cronbach Alpha for Sub-Dimension Workload = 0.8632

#### 3.3.4 Reliability of the Items for Sub-Dimension Time and Resource Difficulties

As shown in Table 3.6, the Cronbach alpha coefficient for seven-item Time and Resource Difficulties sub-dimension is 0.8520. This was considered acceptable because the alpha value is in the range of 0.6 to 1.0 and closer to 1.0. The maximum alpha if item deleted is 0.8464 for item 9 and the minimum alpha if item deleted is 0.8032 for item 14. On the whole, alpha values for all items under the sub-dimension Time and Resource Difficulties were lower than the overall alpha of 0.8521 when these items were to be deleted, implying that the items were considered good and important.

Table 3.6: The Cronbach Alpha for Reliability of Items for Sub-Dimension Time and Resource Difficulties

Item No.	Mean	Standard Deviation	Alpha Value If Item Deleted
2	2.70	0.99	.8346
5	3.03	0.92	.8299
9	3.50	1.09	.8464
13	2.93	0.92	.8381
14	3.10	1.01	.8032
24	2.75	1.01	.8283
30	2.85	0.80	.8371

Cronbach Alpha for Sub-Dimension Time And Resource Difficulties =0.8520

### 3.3.5 Reliability of the Items for Sub-Dimension Professional Recognition

As shown in Table 3.7, the Cronbach alpha coefficient for five-item Professional Recognition sub-dimension is 0.3107 and considered not acceptable because the alpha value is not in the range of 0.6 to 1.0 and not closer to 1.0. Alpha value if item deleted for item number 3 is 0.4582; alpha for item number 8 is 0.6079; item number 23, 0.0681; item number 26, 0.0521; and item number 32, 0.1971. The maximum alpha if item deleted is 0.6079 for (item 8) and the minimum alpha if item deleted is 0.0521 for (item 26). Since alpha values without items 3 and 8 were higher than overall Cronbach Alpha for this sub-dimension, it was decided to discard these items.



Table 3.7: The Cronbach Alpha for Reliability of Items for Sub-Dimension Professional Recognition

Item No.	Mean	Standard Deviation	Alpha Value If Item Deleted
3	3.25	1.10	.4582
8	2.85	1.05	.6079
23	2.63	0.84	.0681
26	2.40	1.24	.0521
32	2.55	0.90	.1971
Cronbach Alpha for Sub-Dimension Professional Recognition = 0.3107			

### 3.3.6 Reliability of the Items for Sub-Dimension Interpersonal Relationship

The Cronbach Alpha coefficient for nine-item Interpersonal Relationship sub-dimension is 0.8460 and considered highly acceptable because the alpha value is in the range of 0.6 to 1.0 and closer to 1.0. Alpha value if item deleted for item number 7 is 0.8457; alpha for item number 12 is 0.8146; item number 16, 0.8400; item number 19, 0.8176; item number 22, 0.8277; item number 25, 0.8190; items number 28, 0.8241, item number 29, 0.8390 and item number 36, 0.8353. The maximum alpha if item deleted is 0.8400 for (item 16) and the minimum alpha if item deleted is 0.8146 for (item 12). Since the alpha value if item deleted for all items are below 0.8460, the items were considered good and important.

Table 3.8: The Cronbach Alpha for Reliability of Items for Sub-Dimension  
Interpersonal Relationship

Item No.	Mean	Standard Deviation	Alpha Value If Item Deleted
7	1.60	0.50	.8457
12	2.45	0.90	.8146
16	2.50	1.06	.8400
19	2.88	1.11	.8176
22	2.78	0.86	.8277
25	2.40	1.17	.8190
28	2.25	0.95	.8241
29	3.10	1.15	.8390
36	2.93	1.02	.8353
Cronbach Alpha for Sub-Dimension Interpersonal Relationship = .8460			

### 3.3.7 Reliability of Research Instrument for All Dimensions

Table 3.9 shows the summary of reliability coefficients according to work stress sub-dimensions. Sub-dimension Students' Misbehaviour showed the highest reliability coefficient with a Cronbach alpha of 0.9176. This was followed by Workload sub-dimension with a Cronbach alpha of 0.8620, Time and Resource Difficulties with a Cronbach alpha of 0.8520, and Interpersonal Relationship with a Cronbach alpha of 0.8460. The sub-dimension Professional Recognition had the lowest Cronbach alpha of 0.3107. Generally, the Cronbach alpha values for sub-dimensions Students' Misbehaviour, Workload, Time and Resource Difficulties and Interpersonal Relationship are considered satisfactory and acceptable. Only sub-dimension Professional Recognition had a weak Cronbach alpha, perhaps because of item 3 and item 8, which yielded higher alpha if they were to be

deleted. Hence, researcher decided to delete items 3 and 8 to increase the reliability of the instrument.

Table 3.9: Summary of Cronbach Alpha for Reliability of All Items According to Sub-Dimensions of Work Stress

Sub-Dimension	Cronbach Alpha ( $\alpha$ )
Students' Misbehaviour	0.9176
Workload	0.8632
Time and Resource Difficulties	0.8520
Professional Recognition	0.3107
Interpersonal Relationship	0.8460

### 3.3.8 Reliability of the Questionnaire After Discarding Two (2) Items

As shown in Table 3.10, the overall Cronbach alpha before discarding item 3 and item 8 was 0.9497. After discarding these items, the overall Cronbach Alpha increased by 0.0071, generating a coefficient of 0.9568. This indicates that the questionnaire tends to be more reliable after the two items were discarded.

Table 3.10: Cronbach Alpha Reliability Coefficient of the Questionnaire Before and After Discarding Item 3 and Item 8

Instrument	Cronbach Alpha ( $\alpha$ )
Before discarding two (2) items (Item 3 and item 8)	0.9497
After discarding two (2) items (item 3 and item 8)	0.9568

### 3.3.9 Reliability of the Questionnaire According to Each Sub-Dimension Before and After Discarding Two (2) Items

Table 3.11 shows the Cronbach Alpha of the questionnaire according to sub-dimensions Students' Misbehaviour, Workload, Time and Resource Difficulties, Professional Recognition, and Interpersonal Relationship before and after discarding item 3 and item 8. Generally, the alpha values for the sub-dimensions Students' Misbehaviour, Workload, Time and Resource Difficulties, and Interpersonal Relationship remained unchanged after discarding items 3 and 8. Only the alpha value for sub-dimension Professional Recognition significantly increased from 0.3107 to 0.7240, indicating that the questionnaire for sub-dimension Professional Recognition became more highly reliable after the two items were discarded.

Table 3.11: Cronbach Alpha of the Questionnaire According to Sub-Dimensions Before and After Discarding Item 3 and Item 8

Sub-Dimension	Cronbach Alpha ( $\alpha$ )	
	Before	After
Students' Misbehaviour	.9176	.9176
Workload	.8632	.8632
Time and Resource Difficulties	.8520	.8520
Professional Recognition	.3107	.7240
Interpersonal Relationship	.8460	.8460

### 3.3.10 Validity of the Instrument

The validity of the instrument (original version) used in this study was determined through an item-correlation analysis. As shown in Table 3.12, the  $r$ -value for items in sub-dimension Student's Misbehaviour is between 0.51 and 0.76; for items in sub-dimension Workload, between 0.47 and 0.77; for items in sub-dimension Time and Resource Difficulties, between 0.49 and 0.79; for items in sub-dimension Professional Recognition, between  $-0.20$  and 0.68; and, for items in sub-dimension Interpersonal Relationship, between 0.46 to 0.68.

According to Sevilla et al., (1992),  $r$ -value below 0.40 is considered low and negligible. In order to increase the validity of the instrument, items with  $r$ -value below .40 were discarded. Item 3 with an  $r$ -value of 0.09 and item 8 with an  $r$ -value of  $-0.20$  were discarded, after which it was found that the Cronbach Alpha

reliability coefficients of the final version of the questionnaire (with 34 items) increased.

For instance, it was found that the Cronbach Alpha of the sub-dimension Professional Recognition had an increment of 0.4133, showing a substantial rise from 0.3107 to 0.7240. The overall Cronbach alpha of the questionnaire also increased from 0.9497 to 0.9568.

Table 3.12: Item-Total Correlation for All the 36 Items

Students' Misbehaviour		Workload		Times and Resource Difficulties		Professional Recognition		Interpersonal Relationship	
Item no.	<i>r</i>	Item no.	<i>r</i>	Item no.	<i>r</i>	Item no.	<i>r</i>	Item no.	<i>r</i>
1	.51	10	.47	no.	.49	3	.09	7	.46
4	.62	11	.71	2	.79	8	-	12	.66
6	.55	17	.58	5	.58	23	.20	16	.52
15	.70	18	.59	9	.54	26	.51	19	.56
20	.72	27	.70	13	.63	32	.50	22	.68
21	.63	31	.77	14	.67		.64	25	.63
34	.67	33	.72	24	.57			28	.62
35	.76			30				29	.63
								36	.67

### **3.4 Interpretation of Mean Scores**

This part discusses about how the mean scores were interpreted in terms of overall stress level and across sub-dimensions Students' Misbehaviour, Workload, Time and Resource Difficulties, Professional Recognition, and Interpersonal Relationship.

#### **3.4.1 Overall Work Stress Level**

The respondents' overall work stress level was determined by summing up their score in the final version of the questionnaire with 34 items. The interval for range of scores for overall work stress was calculated as 27.2, obtained by dividing the difference between the maximum score (170) and the minimum score (34) with the five (5) corresponding levels of work stress.

As presented in Table 3.13, respondents who scored 61.19 and below were considered to have a "very low" work stress level. Those whose mean scores were between 61.20 and 88.39 were described as having "low" work stress level. Respondents were considered to have a "moderate stress" level when their total mean score was between mean score 88.40 and 115.59. The respondents were said to have "high" stress level if their total mean score was between 115.60 and 142.79. Those respondents whose total mean scores were in the range of 142.80 and above were considered to have a "very high" work stress level.

Table 3.13: Range of Mean Scores and Verbal Description of Work Stress for Overall Work Stress Level

Range of Mean Scores	Verbal Description
61.19 and below	Very low stress level
61.20 to 88.39	Low stress level
88.40 to 115.59	Moderate stress level
115.60 to 142.79	High stress level
142.80 and above	Very high stress level

A similar, overall item score method for measuring the level of work stress was also used by Junaidah (1995). Manthei et al. (1996) point out that this method is suitable and can be used to give objective and conservative picture in estimation of teachers' work stress compared to the one-item score method.

### 3.4.2 Work Stress Level According to Sub-Dimension Students'

#### Misbehaviour

The respondents' work stress level according to sub-dimension Students' Misbehaviour was determined by summing up their score in the final eight (8) items. The interval for range of scores for work stress sub-dimension Students' Misbehaviour was calculated as 6.4, obtained by dividing the difference between the maximum score (40) and the minimum score eight (8) with the five (5) corresponding levels of work stress.



Table 3.14 shows that those respondents who scored 14.39 and below were considered to have a “very low” work stress level. Those who have a total mean score between 14.40 and 20.79 were described as having “low” work stress level. Respondents were considered to have a “moderate” stress level when their total mean score was between 20.80 and 27.19. The respondents were said to have “high” stress level if their total mean score was between 27.20 and 33.59. Those respondents whose total scores were in the range of 33.60 and above were considered to have a “very high” work stress level.

Table 3.14: Range of Mean Scores and Verbal Description of Work Stress  
According to Sub-Dimension Students’ Misbehaviour

Range of Mean Scores	Verbal Description
14.39 and below	Very low stress level
14.40 to 20.79	Low stress level
20.80 to 27.19	Moderate stress level
27.20 to 33.59	High stress level
33.60 and above	Very high stress level

### 3.4.3 Work Stress Level According to Sub-Dimension Workload

The respondents’ work stress level according to sub-dimension Workload was determined by summing up their scores in the final seven (7) items. The interval for range of mean scores for work stress sub-dimension Workload work

stress was calculated as 5.6, obtained by dividing the difference between the maximum score (35) and the minimum score (7) with the five (5) corresponding levels of work stress.

In this study, respondents who scored 12.59 and below were considered to have a “very low” work stress level. Those who have a total mean score between 12.60 and 18.19 were described as having “low” work stress level. Respondents were considered to have a “moderate” stress level when their total mean score was between 18.20 and 23.79. The respondents were said to have “high” stress level if their total mean score was between 23.80 and 29.39. Those respondents whose total mean scores were in the range of 29.40 and above were considered to have a “very high” work stress level. Table 3.15 shows the data.

Table 3.15: Range of Mean Scores and Verbal Description of Work Stress  
According to Sub-Dimension of Workload

Range of Mean Scores	Verbal Description
12.59 and below	Very low stress level
12.60 to 18.19	Low stress level
18.20 to 23.79	Moderate stress level
23.80 to 29.39	High stress level
29.40 and above	Very high stress level

#### **3.4.4 Work Stress Level According to Sub-Dimension Time and Resource Difficulties**

The respondents' work stress level in terms of sub-dimension Time and Resource Difficulties was determined by summing up their scores in the final seven (7) items. The interval for range of scores for work stress sub-dimension Time and Resource Difficulties work stress was calculated as 5.6, obtained by dividing the difference between the maximum score (35) and the minimum score (7) with the five (5) corresponding levels of work stress.

In interpreting the means scores, those respondents who scored 12.59 and below were considered to have a "very low" work stress level. Those whose mean score was between 12.60 and 18.19 were described as having "low" work stress level. Respondents were described to have a "moderate" stress level when their total score was between 18.20 and 23.79. The respondents were said to have "high" stress level if their total score was between 23.80 and 29.39. Those respondents whose total scores were in the range of 29.40 and above were considered to have a "very high" work stress level. The data are presented in Table 3.16.

Table 3.16: Range of Mean Scores and Verbal Description of Work Stress  
According to Sub-Dimension Time and Resource Difficulties

Range of Mean Scores	Verbal Description
12.59 and below	Very low stress level
12.60 to 18.19	Low stress level
18.20 to 23.79	Moderate stress level
23.80 to 29.39	High stress level
29.40 and above	Very high stress level

#### **3.4.5 Work Stress Level According to Sub-Dimension Professional Recognition**

The respondents' work stress level as regards the sub-dimension Professional Recognition was determined by adding their scores in the final three (3) items. The interval for range of scores for work stress sub-dimension Professional Recognition was calculated as 2.4, obtained by dividing the difference between the maximum score (15) and the minimum score (3) with the five (5) corresponding levels of work stress.

In this research, respondents whose mean score was between 5.39 and below were considered to have a "very low" work stress level. Those who have a total mean score between 5.40 and 7.79 were described as having "low" work stress level. Respondents were considered to have a moderate stress level when

their total mean score was between 7.80 and 10.19. The respondents were said to have “high” stress level if their total mean score was between 10.20 and 12.59. Those respondents whose total scores were in the range of 12.60 and above were considered to have a “very” high work stress level. Table 3.17 shows the data.

#### **3.4.6 Work Stress Level According to Sub-Dimension Interpersonal Relationship**

The respondents’ work stress level according to sub-dimension Interpersonal Relationship was determined by adding their scores in the final nine (9) items. The interval for range of scores for work stress sub-dimension Interpersonal Relationship work stress was calculated as 7.2, obtained by dividing the difference between the maximum score (45) and the minimum score (9) with the five (5) corresponding levels of work stress. Table 3.17 shows the data.

Table 3.17: Range of Mean Scores and Verbal Description of Work Stress According to Sub-Dimension Professional Recognition

Range of Mean Scores	Verbal Description
5.39 and below	Very low stress level
5.40 to 7.79	Low stress level
7.80 to 10.19	Moderate stress level
10.20 to 12.59	High stress level
12.60 and above	Very high stress level

According to Table 3.18, respondents who scored 16.19 and below were considered to have a “very low” work stress level. Those whose total mean score was between 16.20 and 23.39 were described as having “low” work stress level. Respondents were considered to have a “moderate” stress level when their total score was between 23.40 and 30.59. The respondents were said to have “high stress” level if their total score was between 30.60 and 37.79. Those respondents whose total scores were in the range of 37.80 and above were considered to have a “very high” work stress level.

Table 3.18: Range of Mean Scores and Verbal Description of Work Stress  
According to Sub-Dimension Interpersonal Relationship

Range of Mean Scores	Verbal Description
16.19 and below	Very low stress level
16.20 to 23.39	Low stress level
23.40 to 30.59	Moderate stress level
30.60 to 37.79	High stress level
37.80 and above	Very high stress level

### 3.5 Data Collection and Administration

In compliance with university regulations and to facilitate cooperation and support from the target schools and respondents, approval letter was first obtained from the Graduate School of Universiti Utara Malaysia prior to data collection.

The letter of approval to conduct research in schools had to be obtained from the Educational Planning and Research Division, Ministry of Education (see Appendix B). After initial approval was sought, the researcher wrote a letter to the Director of Malacca Education Department to obtain the approval needed to conduct the study in the 19 randomly sampled secondary schools. After obtaining the approval from the Director of Malacca Education Department (see Appendix C), the researcher personally approached the principals of the 19 target secondary schools, and provided sufficient information regarding the purpose of the survey and the importance of the teachers' participation and feedback as well as the confidentiality of the research data. A set of questionnaires (see Appendix A) was given to each principal, whose help was sought in distributing them to the respondents. The visits to the 19 sampled secondary schools were done on January 13, 14 and 15, 2003. The respondents were given approximately a week to complete the questionnaires. The researcher personally collected the questionnaires from the principals on January 20, 21 and 22, 2003.

Table 3.19 shows the number of questionnaires that were distributed, and those that were usable. Of the 1379 questionnaires distributed, 1292 (93.69%) were returned to the researcher. A total of 1209 (87.67% of 1379) were used for analysis, and the rest 83 (6.02%) were rejected because they were not filled in appropriately.

Table 3.19: The Total and Percentage of Distributed, Returned, and Usable Questionnaires

Report	Total	Percentage (%)
Distributed	1379	100.00
Returned	1292	93.69
Usable	1209	87.67
Rejected	83	6.02

### 3.6 Data Analysis Technique

Data collected were processed employing descriptive and inferential statistics via SPSS (Statistical Package for the Social Sciences) Version 11.00, set at 0.05 significance level.

#### 3.6.1 Descriptive Statistics

To report on the respondents' demographic factors such as age, gender marital status, teaching experience, subject taught, monthly income, academic qualification and school grade, as well as to describe their levels of stress, descriptive statistics like means, frequencies and percentages were used.



### 3.6.2 Inferential Statistics

Inferential statistics such as the t-test, One-Way Analysis of Variance (ANOVA), Pearson Product Moment Correlation Analysis (Pearson's  $r$ ), and Chi-square were used to analyse certain data, described as follows:

#### 1. Independent t-test

This was used to determine if there were significant differences between overall work stress level and its sub-dimensions and:

- a) Gender
- b) Marital status
- c) Subject taught
- d) School grade

#### 2. One-Way ANOVA

This was used to determine if there were significant differences between overall work stress level and its sub-dimensions and:

- a. Age
- b. Teaching experience
- c. Monthly income
- d. Academic qualification

### 3. Pearson's r

Pearson's r was used to determine if there were significant relationships between overall work stress and its sub-dimensions and:

- a. Age
- b. Teaching experience
- c. Monthly income

### 4. Chi-square

Chi-square was used to determine if there were significant relationships between overall work stress and its sub-dimensions and:

- a) Gender
- b) Marital status
- c) Subject taught
- d) Academic qualification
- e) School grade

### 5. Scheffé test

This was used as a post-hoc test, aimed at identifying where significant differences would lie in terms of overall work stress level and its sub-dimensions when respondents were grouped by:

- a. Age

- b. Teaching experience
- c. Monthly income
- d. Academic qualification

### 3.6.3 Criteria Used

#### 1. Decision about the Null Hypotheses

At two-tailed test, the null hypothesis ( $H_0$ ) was rejected if the p-value was less than 0.05. ( $p < 0.05$ ). If the p-value was more than 0.05 ( $p > 0.05$ ), the null hypothesis ( $H_0$ ) was accepted.

#### 2. Strength of Relationship

The scale suggested by Sevilla et. al. (1992) was used to describe the strength of relationships between the dependent and independent variables of the study as shown in Table 3.20.

Table 3.20: Pearson's r Indices of Correlation

Pearson r	Indication
Between $\pm 0.80$ to $\pm 1.00$	High correlation
Between $\pm 0.60$ to $\pm 0.79$	Moderately high correlation
Between $\pm 0.40$ to $\pm 0.59$	Moderate correlation
Between $\pm 0.20$ to $\pm 0.39$	Low correlation
Between $\pm 0.01$ to $\pm 0.19$	Negligible correlation

## **CHAPTER IV**

### **FINDINGS**

#### **4.0 Overview**

Chapter IV includes five parts: (1) Respondents' Profile, (2) Level of Work Stress, (3) Differences in Work Stress Level, (4) The Relationships Between Work Stress and Independent Variables, and (5) Discussion.

Part One, Respondents' Profile, discusses about the respondents' profile in terms of their demographic factors. Part Two, Level of Work Stress, explains respondents' overall work stress level and across every sub-dimension of work stress. Part Three, Differences in Work Stress Level, presents the differences in the work stress levels when respondents were grouped by demographic characteristics. Part Four, Relationships Between Work Stress and Independent Variables, discusses the relationships of Works Stress Level with respondents' demographic characteristics. Part Five, the Discussion, presents the discussion of the study based on the findings.

## 4.1 The Respondents' Profile

This section presents findings about the respondents' profile in terms of their age, gender, marital status, teaching experience, subject taught, monthly income, academic qualification and school grade. The data are shown in frequencies and percentages.

### 4.1.1 Age

The respondents have been arbitrarily classified into three major groups of age: 30 years old and below, 31 to 40 years old and 41 years old and above. The study indicates that there were 195 (16.1 percent) of respondents whose age is 30 years old and below. Almost half of respondents (595 or 49.2 percent) were 31 and 40 years old. More than one third (419) or 34.7 percent of the respondents were between 41 years old and above. Table 4.1 shows that the mean age of respondents was 38 years old.

Table 4.1: Distribution of Respondents According to Age

Age	Frequency (n)	Percentage (%)
30 years old and below	195	16.1
31 – 40 years old	595	49.2
41 years old and above	419	34.7
Total	1209	100
Mean Age = 38 years old		

### 4.1.2 Gender

Across gender, as presented in Table 4.2, majority (734 or 60.7 percent) of respondents were female and 475 of 1209 (39.3 percent) were male.

Table 4.2: Distribution of Respondents According to Gender

Gender	Frequency (n)	Percentage (%)
Male	475	39.3
Female	734	60.7
Total	1209	100.0

### 4.1.3 Marital Status

The research also categorised the respondents into their marital status. The data presented in Table 4.3 show that almost all (1088 or 90 percent) of the respondents were married. Very small portion of samples (121 or 10 percent) were single.

Table 4.3: Distribution of Respondents According to Marital Status

Marital Status	Frequency (n)	Percentage (%)
Married	1088	90.0
Single	121	10.0
Total	1209	100

#### 4.1.4 Teaching Experience

Respondents were also requested to disclose their teaching experience. The respondents were arbitrarily classified into three major groups of teaching experience: 15 years and below, between 16 and 25 years and 26 years and above. The findings indicate that most of the respondents (787 or 65.1 percent) had less than 15 years of teaching experience. Almost one-third (351 or 29.0 percent) of them had taught between 16 and 25 years, and very few (71 or 5.9 percent) had taught more than 26 years. Table 4.4 shows that the mean number of teaching experience of respondents was 15 years.

Table 4.4: Distribution of Respondents According to Teaching Experience

Teaching Experience	Frequency (n)	Percentage (%)
15 years and below	787	65.1
16 – 25 years	351	29.0
26 years and above	71	5.9
Total	1209	100
Mean Teaching Experience = 15 years		

#### 4.1.5 Subject Taught

The research also looked into the distribution of the respondents according to their subject taught. Respondents were arbitrarily classified into two major groups based on subject taught: Arts and Science. The Arts group consisted of

respondents who taught language subjects like English, Malay, Tamil, Mandarin, and Arabic as well as Malay Literature, Islamic Studies, General Study, Art and Design, Economics, Accounting, and other management subjects. The respondents who taught Biology, Chemistry, Physics, Modern Mathematics, Additional Mathematics, Science and Technology, Vocational and Technical subjects and Physical Education (PE) were categorised in the Science Group. A nearly equal distribution of those who taught Arts (639 or 52.9 percent) and those who taught Science (570 or 47.1 percent) could be observed in the distribution of subjects taught by the respondents. Table 4.5 shows the data.

Table 4.5: Distribution of Respondents According to Subject Taught

Subject Taught	Frequency (n)	Percentage (%)
Arts (Language, Islamic Studies, etc.)	639	52.9
Science (Math, Physics, Chemistry, etc.)	570	47.1
Total	1209	100

#### 4.1.6 Monthly Income

Arbitrarily, the respondents were classified into four major groups of monthly income: RM 2000 and below, between RM 2001 and 2500, between RM 2501 and RM 3000, and RM 3001 and above. One-fourth (323 or 26.7 percent) of respondents had monthly income RM 2000 and above. One-third (469 or 38.8 percent) of them earned income between RM 2001 and RM 2500. For monthly



income between RM 2501 and RM 3000, there were 251 or 20.8 percent of respondents who earned income in this category. A few of respondents (166 or 13.7 percent) had monthly income more than RM 3001. The respondents' mean monthly income was RM 2307.05. Table 4.6 shows the data.

Table 4.6: Distribution of Respondents According to Monthly Income

Monthly Income	Frequency (n)	Percentage (%)
RM 2000 and below	323	26.7
RM 2001 – RM 2500	469	38.8
RM 2501 – RM 3000	251	20.8
RM 3001 and above	166	13.7
Total	1209	100
Mean Monthly Income = RM 2307.05		

#### 4.1.7 Academic Qualification

The respondents were arbitrarily classified into three major groups based on academic qualification, namely Non-degree, Bachelor's degree, and Master's degree holders. The Non-degree group consisted of respondents who qualified with LCE, MCE, HSC, SPM, STPM, Teaching Certificate, Vocational and Technical Certificate, Diploma or other Teaching Diploma. The respondents who had bachelor's degree like Bachelor of Art, Bachelor of Science or Bachelor of Education were included in the Bachelor's degree category. The Master's degree group consisted of respondents who qualified to teach with postgraduate degrees such as MBA and MSc. In terms of academic qualification, Table 4.7 shows that

one-fourth (315 or 26.1 percent) of respondents were non-degree holders. A great majority of respondents (878 or 72.6 percent) were holding bachelor's degrees. A few of them were master's degree holders (16 or 1.3 percent).

Table 4.7: Distribution of Respondents According to Academic Qualification

Academic Qualification	Frequency (n)	Percentage (%)
Non-degree (SPM, STPM, etc.)	315	26.1
Bachelor's degree (BA, BEd, etc.)	878	72.6
Master's degree (MBA, MSc, etc.)	16	1.3
Total	1209	100

#### 4.1.8 School Grade

In this research, the respondents were arbitrarily classified into two major groups based on of school grade: Grade A Secondary School and Grade B Secondary School. Grade A Secondary School had 1000 and above students population and Grade B Secondary School had 999 and below students population. The study indicates that most of the respondents (950 or 78.6 percent) were from Grade A secondary schools, while the rest (269 or 21.4 percent) were from Grade B secondary schools. Table 4.8 shows the data.

Table 4.8: Distribution of Respondents According to School Grade

Secondary School Grade	Frequency (n)	Percentage (%)
Grade A (1000 students and above)	950	78.6
Grade B (999 students and below)	259	21.4
Total	1209	100

## 4.2 Level of Work Stress

This part discusses about the respondents' overall work stress level and across its sub-dimensions such as Students' Misbehaviour, Workload, Time and Resource Difficulties, Professional Recognition, and Interpersonal Relationship. The findings are presented in frequencies and percentages and/or means.

### 4.2.1 Overall Work Stress Level

In terms of overall work stress level, the study found that almost half (539 or 44.6 percent) of the respondents experienced "moderate" level of work stress. About one-fourth (284 or 23.5 percent) of the respondents demonstrated "low to very low" level of stress, while one-third (386 or 31.9 percent) of them showed "high to very high" level of work stress. Table 4.9 shows that the mean level of work stress of respondents was 104.20, described in this study as "moderate".

Table 4.9: Distribution of Respondents According to Overall Work Stress Level

Work Stress Level	Range of Mean Score	Frequency	Percentage
Very Low	61.19 and below	50	4.1
Low	61.20 to 88.39	234	19.4
Moderate	88.40 to 115.59	539	44.6
High	115.60 to 142.79	341	28.2
Very High	142.80 and above	45	3.7
Total		1209	100.0
Overall Mean Score = 104.20 (moderate)			

The findings, however, are not as alarming as the findings of Trendall (1989), who found that most (74 percent) of secondary school teachers in United States are having a very high stress, with some having extremely high stress with their work.

#### **4.2.2 Level of Work Stress According to Sub-Dimension Students' Misbehaviour**

Looking at Table 4.10, it can be seen that a little more than half (702 or 57.2) of the respondents had higher stress level in terms of Students' Misbehaviour. About one-third (360 or 29.8 percent) of the respondents experienced moderate stress level, while a few (158 or 13.1 percent) of them

demonstrated “low to very low” level of stress. The respondents’ mean score for this category was 27.67, described as “high” in this research.

Table 4.10: Distribution of Respondents’ Level of Work Stress in Terms of Sub-Dimension Students’ Misbehaviour.

Work Stress Level	Range of Mean Score	Frequency	Percentage
Very Low	14.39 and below	29	2.4
Low	14.40 to 20.79	129	10.7
Moderate	20.80 to 27.19	360	29.8
High	27.20 to 33.59	465	38.5
Very High	33.60 and above	226	18.7
Total		1209	100.0
Mean Score = 27.67 (high)			

#### 4.2.3 Level of Work Stress According to Sub-Dimension Workload

An almost equal distribution of those who experienced “low to very low” stress level (405 or 32.5 percent), moderate stress level (416 or 34.4 percent), and “high to very high” stress level (388 or 32.1 percent) could be observed in the data in Table 4.11. The mean score obtained was 21.03, described as “moderate” stress level in this study.

Table 4.11: Distribution of Respondents' Level of Work Stress in Terms of Sub-Dimension Workload

Work Stress Level	Range of Mean Score	Frequency	Percentage
Very Low	12.59 and below	83	6.9
Low	12.60 to 18.19	322	26.6
Moderate	18.20 to 23.79	416	34.4
High	23.80 to 29.39	321	26.6
Very High	29.40 and above	67	5.5
Total		1209	100.0
Mean Score = 21.03 (moderate)			

#### 4.2.4 Level of Work Stress According to Sub-Dimension Time and Resource Difficulties

Looking at Table 4.12, it can be seen that a number (509 or 42.1 percent) of the respondents experienced moderate level of stress in terms of Time and Resource Difficulties. A good proportion of those respondents could be seen in those who experienced “low to very low” level (340 or 28.2 percent) and those who experienced “high” to “very high” stress level (360 or 29.7 percent). The mean score obtained was 21.05, described as moderate stress level in this study.

Table 4.12: Distribution of Respondents' Level of Work Stress in terms of Sub-Dimension Time and Resource Difficulties

Work Stress Level	Range of Mean Score	Frequency	Percentage
Very Low	12.59 and below	48	4.0
Low	12.60 to 18.19	292	24.2
Moderate	18.20 to 23.79	509	42.1
High	23.80 to 29.39	322	26.6
Very High	29.40 and above	38	3.1
Total		1209	100.0
Mean Score =21.05 (moderate)			

#### 4.2.5 Level of Work Stress According to Sub-Dimension Professional Recognition

In terms of Professional Recognition work stress level, almost majority (441 or 35.5 percent) the respondents had experienced moderate stress level. A few (114 or 9.4 percent) of respondents who experienced very low stress followed by 297 or 24.6 percent of respondents experienced low stress. Another 228 or 18.9 percent of respondents experienced a high stress level while 129 or 10.7 percent of them were found in the study to experience a very high level of stress. One-third (441 or 36.5 percent) of respondents experienced a moderate stress level. Table 4.13 shows the distribution of respondents' level of work stress in terms of

sub-dimension Professional Recognition. The mean score obtained was 8.95, described as moderate stress level in this study.

Table 4.13: Distribution of Respondents' Level of Work Stress in Terms of Sub-Dimension Professional Recognition

Work Stress Level	Range of Mean Score	Frequency	Percentage
Very Low	5.39 and below	114	9.4
Low	5.40 to 7.79	297	24.6
Moderate	7.80 to 10.19	441	36.5
High	10.20 to 12.59	228	18.9
Very High	12.60 and above	129	10.7
Total		1209	100.0
Mean Score = 8.95 (moderate)			

#### 4.2.6 Level of Work Stress According to Sub-Dimension Interpersonal Relationship

Table 4.14 shows the distribution of respondents by level of work stress in terms of sub-dimension Interpersonal Relationship. About one-third (460 or 38.0 percent) of them demonstrated moderate level of stress. A few (9.8 percent or 119) of respondents experienced a very low stress in terms of sub-dimension Interpersonal Relationship. However low stress level found experiencing by one-third (347 or 28.7 percent) of respondents, one-fourth (238 or 19.7 percent or) of



respondents experiencing a high stress level. Very few (45 or 3.7 percent) of respondents had experienced a very high stress. The mean score obtained was 25.50, described as moderate stress level in this study.

Table 4.14: Distribution of Respondents' Level of Work Stress in Terms of Sub-Dimension Interpersonal Relationship

Work Stress Level	Range of Mean Score	Frequency	Percentage
Very Low	16.19 and below	119	9.8
Low	16.20 to 23.39	347	28.7
Moderate	23.40 to 30.59	460	38.0
High	30.60 to 37.79	238	19.7
Very High	37.80 and above	45	3.7
Total		1209	100.0
Mean Score = 25.50 (moderate)			

### 4.3 Differences in Work Stress Level

#### 4.3.1 Differences in Overall Work Stress Level According to Respondents' Demographic Characteristics

This part discusses the findings on differences in the overall work stress level of respondents grouped by (a) age, (b) gender, (c) marital status, (d) teaching experience, (e) subject taught, (f) monthly income, (g) academic qualification, and

(h) school grade. ANOVA and t-test were used in the analyses of any significant differences.

#### 4.3.1.1 Overall Work Stress Level and Age

ANOVA results in Table 4.15 revealed that significant differences existed in the Overall work stress level amongst the respondents grouped according to age ( $F=5.249$ ,  $p=0.005$ ). Therefore, the null hypothesis that there are no significant differences in the overall work stress level of the respondents when grouped by age was rejected. To identify where the significant differences lie, the Scheffe test was employed.

Table 4.15: One-Way ANOVA in the Work Stress Level (Overall) of Respondents Grouped by Age

Source of Variation	Sum of Squares	df	Mean Squares	F	p-value
Groups	5406.722	2	2703.361	5.249	0.005**
Within groups	621126.24	1206	515.030		
Total	626532.96	1208			

\*\* Significant at 0.01 significance level ( $p<0.01$ )

Scheffe test results in Table 4.16 revealed that in terms of overall work stress level, the significant differences were found between the age group of 30 years old and below and those 31 and 40 years old ( $p=0.005$ ). The study suggests that those respondents between 31 and 40 years old (mean =106.24) experienced more stress compared to those 30 years old and below (mean=100.88).

Table 4.16: Scheffe Post Hoc Test of Differences in the Work Stress Level  
(Overall) of Respondents Grouped by Age

Age Group (mean)	n	Compared Group (mean)	p-value
30 years old and below (100.88)	195	31-40 years old (106.24)	0.017*
		41 years old and above (102.84)	0.610 <sup>ns</sup>
31-40 years old (106.24)	595	30 years old and below (100.88)	0.017*
		41 years old and above (102.84)	0.063 <sup>ns</sup>
41 years old and above (102.84)	419	30 years old and below (100.88)	0.610 <sup>ns</sup>
		31-40 years old (106.24)	0.063 <sup>ns</sup>

\* Significant at 0.05 significance level ( $p < 0.05$ )

<sup>ns</sup> Not significant at 0.05 significance level ( $p > 0.05$ )

#### 4.3.1.2 Overall Work Stress Level and Gender

Result of the t-test analyses reflected in Table 4.17 disclosed that no significant differences existed in overall work stress level amongst the respondents grouped according to gender ( $t\text{-value}=0.791$ ,  $p=0.374$ ). Hence, the null hypothesis that there are no significant differences in the overall work stress level of the respondents when grouped by gender was accepted. From the study, it was revealed that overall work stress level was not significantly different between male and female respondents even though the mean score for male respondents

(Mean =106.07) are higher than the mean score for female respondents (Mean =102.99).

Table 4.17: Differences in the Work Stress Level (Overall) of Respondents  
Grouped by Gender

Gender	n	Mean Score	Std. Deviation	t-value	p-value
Male	475	106.0723	23.309	0.791	0.374 <sup>ns</sup>
Female	734	102.9989	22.354		

<sup>ns</sup>Not significant at 0.05 significance level ( $p > 0.05$ )

This finding concurs with the study of Abdul (1996), who found that there was no significant differences between the teachers' work stress level and their gender.

#### 4.3.1.3 Overall Work Stress Level and Marital Status

No significant differences existed in overall work stress level amongst the respondents grouped according to marital status. This is supported by the t-value of 0.022, and a p-value of 0.882. The null hypothesis that there are no significant differences in the overall work stress level of the respondents when grouped by marital status, is therefore, accepted. From the study, it was revealed that, overall work stress level was not significantly different between married and single respondents even though mean score for married respondents (Mean=104.52) was

higher than single respondents (Mean =101.34). Table 4.18 shows the overall work stress level of respondents grouped according to marital status.

Table 4.18: Differences in the Work Stress Level (Overall) of Respondents Grouped by Marital Status.

Marital Status	n	Mean Score	Std. Deviation	t-value	p-value
Married	1088	104.5221	22.806	0.022	0.882 <sup>ns</sup>
Single	121	101.3423	22.375		

<sup>ns</sup>Not significant at 0.05 significance level ( $p > 0.05$ )

#### 4.3.1.4 Overall Work Stress Level and Teaching Experience

ANOVA results in Table 4.19 revealed that significant differences existed in the overall work stress level amongst the respondents grouped according to teaching experience ( $F=5.639$ ,  $p=0.004$ ). Therefore the null hypothesis that there are no significant differences in the overall work stress level of the respondents when grouped by teaching experience was rejected. From the study it was known that overall work stress level was significantly different amongst the respondents' teaching experience groups.

Table 4.19: One-Way ANOVA in the Work Stress Level (Overall) of Respondents Grouped by Teaching Experience

Source of Variation	Sum of Squares	df	Mean Squares	F	p-value
Between Groups	5804.362	2	2902.181	5.639	0.004**
Within groups	620728.60	1206	514.700		
Total	626532.96	1208			

\*\* Significant at 0.01 significance level ( $p < 0.01$ )

As shown in Table 4.20, the Scheffe test indicates that the significant difference lies between those respondents who had teaching experience of 15 years and below, and those who had teaching experience between 16 and 25 years ( $p=0.036$ ). In other words, respondents who had teaching experience 15 years and below (mean=105.71) experienced higher stress compared to those who had teaching experience between 16 and 25 years (mean=101.95). Moreover, the Scheffe test revealed the significant difference in overall work stress level between those respondents who had teaching experience 15 years and below and those who had taught 26 years and above ( $p=0.041$ ). This indicates that respondents who had teaching experience 15 years and below (mean=104.2123) experienced more stress compared to those who had teaching experience 26 years and above (mean=104.1477).

Table 4.20: Scheffe Post Hoc Test of Differences in the Work Stress Level  
(Overall) of Respondents Grouped by Teaching Experience

Teaching Experience Group (mean)	n	Compared Group (mean)	p-value
15 years and below (105.7100)	787	16-25 years (101.9500)	0.036*
		26 years and above (98.5900)	0.041*
16-25 years (101.9500)	351	15 years and below (105.7100)	0.036*
		26 years and above (98.5900)	0.524 <sup>ns</sup>
26 years and above (98.5900)	71	15 years and below (105.7100)	0.041*
		16-25 years (101.9500)	0.524 <sup>ns</sup>

\* Significant at 0.05 significance level ( $p < 0.05$ )

<sup>ns</sup>Not significant at 0.05 significance level ( $p > 0.05$ )

#### 4.3.1.5 Overall Work Stress Level and Subject Taught

Results of the t-test analyses reflected in Table 4.21 disclosed that significant differences existed in overall work stress level amongst the respondents grouped according to subject taught ( $t\text{-value}=8.979$ ,  $p=0.003$ ). Therefore, the null hypothesis that there are no significant differences in the overall work stress level of the respondents when grouped by subject taught was rejected.

The study indicates that the level of overall work stress was significantly different amongst those respondents teaching the Arts subjects (Languages,

History, etc.) and those teaching the Science stream (Mathematics, Chemistry, etc). From the study, it was revealed that the mean score for respondents having taught the Arts (mean=104.87) was significantly higher than that of respondents having taught Science (mean=103.45). The result implies that respondents teaching Arts tend to be more stressed than those teaching Science.

Table 4.21: Differences in the Work Stress Level (Overall) of Respondents Grouped by Subject Taught

Subject Taught	n	Mean Score	Std. Deviation	t-value	p-value
Arts	639	104.8721	24.141	8.979	0.003**
Science	570	103.4554	21.133		

\*\* Significant at 0.01 significance level ( $p < 0.01$ )

#### 4.3.1.6 Overall Work Stress Level and Monthly Income

There were significant differences in the overall work stress level amongst the respondents grouped according to monthly income ( $F=2.710$ ,  $p=0.044$ ). Hence the null hypothesis that there are no significant differences in the overall work stress level of the respondents when grouped by monthly income was rejected.

Table 4.22 shows the results.



Table 4.22: One-Way ANOVA in the Work Stress Level (Overall) of Respondents Grouped by Monthly Income

Source of Variation	Sum of Squares	df	Mean Squares	F	p-value
Between groups	4198.362	3	1399.454	2.710	0.044*
Within groups	622334.60	1205	516.640		
Total	626532.96				

\* Significant at 0.05 significance level ( $p < 0.05$ )

The Scheffe test indicates that the significant difference lies between those respondents who earned monthly salary between RM 2001 and 2500 and those whose salary was more than RM3001. In other words, respondents who earned monthly salary between RM2001 and RM2500 (mean=105.98) experienced more stress compared to those who earned a monthly salary more than RM3001 (mean =100.10). Table 4.22 shows the data.

#### 4.3.1.7 Overall Work Stress Level and Academic Qualification

ANOVA results in Table 4.24 revealed that there were significant difference in the overall work stress level amongst the respondents grouped according to academic qualification ( $F=9.099$ ,  $p=0.000$ ). The null hypothesis that there are no significant differences in the overall work stress level of the respondents when grouped by academic qualification was therefore rejected.

Table 4.23: Scheffe Post Hoc Test of Differences in the Work Stress Level  
(Overall) of Respondents Grouped by Monthly Income

Monthly Income Group (mean)	n	Compared Group (mean)	p-value
RM 2000 and below (104.12)	323	RM 2001–RM 2500 (105.98)	0.755 <sup>ns</sup>
		RM 2501–RM 3000 (103.82)	0.999 <sup>ns</sup>
		RM 3001 and above (100.10)	0.331 <sup>ns</sup>
RM 2001 – RM 2500 (105.98)	469	RM 2000 and below (104.12)	0.755 <sup>ns</sup>
		RM 2501–RM 3000 (103.82)	0.708 <sup>ns</sup>
		RM 3001 and above (100.10)	0.046*
RM 2501 – RM 3000 (103.82)	251	RM 2000 and below (104.1200)	0.999 <sup>ns</sup>
		RM 2001–RM 2500 (105.98)	0.708 <sup>ns</sup>
		RM 3001 and above (100.10)	0.446 <sup>ns</sup>
RM 3001 and above (100.10)	166	RM 2000 and below (104.12)	0.331 <sup>ns</sup>
		RM 2001–RM 2500 (105.98)	0.046*
		RM 2501–RM 3000 (103.82)	0.446 <sup>ns</sup>

\* Significant at 0.05 significance level ( $p < 0.05$ )

<sup>ns</sup>Not significant at 0.05 significance level ( $p > 0.05$ )

Table 4.24: One-Way ANOVA in the Work Stress Level (Overall) of Respondents Grouped by Academic Qualification

Source of Variation	Sum of Squares	df	Mean Squares	F	p-value
Between groups	9313.742	2	465.871	9.099	0.000**
Within groups	617219.22	1206	511.790		
Total	626532.96	1208			

\*\* Significant at 0.01 significance level ( $p < 0.01$ )

After employing the Scheffe test, it was found that the significant difference lies between those who were non-degree holders and bachelor's degree holders ( $p=0.005$ ). The study pointed out that the non-degree holders (mean=100.45) experienced less stress compared to the bachelor's degree holders (mean=105.26). Another significant difference was found between the non-degree holders and master's degree holders ( $p=0.004$ ). The study pointed out that respondents with no degrees (mean=100.45) experienced less stress compared to those who were master's degrees holders (mean=104.20). Moreover, the significant difference lies between those respondents who were bachelor's degree holders and master's degree holders ( $p=0.039$ ). The study pointed out that respondents had bachelor's degree holders (mean=105.26) experienced higher stress compared to those who were master's degrees holders (mean=104.20).

Table 4.25: Scheffe Post Hoc Test of Differences in the Work Stress Level  
(Overall) of Respondents Grouped by Academic Qualification

Academic Qualification Group (mean)	n	Compared Group (mean)	p-value
Non-degree (100.45)	315	Bachelor's degree (105.26)	0.005**
		Master's Degree (104.20)	0.004**
Bachelor's degree (105.26)	878	Non-degree (100.45)	0.005**
		Master's Degree (104.20)	0.039*
Master's Degree (104.20)	16	Non-degree (100.45)	0.004**
		Bachelor's degree (100.45)	0.039*

\* Significant at 0.05 significance level ( $p < 0.05$ )

\*\* Significant at 0.01 significance level ( $p < 0.01$ )

<sup>ns</sup>Not significant at 0.05 significance level ( $p > 0.05$ )

#### 4.3.1.8 Overall Work Stress Level and School Grade

The study disclosed that no significant differences existed in overall work stress level amongst the respondents grouped according to school grade ( $t\text{-value}=0.950$ ,  $p=0.330$ ). Therefore, the null hypothesis that there are no significant differences in the overall work stress level of the respondents when grouped by school grade was accepted. From the study, it was revealed that overall work stress level was not significantly different between respondents from Grade A secondary schools (1000 and above students) and those from Grade B secondary schools (1000 and below students) even though the mean score for

respondents from Grade A secondary schools (mean=104.65) was higher than the mean score of respondents from Grade B secondary schools (mean=102.56). Result of the t-test analyses between overall work stress level and school grade is reflected in Table 4.26.

Table 4.26: Differences in the Work Stress Level (Overall) of Respondents Grouped by School Grade

School Grade	n	Mean Score	Std. Deviation	t-value	p-value
Grade A	950	104.6512	23.121	0.950	0.330 <sup>ns</sup>
Grade B	259	102.5621	21.417		

<sup>ns</sup>Not Significant at 0.05 significance level ( $p > 0.05$ )

#### **4.3.2 Differences in Work Stress Level in Terms of Sub-Dimension Students' Misbehaviour According to Respondents' Demographic Characteristics**

This part discusses the differences in work stress levels in terms of the sub-dimension Students' Misbehaviour according to demographic characteristics age, gender, marital status, teaching experience, subject taught, monthly income, academic qualification and school grade. Analyses were done by using ANOVA and the t-test.

#### 4.3.2.1 Work Stress Level in Terms of Sub-Dimension Students' Misbehaviour and Age

ANOVA results in Table 4.27 revealed that significant differences existed in the work stress level in terms of sub-dimension Students' Misbehaviour amongst the respondents grouped according to age ( $F=4.965$ ,  $p=0.007$ ). Therefore, the null hypothesis that there are no significant differences in the work stress level in terms of sub-dimension Students' Misbehaviour of the respondents when grouped by age was rejected.

Table 4.27: One-Way ANOVA in the Work Stress Level (Students' Misbehaviour) of Respondents Grouped by Age

Source of Variation	Sum of Squares	df	Mean Squares	F	p-value
Between groups	395.511	2	197.756	4.965	0.007**
Within groups	48119.468	1206	39.900		
Total	48514.979	1208			

\*\* Significant at 0.01 significance level ( $p<0.01$ )

Using the Scheffe test, the significant difference was found to be between those respondents between 31 and 40 years old and those more than 41 years old ( $p=0.012$ ). Those respondents between 31 and 40 years old (mean=28.0857) experienced more stress compared to those who were more than 41 years old (mean score=26.8054). Table 4.28 shows the results.

Table 4.28: Scheffe Post Hoc Test of Differences in the Work Stress Level  
(Students' Misbehaviour) of Respondents Grouped by Age

Age Group (mean)	n	Compared Group (mean)	p-value
30 years old and below (28.0923)	195	31-40 years old (28.0857)	1.000 <sup>ns</sup>
		41 years old and above (26.8854)	0.089 <sup>ns</sup>
31-40 years old (28.0857)	595	30 years old and below (28.0923)	1.000 <sup>ns</sup>
		41 years old and above (26.8854)	0.012*
41 years old and above (26.8854)	419	30 years old and below (28.0923)	0.089 <sup>ns</sup>
		31-40 years old (28.0857)	0.012*

\* Significant at 0.05 significance level ( $p < 0.05$ )

<sup>ns</sup>Not significant at 0.05 significance level ( $p > 0.05$ )

#### 4.3.2.2 Work Stress Level in Terms of Sub-Dimension Students' Misbehaviour and Gender

Results of the t-test analyses reflected in Table 4.29 disclosed that no significant differences existed in work stress level in terms of sub-dimension Students' Misbehaviour amongst the respondents grouped according to gender (t-value=0.0816,  $p=0.366$ ). Therefore, the null hypothesis that there are no significant differences in the work stress level in terms of sub-dimension Students' Misbehaviour of the respondents when grouped by gender was accepted. In other words, work stress level in terms of sub-dimension Students' Misbehaviour was not significantly different between male and female

respondents even though the mean score of female respondents (mean=28.0422) was higher than the mean score of male respondents (mean=27.0968).

Table 4.29: Differences in the Work Stress Level (Students' Misbehaviour) of Respondents Grouped by Gender

Gender	n	Mean Score	Std. Deviation	t-value	p-value
Male	475	27.0968	6.10864	0.816	0.366 <sup>ns</sup>
Female	734	28.0422	6.45793		

<sup>ns</sup>Not significant at 0.05 significance level ( $p > 0.05$ )

#### 4.3.2.3 Work Stress Level in Terms of Sub-Dimension Students' Misbehaviour and Marital Status

There were no significant differences in the work stress level in terms of sub-dimension Students' Misbehaviour amongst the respondents grouped according to marital status. This is supported by the t-value of 1.030 and the p-value of 0.310. The null hypothesis that there is no significant difference in the work stress level in terms of sub-dimension Students' Misbehaviour of the respondents when grouped by Marital Status was therefore, accepted. From the study, it was shown that, work stress level in terms of Students' Misbehaviour was not significantly different between married and single respondents even though the mean score for married respondents (mean =27.7693) was higher than mean score for single respondents (mean=26.7851). Table 4.30 reflects the results.



Table 4.30: Differences in the Work Stress Level (Students' Misbehaviour) of Respondents Grouped by Marital Status

Marital Status	n	Mean Score	Std. Deviation	t-value	p-value
Married	1088	27.7693	6.30132	1.030	0.310 <sup>ns</sup>
Single	121	26.7851	6.61338		

<sup>ns</sup>Not significant at 0.05 significance level ( $p > 0.05$ )

#### 4.3.2.4 Work Stress Level in Terms of Sub-Dimension Students' Misbehaviour and Teaching Experience

ANOVA results in Table 4.31 revealed that significant differences existed in the work stress level in terms of sub-dimension Students' Misbehaviour amongst the respondents grouped according to teaching experience ( $F=11.299$ ,  $p=0.000$ ). Therefore, the null hypothesis that there are no significant differences in the work stress level in terms of sub dimension Students' Misbehaviour of the respondents when grouped by teaching experience was rejected.

Table 4.31: One-Way ANOVA in the Work Stress Level (Students' Misbehaviour) of Respondents Grouped by Teaching Experience

Source of Variation	Sum of Squares	df	Mean Squares	F	p-value
Between groups	892.355	2	446.177	11.299	0.000**
Within groups	47622.624	1206	39.488		
Total	48514.979	1208			

\*\* Significant at 0.01 significance level ( $p < 0.01$ )

The Scheffe test indicated that the significant difference lies between those respondents who had a teaching experience 15 years and below and those who had a teaching experience between 16 and 25 years ( $p=0.000$ ). In other words, those who had taught 15 years and below (mean=28.2859) experienced more stress compared to those had taught between 16 and 25 years (mean=26.6610). The findings also revealed a significant difference between those who had teaching experience less than 15 years and those whose teaching experience was more than 26 years ( $p=0.008$ ). In other words, respondents with less than 15 years (mean=28.2859) of teaching experience demonstrated more stress compared to those with more than 26 years (mean score=28.8451) of teaching experience. Table 4.32 shows the results.

#### **4.3.2.5 Work Stress Level in Terms of Sub-Dimension Students' Misbehaviour and Subject Taught**

Results of the t-test analyses reflected in Table 4.33 disclosed that significant differences existed in work stress level in terms of sub-dimension Students' Misbehaviour amongst the respondents grouped according to subject taught (t-value=13.213,  $p=0.000$ ). Therefore, the null hypothesis that there are no significant differences in the work stress level in terms of sub-dimension Students' Misbehaviour of the respondents when grouped by subject taught was rejected. The study showed that the level of work stress in terms of sub-dimension Students' Misbehaviour was significantly different between those who had taught

the Arts (Languages, History, etc.) and those who had taught the Science stream (Mathematics, Chemistry, etc.).

Table 4.32: Scheffe Post Hoc Test of Differences in the Work Stress Level (Students' Misbehaviour) of Respondents Grouped by Teaching Experience

Teaching Experience Group (mean)	n	Compared Group (mean)	p-value
15 years and below (28.2859)	787	16-25 years (26.6610)	0.000**
		26 years and above (25.8451)	0.008**
16-25 years (26.6610)	351	15 years and below (28.2859)	0.000**
		26 years and above (25.8451)	0.608 <sup>ns</sup>
26 years and above (25.8451)	71	15 years and below (28.2859)	0.008**
		16-25 years (25.8451)	0.608 <sup>ns</sup>

\*\* Significant at 0.01 significance level ( $p < 0.01$ )

<sup>ns</sup> Not significant at 0.05 significance level ( $p > 0.05$ )

In other words, the mean score of those teaching the Arts (mean=27.7731) was significantly higher than those teaching Science (mean =27.5561). The result indicated that those who were teaching Arts tended to be more stressed than those teaching Science subjects.

Table 4.33: Differences in the Work Stress Level (Students' Misbehaviour) of Respondents Grouped by Subject Taught

Subject Taught	n	Mean Score	Std. Deviation	t-value	p-value
Arts	639	27.7731	6.76684	13.213	0.000**
Science	570	27.5561	5.82201		

\*\* Significant at 0.01 significance level ( $p < 0.01$ )

#### 4.3.2.6 Work Stress Level in Terms of Sub-Dimension Students' Misbehaviour and Monthly Income

ANOVA results in Table 4.34 showed that there were significant differences in the work stress level in terms of sub-dimension Students' Misbehaviour amongst the respondents grouped according to monthly income ( $F=5.951$ ,  $p=0.001$ ). Hence, the null hypothesis that there are no significant differences in the work stress level in terms of sub-dimension Students' Misbehaviour of the respondents when grouped by monthly income was rejected.

Table 4.34: One-Way ANOVA in the Work Stress Level (Students' Misbehaviour) of Respondents Grouped by Monthly Income

Source of Variation	Sum of Squares	df	Mean Squares	F	p-value
Between groups	708.311	3	236.104	5.951	0.001**
Within groups	47806.668	1205	39.674		
Total	48514.979	1208			

\*\* Significant at 0.01 significance level ( $p < 0.01$ )

To identify the significantly different groups, the Scheffe test was used. As reflected in Table 4.35, findings showed that the significant differences lie between respondents who earned a monthly salary RM 2000 and below and those who earned RM3001 and above ( $p=0.005$ ). In other words, respondents whose monthly salary was RM2000 and below (mean=28.4303) experienced more stress compared to those who earned RM3001 and above (mean=26.2771).

The significant difference was also found between respondents who earned monthly salary RM 2000 and below and those who earned between RM 2501 and RM 3000 ( $p=0.047$ ). In other words, respondents whose monthly salary was RM2000 and below (mean=28.4303) experienced more stress compared to those who earned between RM 2501 and RM 3000 (mean=26.9323).

Moreover, the Scheffe Test indicated a significant difference between respondents whose monthly salary was between RM 2501 and RM3000 and those whose monthly salary was more than RM3001 ( $p=0.023$ ). In other words, those who earned between RM2501 and RM3000 (mean score=26.9323) expressed more stress compared to those who earned more than RM3001 (mean=26.2771).

Table 4.35: Scheffe Post Hoc Test of Differences in the Work Stress Level  
(Students' Misbehaviour) of Respondents Grouped by Monthly  
Income

Monthly Income Group (mean)	n	Compared Group (mean)	p-value
RM 2000 and below (28.0362)	323	RM 2001–RM 2500 (28.0362)	0.862 <sup>ns</sup>
		RM 2501–RM 3000 (26.9323)	0.047*
		RM 3001 and above (26.2771)	0.005**
RM 2001 – RM 2500 (28.0362)	469	RM 2000 and below (28.0362)	0.862 <sup>ns</sup>
		RM 2501–RM 3000 (26.9323)	0.171 <sup>ns</sup>
		RM 3001 and above (26.2771)	0.023*
RM 2501 – RM 3000 (26.9323)	251	RM 2000 and below (28.0362)	0.047*
		RM 2001–RM 2500 (28.0362)	0.171 <sup>ns</sup>
		RM 3001 and above (26.2771)	0.782 <sup>ns</sup>
RM 3001 and above (26.2771)	166	RM 2000 and below (28.0362)	0.005**
		RM 2001–RM 2500 (28.0362)	0.023*
		RM 2501–RM 3000 (26.9323)	0.782 <sup>ns</sup>

\* Significant at 0.05 significance level ( $p < 0.05$ )

\*\* Significant at 0.01 significance level ( $p < 0.01$ )

<sup>ns</sup>Not significant at 0.05 significance level ( $p > 0.05$ )

#### 4.3.2.7 Work Stress Level in Terms of Sub-Dimension Students' Misbehaviour and Academic Qualification

ANOVA results in Table 4.36 revealed that there were significant differences in the work stress level in terms of sub-dimension Students' Misbehaviour amongst the respondents grouped according to academic qualification ( $F=11.347$ ,  $p=0.000$ ). The null hypothesis that there are no significant differences in the work stress level in terms of sub-dimension Students' Misbehaviour of the respondents when grouped by academic qualification was therefore rejected.

Table 4.36: One-Way ANOVA in the Work Stress Level (Students' Misbehaviour) of Respondents Grouped by Academic Qualification

Source of Variation	Sum of Squares	df	Mean Squares	F	p-value
Between groups	896.052	2	448.026	11.347	0.000**
Within groups	47618.928	1206	39.485		
Total	48514.979	1208			

\*\* Significant at 0.01 significance level ( $p<0.01$ )

When the Scheffe test was employed, findings indicated that, the significant difference lies between respondents who were non-degree holders and those who had bachelor's degrees ( $p=0.000$ ). In other words, those with bachelor's degrees (mean=28.1048) experienced more stress compared to those who did not have bachelor's degrees (mean=26.3079).

Moreover, the Scheffe Test also indicated a significant difference between respondents who were non-degree holders and those master's degree holders ( $p=0.025$ ). In other words, those Master's degree holders (mean=30.6875) experienced more stress compared to those who did not have any degree (mean=26.6875). Table 4.37 shows the results of Scheffe post hoc test analyses.

Table 4.37: Scheffe Post Hoc Test of Differences in the Work Stress Level (Students' Misbehaviour) of Respondents Grouped by Academic Qualification.

Academic Qualification Group (mean)	n	Compared Group (mean)	p-value
Non-degree (26.3079)	315	Bachelor's degree (28.1048)	0.000**
		Master's Degree (30.6875)	0.025*
Bachelor's degree (28.1048)	878	Non-degree (26.3079)	0.000**
		Master's Degree (30.6875)	0.266 <sup>ns</sup>
Master's Degree (30.6875)	16	Non-degree (26.3079)	0.025*
		Bachelor's degree (28.1048)	0.266 <sup>ns</sup>

\* Significant at 0.05 significance level ( $p<0.05$ )

\*\* Significant at 0.01 significance level ( $p<0.01$ )

<sup>ns</sup>Not significant at 0.05 significance level ( $p>0.05$ )



#### 4.3.2.8 Work Stress Level in Terms of Sub-Dimension Students' Misbehaviour and School Grade

Results of the t-test analyses reflected in Table 4.38 disclosed that no significant differences existed in work stress level in terms of sub-dimension Students' Misbehaviour amongst the respondents grouped according to school grade (t-value=3.550, p=0.060). Therefore, the null hypothesis that there are no significant different in the work stress level in terms of sub-dimension Students' Misbehaviour of the respondents when grouped by school grade was accepted. The findings revealed that work stress level in terms of Students' Misbehaviour was not significantly different between respondents from Grade A secondary schools ( 1000 and above students) and those from Grade B secondary schools (999 and below students) even though the mean score of respondents from Grade B secondary schools (mean=27.8185) was higher than that of respondents from Grade A secondary schools (mean=27.6305).

Table 4.38: Differences in the Work Stress Level (Students' Misbehaviour) of Respondents Grouped by School Grade

School Grade	n	Mean Score	Std. Deviation	t-value	p-value
Grade A	950	27.6305	6.44383	3.550	0.060 <sup>ns</sup>
Grade B	259	27.8185	5.93977		

<sup>ns</sup>Not significant at 0.05 significance level (p>0.05)

### 4.3.3 Differences in Work Stress Level in Terms of Sub-Dimension Workload According to Respondents' Demographic Characteristics

This part discusses the differences in respondents' work stress levels in terms of the sub-dimension Workload grouped according to demographic characteristics age, gender, marital status, teaching experience, subject taught, monthly income, academic qualification and school grade. ANOVA and the t-test were employed in the analyses.

#### 4.3.3.1 Work Stress Level in Terms of Sub-Dimension Workload and Age

ANOVA results in Table 4.39 revealed that significant differences existed in the work stress level in terms of sub-dimension Workload amongst the respondents grouped according to age ( $F=5.706$ ,  $p=0.003$ ). Therefore, the null hypothesis that there are no significant differences in the work stress level in terms of sub dimension Workload of the respondents when grouped by age was rejected.

Table 4.39: One-Way ANOVA in the Work Stress Level (Workload) of Respondents Grouped by Age

Source of Variation	Sum of Squares	df	Mean Squares	F	p-value
Between groups	341.656	2	170.828	5.706	0.003**
Within groups	36104.330	1206	29.937		
Total	36445.987	1208			

\*\* Significant at 0.01 significance level ( $p<0.01$ )

To know where the differences lie, the Scheffe test was used. Findings indicated a significant difference between respondents whose age was 30 years old and below and those who between 31 and 40 years old ( $p=0.004$ ). In other words, those 30 years old and below (mean=19.8256) experienced less stress compared to those who between 31 and 40 years old (mean=21.3193). Moreover, the Scheffe Test also indicated a significant difference between respondents whose age was 30 years old and below and those who were more than 41 years old ( $p=0.018$ ). In other words, those whose age was less than 30 years old (mean=19.8256) experienced less stress compared to those who were more 41 years old and above (mean=21.1766). Table 4.40 shows the data.

Table 4.40: Scheffe Post Hoc Test of Differences in the Work Stress Level (Workload) of Respondents Grouped by Age

Age Group (mean)	n	Compared Group (mean)	p-value
30 years old and below (19.8256)	195	31-40 years old (21.3139)	0.004**
		41 years old and above (21.1766)	0.018*
31-40 years old (21.3139)	595	30 years old and below (19.8256)	0.004**
		41 years old and above (21.1766)	0.920 <sup>ns</sup>
41 years old and above (21.1766)	419	30 years old and below (19.8256)	0.018*
		31-40 years old (21.3139)	0.920 <sup>ns</sup>

\* Significant at 0.05 significance level ( $p<0.05$ )

\*\* Significant at 0.01 significance level ( $p<0.01$ )

<sup>ns</sup>Not significant at 0.05 significance level ( $p>0.05$ )

#### 4.3.3.2 Work Stress Level in Terms of Sub-Dimension Workload and Gender

Results of the t-test analyses reflected in Table 4.41 disclosed that no significant differences existed in work stress level in terms of sub-dimension Workload amongst the respondents grouped according to gender (t-value=3.546,  $p=0.060$ ). Therefore, the null hypothesis that there are no significant differences in the work stress level in terms of sub-dimension Workload of the respondents when grouped by gender was accepted. The findings revealed that work stress level in terms of sub-dimension Workload was not significantly different between male and female respondents, even though the mean score for male respondents (mean=21.7242) was higher than the mean score for female respondents (mean=20.5790).

Table 4.41: Differences in the Work Stress Level (Workload) of Respondents Grouped by Gender

Gender	n	Mean Score	Std. Deviation	t-value	p-value
Male	475	21.7242	5.70714	3.546	0.060 <sup>ns</sup>
Female	734	20.5790	5.30501		

<sup>ns</sup>Not significant at 0.05 significance level ( $p>0.05$ )

#### 4.3.3.3 Work Stress Level in Terms of Sub-Dimension Workload and Marital Status

As reflected in Table 4.42, no significant differences existed in work stress level in terms of sub-dimension Workload amongst the respondents grouped

according to marital status. This was supported by  $t$ -value=0.001 and  $p$ -value=0.975. The null hypothesis that there are no significant differences in the work stress level in terms of sub-dimension Workload of the respondents when grouped by marital status was therefore, accepted. From the study, it was revealed that work stress level in terms of sub-dimension Workload was not significantly different between married and single respondents even though the mean score for married respondents (mean=21.0882) was higher than the mean score for single respondents (mean=20.4959).

Table 4.42: Differences in the Work Stress Level (Workload) of Respondents Grouped by Marital Status

Marital Status	n	Mean Score	Std. Deviation	t-value	p-value
Married	1088	21.0882	5.51968	0.001	0.975 <sup>ns</sup>
Single	121	20.4959	5.23629		

<sup>ns</sup>Not significant at 0.05 significance level ( $p > 0.05$ )

#### 4.3.3.4 Work Stress Level in Terms of Sub-Dimension Workload and Teaching Experience

ANOVA results in Table 4.43 revealed that no significant differences existed in the work stress level in terms of sub-dimension Workload amongst the respondents grouped according to teaching experience ( $F=2.508$ ,  $p=0.082$ ). Therefore, the null hypothesis that there are no significant differences in the work stress level in terms of sub-dimension Workload of the respondents when grouped

by teaching experience was accepted. It can be noted that respondents' Workload work stress level did not differ by teaching experience group.

Table 4.43: One-Way ANOVA in the Work Stress Level (Workload) of Respondents Grouped by Teaching Experience

Source of Variation	Sum of Squares	df	Mean Squares	F	p-value
Between groups	150.986	2	75.493	2.508	0.082 <sup>ns</sup>
Within groups	36295.001	1206	30.095		
Total	36445.987	1208			

<sup>ns</sup>Not significant at 0.05 significance level ( $p > 0.05$ )

#### 4.3.3.5 Work Stress Level in Terms of Sub-Dimension Workload and Subject Taught

Results of the t-test analyses reflected in Table 4.44 disclosed that significant differences existed in work stress level in terms of sub-dimension Workload amongst the respondents grouped according to subject taught (t-value=4.536,  $p=0.033$ ). Therefore, the null hypothesis that there are no significant differences in the work stress level in terms of sub-dimension Workload of the respondents when grouped by subject taught was rejected. The research indicated that the level of work stress in terms of sub-dimension Workload was significantly different amongst those respondents teaching Arts (Languages, History, etc.) and those teaching the Science stream (e.g. Biology, Science, etc.). From the study, it was revealed that the mean score of respondents in the Arts stream (mean=21.0456) was significantly higher than that of respondents in the Science

stream (mean=21.0140), suggesting that those who were teaching Arts tended to be more stressed than those teaching Science subjects.

Table 4.44: Differences in the Work Stress Level (Workload) of Respondents Grouped by Subject Taught

Subject Taught	N	Mean Score	Std. Deviation	t-value	p-value
Arts	639	21.456	5.64533	4.536	0.033*
Science	570	21.0141	5.32144		

\* Significant at 0.05 significance level ( $p < 0.05$ )

#### 4.3.3.6 Work Stress Level in Terms of Sub-Dimension Workload and Monthly Income

ANOVA results in Table 4.45 showed that there were no significant differences in the work stress level in terms of sub-dimension Workload amongst the respondents grouped according to monthly income ( $F=2.282$ ,  $p=0.78$ ). Hence, the null hypothesis that there are no significant differences in the work stress level in terms of sub dimension Workload of the respondents when grouped by monthly income was accepted. The findings suggested that respondents' work stress level in terms of Workload did not significantly differ by monthly income. In other words, those who earned higher income experienced a similar the level of stress with those who had lower income.

Table 4.45: One-Way ANOVA in the Work Stress Level (Workload) of Respondents Grouped by Monthly Income

Source of Variation	Sum of Squares	df	Mean Squares	F	p-value
Between groups	205.849	3	68.616	2.282	0.78 <sup>ns</sup>
Within groups	36240.138	1205	30.075		
Total	36445.987	1208			

<sup>ns</sup>Not Significant at 0.05 significance level ( $p > 0.05$ )

#### 4.3.3.7 Work Stress Level in Terms of Sub-Dimension Workload and Academic Qualification

ANOVA results in Table 4.46 revealed that there were no significant differences in the work stress level in terms of sub-dimension Workload amongst the respondents grouped according to academic qualification ( $F=1.294$ ,  $p=0.275$ ). The null hypothesis that there were no significant differences in the work stress level in terms of sub-dimension Workload of the respondents when grouped by academic qualification was therefore accepted. This implies that stress level in terms of Workload was not significantly different in terms of with respondents' academic qualification. This means that non-degrees, bachelor's or Master's degree holders had similar work stress level in terms of Workload.



Table 4.46: One-Way ANOVA in the Work Stress Level (Workload) of Respondents Grouped by Academic Qualification

Source of Variation	Sum of Squares	df	Mean Squares	F	p-value
Between groups	78.034	2	39.017	1.294	0.275 <sup>ns</sup>
Within groups	36367.953	1206	30.156		
Total	36445.987	1208			

<sup>ns</sup>Not Significant at 0.05 significance level ( $p > 0.05$ )

#### 4.3.3.8 Work Stress Level in Terms of Sub-Dimension Workload and School Grade

Results of the t-test analyses reflected in Table 4.47 disclosed that no significant differences existed in work stress level in terms of sub-dimension Workload amongst the respondents grouped according to school grade (t-value=3.204,  $p=0.074$ ). Therefore, the null hypothesis that there are no significant differences in the work stress level in terms of sub-dimension Workload of the respondents when grouped by school grade was accepted. From the study it was revealed that work stress level in terms of sub-dimension Workload was not significantly different between respondents from Grade A secondary schools (1000 students and above) and respondents from Grade B secondary schools (999 and students and below) even though mean score for respondents from Grade A secondary schools (mean=21.1211) is higher than mean score for respondents from Grade B secondary schools (mean =20.6911).

Table 4.47: Differences in the Work Stress Level (Workload) of Respondents  
Grouped by School Grade

School Grade	N	Mean Score	Std. Deviation	t-value	p-value
Grade A	950	21.1211	5.58742	3.204	0.074 <sup>ns</sup>
Grade B	259	20.6911	5.12680		

<sup>ns</sup>Not significant at 0.05 significance level ( $p > 0.05$ )

#### **4.3.4 Differences in Work Stress Level in Terms of Sub-Dimension Time and Resource Difficulties According to Respondents' Demographic Characteristics**

This part discusses the differences in work stress levels in terms of the sub-dimension Time and Resource Difficulties according to demographic characteristics: age, gender, marital status, teaching experience, subject taught, monthly income, academic qualification and school grade. Analyses were done by using ANOVA and the t-test.

##### **4.3.4.1 Work Stress Level in Terms of Sub-Dimension Time and Resource Difficulties and Age**

ANOVA results in Table 4.48 revealed that significant differences existed in the work stress level in terms of sub-dimension Time and Resource Difficulties amongst the respondents grouped according to age ( $F=6.983$ ,  $p=0.001$ ). Therefore, the null hypothesis that there are no significant differences in the work stress level

in terms of sub-dimension Time and Resource Difficulties of the respondents when grouped by age was rejected.

Table 4.48: One-Way ANOVA in the Work Stress Level (Time and Resource Difficulties) of Respondents Grouped by Age

Source of Variation	Sum of Squares	df	Mean Squares	F	p-value
Groups	315.147	2	157.573	6.983	0.001**
Within groups	27215.674	1206	22.567		
Total	27530.821	1208			

\*\* Significant at 0.01 significance level ( $p < 0.01$ )

When the Scheffe test was used, the analyses indicated that the significant difference lies between those respondents whose age was 30 years old and below, and between 31 and 40 years old ( $p=0.013$ ). In other words, respondents whose age was 30 years old and below (mean=20.4051) experienced more stress compared to those whose between 31 and 40 years old (mean=21.5647).

Moreover, the analyses found a significant difference between those respondents between 31 and 40 years old, and more than 41 years old ( $p=0.008$ ). In other words, respondents between 31 and 40 years old (mean=21.5647) experienced more stress compared to those who were more than 41 years old (mean=20.6229). Table 4.49 reflects the results.

Table 4.49: Scheffe Post Hoc Test of Differences in the Work Stress Level (Time and Resource Difficulties) of Respondents Grouped by Age

Age Group (mean)	n	Compared Group (mean)	p-value
30 years old and below (20.4051)	195	31-40 years old (21.5647)	0.013*
		41 years old and above (20.6229)	0.870 <sup>ns</sup>
31-40 years old (21.5647)	595	30 years old and below (20.4051)	0.013*
		41 years old and above (20.6229)	0.008**
41 years old and above (20.6229)	419	30 years old and below (20.4051)	0.870 <sup>ns</sup>
		31-40 years old (21.5647)	0.008**

\* Significant at 0.05 significance level ( $p < 0.05$ )

\*\* Significant at 0.01 significance level ( $p < 0.01$ )

<sup>ns</sup>Not significant at 0.05 significance level ( $p > 0.05$ )

#### 4.3.4.2 Work Stress Level in Terms of Sub-Dimension Time and Resource Difficulties by Gender

Results of the t-test analyses reflected in Table 4.50 disclosed that no significant differences existed in work stress level in terms of sub-dimension Time and Resource Difficulties amongst the respondents grouped according to gender ( $t\text{-value}=3.561$ ,  $p=0.059$ ). Therefore, the null hypothesis that there are no significant differences in the work stress level in terms of sub-dimension Time and Resource Difficulties of the respondents when grouped by gender was accepted. The findings indicated that, work stress level in terms of Time and Resource Difficulties was not significantly different between male and female

respondents, even though the mean score for male respondents (mean=21.6189) was higher than the mean score for female respondents (mean=20.6839).

Table 4.50: Differences in the Work Stress Level (Time and Resource Difficulties) of Respondents Grouped by Gender

Gender	n	Mean Score	Std. Deviation	t-value	p-value
Male	475	21.6189	4.93973	3.561	0.059 <sup>ns</sup>
Female	734	20.6839	4.62991		

<sup>ns</sup>Not significant at 0.05 significance level ( $p > 0.05$ )

#### 4.3.4.3 Work Stress Level in Terms of Sub-Dimension Time and Resource Difficulties and Marital Status

As presented in Table 4.51, no significant differences existed in work stress level in terms of sub-dimension Time and Resource Difficulties amongst the respondents grouped according to marital status. This is supported by the t-value=0.525, and p-value=0.469. The null hypothesis that there are no significant differences in the work stress level in terms of sub-dimension Time and Resource Difficulties of the respondents when grouped by marital status was therefore accepted. The study revealed that work stress level in terms of Time and Resource Difficulties was not significantly different between married and single respondents, even though the mean score for married respondents (mean=21.1222) was higher than the mean score for single respondents (mean=20.4132).

Table 4.51: Differences in the Work Stress Level (Time and Resource Difficulties) of Respondents Grouped by Marital Status

Marital status	n	Mean Score	Std. Deviation	t-value	p-value
Married	1088	21.1222	4.77119	0.525	0.469 <sup>ns</sup>
Single	121	20.4132	4.77087		

<sup>ns</sup>Not significant at 0.05 significance level ( $p > 0.05$ )

#### 4.3.4.4 Work Stress Level in Terms of Sub-Dimension Time and Resource Difficulties According to Respondents Teaching Experience

ANOVA results in Table 4.52 revealed that significant differences existed in the work stress level in terms of sub-dimension Time and Resource Difficulties amongst the respondents grouped according to teaching experience ( $F=11.347$ ,  $p=0.000$ ). Therefore the null hypothesis that there are no significant differences in the work stress level in terms of sub-dimension Time and Resource Difficulties of the respondents when grouped by teaching experience was rejected.

Table 4.52: One-Way ANOVA in the Work Stress Level (Time and Resource Difficulties) of Respondents Grouped by Teaching Experience

Source of Variation	Sum of Squares	df	Mean Squares	F	p-value
Between Groups	384.654	2	192.327	8.544	0.000**
Within groups	27146.167	1206	22.509		
Total	27530.821	1208			

\*\* Significant at 0.01 significance level ( $p < 0.01$ )

To identify significant differences, the Scheffe test was used. Findings in Table 4.53 indicated that, the significant difference lies between respondents who had teaching experience 15 years and below, and those having teaching experience between 16 and 25 years ( $p=0.001$ ). In other words, those who had a teaching experience 15 years and below (mean=21.4612) experienced more stress compared to those who had teaching experience between 16 and 25 years (mean=20.3390).

Table 4.53: Scheffe Post Hoc Test of Differences in the Work Stress Level (Time and Resource Difficulties) of Respondents Grouped by Teaching Experience

Teaching Experience Group (mean)	n	Compared Group (mean)	p-value
15 years and below (21.4612)	787	16-25 years (20.3390)	0.001**
		26 years and above (20.0282)	0.052 <sup>ns</sup>
16-25 years (20.3390)	351	15 years and below (21.4612)	0.001**
		26 years and above (20.0282)	0.881 <sup>ns</sup>
26 years and above (20.0282)	71	15 years and below (21.4612)	0.052 <sup>ns</sup>
		16-25 years (20.3390)	0.881 <sup>ns</sup>

\*\* Significant at 0.01 significance level ( $p<0.01$ )

<sup>ns</sup>Not significant at 0.05 significance level ( $p>0.05$ )

#### 4.3.4.5 Work Stress Level in Terms of Sub-Dimension Time and Resource Difficulties by Subject Taught

Results of the t-test analyses reflected in Table 4.54 disclosed that significant differences existed in work stress level in terms of sub-dimension Time and Resource Difficulties amongst the respondents grouped according to subject taught (t-value=5.601, p=0.018). Therefore, the null hypothesis that there are no significant differences in the work stress level in terms of sub-dimension Time and Resource Difficulties of the respondents when grouped by subject taught was rejected. The findings indicated that the level of work stress in terms of Time and Resource Difficulties was significantly different amongst respondents teaching the Arts (e.g. Languages, History, etc.) and respondents' handling the Science (e.g. Mathematics, Chemistry, etc.) stream. In other words, respondents teaching the Arts (mean =21.4664) tend to be more stressed than those teaching Science (mean=20.5860).

Table 4.54: Differences in the Work Stress Level (Time and Resource Difficulties) of Respondents Grouped by Subject Taught

Subject Taught	n	Mean Score	Std. Deviation	t-value	p-value
Arts	639	21.4664	4.99608	5.601	0.018*
Science	570	20.5860	4.47062		

\* Significant at 0.05 significance level (p<0.05)



#### 4.3.4.6 Work Stress Level in Terms of Sub-Dimension Time and Resource Difficulties and Monthly Income

ANOVA results in Table 4.55 showed that there were no significant differences in the work stress level in terms of sub-dimension Time and Resource Difficulties amongst the respondents grouped according to monthly income ( $F=1.038$ ,  $p=0.375$ ). Hence, the null hypothesis that there are no significant differences in the work stress level in terms of sub-dimension Time and Resource Difficulties of the respondents when grouped by monthly income was accepted. It may suggest that work stress level in terms of Time and Resource Difficulties did not significantly vary by teaching experience group. In other words, similar levels of stress were experienced by those who had more or had less teaching experience in terms of Time and Resource Difficulties.

Table 4.55: One-Way ANOVA in the Work Stress Level (Time and Resource Difficulties) of Respondents Grouped by Monthly Income

Source of Variation	Sum of Squares	df	Mean Squares	F	p-value
Between groups	70.947	3	23.649	1.038	0.375 <sup>ns</sup>
Within groups	27459.873	1205	22.788		
Total	27530.821	1208			

<sup>ns</sup>Not significant at 0.05 significance level ( $p>0.05$ )

#### 4.3.4.7 Work Stress Level in Terms of Sub-Dimension Time and Resource Difficulties and Academic Qualification

ANOVA results in Table 4.56 revealed that there were significant differences in the work stress level in terms of sub-dimension Time and Resource Difficulties amongst the respondents grouped according to academic qualification ( $F=20.991$ ,  $p=0.000$ ). The null hypothesis that there are no significant differences in the work stress level in terms of sub-dimension Time and Resource Difficulties of the respondents when grouped by academic qualification was therefore, rejected.

Table 4.56: One-Way ANOVA in the Work Stress Level (Time and Resource Difficulties) of Respondents Grouped by Academic Qualification

Source of Variation	Sum of Squares	df	Mean Squares	F	p-value
Between groups	926.146	2	463.073	20.991	0.000**
Within groups	26604.675	1206	22060		
Total	27530.821	1208			

\*\* Significant at 0.01 significance level ( $p<0.01$ )

When the Scheffe test was done, analyses indicated the significant difference lies between respondents who had no degrees holders and those with bachelor's degrees ( $p=0.000$ ). In other words, respondents who had bachelor's degrees (mean=21.4715) experienced more stress compared to those who were non-degree holders (mean=19.7016). Table 4.57 shows the results.

Table 4.57: Scheffe Post Hoc Test of Differences in the Work Stress Level (Time and Resource Difficulties) of Respondents Grouped by Academic Qualification

Academic Qualification Group (mean)	n	Compared Group (mean)	p-value
Non-degree (19.7016)	315	Bachelor's degree (21.4715)	0.000**
		Master's Degree (24.5625)	0.000**
Bachelor's degree (21.4715)	878	Non-degree (19.7016)	0.000**
		Master's Degree (24.5625)	0.034*
Master's Degree (24.5625)	16	Non-degree (19.7016)	0.000**
		Bachelor's degree (21.4715)	0.034*

\* Significant at 0.05 significance level ( $p < 0.05$ )

\*\* Significant at 0.01 significance level ( $p < 0.01$ )

#### 4.3.4.8 Work Stress Level in Terms of Sub-Dimension Time and Resource Difficulties and School Grade

Results of the t-test analyses reflected in Table 4.58 disclosed that no significant differences existed in work stress level in terms of sub-dimension Time and Resource Difficulties amongst the respondents grouped according to school grade ( $t\text{-value}=1.878$ ,  $p=0.171$ ). Therefore, the null hypothesis that there are no significant differences in the work stress level in terms of sub-dimension Time and Resource Difficulties of the respondents when grouped by school grade was accepted. From the analyses it was revealed that work stress level in terms of

Time and Resource Difficulties was not significantly different between respondents from Grade A secondary schools (1000 students and above) and those from Grade B secondary schools (999 students and below), even though the mean score for respondents from Grade A secondary schools (mean=21.1811) was higher than that of respondents from Grade B secondary schools (mean=20.5753).

Table 4.58: Differences in the Work Stress Level (Time and Resource Difficulties) of Respondents Grouped by School Grade

School Grade	n	Mean Score	Std. Deviation	t-value	p-value
Grade A	950	21.1811	4.85608	1.878	0.171 <sup>ns</sup>
Grade B	259	20.5753	4.43615		

<sup>ns</sup>Not significant at 0.05 significance level ( $p > 0.05$ )

#### **4.3.5 Differences in Work Stress Level in Terms of Sub-Dimension Professional Recognition According to Respondents' Demographic Characteristics.**

This part discusses the differences in work stress levels in terms of the sub-dimension Professional Recognition according to demographic characteristics age, gender, marital status, teaching experience, subject taught, monthly income, academic qualification and school grade. Analyses were done by using ANOVA and the t-test.

#### 4.3.5.1 Work Stress Level in Terms of Sub-Dimension Professional Recognition and Age

ANOVA results in Table 4.59 revealed that significant differences existed in the work stress level in terms of sub-dimension Professional Recognition amongst the respondents grouped according to age ( $F=11.880$ ,  $p=0.000$ ). Therefore, the null hypothesis that there are no significant differences in the work stress level in terms of sub-dimension Professional Recognition of the respondents when grouped by age was rejected.

Table 4.59: One-Way ANOVA in the Work Stress Level (Professional Recognition) of Respondents Grouped by Age

Source of Variation	Sum of Squares	df	Mean Squares	F	p-value
Between groups	176.371	2	88.185	11.880	0.000**
Within groups	8951.942	1206	7.423		
Total	9128.313	1208			

\*\* Significant at 0.01 significance level ( $p<0.01$ )

The Scheffe test showed that the significant difference was between respondents whose age was 30 years and below and those between 31 and 40 years old ( $p=0.000$ ). In other words, respondents between 31 and 40 years old (mean =9.1832) experienced more stress compared to those who were 30 years old and below (mean=8.0974). Moreover, analyses also showed that the significant difference lies between respondents who were 30 years old and below and those who were 41 years old and above ( $p=0.000$ ). In other words,

respondents who were 41 years old and above (mean =9.0239) experienced more stress compared to those 30 years old and below (mean=8.0974). Table 4.60 shows the results.

Table 4.60: Scheffe Post Hoc Test of Differences in the Work Stress Level (Professional Recognition) of Respondents Grouped by Age

Age Group (mean)	n	Compared Group (mean)	p-value
30 years old and below (8.0974)	195	31-40 years old (9.1832)	0.000**
		41 years old and above (9.0239)	0.000**
31-40 years old (9.1832)	595	30 years old and below (8.0974)	0.000**
		41 years old and above (9.0239)	0.657 <sup>ns</sup>
41 years old and above (9.0239)	419	30 years old and below (8.0974)	0.000**
		31-40 years old (9.1832)	0.657 <sup>ns</sup>

\*\* Significant at 0.01 significance level ( $p < 0.01$ )

<sup>ns</sup>Not significant at 0.05 significance level ( $p > 0.05$ )

#### 4.3.5.2 Work Stress Level in Terms of Sub-Dimension Professional Recognition and Gender

Results of the t-test analyses reflected in Table 4.61 disclosed that no significant differences existed in work stress level in terms of sub-dimension Professional Recognition amongst the respondents grouped according to gender (t-value=0.126,  $p=0.723$ ). Therefore, the null hypothesis that there are no

significant differences in the work stress level in terms of sub-dimension Professional Recognition of the respondents when grouped by gender was accepted. From the analyses, it was revealed that work stress level in terms of Professional Recognition was not significantly different between male and female respondents even though the mean score for male respondents (mean=9.4779) was higher than the mean score for female respondents (mean=8.6131).

Table 4.61: Differences in the Work Stress Level (Professional Recognition) of Respondents Grouped by Gender

Gender	n	Mean Score	Std. Deviation	t-value	p-value
Male	475	9.4779	2.78048	0.126	0.723 <sup>ns</sup>
Female	734	8.6131	2.67578		

<sup>ns</sup>Not significant at 0.05 significance level ( $p>0.05$ )

#### 4.3.5.3 Work Stress Level in Terms of Sub-Dimension Professional Recognition and Marital Status

As reflected in Table 4.62, no significant differences existed in work stress level in terms of sub-dimension Professional Recognition amongst the respondents grouped according to marital status. This is supported by the t-value=1.577, and the p-value=0.209. The null hypothesis that there are no significant differences in the work stress level in terms of sub-dimension Professional Recognition of the respondents when grouped by marital status is therefore, accepted. In other words work stress level in terms of sub-dimension Professional Recognition was not significantly different between married and

single respondents, even though the mean score for married respondents (mean=9.0248) was higher than the mean score for single respondents (mean=8.3058).

Table 4.62: Differences in the Work Stress Level (Professional Recognition) of Respondents Grouped by Marital Status

Marital Status	n	Mean Score	Std. Deviation	t-value	p-value
Married	1088	9.0248	2.72916	1.577	0.209 <sup>ns</sup>
Single	121	8.3058	2.85144		

<sup>ns</sup>Not significant at 0.05 significance level ( $p > 0.05$ )

#### 4.3.5.4 Work Stress Level in Terms of Sub-Dimension Professional Recognition and Teaching Experience

ANOVA results in Table 4.63 revealed that no significant differences existed in the work stress level in terms of sub-dimension Professional Recognition amongst the respondents grouped according to teaching experience ( $F=1.994$ ,  $p=0.137$ ). Therefore, the null hypothesis that there are no significant differences in the work stress level in terms of sub-dimension Professional Recognition of the respondents when grouped by teaching experience was accepted. It can be noted that stress level in terms of Professional Recognition did not differ significantly across teaching experience groups. In other words, similar levels of stress were experienced by the respondents in terms of Time and Resource Difficulties.



Table 4.63: One-Way ANOVA in the Work Stress Level (Professional Recognition) of Respondents Grouped by Teaching Experience

Source of Variation	Sum of Squares	df	Mean Squares	F	p-value
Between groups	30.084	2	15.042	1.994	0.137 <sup>ns</sup>
Within groups	9098.229	1206	7.544		
Total	9128.313	1208			

<sup>ns</sup>Not significant at 0.05 significance level ( $p > 0.05$ )

#### 4.3.5.5 Work Stress Level in Terms of Sub-Dimension Professional Recognition and Subject Taught

Results of the t-test analyses reflected in Table 4.64 disclosed that significant differences existed in work stress level in terms of sub-dimension Professional Recognition amongst the respondents grouped according to subject taught ( $t$ -value=13.867,  $p=0.000$ ). Therefore, the null hypothesis that there are no significant differences in the work stress level in terms of sub-dimension Professional Recognition of the respondents when grouped by subject taught was rejected. The study indicated that the level of work stress in terms of Professional Recognition was significantly different amongst respondents teaching the Arts (Languages, History, etc.) and those teaching Science (Mathematics, Chemistry, etc.). Thus the mean score for respondents in the Arts stream (mean=8.9812) was significantly higher than those in the Science stream (Mean score=8.9211). The results suggest that those teaching Arts tended to be more stressed than those teaching Science.

Table 4.64: Differences in the Work Stress Level (Professional Recognition) of Respondents Grouped by Subject Taught

Subject Taught	n	Mean Score	Std. Deviation	t-value	p-value
Arts	639	8.9812	2.91568	13.867	0.000**
Science	570	8.9211	2.55121		

\*\* Significant at 0.01 significance level ( $p < 0.01$ )

#### 4.3.5.6 Work Stress Level in Terms of Sub-Dimension Professional Recognition and Monthly Income

ANOVA results in Table 4.65 showed that there were significant differences in the work stress level in terms of sub-dimension Professional Recognition amongst the respondents grouped according to monthly income ( $F=3.801$ ,  $p=0.010$ ). Hence, the null hypothesis that there are no significant differences in the work stress level in terms of sub-dimension Professional Recognition of the respondents when grouped by monthly income was rejected.

Table 4.65: One-Way ANOVA in the Work Stress Level (Professional Recognition) of Respondents Grouped by Monthly Income

Source of Variation	Sum of Squares	df	Mean Squares	F	p-value
Between groups	85.568	3	28.523	3.801	0.010*
Within groups	9042.744	1205	7.504		
Total	9128.313	1208			

\* Significant at 0.05 significance level ( $p < 0.05$ )

The Scheffe tests, disclosed that the significant difference was between respondents who earned a monthly salary between RM2501 and RM3000 and those who earned a monthly salary RM3001 and above ( $p=0.013$ ). In other words, respondents with a monthly salary between RM2501 and RM3000 (mean=9.2430) experienced more stress compared to those earning RM3001 and more (mean=8.3434). Table 4.66 shows the results of Scheffe test.

#### **4.3.5.7 Work Stress Level in Terms of Sub-Dimension Professional Recognition and Academic Qualification**

ANOVA results in Table 4.67 revealed that there were no significant differences in the work stress level in terms of sub-dimension Professional Recognition amongst the respondents grouped according to academic qualification ( $F=4.015$ ,  $p=0.18$ ). The null hypothesis that there are no significant differences in the work stress level in terms of sub-dimension Professional Recognition of the respondents when grouped by academic qualification was therefore accepted. It can be said that stress level in terms of Professional Recognition was not significantly different by academic qualification. In other words similar levels of stress were experienced by the non-degree holders, Bachelor's degree holders or Master's degree in terms of Time and Resource Difficulties.

Table 4.66: Scheffe Post Hoc Test of Differences in the Work Stress Level  
(Professional Recognition) of Respondents Grouped by Monthly  
Income

Monthly Income Group (mean)	N	Compared Group (mean)	p-value
RM2000 and below (8.9319)	323	RM2001–RM2500 (9.0277)	0.927 <sup>ns</sup>
		RM2501–RM3000 (9.2430)	0.610 <sup>ns</sup>
		RM3001 and above (8.3434)	0.168 <sup>ns</sup>
RM2001 – RM2500 (9.0277)	469	RM 2000 and below (8.9319)	0.972 <sup>ns</sup>
		RM 2501–RM3000 (9.2430)	0.799 <sup>ns</sup>
		RM 3001 and above (8.3434)	0.054 <sup>ns</sup>
RM2501 – RM3000 (9.2430)	251	RM 2000 and below (8.9319)	0.610 <sup>ns</sup>
		RM 2001–RM 2500 (9.0277)	0.799 <sup>ns</sup>
		RM 3001 and above (8.3434)	0.013*
RM 3001 and above (8.3434)	166	RM 2000 and below (8.9319)	0.168 <sup>ns</sup>
		RM 2001–RM 2500 (9.0277)	0.054 <sup>ns</sup>
		RM 2501–RM 3000 (9.2430)	0.013*

\* Significant at 0.05 significance level ( $p < 0.05$ )

<sup>ns</sup>Not significant at 0.05 significance level ( $p > 0.05$ )

Table 4.67: One-Way ANOVA in the Work Stress Level (Professional Recognition) of Respondents Grouped by Academic Qualification

Source of Variation	Sum of Squares	df	Mean Squares	F	p-value
Between groups	60.373	2	30.187	4.015	0.180 <sup>ns</sup>
Within groups	9067.939	1206	7.519		
Total	9128.313	1208			

<sup>ns</sup>Not significant at 0.05 significance level ( $p > 0.05$ )

#### 4.3.5.8 Work Stress Level in Terms of Sub-Dimension Professional Recognition and School Grade

Results of the t-test analyses reflected in Table 4.68 disclosed that no significant differences existed in work stress level in terms of sub-dimension Professional Recognition amongst the respondents grouped according to school grade ( $t\text{-value}=0.742$ ,  $p=0.398$ ). Therefore, the null hypothesis that there are no significant differences in the work stress level in terms of sub-dimension Professional Recognition of the respondents when grouped by school grade was accepted. From the study, it was revealed that work stress level in terms of sub-dimension Professional Recognition was not significantly different between respondents from Grade A secondary schools (1000 students and above) and respondents from Grade B secondary schools (999 students and below) even though the mean score for respondents from Grade A secondary schools ( $\text{mean}=9.0842$ ) was higher than the mean score for respondents from Grade B secondary schools ( $\text{mean}=8.4710$ ).

Table 4.68: Differences in the Work Stress Level (Professional Recognition) of Respondents Grouped by School Grade

School Grade	n	Mean Score	Std. Deviation	t-value	p-value
Grade A	950	9.0842	2.77298	0.742	0.398 <sup>ns</sup>
Grade B	259	8.4710	2.60778		

<sup>ns</sup>Not significant at 0.05 significance level ( $p > 0.05$ )

#### 4.3.6 Differences in Work Stress Level in Terms of Sub-Dimension Interpersonal Relationship According to Respondents Demographic Characteristics

This section discusses the differences in work stress levels in terms of the sub-dimension Interpersonal Relationship according to demographic characteristics: age, gender, marital status, teaching experience, subject taught, monthly income, academic qualification and school grade. ANOVA and the t-test were used in the analyses.

##### 4.3.6.1 Work Stress Level in Terms of Sub-Dimension Interpersonal Relationship and Age

ANOVA results in Table 4.69 revealed that significant differences existed in the work stress level in terms of sub-dimension Interpersonal Relationship amongst the respondents grouped according to age ( $F=5.540$ ,  $p=0.004$ ). Therefore, the null hypothesis that there are no significant differences in the work stress level in terms of sub-dimension Interpersonal Relationship of the respondents when grouped by age was rejected.

Table 4.69: One-Way ANOVA in the Work Stress Level (Interpersonal Relationship) of Respondents Grouped by Age

Source of Variation	Sum of Squares	df	Mean Squares	F	p-value
Groups	474.884	2	237.442	5.540	0.004**
Within groups	51687.341	1206	42.858		
Total	52162.225	1208			

\*\* Significant at 0.01 significance level ( $p < 0.01$ )

To know where the difference lies, the Scheffe test was used. Results showed that the significant difference was found between respondents whose were 30 years old and above and those between 31 and 40 years old ( $p=0.011$ ). In other words, respondents between 31 and 40 years old (mean=26.0908) tended to experience more stress compared to those 30 years old and above (mean=24.4615). Table 4.69 shows the data.

#### 4.3.6.2 Work Stress Level in Terms of Sub-Dimension Interpersonal Relationship and Gender

Results of the t-test analyses reflected in Table 4.71 disclosed that no significant differences existed in work stress level in terms of sub-dimension Interpersonal Relationship amongst the respondents grouped according to gender ( $t\text{-value}=0.705$ ,  $p=0.401$ ). Therefore, the null hypothesis that there are no significant differences in the work stress level in terms of sub-dimension Interpersonal Relationship of the respondents when grouped by gender was accepted. From the analyses, it was revealed that work stress level in terms of sub-dimension Interpersonal Relationship was not significantly different between male

and female respondents, even though the mean score for male respondents (mean=26.1516) was higher than the mean score for female respondents (mean=25.0708).

Table 4.70: Scheffe Post Hoc Test of Differences in the Work Stress Level (Interpersonal Relationship) of Respondents Grouped by Age

Age Group (mean)	N	Compared Group (mean)	p-value
30 years old and below (24.4615)	195	31-40 years old (26.0908)	0.011*
		41 years old and above (25.1313)	0.499 <sup>ns</sup>
31-40 years old (26.0908)	595	30 years old and below (24.4615)	0.011*
		41 years old and above (25.1313)	0.072 <sup>ns</sup>
41 years old and above (25.1313)	419	30 years old and below (24.4615)	0.499 <sup>ns</sup>
		31-40 years old (26.0908)	0.072 <sup>ns</sup>

\* Significant at 0.05 significance level ( $p < 0.05$ )

<sup>ns</sup>Not significant at 0.05 significance level ( $p > 0.05$ )

Table 4.71: Differences in the Work Stress Level (Interpersonal Relationship) of Respondents Grouped by Gender

Gender	n	Mean Score	Std. Deviation	t-value	p-value
Male	475	26.1516	6.80486	0.705	0.401 <sup>ns</sup>
Female	734	25.0708	6.38427		

<sup>ns</sup>Not Significant at 0.05 significance level ( $p > 0.05$ )



#### 4.3.6.3 Work Stress Level in Terms of Sub-Dimension Interpersonal Relationship and Marital Status

As reflected in Table 4.72, no significant differences existed in work stress level in terms of sub-dimension Interpersonal Relationship amongst the respondents grouped according to marital status. This was supported by the t-value=4.443 and the p-value=0.035. The null hypothesis that there are no significant differences in the work stress level in terms of Interpersonal Relationship of the respondents when grouped by marital status is therefore rejected. The study revealed that the mean score for married respondents (mean=25.5129) was significantly higher than the mean score for single respondents (mean=25.3388). In other words, married respondents tended to be more stressed than single respondents.

Table 4.72: Differences in the Work Stress Level (Interpersonal Relationship) of Respondents Grouped by Marital Status

Marital status	n	Mean Score	Std. Deviation	t-value	p-value
Married	1088	25.5129	6.64681	4.443	0.035*
Single	121	25.3388	5.87020		

\* Significant at 0.05 significance level ( $p < 0.05$ )

#### 4.3.6.4 Work Stress Level in Terms of Sub-Dimension Interpersonal Relationship and Teaching Experience

ANOVA results in Table 4.73 revealed that significant differences existed in the work stress level in terms of sub-dimension Interpersonal Relationship

amongst the respondents grouped according to teaching experience ( $F=3.968$ ,  $p=0.019$ ). Therefore, the null hypothesis that there are no significant differences in the work stress level in terms of sub-dimension Interpersonal Relationship of the respondents when grouped by teaching experience was rejected.

Table 4.73: One-Way ANOVA in the Work Stress Level (Interpersonal Relationship) of Respondents Grouped by Teaching Experience

Source of Variation	Sum of Squares	df	Mean Squares	F	p-value
Between groups	341.045	2	170.523	3.968	0.019*
Within groups	51821.180	1206	42.969		
Total	52162.225	1208			

\* Significant at 0.05 significance level ( $p<0.05$ )

The Scheffé test indicated that, the significant difference lies between respondents who had a teaching experience 15 years and above and those who had taught between 16 and 25 years ( $p=0.030$ ). In other words, respondents with teaching experience 15 years and above (mean=25.8844) tended to experience more stress compared to those who had a teaching experience between 16 and 25 years (mean =24.7692). Table 4.74 shows the data.

Table 4.74: Scheffe Post Hoc Test of Differences in the Work Stress Level (Interpersonal Relationship) of Respondents Grouped by Teaching Experience

Teaching Experience Group (mean)	n	Compared Group (mean)	p-value
15 years and below (25.8844)	787	16-25 years (24.7692)	0.030*
		26 years and above (24.7746)	0.394 <sup>ns</sup>
16-25 years (24.7692)	351	15 years and below (25.8844)	0.030*
		26 years and above (24.7746)	1.000 <sup>ns</sup>
26 years and above (24.7746)	71	15 years and below (25.8844)	0.394 <sup>ns</sup>
		16-25 years (24.7692)	1.000 <sup>ns</sup>

\* Significant at 0.05 significance level ( $p < 0.05$ )

<sup>ns</sup>Not significant at 0.05 significance level ( $p > 0.05$ )

#### 4.3.6.5 Work Stress Level in Terms of Sub-Dimension Interpersonal Relationship and Subject Taught

Results of the t-test analyses reflected in Table 4.75 disclosed that significant differences existed in work stress level in terms of sub-dimension Interpersonal Relationship amongst the respondents grouped according to subject taught ( $t\text{-value}=5.465$ ,  $p=0.020$ ). Therefore, the null hypothesis that there are no significant differences in the work stress level in terms of sub dimension Interpersonal Relationship of the respondents when grouped by subject taught was rejected. The findings indicated that the level of work stress in terms of

Interpersonal Relationship was significantly different between respondents teaching the Arts (Languages, History, etc.) and those teaching the Science stream (Mathematics, Chemistry, etc.). The results suggest that those teaching Arts (mean score=25.6354) tend to be more stressed in terms of Interpersonal Relationship than those teaching Science (mean=25.3386).

Table 4.75: Differences in the Work Stress Level (Interpersonal Relationship) of Respondents Grouped by Subject Taught

Subject Taught	n	Mean Score	Std. Deviation	t-value	p-value
Arts	639	25.6354	6.82817	5.465	0.020*
Science	570	25.3386	6.27289		

\* Significant at 0.05 significance level ( $p < 0.05$ )

#### 4.3.6.6 Work Stress Level in Terms of Sub-Dimension Interpersonal Relationship and Monthly Income.

ANOVA results in Table 4.76 showed that there were significant differences in the work stress level in terms of sub-dimension Interpersonal Relationship amongst the respondents grouped according to monthly income ( $F=5.442$ ,  $p=0.001$ ). Hence, the null hypothesis that there are no significant differences in the work stress level in terms of sub-dimension Interpersonal Relationship of the respondents when grouped by monthly income was rejected.

Table 4.76: One-Way ANOVA in the Work Stress Level (Interpersonal Relationship) of Respondents Grouped by Monthly Income

Source of Variation	Sum of Squares	df	Mean Squares	F	p-value
Between groups	697.281	3	232.427	5.442	0.001**
Within groups	51464.944	1205	42.709		
Total	52162.225	1208			

\*\* Significant at 0.01 significance level ( $p < 0.01$ )

When the Scheffe test was employed, the study indicated that the significant difference was found to be between respondents who earned a monthly salary RM 2000 and below and those who earned monthly salary between RM2001 and RM2500 ( $p=0.029$ ). In other words, respondents earning monthly salary between RM 2001 and RM2500 (mean=26.1066) experienced more stress compared to those earning a monthly salary RM2000 and below (mean=24.6842).

Moreover, the Scheffe test pointed out that in terms of sub-dimension Interpersonal Relationship work stress level, there was a significant difference between those earned between RM 2001 and RM2500 and those earned RM3001 and above ( $p=0.036$ ). In other words, those with a monthly salary between RM2001 and RM2500 (mean=26.1355) experienced more stress compared to those who earned RM3001 and above (mean=24.3795). Table 4.77 shows the results.

Table 4.77: Scheffe Post Hoc Test of Differences in the Work Stress Level  
(Interpersonal Relationship) of Respondents Grouped by Monthly  
Income

Monthly Income Group (mean)	n	Compared Group (mean)	p-value
RM 2000 and below (24.6842)	323	RM 2001–RM 2500 (26.1066)	0.029*
		RM 2501–RM 3000 (26.1355)	0.074 <sup>ns</sup>
		RM 3001 and above (24.3795)	0.971 <sup>ns</sup>
RM 2001 – RM 2500 (26.1066)	469	RM 2000 and below (24.6842)	0.029*
		RM 2501–RM 3000 (26.1355)	1.000 <sup>ns</sup>
		RM 3001 and above (24.3795)	0.036*
RM 2501 – RM 3000 (26.1355)	251	RM 2000 and below (24.6842)	0.074 <sup>ns</sup>
		RM 2001–RM 2500 (26.1066)	1.000 <sup>ns</sup>
		RM 3001 and above (24.3795)	0.066 <sup>ns</sup>
RM 3001 and above (24.3795)	166	RM 2000 and below (24.6842)	0.971 <sup>ns</sup>
		RM 2001–RM 2500 (26.1066)	0.036*
		RM 2501–RM 3000 (26.1355)	0.066 <sup>ns</sup>

\* Significant at 0.05 significance level ( $p < 0.05$ )

<sup>ns</sup>Not significant at 0.05 significance level ( $p > 0.05$ )

#### 4.3.6.7 Work Stress Level in Terms of Sub-Dimension Interpersonal Relationship and Academic Qualification

ANOVA results in Table 4.78 revealed that there were significant differences in the work stress level in terms of sub-dimension Interpersonal Relationship amongst the respondents grouped according to academic qualification ( $F=7.386$ ,  $p=0.001$ ). The null hypothesis that there are no significant differences in the work stress level in terms of sub-dimension Interpersonal Relationship of the respondents when grouped by academic qualification was therefore rejected.

Table 4.78: One-Way ANOVA in the Work Stress Level (Interpersonal Relationship) of Respondents Grouped by Academic Qualification

Source of Variation	Sum of Squares	df	Mean Squares	F	p-value
Between groups	631.213	2	315.607	7.386	0.001**
Within groups	51531.012	1206	42.729		
Total	52162.225	1208			

\*\* Significant at 0.01 significance level ( $p<0.01$ )

The Scheffe test disclosed that the significant difference was found between those respondents who were non-degree holders and those with master's degrees ( $p=0.002$ ). In other words, respondents with no degrees (mean=24.7524) experienced less stress compared to those who had master's degrees (mean=30.6875).

Moreover, the Scheffe test, indicated that the significant difference lies between those who were bachelor's degree holders and those with master's degrees ( $p=0.009$ ). In other words, respondents with bachelor's degrees (mean =25.6674) experienced less stress compared to those who with Master's degree holders (mean =30.6875). Table 4.79 shows the data.

Table 4.79: Scheffe Post Hoc Test of Differences in the Work Stress Level (Interpersonal Relationship) of Respondents Grouped by Academic Qualification

Academic Qualification Group (mean)	n	Compared Group (mean)	p-value
Non-degree (24.7524)	315	Bachelor's degree (25.6674)	0.104 <sup>ns</sup>
		Master's Degree (30.6875)	0.002**
Bachelor's degree (25.6674)	878	Non-degree (24.7524)	0.104 <sup>ns</sup>
		Master's Degree (30.6875)	0.009**
Master's Degree (30.6875)	16	Non-degree (24.7524)	0.002**
		Bachelor's degree (25.6674)	0.009**

\*\* Significant at 0.01 significance level ( $p<0.01$ )

<sup>ns</sup>Not significant at 0.05 significance level ( $p>0.05$ )



#### 4.3.6.8 Work Stress Level in Terms of Sub-Dimension Interpersonal Relationship and School Grade

Results of the t-test analyses reflected in Table 4.80 disclosed that no significant differences existed in work stress level in terms of sub-dimension Interpersonal Relationship amongst the respondents grouped according to school grade (t-value=8.13, p=0.367). Therefore, the null hypothesis that there are no significant differences in the work stress level in terms of sub-dimension Interpersonal Relationship of the respondents when grouped by school grade was accepted. From the study, it was revealed that work stress level in terms of sub-dimension Interpersonal Relationship was not significantly different between respondents from Grade A secondary schools and respondents from Grade B secondary schools, even though the mean score for respondents from Grade A secondary schools (mean=25.6305) was higher than the mean score for respondents from Grade B secondary schools (mean=25.0000).

Table 4.80: Differences in the Work Stress Level (Interpersonal Relationship) of Respondents Grouped by School Grade

School Grade	n	Mean Score	Std. Deviation	t-value	p-value
Grade A	950	25.6305	6.64890	0.813	0.367 <sup>ns</sup>
Grade B	259	25.0000	6.26545		

<sup>ns</sup>Not significant at 0.05 significance level (p>0.05)

#### 4.4 Relationships Between Work Stress Level and Independent Variables

This segment discusses the relationships between overall work stress level and each of its sub-dimensions and the following independent variables: (a) age, (b) teaching experience, (c) monthly income, (d) academic qualification, (e) gender, (f) marital status, (g) subject taught, and (h) school grade. The analyses were done using Pearson's  $r$  and Chi-square test.

The empirical evidence generated showed that overall work stress level is not significantly correlated to respondents' age ( $r=-0.491$ ,  $p=0.089$ ). However, work stress level in terms of students' misbehaviour was significantly and negatively correlated with the age ( $r=-0.181$ ,  $p=0.000$ ). Significant and negative correlation was found between work stress level in terms of Time and Resource Difficulties and age ( $r=-0.058$ ,  $p=0.043$ ). The null hypothesis that there are no significant relationships between age and work stress level in terms of Students' Misbehaviour and Time and Resource Difficulties was therefore rejected.

Moreover, there were no significant correlations between age and work stress level in terms of Workload ( $r=-0.013$ ,  $p=0.662$ ), Professional Recognition ( $r=0.042$ ,  $p=0.144$ ), and interpersonal relationships ( $r=-0.020$ ,  $p=0.755$ ). The null hypothesis that there are no significant relationships between age and overall work stress level and across its sub-dimensions Workload, Professional Recognition and Interpersonal Relationship with age was therefore accepted.

Relationships between teaching experience and work stress level in terms of overall work stress ( $r=-0.056$ ,  $p=0.053$ ), Workload ( $r=-0.000$ ,  $p=0.999$ ), Professional Recognition ( $r=0.035$ ,  $p=0.228$ ), and Interpersonal Relationship ( $r=-0.038$ ,  $p=0.189$ ) were found not significantly correlated. The null hypothesis that there are no significant relationships between teaching experience and overall work stress level and across its sub-dimensions Workload, Professional Recognition and Interpersonal Relationship was therefore accepted.

However, there were significant correlations between teaching experience and work stress level in terms of Students' Misbehaviour ( $r=0.119$ ,  $p=0.000$ ) and Time and Resource Difficulties ( $r=-0.075$ ,  $p=0.009$ ). This led to the rejection of the null hypothesis that there are no significant relationships between age and work stress level in terms of Students' Misbehaviour and Time and Resource Difficulties.

The study indicated that there were significant and negative correlations between monthly income and work stress level in terms of Students' Misbehaviour ( $r=-0.118$ ,  $p=0.000$ ) and Workload ( $r=-0.060$ ,  $p=0.037$ ). The null hypothesis that there are no significant relationships between monthly income and work stress level in terms of Students' Misbehaviour and Time and Workload was therefore, rejected.

Findings disclosed that work stress level in terms of overall work stress ( $r=-0.053$ ,  $p=0.068$ ), Time and Resource Difficulties ( $r=-0.013$ ,  $p=0.660$ ),

Professional Recognition ( $r=-0.037$ ,  $p=0.194$ ), and Interpersonal Relationship ( $r=0.007$ ,  $p=0.817$ ) were found not significantly correlated with monthly income. The null hypothesis that there are no significant relationships between monthly income and overall work stress level and across its sub-dimensions Time and Resource Difficulties, Professional Recognition and Interpersonal Relationship was therefore, accepted. Table 4.81 shows the data.

To find the relationships between overall work stress level and demographic factors, gender, marital status, subject taught, academic qualification and school grade the Chi-square test was used. The study revealed that there were significant relationships between gender and work stress level in terms of overall work stress ( $\chi^2=308.077$ ,  $p=0.000$ ), Students' Misbehaviour ( $\chi^2=74.511$ ,  $p=0.000$ ), Workload ( $\chi^2=92.632$ ,  $p=0.000$ ), Time and Resources Difficulties ( $\chi^2=74.687$ ,  $p=0.000$ ), Professional Recognition ( $\chi^2=58.461$ ,  $p=0.000$ ), and Interpersonal Relationship ( $\chi^2=109.657$ ,  $p=0.000$ ). In other words, the null hypothesis that there are no significant relationships between gender, and overall work stress level and across its sub-dimensions Students' Misbehaviour, Workload, Time and Resource Difficulties, Professional Recognition and Interpersonal Relationship with was therefore, rejected.

The study pointed out that there were significant relationship between school grade and work stress level in terms of overall work stress ( $\chi^2=245.732$ ,  $p=0.000$ ), Students' Misbehaviour ( $\chi^2=126.963$ ,  $p=0.000$ ), Workload ( $\chi^2=42.853$ ,  $p=0.000$ ), Time and Resources Difficulties ( $\chi^2=78.792$ ,

Table 4.81: Person's r Correlation Matrix

Work Stress	Age		Teaching Experience		Monthly Income	
	r	p-value	r	p-value	r	p-value
Overall Work Stress	-0.049	0.089 <sup>ns</sup>	-0.053	0.068 <sup>ns</sup>	-0.056	0.053 <sup>ns</sup>
Sub-dimension:						
1. Students' Misbehaviour	-0.181	0.000**	-0.118	0.000**	-0.119	0.000*
2. Workload	-0.013	0.662 <sup>ns</sup>	-0.060	0.037*	-0.000	0.999 <sup>ns</sup>
3. Time and Resource Difficulties	-0.058	0.043*	-0.013	0.660 <sup>ns</sup>	-0.075	0.009*
4. Professional Recognition	0.042	0.144 <sup>ns</sup>	-0.037	0.194 <sup>ns</sup>	0.035	0.228 <sup>ns</sup>
5. Interpersonal relationship	-0.020	0.755 <sup>ns</sup>	0.007	0.817 <sup>ns</sup>	-0.038	0.189 <sup>ns</sup>

\*Correlation is significant at the 0.05 significance level (p<0.05)

\*\*Correlation is significant at the 0.01 significance level (p<0.01)

<sup>ns</sup>Correlation is not significant at 0.05 significance level (p>0.05)

p=0.000), Professional Recognition ( $x^2=29.778$ , p=0.001), and Interpersonal Relationship ( $x^2=78.857$ , p=0.000).

The null hypothesis that there are no significant relationships between school grade and overall work stress level and across its sub-dimensions Students' Misbehaviour, Workload, Time and Resource Difficulties, Professional Recognition and Interpersonal Relationship was therefore, rejected.

Moreover, the significant relationships were disclosed between subject taught and work stress level in terms of overall work stress ( $x^2=290.685$ , p=0.000), Students' Misbehaviour ( $x^2=98.834$ , p=0.000), Workload ( $x^2=87.630$ , p=0.000), Time and Resources Difficulties ( $x^2=67.884$ , p=0.000), Professional Recognition ( $x^2=33.851$ , p=0.001), and Interpersonal Relationship ( $x^2=132.153$ , p=0.000). Therefore, the null hypothesis that there are no significant relationships between overall work stress level and across its sub-dimensions Students' Misbehaviour, Workload, Time and Resource Difficulties, Professional Recognition and Interpersonal Relationship with subject taught was, rejected.

There were significant relationship between academic qualification and overall work stress level ( $x^2=607.933$ , p=0.000), Students' Misbehaviour ( $x^2=207.680$ , p=0.000), Workload ( $x^2=167.476$ , p=0.000), Time and Resources Difficulties ( $x^2=219.588$ , p=0.000), Professional Recognition ( $x^2=101.594$ , p=0.001), and Interpersonal Relationship ( $x^2=268.711$ , p=0.000). In other words, the null hypothesis that there are no significant relationships between

academic qualification and overall work stress level and across its sub-dimensions Students' Misbehaviour, Workload, Time and Resource Difficulties, Professional Recognition and Interpersonal Relationship was therefore, rejected.

Finally, it was found that there were significant relationships between subject taught and work stress level in terms of overall work stress ( $\chi^2=202.911$ ,  $p=0.000$ ), Students' Misbehaviour ( $\chi^2=54.233$ ,  $p=0.000$ ), Workload ( $\chi^2=47.853$ ,  $p=0.000$ ), Time and Resources Difficulties ( $\chi^2=31.904$ ,  $p=0.000$ ), Professional Recognition ( $\chi^2=16.922$ ,  $p=0.000$ ), and Interpersonal Relationship ( $\chi^2=72.600$ ,  $p=0.000$ ). Therefore, the null hypothesis that there are no significant relationships between subject taught and overall work stress level and across its sub-dimensions Students' Misbehaviour, Workload, Time and Resource Difficulties, Professional Recognition and Interpersonal Relationship was, rejected. Table 4.82 shows the data.

#### **4.5 Discussion**

The study revealed some interesting data which needed to be deliberated on. For instance, it was found that the secondary school teachers in the State of Malacca tended to have moderate stress level, especially in sub-dimensions Workload, Time and Resource Difficulties, Professional Recognition, and Interpersonal Relationship. Similar finding concurs with Siti's (1991) research, whose results found that most of secondary school teachers were experiencing a moderate stress level. The Students' Misbehaviour, however, seemed to cause

Table 4.82: Chi-square Matrix of Relationships

Work Stress		Gender		Marital Status		Subject Taught		Academic Qualification		School Grade	
		$\chi^2$	p-value	$\chi^2$	p-value	$\chi^2$	p-value	$\chi^2$	p-value	$\chi^2$	p-value
Overall	Work Stress	308.077	0.000**	290.685	0.000**	202.911	0.000**	607.933	0.000**	245.732	0.000**
(df=105)											
Sub-dimension:											
1.	Students' Misbehaviour	74.511	0.000**	98.834	0.000**	54.233	0.000**	207.680	0.000**	126.963	0.000**
(df=32)											
2.	Workload (df=28)	92.632	0.000**	87.630	0.000**	47.853	0.000**	167.476	0.000**	42.853	0.000**
3.	Time and Resource Difficulties (df=27)	74.687	0.000**	67.884	0.000**	31.904	0.000**	219.588	0.000**	78.792	0.000**
4.	Professional Recognition (df=12)	58.461	0.000**	33.851	0.000**	16.922	0.000**	101.594	0.001**	29.778	0.001**
5.	Interpersonal relationship (df=32)	109.657	0.000**	132.153	0.000**	72.600	0.000**	268.711	0.000**	79.857	0.000**

\*Correlation is significant at the 0.05 significance level ( $p < 0.05$ )

\*\*Correlation is significant at the 0.01 significance level ( $p < 0.01$ )



secondary school teachers in the State of Malacca to experience high level of stress. This implies that secondary teachers in the State of Malacca experienced more stress brought about by students' misbehaviour in addition to the tension due to workload, time and resource-related problems, professional recognition and interpersonal relationship.

Statistical results indicate that overall work stress level differed significantly when respondents were grouped by age. Teachers whose age was less than 30 years old had experienced lower stress than those age between 31 and 40 years old. This finding, however, contradicts the findings of Kyriacou & Sutcliffe (1978) who identified that younger teachers were more stressed than their older colleagues. Salmon and Feld (1989) also found significant differences amongst teachers of different ages in their response to stress, where the younger teachers tend to have a high stress level than the older teachers. The same finding was also found by Mohd (1995) and Siti (1991), who found that younger teachers (below 34 years old) seem to have higher stress compared to those who are 35 years old and above. This finding, however, contradicts with the findings of Hamdiah (1996) who found that work stress level was not significantly different amongst the respondents' age groups. Abdul (1996) proved that there are no significant differences between the teachers' work stress and their teachers' age.

The study also indicated that there were significant differences between overall work stress level and teaching experience. It was found that respondents

who had 15 years and less teaching experience had more stress compared to those respondents with 16 to 25 years of teaching experience, and to those with teaching experience of 26 years and above. This implies that the longer the teachers are in teaching, the lower level would be their level of work stress. Teachers who have stayed longer in teaching may have better stress-coping mechanisms than the younger ones. As found by Kyriacou and Sutcliffe (1978), less experienced teachers were more stressed than their experienced colleagues.

These findings concur with the findings of Laughlin (1984) who found significant differences amongst teachers' level of work stress by different working experience, and had identified that those teachers with less teaching experience have the tendency to have higher stress than those with more experiences. Payne and Furnham (1987) in their research on the dimension of teacher's work stress in one of the secondary schools in West Indian, Barbados, also found significant differences in the level of work stress to teachers' working experience. They found that teachers with less teaching experience tend to have higher stress compared to the experienced teachers. Moreover, the teachers with 6 to 10 years of teaching experience were also found to be having more stress compared to those with 11 years and above teaching experience (Payne and Furnham, 1987).

This finding of the present study, however, contradicts with the findings of Abdul (1996), who showed that there are no significant differences between teacher's work stress and working experience. In the present study, there were significant differences between overall work stress level and subject taught, with

Arts teachers demonstrating more stress compared to Science teachers. These findings concur with the study of Mokhtar (1998) who proved that there were significant differences between stress level and subject taught. These findings also support the findings of Chei (1996) who found that there was a significant difference between teachers' levels of work stress and subject taught.

In terms of monthly income, the significant difference lies between those respondents who earned between RM 2001 to RM 2500 and those who earned RM 3001 and above. Based on the values of means in overall work stress, it may suggest that the lower income respondents have higher level of stress compared to those respondents who had higher income. This might suggest that if workers are always motivated by money or salary, those employees who earned more, will be more satisfied with their job thus may enable them to minimise work stress. This is to say also that these people may have better fulfilled needs than those who had lower income.

These findings concur with the study of Chei (1996) who showed that level of work stress was significantly different amongst teachers' monthly income and also proved that those teachers who earn less monthly income tend to be more stressed than those who earn more. However, the finding contradicted with the study of Gilbeth (2002) who found that there were no significant differences between teachers' level of stress and monthly income groups.

Moreover, the study disclosed that in terms of overall work stress level, non-degrees holders showed less stress compared to Bachelor's degree holders. However, the study indicated that those respondents having master's degrees were showing more stress compared to the non-degree holders. The finding implies that academic qualification had strong influence to the level of work stress. Employees who had higher qualification have more responsibility and tasks towards their job. Demanding responsibility can drive individuals to high uncertainty on their job that may influence people's moods and thus increases stress level at workplace.

However, the findings contradict with Payne and Furnham (1987), who found that teachers with pre-degrees (non-degree holders) have higher level of stress compared to those with degrees (bachelor's degree and master's degree). According to Siti (1991), teachers with "lower" qualification (like SPM) and those who got training from teachers training institutions are bound to have more stress compared to those with other higher qualifications.

However, Abdul (1996) found that there are no significant differences between the teachers' work stress and academic qualification. Similar findings were shown in the study of Mohd (1995), disclosing that there were no significant differences in the level of stress between graduate teachers and non-graduate teachers.

Only three (3) independent variables were not significantly related to the level of work stress (overall) namely: gender, marital status, and school grade.

This could possibly imply that the respondents do not differ in overall work stress level, whether they are male or female, single or married, and from secondary school Grade A or Grade B.

These findings concur with the findings of Abdul (1996), who proved that there are no significant differences between the teachers' work stress level and their marital status. The data also support the findings by Gilbeth (2002), who showed that work stress level was not significantly different between married and single respondents.

This finding, however, does not support the findings of Laughlin (1984) and Trendall (1989) when they found that work stress level was significantly different amongst male and female respondents. Trendall (1989) also proved that the female teachers would have higher stress than the male teachers. Similarly, findings by Siti (1991) in her study found that work stress level was significantly different amongst male and female respondents, and proved that female teachers are more prone to higher work stress compared to their male counterparts.

With reference to the work stress level in terms of Students' Misbehaviour, respondents between 31 and 40 years old demonstrated lower work stress level compared to those 41 years old and above. The result implies that older teachers experience higher stress level because their capabilities to handle undisciplined students become low. These results concur with the research of Laughlin (1984) who showed that there were significant differences amongst

teachers' level of stress in terms of Students' Misbehaviour with different respondents' age groups. This author also found that teachers who were less than 26 years old had higher stress level compared to those in other age scales.

According to Merret and Wheldhall (1993), students' misbehaviour is the essential element amongst most of the schools, and most of the teachers said that they always pay most attention on the ability to control and organise the classroom. The same opinion was also disclosed by the present study where the secondary teachers in the State of Malacca experienced high level of stress. Because of their capabilities and adequate skills to handle undisciplined students, those teachers who were older and had more teaching experience demonstrated low of work stress level.

Respondents who had teaching experience 15 years and below demonstrated more stress compared to those who had between 16 and 25 years teaching experience. In another finding, respondents who had 15 years and below teaching experience also demonstrated higher stress compared to those who had 26 years and above teaching experience in terms of Students' Misbehaviour. This could possibly imply that teachers who have less teaching experience may have less experience to handle the students who have inappropriate school manners. Teachers with less experience may also have inadequate skills in dealing with students' problems.

In terms of Students' Misbehaviour, those respondents who earned RM 2000 and below had higher stress level compared to those who had earned between RM 2501 and RM 3000. Compared with those who had earned RM 3001 and above, respondents who earned RM 2000 and below still had higher stress level. However, those respondents who earned between RM 2001 and RM 2500 demonstrated less stress than those who earned RM 3001 and above. Findings may suggest that those who earned higher monthly salary tend to have less stress.

Those respondents who do not have degrees experienced less work stress than those who have Bachelor's degrees in terms of Students' Misbehaviour. The study also proved that Master's degrees holders had higher stress level than non-degrees holders.

On the contrary, the not significant differences disclosed in the study between works stress level (Students' Misbehaviour) and gender, marital status, and school grade, implies that respondents do not differ significantly in work stress level (Students' Misbehaviour) whether they were male or female, single or married, and from secondary school Grade A or Grade B.

As for the work stress level in terms of sub-dimension Workload, only two (2) independent variables, namely age and subject taught showed significant differences in work stress level. As disclosed in the study, those respondents 30 years and below showed lower work stress level compared to those respondents between 31 and 40 years old. However, in terms of stress level (Workload), those

respondents between 31 and 40 years old tend to be have higher work stress level compared to those 41 years old and below. This finding implies that while the respondents are getting mature, their capabilities to cope with the workload become low. Hence, this factor may influence them to experience more stress.

Work stress level in terms of Workload had significant difference with subject taught. The study reported that those teachers who had taught Arts subjects were more stressed than those who taught Science. The finding implies that Arts teachers tend to be more stressed because the subject itself such as Bahasa Melayu, history or any Arts subject needs more efforts of the teachers to prepare the class before and to make sure the classes are interesting and can be easily understood.

However, level of work stress in terms of Workload was not significantly different with gender, marital status, teaching experience, monthly income, academic qualification, and school grade. This finding implies that the level of distribution of workload among teachers may be the same in terms of the physical demands required. Therefore, the level of stress was found not significantly different in terms of Workload whether the teachers were male or female, married or single, had less or more teaching experience, had high or low income, have degree or not, and from school Grade A or Grade B.

Older teachers from secondary schools in the State of Malacca reported by the study had experienced higher stress level in terms of Time and Resource



Difficulties. Older teachers tend to have more responsibilities in terms of family commitment, and they may have difficulties in trying to balance between their personal and work concerns. These teachers may have encountered problems on teaching and study facilities such as OHP or LCD projector. They don't have enough time to prepare for the next class. They will be more sensitive if the school were under equipping with the study facilities such OHP, magazine or LCD projector, amongst others.

In the same sub-dimension, the study pointed out that those respondents who had teaching experience 15 years and below tend to have higher work stress level than those who had between 16 and 25 years teaching experience. This finding suggests that those teachers who had more teaching experience may have better time management skills.

Those teachers who taught Arts experienced more stress compared to those who taught Science in terms of Time and Resource Difficulties. This finding implies that Arts teachers may have faced constraints of time and resources like teaching materials and equipment during classes, or has lower level of satisfaction in their job as a result of these resource deficiencies.

The study also found that there were significant differences between work stress level (Time and Resource Difficulties) and academic qualification. The study indicated that non-degree holders showed lower stress level than Bachelor's degree holders. In another finding, the study also disclosed that non-degree

holders indicated less work stress than those respondents who had Master's degrees and those who were Bachelor's degree holders, the latter demonstrating lower stress than those had Master's degrees. In short, the higher the educational qualification of teachers, the higher would be their work stress. This may be due to the demands of the job associated with being highly educationally qualified.

Moreover, there were no significant differences in level of work stress (Time and Resource Difficulties) by independent variables namely gender, marital status, monthly income, and school grade. In other words, whether the respondents were male or female, single or married, any group of monthly income, and any secondary school grade they were not significantly different in work stress level in terms of Time and Resource Difficulties.

Under the sub-dimension Professional Recognition, work stress levels significantly differed with age. The study reflected that those respondents between 30 years old and below demonstrated less stress level than those who were between 31 and 40 years old. In addition, those respondents 30 years old and below showed lower stress level than those 41 years old and above. The finding may suggest that younger teachers have better satisfied recognition needs than those who were older.

As reflected in the study, in terms of Professional Recognition, Arts teachers tend to have more stress compared to Science teachers. This finding suggests that Arts teachers may be lacking recognition from their organisation.

Works stress level (Professional Recognition) significantly differed with monthly income. Teachers who had lower monthly income experienced higher work stress level. This implies that the lower monthly income teachers may need more autonomy and opportunity involving decision making in the school organisation.

However, no significant differences were found between works stress level (Professional Recognition) and gender, marital status, teaching experience, academic qualification, and school grade. The study implies that level of work stress in terms of Professional Recognition is not significantly different even though the respondents were male or female, single or married, more or inadequate teaching experience, low or high academic qualification, or from secondary school Grade A or Grade B.

Under the sub-dimension of Interpersonal Relationship, work stress level significantly differed with age. Respondents between 30 years old and below showed less stress than those respondents between 31 and 40 years old. The older teachers may have more experience in the teaching profession and have more skills in terms of interpersonal relationship in their organisation; therefore, they experienced lower stress compared to the others.

There were significant differences in the respondents' work stress level (Interpersonal Relationship) and teaching experience. Teachers who had more teaching experience tend to have better communication skills. They do not have

any much constraint to face, and maintain the good relationships amongst their peers. They may be more satisfied with their job environment, which reduced their level of work stress in terms of interpersonal relationship with peers and superiors.

Moreover, the study reflected that Arts teachers tend to be more stressed than Science teachers in terms Interpersonal Relationship. The finding suggests that the Arts teachers may lack communication and have weak relationship amongst teachers. The main factors causing work stress amongst the teachers were related to interpersonal relationship (Kelly, 1988).

There were significant differences in work stress level (Interpersonal Relationship) when respondents were grouped by monthly income, with those who earned RM 2000 and below showing lower stress level than those respondents who earned between RM 2001 and RM 2500. However, those respondents who earned between RM2001 and RM 2500 demonstrated lower level of stress than those who earned RM 3001 and above. Usually, teachers who earned lower monthly income may have lower satisfaction in their job. They may feel underestimated by their peers and as a result, may show higher stress in terms of interpersonal relationship.

Non-degree holders had less stress than Master's degree holders in terms of Interpersonal Relationship. The study also pointed out that those who had Bachelor's degrees experienced lower level of stress than those with Master's

degrees. The latter may have inadequacies in interpersonal communication with their peers, and this situation may have created stress to them. With inadequate communication skills, interaction amongst teachers becomes less; relationships among the colleagues cannot be built and with the weak relationship environment in their workplace, it may influence the employees to feel more stressed.

There were no significant differences between works stress level (Interpersonal Relationship) in terms of gender and school grade. This may imply that the level of work stress in terms of Interpersonal Relationship was not significantly different whether the respondents were male or female, and from secondary school Grade A or Grade B.

There were significant and positive relationships between age and overall work stress level. The finding implies that respondents tend to experience more stress when they become older. It is because as they become older, teachers' responsibilities increase. As a result, they face more demands and this may influence the rising of their level of stress. In terms of Students' Misbehaviour, age had significant and negative correlations with works stress level. It suggests that the respondents are more capable in reducing their work stress when they become older. It is because they become more knowledgeable in terms of handling students' attitude problems. Moreover, significant and negative correlation was found between work stress level in terms of Time and Resources Difficulties and age. The result implies that older teachers may be creative in facing problems in terms of lack or inadequate resources in schools. Additionally,

older teachers also have more experience in terms of time management compared to the younger teachers, and therefore they do not have much problems on time constraints.

Teaching experience and work stress level in terms of overall work stress, Workload, Professional Recognition, and Interpersonal Relationship were found not significantly correlated. However, there were significant and negative correlations between teaching experience and work stress level in term of Students' Misbehaviour and Time and Resource Difficulties. Teachers may be more creative and innovative in problem solving and have more skills in behaviour management of students when their length of service in teaching is longer. The longer the teachers' experience is in teaching, the more skills and knowledge they may have to face any problems on concerns related to lack of resources or time.

The study indicated that there were significant and negative correlations between monthly income and work stress level in terms of Students' Misbehaviour and Workload. It suggests that if the teachers were more satisfied with the job, they can reduce their stress level even though they have so many tasks or are faced with many students' attitude or school problems. If teachers earn substantial monthly salary, they may be able to overcome stress-related problems in school as they can fulfil their needs and wants.

Overall work stress level and its sub-dimensions Students' Misbehaviour, Workload, Time and Resources Difficulties, Professional Recognition, and Interpersonal Relationship were significantly correlated with independent variables namely: gender, marital status, subject taught, academic qualification and school grade. The finding implies that these demographic factors have strong impact or influence on the work stress level of the secondary school teachers in the State of Malacca.

**CHAPTER V**  
**SUMMARY, CONCLUSIONS, IMPLICATIONS, AND**  
**RECOMMENDATIONS**

**5.0 Overview**

Chapter V includes four parts: (1) Summary of the Study, (2) Summary of the Findings, (3) Conclusions, and (4) Implications to Human Resource Development and Recommendations.

Part One, Summary of the Study, presents a brief overview of the study. Part Two, Summary of the Findings, summarises the major results of the research. Part Three, Conclusions, gives the conclusion of the study. Part Four, Implications to Human Resource Development and Recommendations, explains how the findings can have an impact on human resource development, as well as formulates some recommendations.

**5.1 Summary of the Study**

The main purpose of this study was to determine the overall level of work stress amongst secondary school teachers in the State of Malacca, and across these



sub-dimensions: Students' Misbehaviour, Workload, Time and Resource Difficulties, Professional Recognition, and Interpersonal Relationship.

The study also investigated differences in work stress levels, and the relationships between levels of work stress, and the following demographic variables: age, gender, marital status, working experience, subject taught, monthly income, academic qualification, and school grade.

The samples consisted of 1209 randomly selected teachers from 19 secondary schools in the State of Malacca which mean age was 38 years. Majority (60.7 percent) of the respondents were female, and married (90.0 percent). One-third (34.9 percent) of them have been in the teaching profession for more than 15 years. Half (52.9 percent) of them were teaching Arts (e.g. languages, history, geography) and the rest (47.1 percent) were handling Science (e.g. mathematics, chemistry, biology). Most of the respondents (65.5 percent) had a monthly income below RM2500. In terms of academic qualification, almost three-fourths (73.9 percent) of respondents were degree holders (Bachelor's and Master's). Majority (78.6 percent) were from secondary school Grade A.

In measuring work stress, a questionnaire (Cronbach Alpha=0.9568) developed by Mokhtar (1998) was adopted in the research. Statistical tools used were frequency counts, percentages, means, t-test, One-Way ANOVA, Pearson's r, and Chi-square. Analyses were set at 0.05 level of significant using the SPSS for Windows (Version 11.0) computer software.

## 5.2 Summary of the Findings

This segment discusses the findings of the research. The study revealed that:

1. The overall work stress level of respondents was “moderate”.

Across the sub-dimensions of work stress, the respondents experienced “moderate” stress level in terms of Workload, Time and Resource Difficulties, Professional Recognition, and Interpersonal Relationship. However, respondents demonstrated “high” level of work stress in terms of Students’ Misbehaviour.

2. There were significant differences between work stress level (overall) and (a) age, (b) teaching experience, (c) subject taught, (d) monthly income, and (e) academic qualification. The following groups of respondents showed relatively higher levels of work stress: those between 31 and 40 years old; those who had been teaching for 15 years and below; those teaching the Arts; those earning RM 2000 and below; and those who have Master’s degrees.
3. There were no significant differences between works stress level (overall) and (a) gender, (b) marital status, and (c) school grade.

4. There were significant differences between work stress level (Students' Misbehaviour) and (a) age, (b) teaching experience, (c) subject taught, (d) monthly income, and (e) academic qualification. The following groups of respondents demonstrated relatively higher levels of work stress: those 41 years old and above; those who had been teaching for 15 years and below; those teaching the Arts; those earning RM 3001 and above; and those who have Master's degrees.
5. There were no significant differences between works stress level (Students' Misbehaviour) and (a) gender, (b) marital status, and (c) school grade.
6. There were significant differences between work stress level (Workload) and (a) age, and (b) subject taught. The following groups of respondents expressed relatively higher levels of work stress: those age 41 years old and above; and those teaching the Arts.
7. There were no significant differences between works stress level (Workload) and (a) gender, (b) marital status, (c) teaching experience, (d) monthly income, (e) academic qualification, and (f) school grade.
8. There were significant differences between work stress level (Time and Resources Difficulties) and (a) age, (b) teaching experience, (c) subject taught, and (d) academic qualification. The following groups of

respondents showed relatively higher levels of work stress: those age 41 years old and above; those who had been teaching for 15 years and below; those teaching the Arts; and those who do not have degrees.

9. There were no significant differences between works stress level (Time and Resource Difficulties) and (a) gender, (b) marital status, (c) monthly income, and (d) school grade.
  
10. There were significant differences between work stress level (Professional Recognition) and (a) age, (b) subject taught, and (d) monthly income. The following groups of respondents demonstrated relatively higher levels of work stress: those age 41 years old and above; those teaching the Arts; and those were earning RM 2501 – RM 3000.
  
11. There were no significant differences between works stress level (Professional Recognition) and (a) gender, (b) marital status, (c) teaching experience, (d) academic qualification, and (e) school grade.
  
12. There were significant differences between work stress level (Interpersonal Relationship) and (a) age, (b) marital status, (c) teaching experience, (d) subject taught, (e) monthly income, and (e) academic qualification. The following groups of respondents expressed relatively higher levels of work stress: those age 30 years old and below; those who married; those who had been teaching for between 16 and 25; those

teaching the Arts; those earning RM 2000 and below; and those who have Master's degrees.

13. There were no significant differences between work stress level (Interpersonal Relationship) and (a) gender, and (b) school grade.
14. There were significant relationships between work stress level (overall) and (a) gender, (b) marital status, (c) subject taught, (d) academic qualification, and (e) school grade.
15. There were no significant relationships between work stress level (overall) and (a) age, (b) teaching experience, and (c) monthly income.
16. There were significant relationships between work stress level (Students' Misbehaviour) and all independent variable.
17. There were significant relationships between work stress level (Workload) and (a) gender, (b) marital status (c) monthly income (d) subject taught (e) academic qualification, and (f) school grade.
18. There were no significant relationships between work stress level (Workload) and (a) age, and (b) teaching experience.

19. There were significant relationships between work stress level (Time and Resource Difficulties) and (a) age, (b) teaching experience, (c) gender, (d) marital status, (e) subject taught, (f) academic qualification, and (g) school grade.
20. There was no significant relationship between work stress level (Time and Resource Difficulties) and monthly income.
21. There were significant relationships between work stress level (Professional Recognition) and (a) gender, (b) marital status, (c) subject taught, (d) academic qualification, and (e) school grade.
22. There were no significant relationships between work stress level (Time and Resource Difficulties) and (a) age, (b) teaching experience, and (c) monthly income.
23. There were significant relationships between work stress level (Interpersonal Relationship) and (a) gender, (b) marital status, (c) subject taught, (d) academic qualification, and (d) school grade.
24. There were no significant relationships between work stress level (Interpersonal Relationship) and (a) age, (b) teaching experience, and (c) monthly income.

### 5.3 Conclusion

Based on the results of the research, the following conclusions are formulated.

The secondary school teachers in the State of Malacca experienced a considerable level of stress in their work, with students' misbehaviour, exerting the strongest pressure. The respondents also experienced substantial work stress in terms of workload, time and resource difficulties, professional recognition, and interpersonal relationship.

Work stress would vary significantly according to age and teaching experience, with older and had more experienced teachers to experience lower work stress. Older and more experienced teachers tend to have more knowledge and more skills in coping with the stress-related problems.

Secondary school teachers teaching the Arts (e.g. Languages, History) would experience higher stress level compared to those in the Sciences (e.g. Biology, Chemistry).

Teachers those who earned a substantial monthly salary tend to have low work stress level. With high income, teachers seemed to be more satisfied in their job and subsequently become less stressful.

Work stress would vary significantly according to academic qualifications. Secondary school teachers who had higher academic qualifications experience higher level of stress.

Work stress would not vary significantly according to gender, marital status and school grade. Hence work stress levels were not significantly different whether teachers were male or female, single or married, and in secondary school Grade A or Grade B.

Age, teaching experience, and monthly income were not significantly related to work stress level. This denotes that these variables do not significantly influence or contribute to the level of teachers' work stress.

Gender, marital status, subject taught, academic qualification and school grade were significantly related to work stress level. This disclosed that these variables significantly exert influence on work stress level.

The above conclusions were drawn within the context of the following limitations. Firstly, generalizability of the findings of this study is limited to the sampled schools in the State of Malacca. The findings may not be conclusive to all teachers in Malaysia. Secondly, the study was conducted within the limitations of time, i.e., three months. Thirdly, the data were gathered using a questionnaire. A series of interviews to the teachers themselves may have provided other information not explored in the study.



#### **5.4 Implications to Human Resource Development and Recommendations**

The findings have several important implications for human resource development. The evidence from the study was disturbing, with a high proportion of teachers in the State of Malacca who experienced moderate to high stress levels. Although it is not possible to comment confidently on whether stress among teachers has been increasing over the years, it is important that decision and policy-makers should be aware of this alarming situation and the adverse effects and prolonged effects of work stress on job performance, absenteeism, job satisfaction, attrition, and employee's health (Cooper and Payne, 1988). This situation is further aggravated by the fact that most factors that were rated as most stressful by the samples were concerned with responsibility for people, which according to previous research, has significant implications for coronary heart disease, heavy smoking, increased serum cholesterol level, and diastolic blood pressure (Tichatonga, 1998).

The high level of work stress in term of Students' Misbehaviour among secondary teachers in the State of Malacca requires a skill on how to overcome the students' problem and the skill to manage students who have unacceptable attitude in the class. The prevalence and intensity of secondary school teachers' stress among the research sample shows that they require assistance to manage and cope with stress especially with regards to students' behaviour. Assistance should be available during the preparation of being teachers so that it assumes a preventive function. Findings of this study, further attest to the urgent need for

incorporating training in skills how to conduct undisciplined students and the skills to control students in the class since the least experienced secondary school teachers are the ones who experience greater stress.

Urgent steps should be taken to alleviating teachers' stress by manipulating factors in the work environment so that a good person-environment fit can be established. According to Lazarus (1984), one way of alleviating occupational stress involves altering working conditions so that they are less stressful or do not impede effective coping. However, this approach should acknowledge the selective nature and effect of stress factors on different sub-dimensions reported by the present study. Therefore, this calls for the development of comprehensive programme that provides training in stress management and prevention at school, district, regional and national levels.

Shifting the locus of control away from school office to the teachers in order to enhance teacher-based decision-making processes can alleviate teachers' stress. Since external locus of control contributes significantly to work stress diminishing external and increasing internal locus of control should help alleviate work stress among secondary school teachers especially in the State of Malacca, where there is greater central control over school based decision making (Noran and Sharifah, 1990). For example, the teachers have very little control over "lack of learning materials" and "inadequate resources". Hence, a shift in the locus of control should help empower teachers to create a supportive and enabling school environment, which minimizes stress and fosters collegial and supportive

relationships among teachers. Although it is conceded that the task of the teachers can be greatly enhanced through appropriate training programmes, greater decentralisation, which increases internal locus of control, should help diminish teachers' stress.

The secondary school administrators should also try to increase non-contact time and reduce after-hours work. This would indicate that the administrators have the welfare of the teachers at heart because they understand the need for the teachers to have sufficient time to "unwind". In addition, recreational facilities could be made available to the teachers for their exclusive use.

As far as possible, the school administrators should involve the teachers in decision-making processes and remain receptive to the varying views that are being expressed by the teachers. It would also enhance the management environment if the management is able to establish a reward system whereby the teachers are given due recognition (Janice, 2000). Between teachers and principals, there must be a "two-way" communication and an "open system of dialogue and consultation". All in all, attempts should be directed at creating a "family" environment in each teacher.

The social environment is important not only to satisfy the "social" needs of the teachers but also for teachers to be accessible to each other for practical help and support. In this study, the social environment plays an important part in

teacher wellbeing where schools with a healthy environment tend to have teachers who are less tense and uptight and report higher job satisfaction levels. Most interestingly, a healthy social environment could contribute positively to schools' performance in terms of students' exam results. Some plausible explanations for this outcome is that teachers are most effective operating in an environment which is supportive, harmonious, has low conflict, has sense of perceived helpfulness and conducive to relationship-building which may therefore lead to better performance.

Moderate level of work stress in terms of Time and Resource Difficulties requires the teachers to improve more general skills such as time management. By improving under these areas teachers can help themselves to reduce stress in their personal life as well as at work. Time management goes right to the centre of life planning and managing stress. It reaches beyond "to do" lists, leather planners, and wall calendars. It is about what they want in their life and how they plan to achieve it.

Planning has an important and a significant role in helping teachers to manage their time effectively. However, there are many other factors that come into play that can easily disrupt and undermine the best-intentioned plans. Thus, there is a need to look at what happens in schools on a holistic basis for the teachers to manage their time more effectively. There are many examples how the pressure of time can be addressed in some specific circumstances such as developing "forward plans". In terms of "forward plan", the teacher must try to

anticipate what might happen and what needs to be done the next day or next month. They can draw up a weekly or even monthly on the planner and note the important events on there.

Employees especially teachers can also develop skills in reducing stress level and increase their knowledge about the school and its students in terms of interpersonal relationship by interacting with more experienced staff in that school organisation. Mentoring and coaching are two types of interpersonal relationships that are used to develop employees especially teachers, to overcome this work stress problem.

Mentoring concepts in teaching organisation may be implemented by selecting a mentor who is an experienced, productive senior teacher who helps develop a less experienced teacher because as the findings showed, less experienced teachers tend to be more stressed compared to more experienced teachers.

From this study, the researcher recommends a few steps that would be taken to reduce teacher work stress. Since this research found that five factors are dominant attributes to work stress, the Education Ministry, State Education Department, District Education Office, schools and teachers should collaborate efforts to reduce teacher work stress. Students' misbehaviour in and out of the class should be given attention. Policies on student discipline should be revised, if necessary. "Discipline designer" should create sound policies to be adopted in

schools. Using the cane is not the best way. Teachers' power should be used in a right way to conduct students' inappropriate behaviours.

Research results also show that Workload causes work stress among teachers. *Berita Harian* (August 5, 1997) reported that 30% of 280,000 teachers have to do outside task and cannot concentrate on their teaching. Too heavy workload may cause teachers to do other jobs besides teaching per se, such as collecting fees and filling students' form. It is also suggested to take more supporting staff and provide more appreciation factors such as promotion, higher income and incentives to professional and administrative staff to motivate teachers to improve teaching performance.

Teachers may move to other jobs because of income factors (Kyriacou and Sutcliffe, 1978). It is thus recommended that the teacher remuneration system be revised to attract more people in the teaching profession.

Interpersonal relationship is important in the teaching profession. Interpersonal relationship between teachers and administrators, parents, District Education Office, and the State Education Department should co-exist in good condition. Trendall (1989) thinks that stress should be reduced if there are good relations among workers in an organisation and problems are discussed. This statement is also supported by Manthei and Gilmore (1994) who suggest that school administrators should try to understand teachers' problem to boost performance in teaching. Time and resource difficulties should give an attention.

Aspects such as not having enough time for teachers to concentrate, classroom not comfortable, a large number of students in a classroom, syllabus, lack of teaching tools and teachers' room not comfortable, and the like, should also be reconsidered.

In order to reduce work stress, school decision-makers should reduce factors that would cause teachers' work stress, and conduct courses on work stress management. Fontana and Abouserie (1993) explained that if somebody who had work stress for a long time, that person will get high risk to get physically and psychologically damaged.

From an organisation's standpoint, management may not be concerned when employees experience low to moderate levels of stress and the reason is that such levels of stress may be functional and lead to higher employee performance (Robbins, 2001). But high levels of stress, or even low levels sustained over long periods of time, can lead to reduced employee performance and thus, require action by management (John, 1993).

The cost of stress, reflected by reduced quality of work life, poorer health, and lower productivity, coupled with the increasing prevalence of stress in the workplace, has prompted increasing number of organisations to seek out ways to prevent or reduce employees stress (Lawrence, 1995). According to Lawrence (1995), the challenge for companies in the 1990's is to equip them to manage

work stress and productivity consequences, so as to reduce health-care cost, improve productivity, and remain competitive in a world economy.

However, Robbins (2001) stated that stress can be managed by two approaches, individual approaches, such as reducing stress through relaxation techniques, time management and social support, and organisational approach, such as wellness programme, organisational communication programme and involvement in decision making.

Employees can take personal responsibility for reducing their stress level. According to Ivancevich and Matteson (1980), individual strategies that have been proven effective include implementing time management techniques, increasing physical exercise, relaxation training, and expanding the social support network.

Ivancevich and Matteson (1980) stated that many people manage their time poorly. According to these authors, the things they have to accomplish in any given day or week are not necessarily beyond completion if they manage their time properly. A well-organised employee can often accomplish twice as much as the person who is poorly organised (Macan, 1994). Additionally, understanding and utilisation of basic time management principles can help individuals better cope with tension created by job demands. A few of the more well-known time management principles useful also for teachers are as follows: making daily list of activities to be accomplished; prioritising activities by importance and urgency; scheduling activities according to the priorities set; and knowing one's daily cycle



and handling the most demanding parts of the job during the high part of cycle when we he/she is must alert and productive (Haynes, 1985).

According to Kiely and Hodgson (1990), non-competitive physical exercise such as aerobics, walking, jogging, swimming, and riding a bicycle have long been recommended by physicians as a way to deal with excessive stress levels. This author also stated that these forms of physical exercise increase heart capacity, lower at-rest heart rate, provide a mental diversion from work pressures, and offer a means to let off steam.

Individuals such as teachers can teach themselves to reduce tension or stress through relaxation techniques such as meditation, hypnosis and biofeedback. The objective is to reach a state of deep relaxation, where one feels physically relaxed, somewhat detached from the immediate environment, and detached from body sensation. Fifteen or twenty minutes a day of deep relaxation releases tension and provides a person with a pronounced sense of peacefulness and significant changes in heart rate, blood pressure, and other physiological factors result from achieving the deep relaxation condition (Robbins, 2001).

According to Macan (1994), having friends, family or work colleagues to talk to provide an outlet when stress level becomes excessive. The author also stated that by expanding social support network, could be means for tension reduction. Research also demonstrates that social support moderates the stress-burnout relationship.

According to Robbins (2001), several of the factors that cause stress, particularly task and role demands and organisational structure, are controlled by management and as such, they can modify or change those factors that contribute to stress. Strategies that management might want to consider include improved personal selection and job placement, use realistic goal realistic redesign of jobs, increased employee involvement, improved organisational communication, and establishment of corporate wellness programmes (Frew and Brunning, 1987).

Wellness program is programme that organisations such as schools should implement to reduce teachers' workers stress. These programmes focus on the employees' total physical and mental conditions (Wolfe et al., 1987). Typically, these programmes provide workshops to help workers quit smoking, control alcohol use, lose weight, eat better, and develop a regular exercise programme. The assumption underlying most wellness programs is that employees need to take personal responsibility for their physical and mental health. Schools may also wish to implement such wellness programmes.

While certain jobs are more stressful than others and were differ from the individual in their response to the stress situation. The individuals with little experience or external locus of control tend to be more prone to stress. Selection and placement decisions should take these facts in consideration. Obviously, while management should not restrict hiring to only experienced individuals, employees may adapt better to high-stress jobs and perform those jobs effectively.

Individuals, like teachers, seem to perform better when they have specific and challenging goals and receive feedback on how well they are progressing toward these goals. The use of goals can reduce stress as well as provide motivation. Specific goals that are perceived as attainable clarify performance expectations. The result is less employee frustration, less role ambiguity and less stress.

Redesigning jobs to give employees more responsibility, more meaningful work, more autonomy, and increased feedback can reduce stress because these factors give the employee greater control over work activities and lessen dependence on others. The right redesign, then, for employees with a low need for growth might be less responsibility and increased specialization. If individuals prefer structure and routine, reducing skill variety should also reduce uncertainties and stress level.

Role stress is detrimental to a large extent because employees feel uncertain about goals, expectations, how they will be evaluated, and the like. By giving these employees like teachers a voice in those decisions that directly affect their job performances, management can increase employee control and reduce this role stress. So managers like school heads and policy-makers should consider increasing employee involvement in decision-making (Janice, 2000).

Work stress especially that of teachers, is now considered to be one of the leading work-related health problems in developed countries where the

phenomenon is well documented. The human consequences of work stress include anxiety, depression, anger and various physical consequences such as cardiovascular disease and headaches. Yet work stress is not necessarily dysfunctional. Some people, for example, work well only when under a little stress and find they are more productive as deadline approaches. Others find that stress may result in a search that leads to a better job or to a career that makes more sense, given their aptitudes. A moderate level of stress may even lead more to more creativity if a competitive situation results in new ideas are generated. But if the teachers had prolonged with the stress, the impact will be negative consequences.

Finally, further research needs to be done to verify the findings of the current exploratory study and contribute towards the development of sound research database on occupational stress of teaching personnel in the State of Malacca. The present study can only provide the status of secondary school teachers' stress level at the time the research was conducted, but cannot give a full picture of trends in secondary school teachers' work stress level. Hence, without the benefit of future research, which should also explore other stress-related areas such as burnout, psychological distress, and the like, the current findings can only provide partial understanding and solutions to the work stress of secondary teachers in the State of Malacca.

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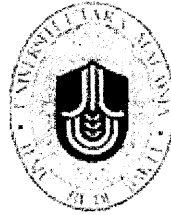
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**Appendix A**

**Work Stress Questionnaire**

No responden:

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**SEKOLAH SIWAZAH  
UNIVERSITI UTARA MALAYSIA  
06010 SINTOK  
KEDAH DARUL AMAN**

**SOAL SELIDIK TEKANAN KERJA DIKALANGAN GURU SEKOLAH  
MENENGAH DI NEGERI MELAKA**

Assalamualaikum dan selamat sejahtera.

Terima kasih kerana menyertai penyelidikan ilmiah ini. Tujuan soal selidik ini adalah untuk mengkaji aras tekanan kerja dan faktor-faktor yang menyebabkan tekanan kerja dikalangan guru. Sila beri jawapan anda dengan ikhlas. Maklumat yang dikumpulkan adalah sangat penting dan berguna bagi memperbaiki profesion anda. Maklumat akan diproses secara berkumpulan dan maklumat peribadi akan dirahsiakan.

Soal selidik ini terbahagi kepada dua bahagian. Bahagian A mengenai latar belakang anda dan bahagian B pula berkaitan dengan faktor-faktor tekanan kerja. Kedua-dua bahagian akan mengambil masa di antara 10-20 minit untuk dilengkapkan. Segala kerjasama yang anda berikan amat dihargai dan didahului dengan ucapan ribuan terima kasih.

Penyelidik :

Fazli Bin Bahari  
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## BAHAGIAN A

Anda dikehendaki menandakan atau mengisikan mana-mana maklumat yang berkaitan dengan anda. Tandakan (X) hanya pernyataan yang paling tepat mengenai diri anda.

1. Umur : \_\_\_\_\_ tahun.
  
2. Jantina :
  - i. Lelaki : \_\_\_\_\_
  - ii. Wanita : \_\_\_\_\_
  
3. Status perkahwinan :
  - i. Berkahwin : \_\_\_\_\_
  - ii. Bujang : \_\_\_\_\_
  
4. Pengalaman mengajar : \_\_\_\_\_ tahun
  
5. Bidang matapelajaran mengajar :
  - i. Sastera : \_\_\_\_\_
  - ii. Sains : \_\_\_\_\_
  - iii. Lain –lain (nyatakan) : \_\_\_\_\_
  
6. Gaji bulanan (termasuk elaun) : RM \_\_\_\_\_
  
7. Kelayakan akedemik tertinggi : \_\_\_\_\_
  
8. Gred sekolah anda :
  - i. Gred A : \_\_\_\_\_
  - ii. Gred B : \_\_\_\_\_

## BAHAGIAN B

Cuba fikirkan tentang pekerjaan anda sekarang. Adakah anda mengalami tekanan kerja. Bagi setiap pernyataan yang berikut, tandakan mana-mana ruangan dalam petak yang disediakan untuk menggambarkan pendapat anda tentang sejauh mana faktor-faktor berikut menyebabkan tekanan kerja kepada anda sekarang. Tandakan (X) di dalam petak berdasarkan skala di bawah

- Skala [1] Untuk Tiada Tekanan
- Skala [2] Untuk Tekanan Rendah
- Skala [3] Untuk Tekanan Sederhana
- Skala [4] Untuk Tekanan Tinggi
- Skala [5] Untuk Tekanan Sangat Tinggi

	1	2	3	4	5
1. Mengendalikan pelajar-pelajar yang mempunyai masalah disiplin					
2. Keadaan bilik guru yang tidak selesa					
3. Mengajar kelas yang pelajar-pelajarnya kurang memberi tumpuan					
4. Masa rehat yang singkat antara masa mengajar					
5. Pelajar yang tidak menyiapkan tugas					
6. Perhubungan dengan rakan-rakan sekerja					
7. Kerja-kerja anda kurang dihargai oleh pentadbir					
8. Menyediakan buku rekod persediaan mengajar					
9. Memeriksa tugas dan kertas jawapan pelajar					
10. Sikap dan tingkah laku rakan setugas yang tidak menyenangkan					



Skala [1] Untuk Tiada Tekanan  
 Skala [2] Untuk Tekanan Rendah  
 Skala [3] Untuk Tekanan Sederhana  
 Skala [4] Untuk Tekanan Tinggi  
 Skala [5] Untuk Tekanan Sangat Tinggi

	1	2	3	4	5
11. Kekurangan masa untuk memberi tumpuan kepada pelajar secara individu					
12. Bilik darjah yang kurang selesa					
13. Tingkah laku pelajar yang kurang sopan dan biadab					
14. Tidak mendapat sokongan daripada rakan-rakan sekerja di dalam mengendalikan sesuatu aktiviti					
15. Menjadi guru ganti kerana ketidakhadiran guru lain.					
16. Melakukan kerja-kerja pentadbiran yang bukan di dalam bidang tugas					
17. Menerima arahan yang kurang jelas dari pihak pentadbir					
18. Mengajar pelajar-pelajar yang tidak bermotivasi					
19. Pelajar yang membuat bising semasa pengajaran					
20. Proses penilaian pengajaran oleh pengetua					
21. Struktur kerjaya guru yang kurang menarik					
22. Tidak dapat rnenghabiskan sukatan					
23. Tidak diberi kebebasan untuk memilih mata pelajaran opsyen					

Skala [1] Untuk Tiada Tekanan  
 Skala [2] Untuk Tekanan Rendah  
 Skala [3] Untuk Tekanan Sederhana  
 Skala [4] Untuk Tekanan Tinggi  
 Skala [5] Untuk Tekanan Sangat Tinggi

	1	2	3	4	5
24. Gaji yang tidak setimpal dengan kerja.					
25. Menyiapkan kerja sekolah di rumah					
26. Berurusan dengan pihak pentadbir					
27. Dilawati oleh jemaah nazir sekolah					
28. Kekurangan kemudahan alat bantu mengajar seperti overhead projektor (OHP)					
29. Dipertanggungjawabkan atas kegagalan pelajar dalam peperiksaan					
30. Tidak mempunyai suara dalam membuat keputusan					
31. Banyak masa digunakan untuk membuat persediaan pengajaran					
32. Pelajar yang tidak mengikut arahan					
33. Sikap pelajar yang negatif terhadap pelajaran					
34. Kurang mendapat kerjasama dari ibu bapa					

***TERIMA KASIH DIATAS KERJASAMA ANDA***

*HAKCIPTA TERPELIHARA*

Ruj. Kami : KP(BPPDP)603/5 Jld.VIV(457)  
Tarikh : 2 Oktober 2002.

Encik Fazli bin Bahari,  
No. 9558, Jalan Kolam Air,  
78000 Alor Gajah,  
MELAKA.

Tuan,

**Kebenaran Untuk Menjalankan Kajian Di Sekolah-Sekolah, Maktab-  
Maktab Perguruan, Jabatan-Jabatan Pendidikan Dan Bahagian-  
Bahagian Di Bawah Kementerian Pendidikan Malaysia**

Adalah saya dengan hormatnya diarah memaklumkan bahawa permohonan  
tuan untuk menjalankan kajian bertajuk:

**"Work Stress Level Among  
Secondary School Teachers In  
Malacca : Implication To Human  
Resources Development"**

telah diluluskan.

2. Kelulusan ini adalah berdasarkan kepada apa yang terkandung di  
dalam cadangan penyelidikan yang tuan kemukakan ke Bahagian ini.  
**Kebenaran bagi menggunakan sampel kajian perlu diperolehi  
daripada Ketua Bahagian/Pengarah Pendidikan Negeri Yang  
Berkenaan.** Sila kemukakan ke Bahagian ini senaskah laporan kajian tuan  
setelah ia selesai kelak.

Sekian untuk makluman dan tindakan tuan selanjutnya. Terima kasih.

**"BERKHIDMAT UNTUK NEGARA"**

Saya yang menurut perintah,



**(Dr. MOHD. SAHANDRI GANI B. HJ. HAMZAH)**  
b.p. Pengarah,  
Bahagian Perancangan dan Penyelidikan Dasar Pendidikan,  
Kementerian Pendidikan Malaysia.



JABATAN PENDIDIKAN MELAKA  
BUKIT BERUANG  
PETI SURAT No.62  
75450 MELAKA.

Pengarah : 06-2323782  
Pejabat Am : 06-2323777  
: 06-2323778  
Fax : 06-2320500

JPM. KBSM 05185/127  
31 Disember 2002

Encik Fazli Bin Bahari  
9558 Jln. Kolam Air  
78000 Alor Gajah  
Melaka

Tuan,

**Permohonan Untuk Menjalankan Penyelidikan/Kajian  
Di Sekolah - Sekolah Menengah di Negeri Melaka**

Dengan hormatnya dimaklumkan bahawa saya diarah merujuk surat tuan bertarikh 27 Disember 2002 dan surat daripada KP ( BPPDP ) 603/5 Jld. VIV (457 ) mengenai perkara tersebut di atas.

2. Dengan ini dimaklumkan bahawa pihak Jabatan ini tiada halangan membenarkan tuan menjalankan kajian di sekolah-sekolah di Negeri Melaka :

3. Sehubungan itu, pihak tuan adalah dinasihatkan supaya menghubungi Pengetua sekolah berkenaan untuk berbincang selanjutnya dan mendapatkan persetujuan.

Sekian dimaklumkan.

Terima kasih .

"BERKHIDMAT UNTUK NEGARA"  
"CINTAILAH BAHASA KITA"

Saya yang menurut perintah,

( NINGGAL BIN ISNIN )

Ketua Unit KBSM

b.p Pengarah Pendidikan Melaka

s.k.

1. Pengarah Pendidikan Melaka
2. Ketua - Ketua Sektor Jabatan Pendidikan Melaka
3. Ketua Unit KBSM/KBSR
4. Pengetua/Guru Besar sekolah berkenaan
5. Fail Penyelaras

**Appendix B**

**Letter of Approval from the  
Ministry of Education Malaysia**

**Appendix C**

**Letter of Approval from the  
Education Department of Malacca**