

**THE RELATIONSHIP BETWEEN PROCRASTINATION AND
STRESS IN THE LIFE OF THE HIGH SCHOOL TEACHER**

by

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DECLARATION

I, Liesel van Wyk declare that “The Relationship between Procrastination and Stress in High School Teachers” is my own work and that the views and opinions expressed in this work are those of the author and relevant literature references as shown in the bibliography.

I further declare that the content of this research will not be handed in for any other qualification at any other tertiary institution.

LIESEL VAN WYK

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SAMEVATTING

DIE VERHOUDING TUSSEN SLOERING EN STRES BY ONDERWYSERS

deur

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Die doel van die studie was om te bepaal of daar 'n verband is tussen sloering en stres by hoërskool onderwysers. Navorsing bewys dat onderwys een van die mees stresvolste beroepe is. Die navorser het besluit om ondersoek in te stel ten opsigte van die redes vir sloering en stres en of daar 'n verband tussen die twee is.

Sloering was bespreek ten opsigte van die geskiedenis, definisies, verskillende teorieë en 'n tipiese siklus waardeur individue geëig tot sloering beweeg. Die redes hoekom mense geneig is om te sloer is ook bespreek.

Stres en werkstres is bespreek en dan meer spesifiek is daar gekyk na die onderwyser se werksomgewing en stressors.

Die navorsingsgroep het bestaan uit 70 onderwysers, waarvan 61 (87 %) vroulik was en 9 (13 %) manlik. Die oorgrote meerderheid van die groep was tussen die ouderdom 21 – 29 jaar (43 %).

Tuckman se “procrastination scale” (TPS) is gebruik om die onderwysers se geneigdheid om te sloer te meet en “The Experience of Work and Life Circumstances Questionnaire” (WLQ), Van der Walt, H.S. & van Zyl, E.S. (1991) (WLQ) is gebruik om die stresvlakke van die onderwysers te bepaal.

Die stelling dat verhoogde vlakke van sloering sal lei tot verhoogde stresvlakke was ondersoek en het duidelik getoon dat daar wel 'n verband tussen die twee veranderlikes bestaan. Te verwagte was die verhouding meer beduidend vir hoë vlakke van stres en sloering en swak vir lae vlakke.

Dit het gelei tot die konklusie dat stres ervaar deur individue met lae tot gemiddelde geneigdheid om te sloer nie absoluut hierdeur beïnvloed is nie. Dit blyk wel redelik te wees om te verwag dat stresvlakke wel sal verhoog indien die geneigdheid om te sloer ook toeneem. Dit is wel belangrik om in gedagte te hou dat korrelasie nie noodwendig oorsaak spel nie. Die twee veranderlikes mag wel 'n verwantskap toon, maar dit beteken nie dat een veranderlike die ander sal veroorsaak nie; dit is bloot 'n aanduiding daarvan.

SUMMARY

THE RELATIONSHIP BETWEEN PROCRASTINATION AND STRESS IN TEACHERS

by

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The aim of this study was to determine whether there is a relationship between procrastination and stress in a group of high school teachers. Research shows that teaching is one of the most stressful jobs. The researcher decided to examine whether procrastination could be blamed for the stress teachers experience.

Procrastination was discussed with regard to its history, how it is defined, various theories of procrastination, a typical cycle that procrastinators follow and also the reasons why people tend to procrastinate.

Stress and most importantly work-related stress and the teaching environment was investigated.

The research group consisted of 70 teachers, 61 (87 %) female and 9 (13 %) male. The majority of the group was in the age group 21 – 29 years (43 %).

Tuckman's procrastination scale was administered to determine the teachers' tendency to procrastinate and "The Experience of Work and Life Circumstances

Questionnaire” (WLQ), Van der Walt, H.S. & van Zyl, E.S. (1991) was used to determine teachers’ stress levels.

The notion that increased levels of procrastination would result in increased levels of stress was assessed and clearly indicated that some measure of correlation between procrastination and stress does exist. Not surprisingly, the correlation tended to be higher for respondents with a high tendency to procrastinate and conversely proved to be weak for respondents with a low tendency to procrastinate.

This led to the conclusion that stress experienced by respondents with low to moderate levels of procrastination was not necessarily entirely related to their tendency to procrastinate. However, it seems reasonable to expect the stress experienced by respondents to increase to some degree if their tendency to procrastinate increased. An important fact to remember, however, is that correlation does not necessarily mean causation. Two variables may be related to each other, but this does not mean that one variable causes the other; they are merely indicative of each other.

CHAPTER 1

THE PROBLEM AND ITS CONTEXT

"Much of the stress that people feel doesn't come from having too much to do. It comes from not starting what needs to be done and then finishing what they started."

- David Allen -

1.1. INTRODUCTION

Due to various reasons, including socio-economic reform, significant changes in the educational system, policy changes as well as government pressure and regulation, teaching has become an extremely stressful profession in recent years. Lately, the notion of teachers experiencing undue stress has received deserved attention. This is partly due to the fact that it is no longer seen as a weakness for teachers to admit to the stress they are experiencing.

1.2. PROBLEM STATEMENT

This has led to the question what can be done to relieve stress or, how can one identify factors that contribute to or influence stress levels? These factors could then be proactively managed to reduce stress significantly, thereby having a direct effect on the quality of life experienced by teachers, which in turn would filter down to improve the teaching situation and ultimately the quality of education provided to our children.

A tremendous amount of research has been conducted regarding students' procrastination behaviour, but very little on that of teachers. As research indicates, teaching has become one of the most stressful occupations. One cannot help but ask whether any of the stress teachers experience is self-inflicted

through an inherent tendency to procrastinate. On the other hand the question remains whether people procrastinate because they are stressed or whether people stress because they procrastinate. At the end of the day, teaching is not only about educating students in academic subjects but also about educating them in lessons of life. The positive behaviour a teacher displays during the developmental years in students' lives will most definitely have a profound impact on the students' ultimate development.

1.3. AIM OF THE STUDY

The aim of the study was to gain a thorough understanding of procrastination and stress and to determine if there is a relationship between procrastination and stress in high school teachers. If a significant relationship does exist, it may enable us to predict and manage the one by measuring and managing the other.

1.4. RATIONALE OF THE STUDY

The first chapter states the nature of the problem and establishes the need for the research.

Chapter Two explains what procrastination is by defining it, discussing various reasons why people procrastinate, the different procrastination theories and also the procrastination cycle.

Chapter Three refers to stress and more particularly work stress and the teaching environment.

Chapter Four explains the research methodology used in the study.

In Chapter Five the research results and findings are analysed and discussed.

Chapter Six focuses on the conclusion and recommendations.

CHAPTER 2

PROCRASTINATION

"Know the true value of time; snatch, seize, and enjoy every moment of it. No idleness; no laziness; no procrastination; never put off till tomorrow what you can do today."

- Lord Chesterfield -

2.1. INTRODUCTION

In the musical Annie, the young heroine sings that she loves tomorrow because it "is only a day away." To Annie, tomorrow is a metaphor for her future - and she hopes that it will be brighter and better than today's dismal circumstances. In this sense, tomorrow is a kind of friend to troubled persons and those in adverse circumstances. However, tomorrow becomes a kind of enemy - perhaps disguised as a friend - to those who procrastinate on a regular basis.

Unfortunately, procrastination can become a disturbing personality trait that interferes with an individual's relationships. Sooner than later tasks and projects are finished badly or not completed on schedule, goals are not attained and eventually dreams start to vanish. This kind of procrastination can be referred to as chronic procrastination or 'the tomorrow syndrome'.

(<http://www.clarocet.com/encyclopedia/pr-intro.htm>).

2.2. AN OVERVIEW: PROCRASTINATION

A study conducted by Steel (n.d.) revealed the following important information regarding procrastination:

- The history of procrastination.

- Meaning of the word “procrastination” (2.1.1)
- Synonyms (2.1.2)
- Dictionary definitions (2.1.3)

The History of Procrastination as written by Peter Steel, University of Calgary (<http://www.ucalgary.ca/~steel/procrastinus/meta/meta.html>) is quoted below.

HISTORY OF PROCRASTINATION

When I first started researching this topic I tried to track down a book by Ringenbach (1971): “Procrastination through the Ages: A Definitive History, cited several times by Knaus (1979; 2000). This search is not recommended. After spending weeks on this endeavour, enlisting the help of professional librarians, I finally found a very relevant section in the appendix of an old PhD thesis by Margaret Aitken (1982). Her correspondence with Paul Ringenbach and the publisher reveals that the work was never actually written. It was actually an elaborate joke (i.e. a book on procrastination that was never completed). See also Kaplan (1998) for another well-conducted academic article/prank.

However, there have been some legitimate investigations into when and whether people procrastinate. Here are two schools of thought: the first indicates that procrastination is a relatively recent phenomenon; the second, based on my own research, indicates that procrastination has existed throughout time but has increased in recent years.

Procrastination: Recent Phenomenon

Noach Milgram (1992) wrote the first historical analysis on this topic, “Procrastination: A Malady of Modern Time”. There he argues that technically advanced societies require numerous commitments, deadlines, and scheduling, and it is from this nasty brew that our vice arises. Consequently, undeveloped

agrarian societies are not beset by the woes of procrastination. Ferrari, Johnson, and McCown (1995), in their book, take a similar though somewhat softened stand. They contend that procrastination has existed throughout history but that it only acquired truly negative connotations with the advent of the Industrial Revolution, that is, circa 1750. Before then, procrastination was viewed neutrally and could be interpreted as a wise course of (in)action. Accordingly, they find examples from ancient Egyptian and Roman civilisations where the authors use the concept of postponement or putting off as being useful or wise (DeSimone, 1993 as cited in Ferrari et al., 1995). These examples include avoiding unnecessary work or demonstrating patience. Also, they note that procrastination, according to the OED (1952), did not have negative connotations until the mid-18th century. Consequently, they conclude, “that as economies become large and more complex...words related to the concept of task avoidance become more negatively imbued with meaning” (p. 5).

Procrastination: Perpetual & Pervasive

On balance, there is some truth to procrastination being a modern malady. Self-reports of procrastination appear to be on the rise. My own research indicates that in 1978, when we first started measuring procrastination, about 15% of the population said they procrastinate somewhat and about 1% indicated they often procrastinate. In 2002, about 60% of the population said they procrastinate somewhat and about 6% indicated they often procrastinate. Despite this increase, historical references indicate that our views about procrastination have been reasonably constant over the ages: it’s a prevalent problem.

Starting with the Industrial Revolution, Samuel Johnson (1751) writes about procrastination indicating that it is already a well ingrained habit, not a recent fad. Specifically, “it is one of the general weaknesses, which, in spite of the

instruction of moralists, and the remonstrances of reason, prevail to a greater or less degree in every mind.” Similarly, a contemporary of Johnson, Phillip Stanhope (1749), the Earl of Chesterfield, stated, “no idleness, no laziness, no procrastination; never put off till tomorrow what you can do today.”

Clearly preceding the Industrial Revolution was a sermon written by a Reverend Walker in the 17th century. There he makes it quite clear that procrastination is extremely sinful, that he and other ministers have repeatedly railed against it to their congregations, and that there are other texts available that speak similarly. This sermon can be further predated by John Lyly, an English novelist patronised by Queen Elizabeth I. Lyly made himself famous through a 1579 work “Eupheus”, a book that relies heavily on proverbs for content. In it he writes, “Nothing so perilous as procrastination” (1579/1995).

Earlier research into the nature of procrastination is obtainable through the Perseus Project, an extensive electronic collection of classical texts. Searching this database, there are several illuminating references. Focusing on the more notable sources, we find in 44 B.C. Marcus Cicero spoke upon this subject. Cicero was the consul of Rome, its highest political office, and an infamous orator who spoke against several political opponents such as Catiline, whom Cicero had killed, and Mark Antony, who had Cicero killed. In a series of speeches denouncing Mark Antony, he states, “In the conduct of almost every affair slowness and procrastination are hateful” (Philippics, 6.7). Roughly 400 years earlier were the musings of Thucydides, an Athenian general, who wrote extensively on the war with the Spartans, including various aspects of personalities and strategies. He mentions that procrastination is the most criticised of character traits, useful only in delaying the commencement of war, so as to allow preparations that speed its conclusion (Histories, 1.84.1). Finally, there is Hesiod who wrote in about 800 BC. Hesiod is one of the first recorded

poets of Greek literature, and thus provides one of the first citations possible. His words are worth repeating in full (Works and Days, l. 413): “Do not put your work off till to-morrow and the day after; for a sluggish worker does not fill his barn, nor one who puts off his work: industry makes work go well, but a man who puts off work is always at hand-grips with ruin.”

As an additional Eastern reference, there is the Bhagavad Gita. Written approximately 500 BC, it is considered to be the most widely read and influential spiritual text of Hinduism. In it, Krishna maintains: “Undisciplined, vulgar, stubborn, wicked, malicious, lazy, depressed, and procrastinating; such an agent is called a Taamasika agent” (18.28). Of special note, Taamasika people are considered so lowly that mortal rebirth is denied to them. Rather, they go to hell.

Conclusion

It is apparent that procrastination has been with us for an extremely long time. Given that it has manifested itself under a myriad of conditions and cultures, it most likely represents an intimate part of our human nature. It seems capable of finding expression equally within either the steel and glass buildings of modern New York or the stone and wood structures of ancient Thebes. To be fair to the recent theories of procrastination by Milgram’s (1992) and Ferrari et al.’s (1995), the frequency if not the severity of procrastination has probably grown. Essentially, if there are now more tasks to do and the deadlines for their completion are more deeply etched, then the opportunity for and saliency of procrastination has necessarily increased. However, in seeking to understand this ubiquitous iniquity better, we should not believe it is peculiar to our modern society. Consequently, our explanations should focus on some fundamental and constant aspects of ourselves, as they must be relevant not only for antiquity, but also for the life of today.

2.2.1. Meaning of the word procrastination

Procrastination comes from the Latin “pro,” meaning “forward, forth, or in favour of,” and “crastinus,” meaning “of tomorrow”.

2.2.2. Synonyms

- Cunctation - putting off or delaying or deferring an action to a later time.
- Shillyshally - postpone doing what one should be doing.
- Dilatoriness - slowness as a consequence of not getting around to it.

2.2.3. Dictionary definitions

- The American Heritage Dictionary of the English Language: Fourth Edition
To put off doing something, especially out of habitual carelessness or laziness; to postpone or delay needlessly.
- Webster's Revised Unabridged Dictionary (1913)
The act or habit of procrastinating, or putting off to a future time; delay; dilatoriness.
- Cambridge International Dictionary of English
To keep delaying something that must be done, often because it is unpleasant or boring.
- WordNet (r) 1.7
Slowness as a consequence of not getting around to it.
- Encarta World Dictionary
To postpone doing something, especially as a regular practice.
- Merriam-Webster Collegiate Dictionary
To put off intentionally the doing of something that should be done.
- OED, Second Edition (1996)
Defer action, especially without good reason; be dilatory.

2.2.4. Academic and other definitions

According to Boice (1996:xix), procrastination consists largely of opting for short-term relief through acts that are easy and immediately rewarding, while generally avoiding even the thought (and its anxiety) of doing more difficult, delayable, important things.

The American College Dictionary as cited in Burka & Yuen (1988:5) defines procrastination as: "to defer action, delay; to put off till another day or time." Thus, whenever you put something off you are procrastinating, regardless of the reason for your delay. Strictly speaking, procrastination is the behaviour of postponing. What distinguishes comfortable procrastination from problem procrastination is how troublesome your delaying is to you.

Procrastination has also been defined as "letting the low-priority tasks get in the way of high priority ones," (<http://www.ucc.vt.edu/stdysk/procrast.html>).

Finally, the author regards the following definition to be the most appropriate for this study.

Lowman (1993:53) defines procrastination as "a persistent and/or cyclical pattern in which an individual who is otherwise capable of doing the job repetitively avoids timely initiation and/or completion of work assignments or activities that must be initiated or completed by a particular deadline, real or perceived". Often, the individual waits until the last minute and then races to complete the various tasks quickly. By procrastinating, the individual may, for example, preserve the illusion of greater talent than has yet been manifested, may indulge in a thrill-seeking race to get assignments turned in just under the wire, or may passive-aggressively avoid timely or agreeable compliance with the requirements of those in authority.

2.3. WHO IS THE PROCRASTINATOR?

A procrastinator is someone who knows what he/she wants to do, is equipped to perform the task, is trying and planning to perform the task, but does not complete the task, or excessively delays performing the task. Normally, the procrastinator will work on less important obligations, rather than fulfilling the more important obligation, or he/she may use his or her time wastefully in some minor activity or pleasure. In most cases, procrastinators keep themselves ready to work, but end up avoiding the activity. (Yaakub, 2000).

2.4. TYPES OF PROCRASTINATORS

Yaakub (2000) classifies procrastinators as sometimes-procrastinators or chronic procrastinators.

2.4.1. The sometimes-procrastinator

Research shows that 20 percent of us think of ourselves as a procrastinator from time to time.

2.4.2. The chronic procrastinator

The individual that procrastinates in all areas of his life. Procrastination is a lifestyle and cuts across all domains of that person's life. For example, it can go from not paying bills on time to shopping for Christmas gifts on December 24, to putting off work projects.

According to (<http://mentalhelp.net/psyhelp/chap4/chap4r.htm>) procrastinators can also be classified as tense-afraid or relaxed type procrastinators.

2.4.3. The tense-afraid type

The tense-afraid type often feels both an intense pressure to succeed and a fear of failure. The tense-afraid type of procrastinator is described by Fiore (1989) as:

- Feeling overwhelmed by pressures.
- Being unrealistic about time.
- Being uncertain about goals.
- Dissatisfied with accomplishments.
- Indecisive.
- Blaming others or circumstances for his/her failures.
- Lacking in confidence.
- A perfectionist.

Thus, the underlying fears are of failing, lacking ability, being imperfect, and falling short of overly demanding goals. This type thinks his/her worth is determined by what he/she does, which reflects his/her level of ability. Therefore, this kind of procrastinator will get over-stressed and over-worked until they escape the pressure temporarily by trying to relax. Unfortunately, any enjoyment gives rise to guilt and more apprehension.

2.4.4. The relaxed type

This denial-based type of procrastinator avoids as much stress as possible by dismissing his/her work or disregarding more challenging tasks *and* concentrating on "having fun" or some other distracting activity. If their defence mechanisms work effectively, they actually have what seems like "a happy life" - for the moment. This personality seems, at first, to be less complicated, but careful observation of their thoughts and emotions suggests differently. As suggested by Maslow, these procrastinators may be addicted to people or preoccupied with meeting their more basic emotional needs, for example, for attention and approval by peers, love, or self-esteem.

In addition to emotional needs, the relaxed procrastinator's thoughts may push him/her away from his work or studies. For instance, his/her basic belief system may centre around thinking that "my long-range goals require too much hard and

unpleasant work". To such a person the gain is not worth the pain, especially since the necessary work is seen by them as so distasteful or boring or stupid that they just can't do it. A quick-starter, on the other hand, knows he/she can handle the drudgery. This relaxed procrastinator gets to the point of saying very irrational things to him/herself, such as: "I have to have something going on", "I can't stand being bored" or "I must feel like studying before I can get started". They end up procrastinating by finding something fun to do and then rationalise their behaviour.

2.5. CONSEQUENCES OF PROCRASTINATION

According to Monchec and Munchik (1988) the hallmark of procrastination is that it has significant concrete and emotional consequences.

Concrete consequences:

- Missed deadlines.
- Lost opportunities.
- Lost income.
- Lower productivity.
- Waste of time.
- Lost of standing among associates.

Emotional consequences:

- Lower morale.
- Heightened stress.
- Frustration and anger.
- Lower motivation.

2.6. THEORIES OF PROCRASTINATION

Steel (n.d.) reviews four of the most popular theories of procrastination by considering the evidence for and against them. The empirical evidence comes

from a recent met-analysis, which is a systematic review of all the literature written on the topic of procrastination. The theory with the most support is the Discounted Utility Theory and is presented last.

(<http://www.ucalgary.ca/~steel/procrastinus/theory/theory.html>).

2.6.1. Theory 1: Anxiety: Fear of failure, perfectionism, etc.

There is a host of anxiety related reasons that are thought to cause procrastination. Essentially, people are thought to procrastinate on tasks because they are aversive or stressful. Consequently, those who are more susceptible to experiencing stress should procrastinate more. There is a variety of conditions that make people anxious, especially irrational beliefs. Irrational belief, cognition, or thought is a broad term that includes several dysfunctional or anxiety-provoking world views. Some examples of irrational beliefs are fear of failure and perfectionism. (See 2.6.3 and 2.6.4).

Evaluation of this theory

Evaluation of this theory indicates that it is not supported:

- It explains why we might avoid tasks entirely, but not why we delay them. The fact is that more anxiety is typically experienced closer to the deadline, therefore procrastination appears to be a way of increasing anxiety, not reducing it.
- Empirical evidence indicates a weak or even no relationship between anxiety or irrational beliefs and procrastination. For example, self-perfectionists actually report slightly less procrastination than other people.

2.6.2. Theory 2: Self-handicapping

There is some dispute over whether self-handicapping should be considered a form of procrastination. Self-handicapping is when people place obstacles that hinder their own good performance. The motivation for self-handicapping is often

to protect self-esteem by giving people an external reason, an “out,” if they fail to do well.

Evaluation of this theory

Evaluation of this theory indicates that it is not supported:

- Self-handicapping is not necessarily a form of procrastination, which is to voluntarily delay an intended course of action despite expecting to be worse-off for the delay. Self-handicappers appear to be acting in their own self-interest, thinking they are protecting themselves from shame and humiliation.
- Self-handicapping is still an important issue and can share some commonalities with procrastination (i.e. delaying a task can be a way to self-handicap). However, the two will differ regarding causes and treatments and so it is best to study them separately.

2.6.3. Theory 3: Rebelliousness

According to the clinical literature, rebelliousness, hostility, and disagreeableness are thought to be major motivations for procrastination. For those with these personality traits, externally imposed schedules are more likely experienced as aversive, and thus avoided.

Evaluation of this theory

Evaluation of this theory indicates that it is not supported:

- Similar to anxiety it explains why we might avoid tasks entirely, but not why we delay them. In fact, more autonomy might be expressed by not doing a task at all instead of just delaying it. By doing it at the last minute, procrastination may appear to be capitulation, “caving in,” rather than autonomy.
- Empirical evidence indicates an extremely weak relationship, virtually nil, between rebelliousness and procrastination.

2.6.4. Theory 4: Discounted expectancy theory

This theory represents the very cutting edge of motivational research. It suggests that the reasons why people make any decision can be largely represented by the following equation:

$$Utility_i = \frac{E_i \times V_i}{\Gamma_i D}$$

Utility indicates preference for a course of action. Naturally, the higher the utility, the greater the preference. On the top of the equation, the numerator, we have two variables: Expectancy (E) and Value (V). Expectancy refers to the odds or chance of an outcome occurring while Value refers to how rewarding that outcome is. Naturally, we would like to choose pursuits that give us a good chance of having a pleasing outcome. On the bottom of the equation, the denominator, we also have two variables. Γ refers to the subject's sensitivity to delay. The larger Γ is, the greater is the sensitivity. Finally, D represents Delay, which indicates how long, on average, one must wait to receive the payout. Since delay is in the denominator of the equation, the longer the delay, the less valued the course of action is perceived to be.

This theory relates to procrastination in the following way. Essentially, we are constantly beset with making decisions among various courses of action. Should we go to the gym or watch TV? Should I make dinner or order-in? Discounted Utility Theory suggests, unsurprisingly, that we are more likely to pursue goals or tasks that are pleasurable and that we are likely to attain. Consequently, we are more likely to put off, to procrastinate, difficult tasks with lacklustre qualities.

Even more important regarding procrastination are the effects of delay. We like our rewards not only to be large but also to be immediate. Consequently, we will most likely procrastinate any tasks that are unpleasant in the present and offer a

reward only in the distant future. In other words, we are more likely to put off higher priority tasks if there are options available that lead to more immediate rewards with more remote costs. We tend to call such options temptations.

An Example

The following ideal example helps to illustrate these characteristics *the college student's essay paper*. A college student has been assigned an essay on September 15th, the start of a semester, it is due on December 15th, the course end. This student likes to socialise but he also likes to get good grades. The figure below maps the changes in expected utility for him over the course of the semester regarding his two choices, studying vs. socialising. Since the reward for socialising is always in the present, it maintains a uniformly high utility evaluation. The reward for writing is temporally distant initially, diminishing its utility. Only towards the deadline do the effects of discounting decrease and writing becomes increasingly likely. In this example, the switch in motivational rank occurs on December 3rd, leaving just 12 days for concentrated effort. During this final hour, it is quite likely that earnest but empty promises (i.e. intentions) are made to start working earlier next time.

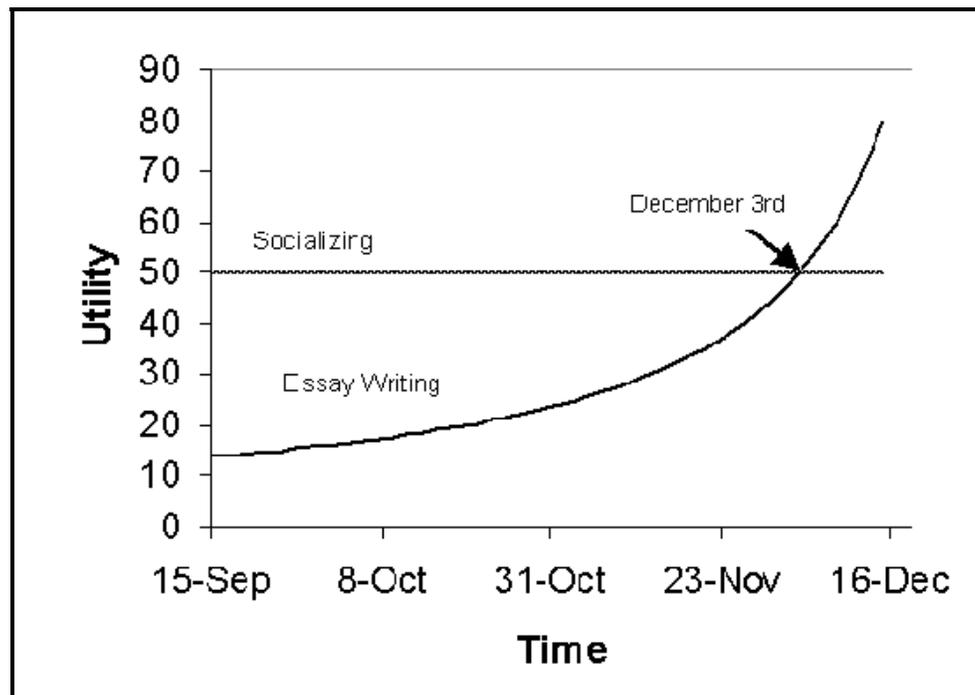


Figure 2.1: An example of the discounted utility theory

Evaluation of this theory

There is exceedingly strong evidence that indicates why we procrastinate:

- Procrastination is strongly associated with expectancy. Specifically, those people with low self-efficacy, that is feelings of competence, are more likely to procrastinate.
- Procrastination is strongly associated with the value of the tasks. The more unpleasant people report a task to be the more likely they are to put it off. Those people low in need for achievement, that is how much pleasure they get from achieving, are more likely to procrastinate.
- Procrastination is strongly associated with sensitivity to delay (i.e. Γ). Specifically, people who are more distractible, impulsive, and have less self-control tend to procrastinate more.
- Procrastination is strongly associated with time delay. The closer we are to realising a goal, the harder we work at it.

- Discounted Utility Theory predicts an intention-action gap, where we intend to work but fail to act on these intentions. As expected procrastinators tend not to act on their intentions.
- Observed behaviour matches what is predicted by Discounted Utility Theory.

The Discounted Utility Theory suggests that many of the previous theories were right, but only in part. They deal with one piece of the puzzle, task aversiveness, and only for the small percentage of people that suffer from the specific condition. For example, consider rebelliousness. If you are a rebellious individual and feel some work is foisted upon you, then you will probably also find it more aversive. Since anything that makes work more unpleasant increases the likelihood of procrastination, rebelliousness would indeed be one contributor to procrastination, though in general its contribution is very small.

2.7. *PROCRASTINATION AND THE WORK ENVIRONMENT*

Employees may be afraid of not knowing how to do the task or may be concerned they will not do the job perfectly. They may feel this task will finally expose their self-perceived incompetence. Perhaps intimidated by the task, they may not even know how to begin. They are probably afraid to acknowledge any need for help, fearing it will be seen as weakness or incompetence. This fear results in paralysis and they end up doing nothing. Others procrastinate not in actually starting the task, but in completing it and turning in the results. They will complete it, but they do not consider it finished because they perceive that it is never quite good enough, never quite done. It is never completed to their satisfaction. They are constantly looking for a little extra time to get it done right. The problem is there is never enough time for them to complete the task just the way they want it! (Horowitz et al. 1984:228)

According to Horowitz dealing with employees who procrastinate is a common management challenge. Procrastination is very frustrating and has a negative impact on productivity, efficiency and the morale of others.

2.8. REASONS WHY PEOPLE PROCRASTINATE

According to (<http://mentalhelp.net/psyhelp/chap4/chap4r.html>) the wisest course of action, most of the time, would be simply to do the unpleasant task as soon as possible, while we have enough time to do the job right and get it over with, not prolonging our agony.

However, the question to be asked is: “Why do we put off starting and completing a task as soon as possible?” Possible reasons could be, amongst others:

- We feel good about setting goals and declaring that we are going to change or succeed "sometime".
- By procrastinating we shorten the time we actually have to work on the task.
- Much of the time we avoid the unpleasant task altogether.

Understanding the reasons why people procrastinate can be helpful in finding ways to overcome procrastination. Following is a list of 20 reasons why people tend to procrastinate.

2.8.1. Resistance

They may just not want to do it - period! They do not agree with it or believe it is not important. They do not believe that it is worth postponing their current tasks to get it accomplished (Chambers, 1998:210).

2.8.2. Boredom

When employees are bored with what they are doing, they frequently procrastinate to avoid the repetition. This type of procrastination is usually

experienced with routine or ongoing tasks. Much of the procrastination we experience around repetitive reporting requirements (daily, weekly, monthly) is, in fact, rooted in boredom (Horowitz et al, 1984:228).

Research has shown that 70% of New Year's resolutions are abandoned by February 1.

2.8.3. Fear of failure

Having the attitude that they will not be able to accomplish this task at all; a fear of letting down another individual as well as themselves. Both cases suggest a concern about what others think of them (Yaakub, 2000).

According to (<http://www.ksu.edu/counseling/csweb/topics/career/procras.html>) the payoff for procrastinating is protecting yourself from the possibility of perceived real failure. As long as you do not put 100 percent effort into your work, you will not find out what your true capabilities are. Another variation on this theme is that you may often fill your schedule with busy-work so that you have a legitimate reason for not getting around to more important tasks.

Perfectionism often underlies the fear of failure. Family expectations and standards set by parents may be so high that no one could actually live up to them. Procrastination steps in to derail parental expectations and standards and prevent you from really failing.

(<http://www.ksu.edu/counseling/csweb/topics/career/procras.html>).

According to Yaakub (2000), a person experiencing fear of failure will spend more time worrying about forthcoming tests and projects rather than completing them.

2.8.4. Perfectionism

Some people have the attitude that if they can't do it perfectly they will not do it at all. They might also have such high expectations that no amount of work towards the finished product is good enough.

(<http://mahdzan.com/papers/procrastinate/>).

Summer (1996) suggests that the task is prolonged again and again by standards of excellence that are impractical or downright impossible. Each "final draft" is rejected because it can be "better."

2.8.5. Indecisiveness

Some people have to weigh the decision to the point of being unable to move forward. This is lack of self-confidence and often is a result of over critical parents or parents who made all the decisions for their children (Yaakub, 2000).

2.8.6. Last-minute syndrome

Subscribing to the myth that time pressure makes them more productive. Thrill-seekers think this is the best way to be creative. Unfortunately, they do not turn out to be more creative; they only feel that way (Yaakub, 2000).

The website (<http://www.ksu.edu/counseling/csweb/topics/career/procras.html>) mentions the following reasons why people tend to procrastinate.

2.8.7. Lack of motivation for a task

Lack of motivation for a task is a commonly given reason for not attending to an unpleasant task. Most procrastinators believe that something is wrong with them if they do not feel motivated to begin a task. The fact is that not many people feel motivated and energised by the prospect of raking leaves, or changing the oil in the car, or completing their tax returns. Mostly, these tasks are regarded as unpleasant and not very exciting.

Starting a task is the real motivator, rather than motivation needing to be present prior to beginning. Often just taking the first step, regardless of how small, can serve as an inducement for further action.

2.8.8. Fear of success

Reasons why people procrastinate when they fear success could be that perhaps you fear that if you do well, then next time even more will be expected, or succeeding may place you in the spotlight when you prefer the background.

Procrastination of this kind may indicate an internal identity conflict. If your self-worth is tied to your level of achievement, then you may constantly question yourself about how much you must do to be good enough. Each success only sets you up for the next bigger challenge. If your self-worth is tied to family acceptance, then what more does it take for them to be satisfied? Each success only opens the door to greater and greater expectations.

Often this leads to a feeling of losing your identity and perhaps no longer being able to claim your successes as your own. Inaction or procrastination may be the outward expression of this feeling of being lost. In other words, procrastination may be how you cope with the pressures you feel to constantly try to be good enough.

Procrastination is the fear of success... Because success is heavy, it carries a responsibility with it, it is much easier to procrastinate and live on the "someday I'll" philosophy.

-Denis Waitley-

2.8.9. Skill deficit (I don't know how)

A skill deficit is one of the most basic reasons for procrastination. If you lack the skills to complete certain tasks, it is only natural to avoid doing them.

For example, you may be a slow reader. If you have several lengthy articles to read before you can write a paper, you may postpone the reading because it is difficult. You may even have trouble admitting to your poor reading skills because you do not want to seem stupid. Procrastinating may seem better than facing your need to improve your reading skills.

2.8.10. Rebellion and resistance

Delaying tactics can be a form of rebellion against imposed schedules, standards, and expectations. The expectations are often those of parents, managers, and friends. Procrastination in this instance is the acting out of a power struggle, usually not on a conscious level.

(http://www.southampton.liu.edu/fw/protfolie_resource_guide/h7.html) highlights the following reasons why people tend to procrastinate:

2.8.11. Feelings of inadequacy

"I'll never get this done", "This is too hard", or even "My work just isn't good enough." Thinking like this often makes us avoid the task out of fear or shame, or a "why bother" kind of helpless feeling.

2.8.12. Disorganisation

Lack of planning and organisation usually means we have to put in the same planning time (plus some extra) at the end.

2.8.13. Confusion

If you aren't clear on why you're doing these studies, or where you stand in relation to them, you may not make them a priority.

2.8.14. Shame

Sometimes we avoid turning something in or even working on it because we are ashamed of its being so late in the first place.

2.8.15. Discomfort

Work is hard. Doing anything else becomes easy, especially when you are tired or disoriented.

2.8.16. Pride

"I'm in charge of my own life. I can do whatever I want."

2.8.17. Hostility

We may not always get along with our advisor, or with someone involved in our projects, so we may avoid them, or try to hurt them by ignoring them.

2.8.18. Habit

A body in motion tends to stay in motion. A body at rest tends to stay at rest.

2.8.19. "Deadline high"

Many of us find that we "do our best work" under lots of pressure. This is partly because the thrill of pushing up against a looming deadline creates adrenalin in our bodies, which gives us a kind of (natural) chemical high. The trouble is that, like any kind of high (or anything else pleasurable), we can become dependent on this stimulation, and end up procrastinating just to feel more alive.

2.9. CHARACTERISTICS OF PROCRASTINATION

The website (<http://www.southampton.liu.edu>) lists the following characteristics of procrastination.

2.9.1. Vicious cycles

Many of the factors described above turn into cyclical patterns: Avoidance because of shame or self-criticism, for example, may result in late work, which in turn may increase that shame. Fear of negative feedback to your work may increase as your work gets later and later.

2.9.2. Unrealistic sense of time

Many studies have shown that people who procrastinate overestimate the amount of time they have remaining to complete the task, and that they underestimate the amount of time that the task will take to complete. The plans and schedules that they make, therefore, are often unrealistic, and not very useful for getting their work done.

2.9.3. Dependence on inspiration

It is easy to put something off saying "Tomorrow I will be in a better mood" (or more inspired, or less confused, etc.) There are two fallacies here: The first is the idea that you have to be inspired in order to work well, or to work at all. You can work whenever you make yourself work. The second fallacy is the idea that you will be more inspired tomorrow. Mental/emotional states like inspiration are hard to figure out; philosophers, artists, and psychologists have been trying for centuries to predict when inspiration happens. It is just possible that tomorrow you might be as burned out as before, but the work will still need to be done.

2.10. CYCLE OF PROCRASTINATION

The Cycle of Procrastination was compiled by Burka and Yuen (1988).

Many people compare the experience of procrastination to living on an emotional rollercoaster. Their moods rise and fall as they attempt to make progress and they predictably slow down. When they anticipate starting a project and then

work toward its completion, procrastinators undergo a sequence of thoughts, feelings, and behaviours that is so common they have called it the *Cycle of Procrastination*. There are, of course, individual variations of this sequence. The cycle may be drawn out over a period of weeks, months, or even years, or it may occur so rapidly that one moves from the beginning to the end in a matter of moments.

2.10.1. “I’ll start early this time”

At the outset, procrastinators are usually very hopeful when a project is first undertaken. The possibility exists that this time it will be completed in a sensible and systematic way. Although they feel unable or unwilling to start right now, procrastinators often believe that this start will somehow spontaneously occur, with no planned effort on their part. It is only after some time has elapsed and it becomes apparent that this time may not be different after all that their hope changes into apprehension.

2.10.2. “I’ve got to start soon”

The time for an early start has passed, and illusions of doing the project right this time are fading. Anxiety builds and the pressure to begin intensifies. Having almost lost hope of the spontaneous start, the procrastinator now begins to feel pushed to make some effort to do something soon. But the deadline is not yet in sight, so some hope remains.

2.10.3. “What if I don’t start?”

As the time continues to pass, and the procrastinator still has not made a start, it is no longer a question of the ideal beginning or even of the push to get going. By now, any remaining optimism has been replaced by foreboding. The procrastinator, imagining that he or she may never start, may have visions of horrible consequences that will ruin their life forever. At this point the person

may become paralysed, a number of thoughts circling around in his or her head, until they seem almost dizzying:

- "I should have started sooner"

This conclusion reflects guilt, a constant companion to most procrastinators. They look back over the time they have lost and realise that it's irretrievable. The pressure of the circumstances is such that soon they'll have no choice but to begin. Looking back, they regret the behaviour that has brought them to the edge of the precipice, knowing they could have prevented it if only they had started sooner. As one procrastinator put it, "I have the experience of constant lament".

- "I'm doing everything but ..."

Sometimes distracting activity seems so productive that the procrastinator actually believes he or she is making progress on The Project. Eventually, however, it becomes clear that it still isn't done. (B?). "I can't enjoy anything." Many procrastinators try to distract themselves with pleasurable, immediately rewarding activities. They go to the movies, get together with friends, or spend the weekend sailing. Although they try hard to enjoy themselves, the shadow of the unfinished project looms dark before them. Any enjoyment they feel rapidly disappears and is replaced by guilt, apprehension, or disgust.

- "I hope no one finds out"

As time drags on and nothing is done, some procrastinators begin to feel ashamed. They do not want anyone to know of their predicament, so they create ways to cover up their inactivity. They try to look busy even when they are not working; they present the illusion of progress even if they haven't taken the first step; they invent elaborate lies to justify their delay. Some literally hide - avoiding the office, people, phone calls, and any other contact that might reveal their awful secret. As the cover-up continues, the procrastinator usually feels increasingly fraudulent. In response to their excuse about the "family emergency" that delayed their report, people may

offer condolences on their grandmother's death, but they know that she is alive and well, playing bridge in Florida. This sense of fraudulence only adds to the internal and external pressures that intensify with each day.

2.10.4. "There's still time"

Though feeling guilty, ashamed, or fraudulent, the procrastinator continues to hold on to the hope that somehow there is still time to get the project done. The ground may be crumbling away underfoot, but the procrastinator desperately tries to remain optimistic and waits for the magical reprieve that rarely comes.

2.10.5. "There's something wrong with me"

By now the procrastinator is desperate. Good intentions to start early didn't work; shame, guilt, and suffering didn't work; the faith in magic didn't work. The procrastinator's worry about getting the project done is replaced by a far more frightening fear: "It's me. There's something wrong with me!" You may entertain the notion that you are lacking something fundamental that everyone else has - self-discipline, courage, brains, or luck. After all, they could get this done!

2.10.6. The final choice: To do or not to do

At this point the procrastinator makes a decision either to carry on to the bitter end or to abandon the sinking ship (Burka & Yuen, 1988:9). He or she thus takes one of the following two paths:

Path 1: Not to do

a. *"I can't do this!"*

The tension has become unbearable. Time is now so little that the project seems totally impossible to do in the minutes or hours remaining. Because you have reached your level of intolerance, the effort required to pull through seems beyond your capability. Thinking, "I cannot stand this

any more!" you may decide that the pain of trying to finish would be too great for you. You give up.

b. *"Why bother?"*

At this late stage in the game, some procrastinators look ahead at all there is left to do and decide that it's simply too late to pull it off this time. There is no way in the world they can complete the project as they initially planned - it cannot be done well with so little time remaining. Any efforts made now will not really make a difference to the final outcome. Now that there's no point in working hard, why bother even trying? They have messed up again, and that's all there is to it. So they do not do anything more.

Path 2: To do - on to the bitter end

a. *"I can't wait any longer."*

By now, the pressure has become so great that you can't stand waiting another minute. The deadline is too close or your own inertia has become so painful that it's finally worse to do nothing than it is to take action. So, like a prisoner on death row, you resign yourself to your unavoidable fate... and you begin.

b. *"This is not so bad. Why didn't I start sooner?"*

At last, the project is under way. To your own amazement, it is not as bad as you feared. Even if it is difficult, painful, or boring, at least it's getting done - and that's a tremendous relief. There may even be times when it is actually a pleasure to do! Procrastinators are sometimes unnerved by this stage, unable to reconcile the discrepancy between their dreadful anticipation and the relatively benign experience of the action itself. Puzzled, they may also feel a tinge of regret for all the needless suffering they have endured. "I could actually have enjoyed doing this, or got it over with so much more easily. Why didn't I just do it sooner?"

2.10.7. “Just get it done!”

The end is almost at hand. There is not a second to spare as you begin to race the clock in order to finish. When you play the perilous game of brinksmanship, you no longer have the luxury of extra time to plan, refine, or improve what's done. Your focus is no longer on how well you could have done it, but on whether you can get it done at all.

2.10.8. “I'll never procrastinate again!”

When the project is finally either abandoned or finished, the procrastinator usually collapses with relief and exhaustion. It's been a difficult ordeal. But at long last, rest is possible.... at long last, life can be enjoyed. The idea of going through this process even once more is so abhorrent that the procrastinator resolves never to get caught in the cycle again. Next time you will start early, be more organised, stay on schedule, and control your anxiety. And your conviction is firm - until the next time.

So the Cycle of Procrastination comes to an end with an emphatic promise to renounce this behaviour forever. In spite of their sincerity and determination, however, most procrastinators find themselves repeating the cycle over and over again.

2.11. THE PROCRASTINATOR AND STRESS

Procrastination leads to stress and stress leads to health problems such as insomnia, colds and stomach aches. Procrastinators tend to drink and smoke more when very stressed. It is difficult for them to set priorities. As a result, social activities get priority status over academic projects. This feeling often promotes delay and frustration (Saltz, 2004). There are several ways in which procrastinators are especially prone to stress.

Burka and Yuen (1988) list the following as reasons why procrastinators experience stress:

2.11.1. Waiting until the last minute

The last-minute frenzy that is so common among procrastinators is typically a very high-stress situation. Whether you experience yourself as panicked with fear and worry or as flying high on the thrill of danger and risk, your body is mobilized for a full all-out effort. You perform at top speed, aiming for maximum output in the shortest possible time. That is stress. Sometimes you may be so anxious and stressed that your performance is seriously impaired. At other times, the energy of the last-minute frenzy may allow you to pull through just in the nick of time. If you repeatedly get yourself into these full-alert, high-stress situations, you may, over the long haul, be exhausting yourself and wearing your body down. Putting things off, too, often creates an internal build-up of pressure and stress. When you initially put something off, it may be of little consequence to you. As time passes and you still haven't got around to it, however, you begin to feel increasingly worse. The task nags at you, never leaving you in peace, seeming larger and less manageable as the days go by. In addition, you may become angry with yourself for not getting it done. This kind of gradual intensification of pressure over time also mobilizes the stress response in your body, though probably at a more moderate level than during the last-minute frenzy. The longer you put things off and the more upset, anxious, or angry you become, the more stress you are contending with on a chronic, daily basis.

2.11.2. Avoidance of tasks or activities

It may also be that the task or activity that is being avoided may in and of itself be a source of stress for the procrastinator - the favour you must do for someone you don't like, the tax return that's due, the doctoral or master's thesis that seems ominous. As we have seen, the tasks themselves are usually not inherently threatening, but the procrastinator has attributed some meaning to the activity or

views it in such a way that it feels particularly unpleasant or dangerous. The task thus becomes a source of tremendous anxiety, and the mere thought of the dreaded thing is enough to mobilize the procrastinator's stress response.

2.11.3. Relationships with other people

Like the college student who got behind on her coursework, some procrastinators worry about how other people will view them, so they try to look cheerful and confident in public, hiding their uncertainty and their fear. This kind of vigilance is highly stressful because it demands constant alertness, careful attention to the reactions of other people, and unceasing scrutiny of one's own behaviour. Relationships can also be stressful when other people become involved in the cycle of procrastination. Initially the other person may try to be supportive and help the procrastinator get going, but often the situation deteriorates into a power struggle, with attempts to pressure, cajole, entice, or shame the procrastinator into action. The other person may embody the procrastinator's internal critical voice - impatient, irritated, angry, disappointed--and so become someone to be avoided. Over time, tension escalates and the relationship evolves into another source of stress through apprehension, resentment, and threat.

2.11.4. Stress from other sources of life

Finally, some people procrastinate when stress from other aspects of their lives has become too great. One young professional woman who is generally responsible and attentive to her business affairs, periodically finds herself putting things off--paying bills, getting her laundry done, or having her car serviced. Puzzled by her behaviour, she thought about when these situations tended to occur, and she realised that she procrastinates at times when her job has been particularly demanding, and she feels exhausted and overextended. "I'm tired of being responsible," she said. "I want somebody to take over and let me rest!"

2.12. WAYS TO OVERCOME PROCRASTINATION

Saltz (2004) suggests the following ideas on how to overcome procrastination:

2.12.1. Set priorities

Discipline yourself to use time wisely and try to make a list that is realistic. Do the most important tasks first. Look at each task, not the whole list. This will help you avoid feeling overwhelmed.

2.12.2. Recognise self-defeating motives

Recognise the qualities about yourself that are causing procrastination, such as fear of failure, indecisiveness, and poor time management.

2.12.3. Modify goal of perfection

Try to get the task done without being perfect. See if that works for you. The goal is to do the best job possible in the time permitted.

2.12.4. Discipline yourself

Use your time wisely and do not set unrealistic goals. If you set out to do a chore for five minutes, do not allow any distractions to get in your way.

2.12.5. Be a positive role model

Remember to let your children make decisions. Allow them to fail without being overly critical. Let them know you support their decisions. Keep in mind, children will follow your lead.

2.12.6. Change old habits step by step

It is possible to change, but old habits die hard. Take it one step at a time so you can begin to create healthy habits.

2.13. CONCLUSION

This chapter focused on procrastination.

A brief overview regarding the history, meaning and definition of procrastination was provided.

The procrastinator was categorised into 4 different types: the sometimes-procrastinator, the chronic procrastinator, the tense-afraid type and relaxed type. Next the consequences of procrastination were evaluated.

The theories of procrastination were introduced and the various reasons why people procrastinate were discussed. A cycle of procrastination was evaluated.

The role of stress in the procrastinator's life was evaluated so as to introduce the next chapter.

Finally, ways to overcome procrastination were suggested.

CHAPTER 3

TEACHERS AND STRESS

“Teaching is a political football, it changes all the time, The combination of continual change – with frequent new government demands – coupled with long, unsociable hours and poor pay, make up a stressful recipe.”

- Cary Cooper -

3.1. INTRODUCTION

“Within the teacher's emotional life are the forces that most powerfully affect the entire teaching process. The human, emotional qualities of the teacher are the very heart of teaching. No matter how much emphasis is placed on such other qualities in teaching as educational technique, technology, equipment or buildings, “the humanity of the teacher is the vital ingredient if children are to learn”; Greenberg (1969:20-21) as cited in Van der Linde (2000).

This quote emphasizes the importance of the affective or emotional qualities of the teacher (positive and negative) in the teaching profession. Consequently, the issue of stress in teaching is crucial, particularly in contemporary times where a considerable percentage of illnesses are attributed to excessive stress. All people are susceptible to stress at one time or another (Van der Linde, 2000)

According to Russell (2000), evidence shows that in certain environments and under particular levels of pressure, some individuals survive the strain while others do not. Therefore, the experience of stress can be very personal with stress resulting from an individual teacher perceiving the stressors and threats as

far outweighing their available resources to meet the demands. Some teachers are therefore more susceptible to stress.

A very important reason for studying teacher stress is that their work experiences can have detrimental effects on them, their students, and the learning environment. Consequently, many teachers are finding that their feelings about themselves, their students, and their profession are more negative over time. These teachers are vulnerable to developing chronic feelings of emotional exhaustion and fatigue, negative attitudes toward their students, and feelings of diminishing job accomplishments. The opinion here is that these feelings are aspects of stress and often result in absenteeism, which may lead to student absenteeism and a lack of academic achievement (Wiley, 2000).

3.2. WHAT IS STRESS?

Stress is a part of life and is generated by constantly changing situations that a person must face. The term "stress" refers to an internal state that results from demanding, frustrating or unsatisfying conditions. A certain level of stress is unavoidable. In fact, an acceptable level of stress can serve as a stimulus to enhance performance. However, when the level of stress is such that the individual is incapable of satisfactorily dealing with it, then the effect on performance may be negative (<http://www.scre.ac.uk/resreport/rr109/7.html>).

Wiechers (1993:123), as cited in Van der Linde (2000), maintains that one's stress load consists of the demands made by the environment on a person. Overload indicates demands that are more than a person can physiologically or psychically cope with. She points out that stress overload is not only pressures exerted on someone from outside, but also each person's unique reaction to such overload. Each individual is unique; consequently some will experience stress under certain circumstances, whilst others will not experience stress under

exactly the same circumstances. A life without stress is simply not possible, all people experience stress.

3.3. THE TWO DIMENSIONS OF STRESS

The website (<http://www.ieu.asn.au/ohs/stressburnout.html>) addresses two dimensions of stress: the experiential aspect and the physiological aspect.

3.3.1. The experiential aspect

This can be described as an unpleasant feeling that people have when they feel in a psychological state of distress or tension. This state relates to the way they perceive their present situation. Prolonged exposure to stressful situations where the individual begins to feel increasingly inadequate can be harmful. When the internal balance in a person's life is lost, that person is suffering from stress.

3.3.2. The physiological aspect

According to some psychologists, in threatening situations the body responds with a "fight or flight" syndrome. Confronted by a challenging situation a person's body releases a charge of adrenalin that helps to equip it to either face the danger or run. Muscles become tense in readiness for action. Hormonal responses such as a rise in adrenalin can also occur when a person encounters desirable demands or when physical or mental effort is called for. Life without demands or excitement would be dull and boring. However, there is an optimal level of arousal beyond which physiological responses become unbalanced.

3.4. THREE STAGES OF STRESS

Dr. Hans Selye, (cited in <http://swatma.tripod.com/SMW/stages.htm>) the highly acclaimed endocrinologist and the father of modern studies on stress, while presenting the *General Adaptation Syndrome*, revealed that as the stress starts

taking its toll there are three very evident stages which the person goes through. These stages are discussed below.

3.4.1. The alarm stage

The alarm stage is the first stage in response to physical, mental or social stressors. The *Alarm stage* is characterised by the triggering of the *Stress Alert System* (the fight or flight response). There is thus an over-activity of the sympathetic nervous system, and the simultaneous inhibition of the parasympathetic nervous system. Alarm is generated in the body and the whole body starts preparing for a fight or to take a flight. There is a rush of energy, and all activities are speeded up. The pressure is evident and can be seen in a person's excitement or fear.

3.4.2. The resistance stage

In the *Resistance stage* because of the continuity of the stressful conditions there is depletion of energy, the person feels run down. As the pressure mounts he struggles to meet the various demands expected of him. He starts getting bouts of irritation, there is over-reaction to minor issues and he starts getting weaker both mentally and physically. Very clear physical, psychological and behavioural changes are observed by others.

The second stage, the resistance stage, is where the body attempts to regain a state of internal balance or homeostasis. Homeostasis is the state where the body maintains a balance of internal functions no matter what external changes have happened. In this stage the pulse rate returns to normal; so does the breathing rate and blood pressure. Tense muscles relax and extra blood from the digestive system returns and normal digestion occurs.

<http://www.mehs.educ.state.ak.us/portfolios/christineh/school/stress.html>

3.4.3. The exhaustion stage

When the stressful condition is prolonged, and even after observing distinct symptoms of the resistance phase and appropriate measures are not resorted to, the *Exhaustion phase* takes over. As the very name suggests the person feels fully exhausted and tired. This may even go to the extent of absence of all enthusiasm to work or even to live. Psychosomatic diseases take root. There is emotional breakdown, insomnia and a host of other very painful symptoms associated with burnout. The *burnout* has started (See 3.11).

(<http://swatma.tripod.com/SMW/stages.htm>)

If distress continues too long a new stage begins. The exhaustion stage results in wear and tear on the body, low resistance to disease and sometimes death. Results depend on a person's heredity and abilities for coping. The exhaustion stage is only experienced after long periods of distress.

(<http://www.mehs.educ.state.ak.us/portfolios/christineh/school/stress.html>)

3.5. WHAT IS WORK-RELATED STRESS?

According to (http://europe.osha.eu.int/good_practice/sector/education/faq2.stm) work-related stress is experienced when the demands of the work environment exceed the worker's ability to cope with (or control) them. It is not a disease, but can lead to mental and physical ill health. Work related stress is a symptom of an organisational problem, not an individual weakness.

Numerous studies address the causes and effects of stress in the workplace. These studies included information on the characteristics of the environment as stressors, on the different perceptions and appraisals of stressful situations, on the individual's reactions to stress, and on how to reduce stress (Wiley, 2000).

Research on job stress and employee health examines the interaction of certain job, work environment, and personal characteristics which are assumed to be causal elements in job stress. These stressors can be classified into four types including:

- Extra-organisational
(Come from outside the employing organisation.)
- Organisational
(Come from within the employing organisation.)
- Task-related
(Pertain to the job duties and responsibilities.)
- Individual stressors
(Involve personal difficulties that may be exaggerated by work roles.)

3.6. TEACHER STRESS STATISTICS

Jarvis (2002) reports the following teacher stress statistics.

<http://www.isma.org.uk/stressnw/teachstress1.htm>

In a survey of head teachers by the National Association of Head Teachers (NAHT) in May 2000 the following became evident:

- 40% of respondents reported having visited their doctor with a stress-related problem in the previous year.
- 20% considered that they drank too much.
- 15% believed they were alcoholics.
- 25% suffered from serious stress-related health problems including hypertension, insomnia, depression and gastrointestinal disorders.

The hazard of teacher stress was recently brought into focus in 2000 when Jan Howell won a landmark victory against Newport County Borough Council for failing to respond to her suffering stress in the classroom and she was awarded

pond of dollars £250,000 compensation. Teacher stress is now firmly on the political agenda, and representations of the nature of stress have become unhelpfully polarised between unions and employers, the former seeing stress as an organisational and the latter as an individual issue.

In a survey assessing the stress levels of various jobs by the Health and Safety Executive, teaching came out top. The report, *The Scale of Occupational Stress: further analysis of the impact of demographic factors and type of job*, published in 2000, found that 41.5% of teachers reported themselves 'highly stressed', while 58.5% came into a 'low stress category' (Moore, 2000).

Moore reported the following top five issues raised by teachers seeking help:

- Stress, anxiety and depression 27%
- Conflict with managers or colleagues 14%
- Pressure of workload and excessive changes 9%
- Loss of confidence and performance anxiety 9%
- Relationship, marital and family problems 5%

Based on his 1997 research assessing 104 jobs, Professor Cary Cooper at the University of Manchester's Institute of Science and Technology, found teaching was rated as the fourth most stressful job in Britain.

(http://www.channel4.com/health/microsites/0-9/4health/stress/saw_work.html).

BRITAIN'S 20 MOST STRESSFUL JOBS

1. Prison officer
2. Police
3. Social work
- 4. Teaching**
5. Ambulance service

6. Nursing
7. Medicine
8. Fire fighting
9. Dentistry
10. Mining
11. Armed forces
12. Construction
13. Management
14. Acting
15. Journalism
16. Linguist
17. Film producer
18. Professional sport
19. Catering/hotel industry
20. Public transport

Midwestern teachers who completed a stress inventory conducted by *Optum* (<http://www.optumanswers.com/research/articles/teacherstress.shtml>) say job stress affects all aspects of their lives and their students' ability to perform well in class. Here are the five major life areas teachers said were most affected by job stress, followed by the percentage of teachers who said stress impacted on this life area (multiple choices were allowed):

The impact of teacher stress:

Personal and family life	59 %
Physical health	46 %
Job performance	45 %
Mental health	36 %
Students' academic achievement	25 %

3.7. DEFINITIONS OF TEACHER STRESS

3.7.1. Teacher stress defined

Teacher stress may be defined as the experience by a teacher of unpleasant, negative emotions, such as anger, anxiety, tension, frustration or depression, resulting from some aspect of their work as a teacher (Kyriacou, 2001).

According to Kyriacou (2001), this is the definition he adopted when he first started to do research on teacher stress in the 1970s and is very much in line with the definitions most widely used by other researchers. This definition was linked to a model of teacher stress that he developed in 1978, which essentially viewed stress as a negative emotional experience triggered by the teachers' perception of their work.

3.8. TEACHER STRESS MODELS

Three explanatory models of stress have been developed to help us understand the concept of stress (<http://www.scre.ac.uk/resreport/rr109/2.html>).

The first two models assume that teachers are subjects rather than actors in their own destiny; in contrast the third is predicated on shared responsibility for situations which may give rise to occupational stress.

Turning specifically to stress in teaching, previous SCRE reviews (Johnstone, 1989, 1993a) drew heavily on Dunham (1984b) who proposed three ways of defining stress. Each model has different implications for teachers and educational managers.

3.8.1. The engineering model

The engineering model presents stress as the load or demand placed upon a person that exceeds the 'elastic limit' of the individual's capacity to adapt to it. In this model, teachers are perceived to be subjects rather than actors. Some operate in situations, such as during probation, working with children with special educational needs or in areas of multiple deprivations, which may give rise to demands beyond their adaptive limits.

3.8.2. The medical model

The medical model focuses on physiological and psychological responses, which can arise as a consequence of stress. A plethora of symptoms, such as depression, tension, irritability, insomnia, loss of appetite, and weight loss, are essential components of the definition. But it is also clear that these symptoms are not unique to stress and may be attributed to other medical conditions. Again the teacher is portrayed as a subject to whom pressure is applied with resultant stress.

3.8.3. The interactive model

This model perceives stress as interactive and situational. It recognises that on the one hand teaching as a profession and some schools in particular may exert pressures on teachers; while on the other, individual teachers react in different ways and use a variety of adaptive resources to help them cope with those pressures. Importantly, teachers are portrayed as actors who are no longer at the mercy of external pressures.

Of the three models, the third approach is perhaps the most helpful. It implies that responsibility for the maintenance of acceptable levels of stress in teaching is a two-way process. Employers have a statutory duty to ensure that the working environment in schools does not adversely affect employees' health; but teachers must also apply their adaptive resources to help them cope with the

inherent pressures of their chosen profession. In addition, recent appeal court reductions of awards for stress at work (Guardian, 2002a) have also made it clear that employees who feel under undue pressure have a responsibility to inform their employers.

3.9. TEACHER BURNOUT

The extended suffering of stress ultimately results in burnout. This warrants a brief discussion of burnout.

3.9.1. Teacher burnout defined

Teacher burnout is defined by Kyriacou (1987:146), as cited in Dunham, (2001), as “the syndrome resulting from prolonged teacher stress, primarily characterised by physical, emotional and attitudinal exhaustion”.

Increasingly there has been a growing alarm at the rate of teacher burnout and the adverse implications this has for the learning environment in schools and on the achievement of educational goals.

Pierce and Molloy (1990: 330), as cited in Dunham (2001), describe three aspects of burnout:

- The first aspect is the development of increased feelings of emotional exhaustion and fatigue.
- The second aspect is the tendency for teachers to develop negative cynical attitudes towards their students.
- The third aspect of burnout is the tendency to evaluate oneself negatively, resulting in feelings of lack of personal accomplishment.

3.9.2. What causes teachers to burnout?

Research by Dunham (2001), reflects research findings by various other researchers:

- Blasé (1982)
Excessive work stress over extended periods of time
- Begley (1982)
Relentless work demands
- Fielding (1982)
Teachers with a negative attitude towards students

Lowenstein (1991) revealed burnout to be a product of:

- Lack of social recognition.
- Large class sizes.
- Lack of resources.
- Isolation.
- Fear of violence.
- Role ambiguity.
- Limited professional opportunities.
- Lack of support.

3.10. *TEACHERS' RESPONSE TO STRESS*

A number of stress symptoms and responses have been observed in teachers over the years and what follows is a summary of the key findings (Dunham, 2001). The key findings can be divided into the following categories:

- Psychological responses to teacher stress.
- Behavioural responses to teacher stress.
- Withdrawal from teaching as a response to stress.

3.10.1. Psychological responses to teacher stress

Early work by Dunham (1976) identified frustration and anxiety as the two most common types of reactions to teacher stress.

Frustration

Frustration can be seen to be associated with the physiological symptoms of headaches, sleep disturbances, stomach upsets, hypertension and body rashes and in severe cases, depressive illness, whereas anxiety can be linked to loss of confidence, feelings of inadequacy, confusion in thinking and sometimes panic in severe cases.

Anxiety

Anxiety can lead to the physiological psychosomatic symptoms of a nervous rash, twitchy eye, loss of voice and weight loss. In prolonged cases, a nervous breakdown or complete burnout may result.

3.10.2. Behavioural responses to stress

Though there is little research scrutiny of the link between palliative coping and stress in teachers (e.g. smoking, drinking and drugs), we may suppose that teachers will be as vulnerable to these coping strategies as any other occupational group.

3.10.3. Withdrawal from teaching as a response to stress

Other sets of symptoms associated with teacher stress are turnover, early retirement, sickness, absenteeism and intention to leave – all forms of withdrawal. These are perhaps the options teachers take when they find themselves in intolerably stressful situations.

Turnover

A turnover rate in any profession of between 7 and 8% may be seen as healthy, but in teaching this has been reported to be far greater. According to research resignations are the result of the subject areas in which teachers teach, the type of school and the sector.

Early retirement

A large number of teachers are looking for early retirement as a way out of teaching. This means the education system and society as a whole are losing a large proportion of experienced workforce. Many have explained that this desire to leave early is indeed a reaction to the stress of the job.

Sickness absence in teachers

Simpson (1976) suggested that sickness absence is a way that teachers can allow themselves time to temporarily withdraw from stress at work, without having to make a definite break. It is believed that this allows teachers to continually readjust to stressful work situations by such occasional withdrawals, and at the same time, develop skills necessary to deal with the sources of stress that they face.

3.11. CAUSES OF TEACHER STRESS

Jarvis (2002), as cited in Finlayson (2003), concluded that based on a review of international research teacher stress is a real phenomenon. Jarvis (2002) suggests that there are a number of causal factors in teacher stress and that these can be divided into three broad areas:

- Factors intrinsic to teaching.
- Cognitive factors affecting the individual vulnerability of teachers.
- Systemic factors operating at the institutional and political level.

3.11.1. Factors intrinsic to teaching

Research has suggested that a number of stressors are intrinsic to teaching. As you might expect, workload and long working hours emerged as particular issues for teachers. A factor related to workload is 'role overload', which takes place when an employee has to cope with a number of competing roles within their job.

Some research has identified a cyclical pattern in the effects of overwork, contingent on the academic year. It was found that recovery from stress occurred each weekend during the spring term, but that by the end of the longer autumn term weekend recovery no longer took place. (Northern hemisphere).

Classroom discipline is also a significant source of stress. Lewis (1999), as cited in Jarvis (2002), examined teachers' estimations of stress arising from being unable to discipline pupils in the way they would prefer. Overall, maintaining discipline emerged as a stressor, with those worst affected being teachers who placed particular emphasis on pupil empowerment.

Evaluation or inspection apprehension is an issue of increasing importance, as quality assurance procedures increasingly demand lesson observation. Inspection continues to be demanding and its impact on the well being of the individual and schools is not recognised or is ignored.

3.11.2. Cognitive vulnerability to stress

A substantial body of research has examined the cognitive factors affecting individual susceptibility to stress amongst teachers. One study investigated self-defeating beliefs by asking teachers to identify what they must do to be a good teacher. 92% of responses were couched in absolute terms, such as 'must', 'need' etc – an indication of deep conviction but personally damaging when perfection is not achieved. In another study the role of attributions was

examined. There was a significant association between internal attributions and symptoms of burnout, suggesting that teachers who blame themselves for difficulties are more vulnerable to stress.

The greatest volume of research concerning cognitive vulnerability to teacher stress relates specifically to individual differences in coping style. High levels of stress are associated with low social support and the use of disengagement and suppression of competing activities as coping strategies. In other words, the way teachers perceive themselves and their jobs has an impact on their well being. This is significant as it suggests that some of the stressors associated with teaching may not be inherently stressful but are stressful because of the way teachers deal with them.

3.11.3. Systemic factors

The term 'systemic' is used to denote organisational factors that are not intrinsic to the nature of teaching, but rather dependent on the climate of the school or the wider context of education, including the political environment. Research found that teachers named lack of government support, lack of information about changes, constant change and the demands of the National Curriculum as among their greatest sources of stress.

At school level factors such as social support amongst colleagues and leadership style have been found to be important in affecting levels of stress. Social support has both a direct positive effect on health and a buffering effect in respect of work-related stress.

3.11.4. Other factors

Howard and Johnson (2002) reviewed literature regarding teacher stress. They found that various studies agreed that the following are key causes of teacher stress. (<http://www.aare.edu.au/02pap/how02342.htm>)

Poor student-teacher relationships

- Students lack motivation and respect for teachers.
- Classroom behaviour problems.
- Miscommunication or lack of understanding between the teacher and students of different class/ethnic/cultural backgrounds.

Time pressure

- Inadequate time for preparation.
- Unrealistic demands are made by administrators/managers.
- Unrealistic deadlines are imposed.
- Issues concerning workload.

Role conflict

- Conflicts among teaching philosophies within the school.
- Education department policies demand innovation and change.
- New roles are required to be undertaken without appropriate training.
- Administrative demands and paperwork are excessive.

Poor working conditions

- Inadequate facilities and resources.
- Class sizes are too big.
- Excessive noise levels in the working environment.
- The school is geographically isolated.

Lack of control and decision-making power

- The bureaucratic structure of school is very hierarchical and power is concentrated in the hands of a few.
- An autocratic leadership.

Poor colleague relationships

- Lack of trust and/or cooperation between colleagues.
- Competitiveness in the school culture.

Feelings of personal inadequacy

- Teachers feel incompetent and/or poorly trained.
- Teachers are required to teach outside their areas of competence and training.
- Inadequate praise and/or recognition for achievement from peers and school leaders.

Extra-organisational stressors

- Poor negative community attitudes towards teachers and schools.
- Teachers' personal lives and relationships are unstable/insecure.

The European Agency for Safety and Health at Work (http://europe.osha.eu.int/good_practice/sector/education/fag2.stm) lists the following causes of work-related stress in teachers:

Pressure on professional skills

- Introduction of new teaching methods.
- Changes in curriculum and courses.

Economic pressures

- Inadequate salary.
- Job insecurity.

Students

- Increased class size per teacher.
- Lack of pupil motivation, attention and interest.

- Having to meet new teaching targets or student attainment levels.

The school as a stressful workplace

- Excessive workload and hours of work.
- Lack of time.
- Lack of control and autonomy.
- Environmental noise.
- Poor ventilation.
- Lack of solidarity and morale.
- Excessive paperwork and administrative duties.

Poor planning and programming

- Constant restructuring.
- Frequent reforms in the vocational educational system.
- Working alone and the transition to team work.
- Lack of personnel and poor allocation.
- Strong administrative hierarchy with a lack of support.
- Insufficient financial resources.

Social and personal pressures

- Concerns about the quality of education.
- Lack of coherence between personal goals and professional obligations.
- No recognition or acknowledgement.
- Lack of public esteem.

Difficult parent/teacher relations

- New demands regarding roles of the teacher.
- Decreased parent participation.

Travers (2001) amongst other causes of teacher stress mentioned ‘the home-work interface’ and ‘dual-career couples’ as a key cause of teacher stress:

The home–work interface

Potential stressors that exist in the individual teacher's life, outside of their workplace, affecting an individual's behaviour at work should be considered when assessing the sources and impact of work stress. Potential stressors include:

- Stressful life events.
- Pressure resulting from conflict between organisational and family demands.
- Financial difficulties.
- Conflicts between organisational and personal beliefs.

However, events occurring in the home may be both a source of stress and a source of support, just like relationships at work, and may also mitigate or exacerbate the effects of stressors experienced in the work environment.

Dual-career couple

One aspect of home life that may help intensify pressure is that of being part of a dual-career couple. In a profession such as teaching that has such a large proportion of women, this is bound to be a feature to be considered in the teacher stress phenomenon. One of the major problems facing dual-career families is that of society's attitude towards them (i.e. the 'traditional' family set-up is still regarded as the norm).

3.12. THE EFFECTS OF TEACHER STRESS

Teachers' stress may have an impact on teachers as individuals, on the schools in which they work and on the pupils they teach. It is also estimated to have an economic impact on the education system in terms of lost teaching time and additional costs of replacement teachers.

(<http://www.scre.ac.uk/resreport/rr109/3.html> Feeling the Strain).

The following table is a summary of the psychological, physical and work related effects of teacher stress (Wiley, 2000).

PSYCHOLOGICAL EFFECTS	PHYSICAL EFFECTS	WORK RELATED EFFECTS
<ul style="list-style-type: none"> ▪ Anger ▪ Anxiety ▪ Depression ▪ Tension ▪ Feeling that teaching is damaging to psychological and physical health ▪ Indecisiveness ▪ Confusion ▪ Occasional panic ▪ Guilt ▪ Worry ▪ Cynicism ▪ Frustration ▪ Resentment ▪ Feelings of inadequacy as teachers 	<ul style="list-style-type: none"> ▪ Increased heart rate ▪ Nervous disorder ▪ Cardiovascular disease ▪ Upset stomach ▪ Headache ▪ Fatigue ▪ Peptic ulcers ▪ Insomnia 	<ul style="list-style-type: none"> ▪ Deterioration in work performance ▪ Increased need for substitute teachers ▪ Excessive absenteeism ▪ Lower productivity ▪ Turnover ▪ Stress transmitted to students ▪ Less constructive feedback to students ▪ Less learning in the classroom ▪ Less positive reinforcement for the students ▪ Low enthusiasm ▪ De-personalisation of the students

Table 3.1: *The psychological, physical and work related effects of teacher stress*

3.13. COPING WITH TEACHER STRESS

According to Kyriacou (2001), individual coping strategies for coping with teacher stress can be categorised into two main types:

- Direct action techniques.
- Palliative techniques.

3.13.1. Direct action techniques

Refer to actions a teacher can take to eliminate the source of stress. First of all the teacher needs to identify the source of stress. Once the source of stress has been identified the teacher can take action by changing the situation in such a way that it will no longer occur, or, by identifying ways to approach the stressor in a different way so as to minimize the stress it causes. Examples of direct action techniques are as follow:

- Managing or organising oneself more effectively.
- Developing new knowledge, skills and working practices.
- Negotiating with colleagues, so that aspects of one's situation are changed or dealt with by others.

3.13.2. Palliative techniques

This is where people do not deal with the source of stress itself, but rather are aimed at lessening the feeling of stress that occurs. Palliative techniques can be mental or physical.

Mental strategies

- Involve the teacher in trying to change how the situation is appraised.

Physical strategies

- Involve activities that help the teacher retain or regain a sense of being relaxed, by relieving any tension and anxiety that has built up.

The most frequent coping actions used by teachers are:

- To keep problems in perspective.
- To avoid confrontations.

- To try to relax after work.
- To take action to deal with problems.
- To keep feelings under control.
- To devote more time to particular tasks.
- To discuss problems and express feelings to others.
- To have a healthy home life.
- To plan ahead and prioritise.
- To recognise one's own limitations.

From the above list it is evident that a mix of direct action and palliative techniques are employed to combat teacher stress.

3.13.3. The school's role in the reduction of teacher stress

Working in a school where a positive atmosphere of social support exists enables teachers to share concerns with each other, which can lead to helpful suggestions from colleagues that will assist the teacher in implementing action plans that will help resolve the sources of stress. Often simply sharing problems or engaging in some social activity with colleagues during break periods can effectively help dissolve the feelings of stress.

Teachers and principals in schools also need to give thought to the way in which they may be creating unnecessary sources of stress through poor management. For example, a principal can set unrealistic targets for the completion of certain tasks or fail to communicate adequately with others, which then gives rise to avoidable problems (Kyriacou, 2001).

3.13.4. The effectiveness of teacher stress workshops

Over the years a number of teachers have taken part in in-service workshops aimed at helping them to reduce their level of experienced stress. Such workshops typically focus on helping teachers to develop a mix of direct action

and palliative techniques and also helping teachers as individuals and the school as a whole to develop methods of working which will minimise the occurrence of unnecessary sources of stress. A common feature of such workshops is training in the use of relaxation exercises as a palliative technique (Kyriacou, 2001).

3.14. STRATEGIES TO COMBAT TEACHER STRESS

Strategies that can be used to combat these effects include:

- Better employee placement.
- Job enrichment.
- Physical exercise.
- Participation and involvement.
- Skills training.
- Mentoring.
- Classification of roles and responsibilities.
- Measurable objectives.
- Realistic job previews.
- Opportunities through career planning and development.
- Encouragement through social support systems.
- Assistance through crisis intervention counselling can combat the adverse effects of stress.
- Good recruitment and selection can assist in reducing job stress as well. Effective use of accurate screening devices during selection helps ensure a better fit between individual abilities and the school system's job requirements. A mismatch between needs and abilities due to poorly conceived and executed recruitment and selection procedures may result in heightened stress levels with negative effects on teachers, students and school systems.

3.15. CONCLUSION

This chapter examined stress by defining stress and discussing dimensions and stages of stress in general. In greater detail teacher stress was defined and teacher stress models were evaluated. As burnout is the eventual outcome of long term stress a brief overview of this topic was provided.

Teachers' responses to stress were examined and numerous causes of teacher stress were discussed.

Finally, this chapter focused on the effects of teacher stress and ways to combat it.

CHAPTER 4

RESEARCH METHODOLOGY

4.1. INTRODUCTION

The previous chapters focused on procrastination and teacher stress. A broad overview of procrastination was given and stress was examined very specifically as to its causes and effects.

This chapter focuses on the research design, the research population and the statistical methodology applied.

4.2. RESEARCH STRATEGY

The aim of the study was to determine whether there is a relationship between procrastination and stress in teachers.

To determine the relationship between procrastination and stress in teachers, the survey method was used as it is one of the most important areas of measurement in applied social sciences. According to Kuter and Yilmaz (2001), a 'survey' can be anything from a short paper-and-pencil feedback form to an intensive interview.

4.3. QUESTIONNAIRES

Participants who volunteered to participate in the study completed pen and paper questionnaires. The questionnaire consisted of three sections.

SECTION 1: BIOGRAPHICAL QUESTIONNAIRE

The biographical questionnaire focused on the following:

- Age.
- Marital status.
- Tertiary qualification.
- Gender.
- Years of experience.
- Number of children.
- Age of children.

SECTION 2: PROCRASTINATION SCALE

Tuckman's (1991) procrastination scale (TPS16 and TPS35) was used to determine the teachers' tendency to procrastinate.

This survey is a 35-item (TPS35), 4-point, Likert-type scale with a reliability coefficient of .90. Using factor analysis, Tuckman reduced this 35-item scale to a 16-item scale consisting of questions that loaded .40 or higher with an alpha reliability of .86. The 16-item scale takes less time to complete than the 35-item scale. The 16-point scale is contained within the 35-item scale, so both were administered at the same time.

The TPS35 is designed to measure:

- A generalised self-description of the inclination to delay.
- A penchant to experience difficulty when doing "unpleasant things".
- A tendency to blame external events or people for any ensuing ramifications from procrastination choices.
- Survey questions to illustrate these dimensions are respectively:
 - "When I have a deadline, I wait until the last minute".

- “I look for a loophole or a shortcut to get through a tough task”.
- “I believe that other people do not have the right to give me deadlines”.

Interpretation of scores

The 16-item TPS was used to score and interpret the teachers’ tendency to procrastinate. A maximum score of 64 and minimum score of 16 could be obtained. Once scoring was completed teachers were categorised into the following three groups regarding their tendency to procrastinate:

- “High” procrastinators: 57 - 64
- “Moderate” procrastinators: 50 - 56
- “Low” procrastinators: 34 - 49

SECTION 3: “THE EXPERIENCE OF WORK AND LIFE CIRCUMSTANCES QUESTIONNAIRE”

Scale A of “The Experience of Work and Life Circumstances Questionnaire” (WLQ), Van der Walt, H.S. & van Zyl, E.S. (1991), was administered to determine the teachers’ levels of stress. Scale A consists of a 40-item 5-point Likert scale.

Interpretation of scores

The score for this part of the questionnaire is obtained by determining the aggregate of the answers. (Items 1 – 40)

- “Very High” levels of stress: 98 - 200
- “High” levels of stress: 80 - 97
- “Normal” levels of stress: 40 - 79

4.4. RESEARCH POPULATION

The research population consisted of high school teachers in the Gauteng Province. 120 Questionnaires were distributed to teachers and a total of 70 teachers participated in the study.

4.5. DATA COLLECTION AND ANALYSIS

4.5.1. Distribution and collection of questionnaires

All the questionnaires were distributed at the participating high schools. The questionnaires were in pen and paper format.

4.5.2. Data collection and analysis

Data received from the questionnaires was read into an Excel spreadsheet and the statistical software application “Analyse it” was used to analyse the data.

4.6. STATISTICAL METHODS

4.6.1. Introduction

One of the principal objectives of psychological science is to understand human behaviour. At the end of the data collection phase of this research project, a significant amount of information was available but without any apparent order or meaning. Therefore, in order to understand the results achieved from this study, a statistical analysis was performed as a means of finding order and meaning in this apparent chaos.

Descriptive statistical analysis was performed to describe the data and to serve as the first step in understanding the results obtained. The data was then reduced to descriptive summaries for the mean, standard deviation and correlation as well as to visualisation through various graphical procedures that included drafting histograms, frequency distributions, and scatter plots.

Finally, inferential statistical analysis was used to test hypotheses regarding relationships between procrastination and stress levels in the population surveyed, thereby assisting in the final conclusion whether the relationship (or lack thereof) can be considered real or just a chance fluctuation.

4.6.2. Descriptive statistics

Descriptive statistics were used to describe patterns and general trends in the data set by exploring one variable at a time. In order to gain a better understanding of the research population, it was described in terms of age, gender, years of experience, highest tertiary qualification etc.

4.6.3. Correlation

The most common measure of "correlation" or "predictability" is Pearson's coefficient of correlation. Pearson's r , as it is often symbolised, can have a value anywhere between -1 and 1. The larger r , ignoring the direction of the sign, the stronger the association between the two variables and the more accurately you can predict one variable from knowledge of the other variable. At its extreme, a correlation of 1 or -1 means that the two variables are perfectly correlated, meaning that you can predict the values of one variable from the values of the other variable with perfect accuracy. At the other extreme, an r of zero implies an absence of a correlation. There is no relationship between the two variables. This implies that knowledge of one variable gives you absolutely no information about what the value of the other variable is likely to be.

The sign of the correlation implies the "direction" of the association. A positive correlation means that relatively high scores on one variable are paired with relatively high scores on the other variable, and low scores are paired with relatively low scores. On the other hand, a negative correlation means that relatively high scores on one variable are paired with relatively low scores on the other variable.

(http://www.une.edu.au/WebStat/unit_materials/c4_descriptive_statistics/pearsons_coeff.html)

4.7. SUMMARY

This chapter focused on the research methodology.

The research strategy, questionnaires and population as well as the statistical methods used in this study were explained and evaluated.

The next chapter focuses on the research analysis and results.

CHAPTER 5

RESEARCH RESULTS AND FINDINGS

5.1. INTRODUCTION

The previous chapter explained and evaluated the research strategy, questionnaires and population as well as the statistical methods used in this study.

This chapter explains the data analysis performed on the collected data. The gathered data was analysed to see if anything unexpected or unanticipated emerged. Thereafter, the focus was on determining what relationship and correlation existed between the procrastination and stress levels experienced by the high school teachers who responded to the questionnaires.

5.2. DESCRIPTIVE STATISTICAL ANALYSIS

Data from the completed questionnaires was analysed to determine whether the sample respondents represented a logical extrapolation of the total population of high school teachers. Figures 5.1 – 5.6 are a graphical reflection of this analysis. In addition, the results of the study were assessed by performing a descriptive statistical analysis and reviewing the correlation between the stress levels (WLQ) and procrastination (TPS) of the respective respondents. General information regarding the datasets used is summarised in the table below.

Summary Descriptive Statistical Analysis	WLQ Total	TPS Total
General Information		
Minimum %	25	29
Maximum %	76	76
Count (n)	70	70
95 % Confidence Level	2.623	2.199
Frequency Distributions		
Standard Error	1.31	1.10
Kurtosis	1.6901	0.2027
Skewness	1.1954	-0.4302

Table 5.1: Summary descriptive statistical analysis – general information

5.3. FREQUENCY DISTRIBUTIONS

In order to provide a more meaningful way of expressing the relative frequency of individual variables in the population, these variables were analysed and are graphically depicted in the following subsections as a percentage of the whole.

5.3.1. Analysis of population

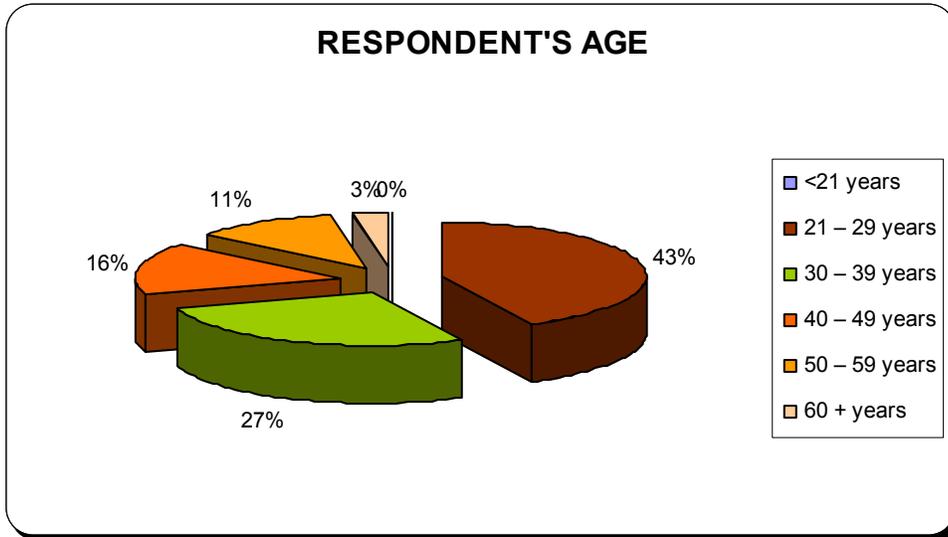


Figure 5.1: Respondent's age

Figure 5.1 presents the respondent's age in this study. The age group 21 – 29 years has the largest number of participants, namely 30 (43 %). The second largest age group is 30 – 39 years 19 (27%). Following the second largest age group is the age group 40 – 49 years 11 (15 %) and 50 – 59 years 2 (3 %).

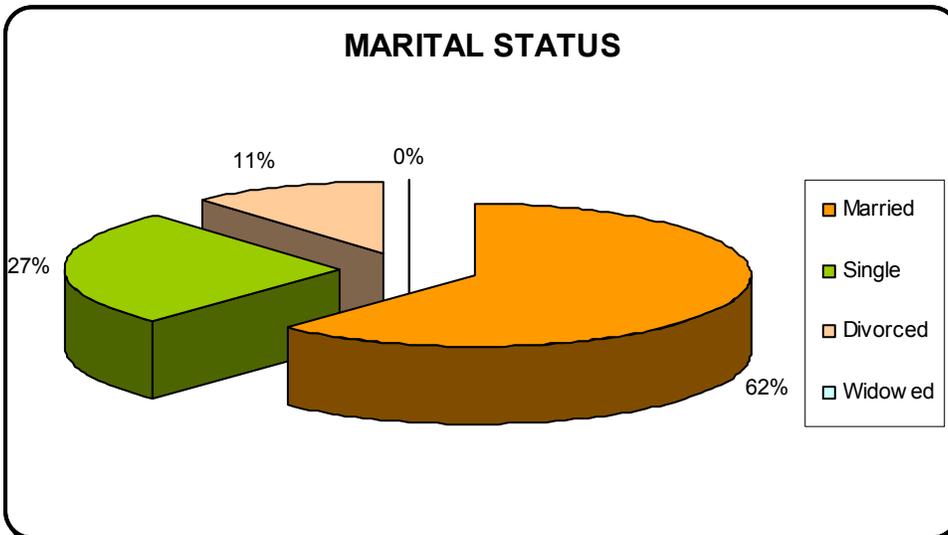


Figure 5.2: Marital status

This figure shows the marital status of the respondents. The majority of the population 44 (62 %) is married. 19 (27 %) of the population is single and 7 (11 %) is divorced.

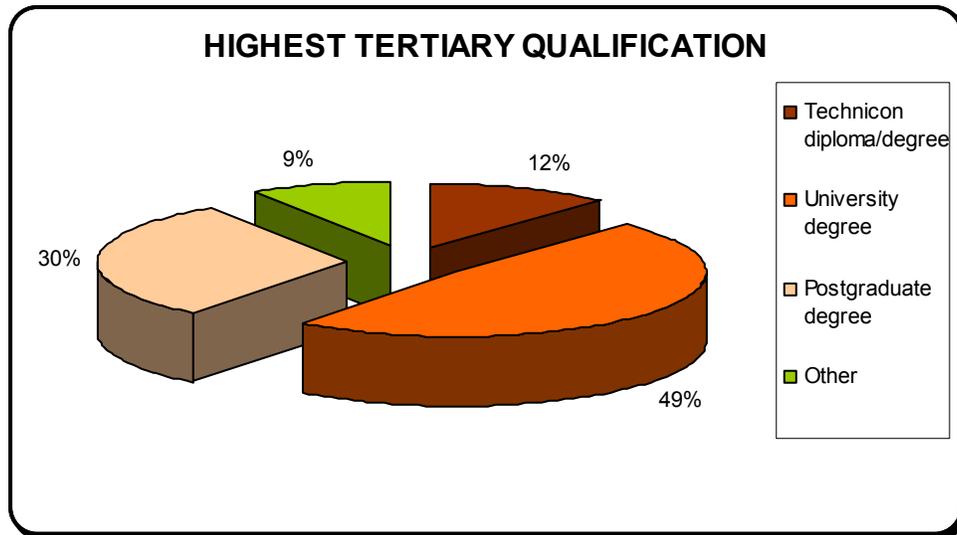


Figure 5.3: Highest tertiary qualification

Figure 5.3 shows the participants' highest tertiary qualifications. Within the population 9 (12 %) have a Technicon diploma/degree, 37 (49 %) have a University degree, 22 (30 %) have a Postgraduate degree and 7 (9 %) have "other" qualifications.

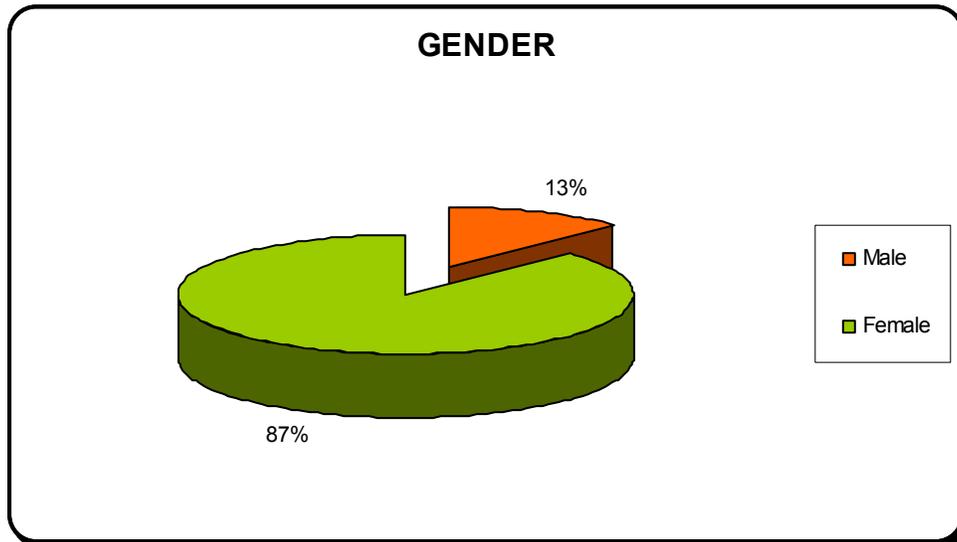


Figure 5.4: Gender

Figure 5.4 indicates that 62 (87 %) of the population is female and 8 (13 %) of the population is male.

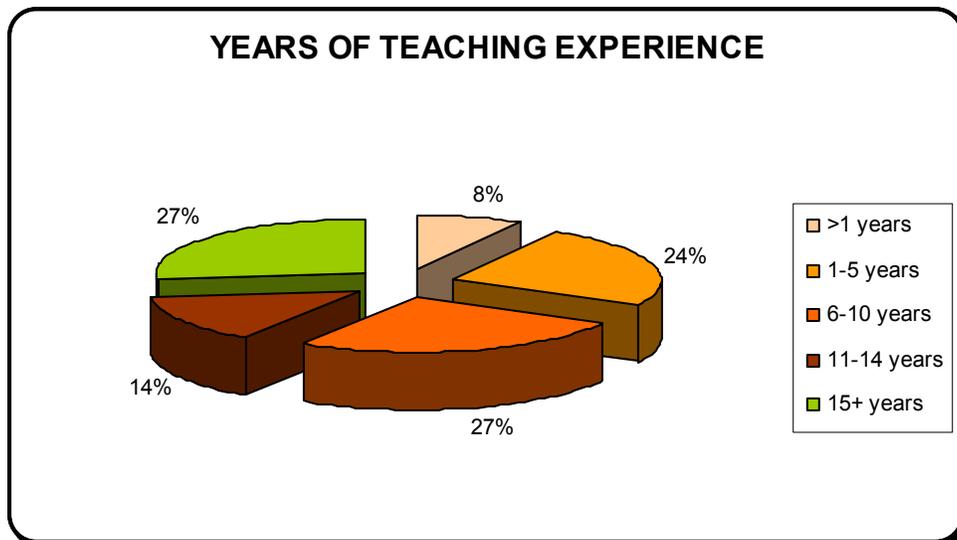


Figure 5.5: Years of teaching experience

Figure 5.5 indicates the number of years of teaching experience of the population. The majority of the population has between 6 – 10 years 18 (27 %) and 15 + years 19 (27 %) of experience. 17 (24 %) has 1 – 5 years of experience

and 10 (14 %) has between 11 – 14 years of experience. Finally, 6 (8 %) of the population has less than 1 year of experience.

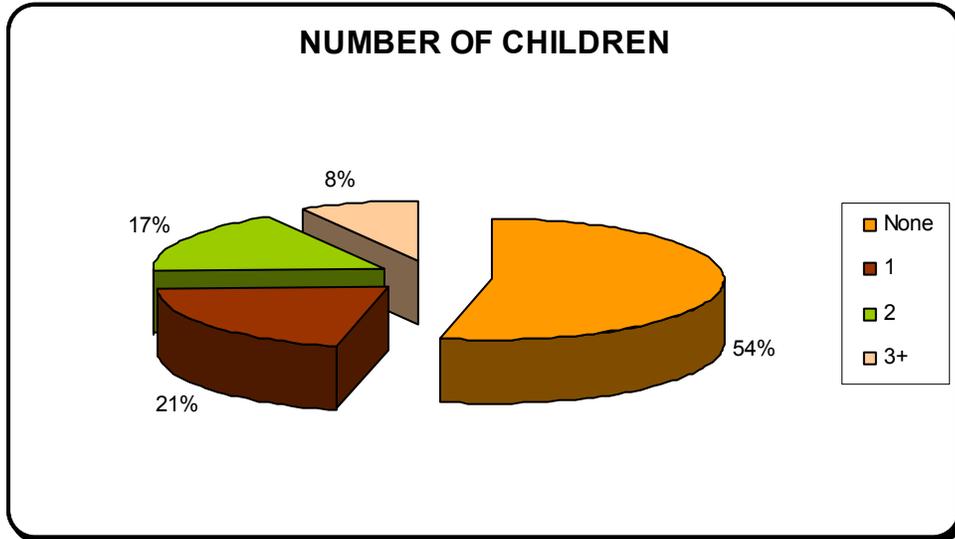


Figure 5.6: Number of children

This figure indicates that 37 (54 %) of the population have no children, 15 (21 %) have 1 child, 12 (17 %) have 2 children and 6 (8 %) have 3 or more children.

5.3.2. Analysis of WLQ and TPS (high, moderate and low)

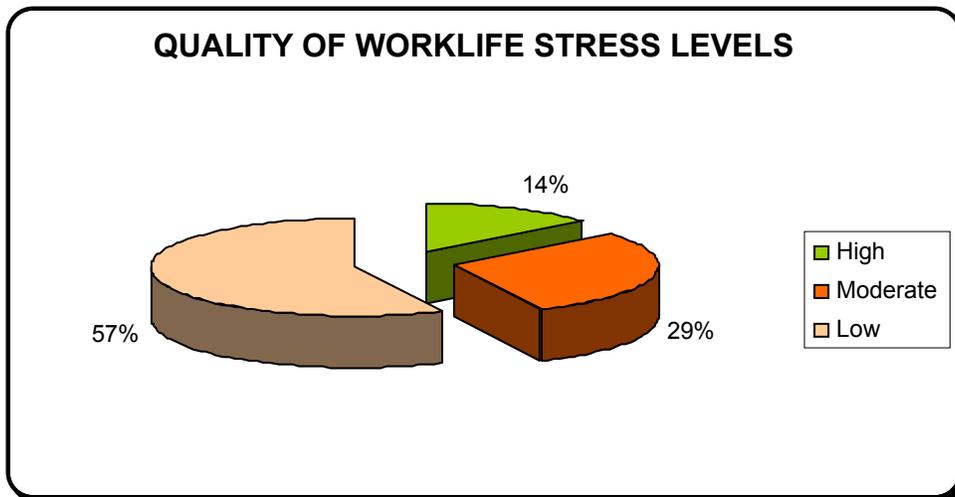


Figure 5.7: WLQ stress levels – high, moderate, low

Figure 5.7 indicates that according to the WLQ 40 (57 %) of teachers experience “low” levels of stress, 20 (29 %) experience “moderate” levels of stress and 10 (14 %) experience “high” levels of stress.

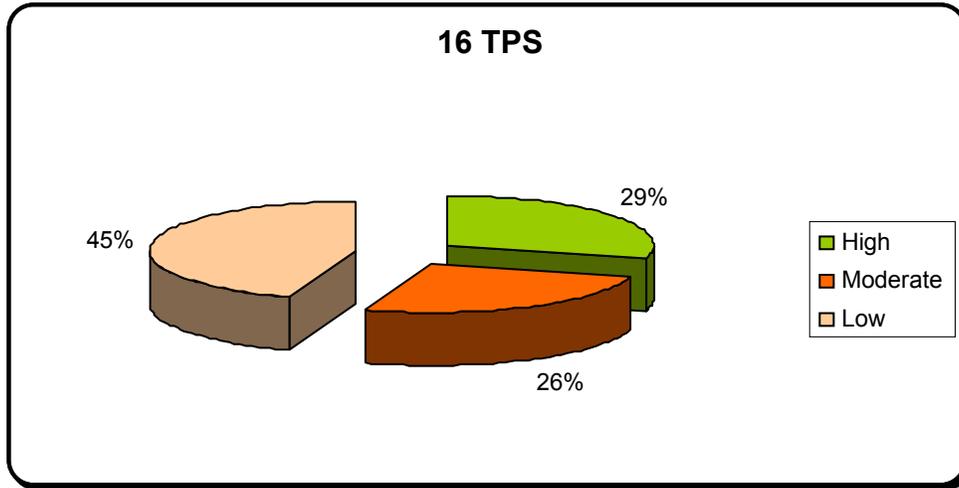


Figure 5.8: 16 TPS – high, moderate, low

Figure 5.8 indicates that 29 % of the population have a high tendency to procrastinate, 26 % have a moderate tendency to procrastinate and the majority of the population (45%) have a low tendency to procrastinate.

5.3.3. Histograms

The skewness of each scored dataset was also determined using the Shapiro-Wilk W test. The calculated p-values were <0.0001 and 0.2583 for the scored WLQ and TPS datasets respectively (the significance level of the p-value is 0.05). The distribution of the scores obtained is graphically presented in figures 5.9 – 5.10. Based on the results shown, it is clear that the measured stress levels of respondents are asymmetrical (i.e. not normally distributed) and positively skewed. In contrast, the measured procrastination levels for the respondents were symmetrical (i.e. normally distributed) and therefore not highly skewed. In conclusion, the scored procrastination dataset is considered acceptable as a basis for further analysis and was used as the primary reference

in determining the statistical relationship between the measured levels of stress and procrastination in high school teachers.

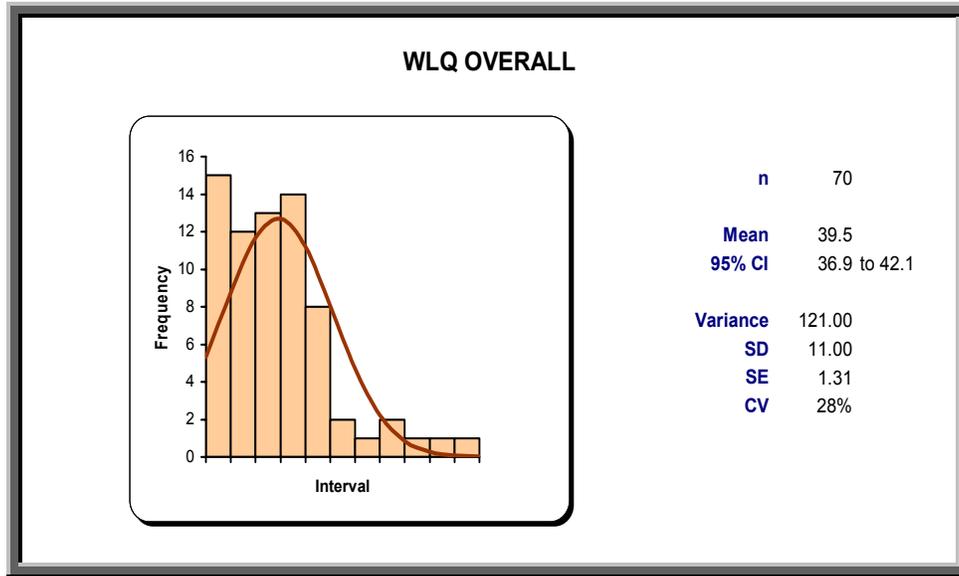


Figure 5.9: Stress distribution

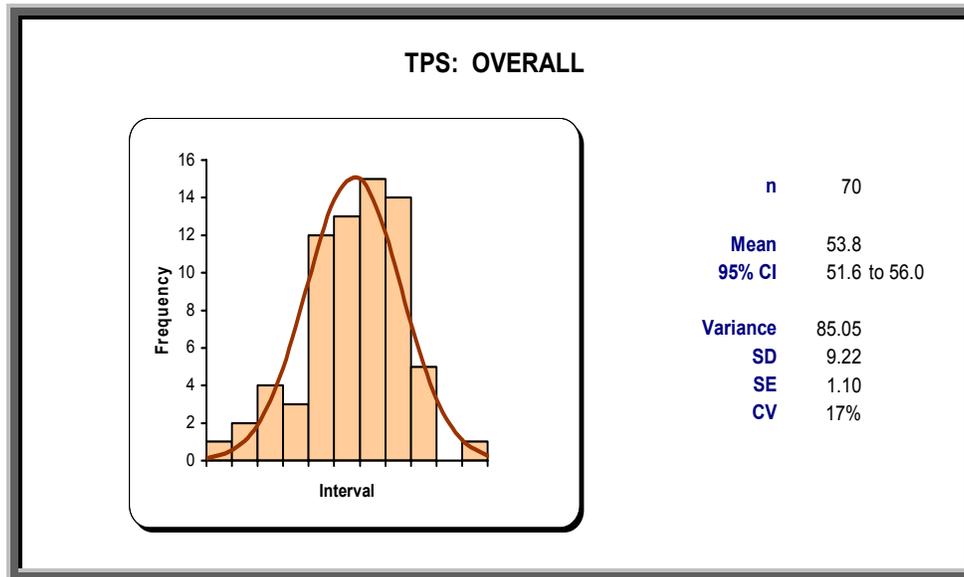


Figure 5.10: Procrastination distribution

5.4. CENTRAL TENDENCY AND VARIABILITY

The measures of tendency in the respective datasets are summarised below and provide an effective summary of the typical stress and procrastination levels (i.e. scores achieved) of the high school teachers who participated. The mode is the score that was achieved most frequently. The median is the value that theoretically cuts the distribution exactly in half while the mean indicates the average levels of stress and procrastination for the participants in the study. The standard deviation for procrastination indicates that, on average, the procrastination levels of respondents differ about 9% from the mean.

Central Tendency and Variability	WLQ Total	TPS Total
Measures of Central Tendency		
Mean	39.51%	53.85%
Median	38.50	55.00
Mode	44	63
Variability		
Range	51	47
Standard Deviation	11.000	9.222
Sample Variance	121.000	85.053

Table 5.2: Central tendency and variability

Based on the measures of central tendency listed in table 5.2, it would be reasonable to expect the average high school teacher to have a slight tendency to procrastinate while simultaneously experiencing low to moderate stress levels.

5.5. CORRELATION

The notion defined above gave rise to the question whether increased levels of procrastination would result in increased levels of stress. To answer this

question in a satisfactory fashion, the correlation between the levels of procrastination and stress experienced by the respondents was analysed. The correlation between these two variables would be indicative of the measure to which information regarding one variable can be used to determine the other:

- Firstly, bar and line graphs were drawn to graphically depict the overall as well as specific relationship trends between different procrastination levels and the associated stress levels experienced by respondents (figures 5.11-5.14).
- Secondly, the overall correlation between the respondents' procrastination levels and their associated stress levels was determined by calculating the Pearson correlation (figure 5.15).
- Finally, the Pearson correlation for high, medium and low levels of procrastination and the associated stress levels was calculated (figures 5.16-5.18).

5.5.1. Overall comparison of procrastination levels with associated stress levels

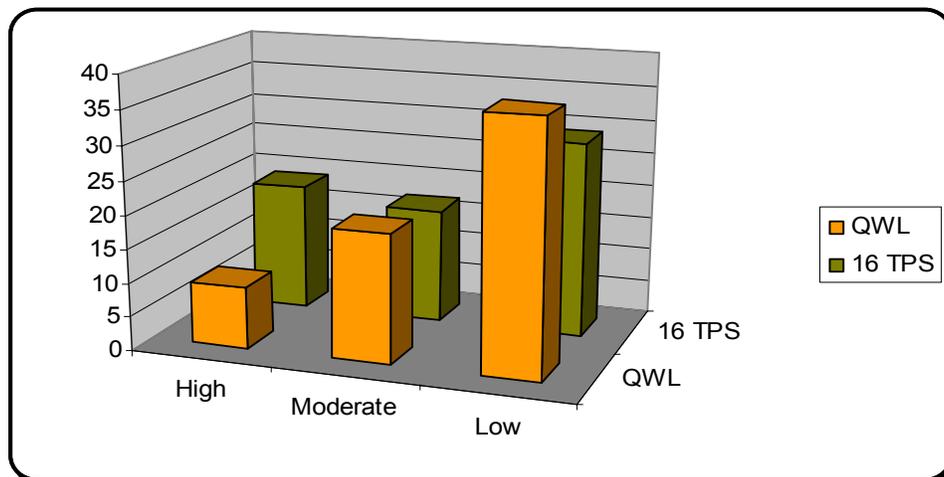


Figure 5.11: Bar graphs of correlation between WLQ and 16 TPS

Figure 5.11 is a graphical representation of the stress levels associated with high, moderate and low levels of procrastination for all the respondents.

5.5.2. Overall comparison of high, medium and low procrastination levels with associated stress levels

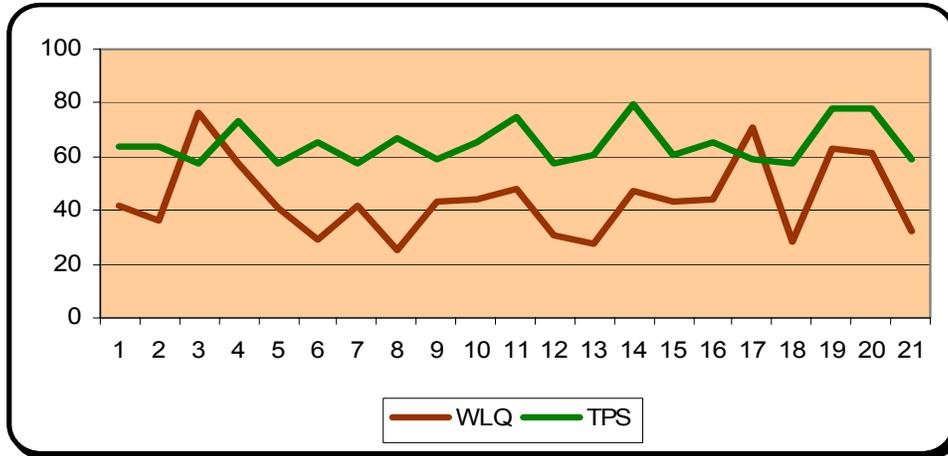


Figure 5.12: Graphical comparison of high levels (n=21) of procrastination and stress

With the exception of three contrasting data points, figure 5.12 indicates a clear and common relationship between high levels of procrastination and stress experienced by respondents.

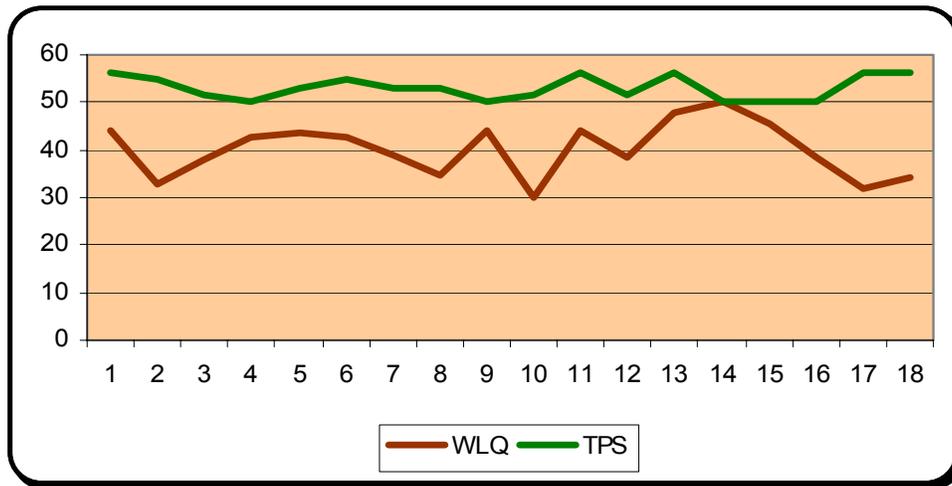


Figure 5.13: Graphical comparison of moderate levels (n=18) of procrastination and stress

Figure 5.13 indicates a common theme, although it is not as pertinent as for high levels of procrastination.

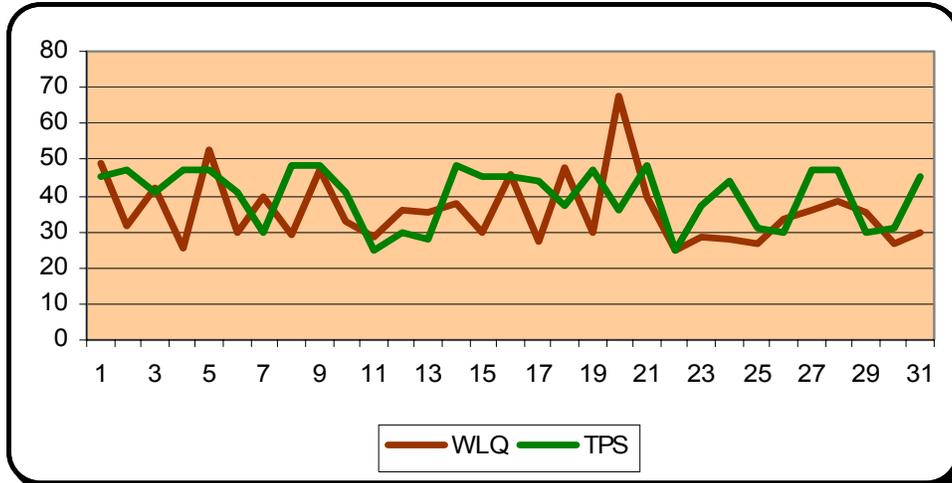


Figure 5.14: Graphical comparison of low levels (n=31) of procrastination and stress

In figure 5.14, even though a common theme can be observed, the relationship between low levels of procrastination and stress experienced by respondents do not seem to be that significant.

5.5.3. Pearson correlation

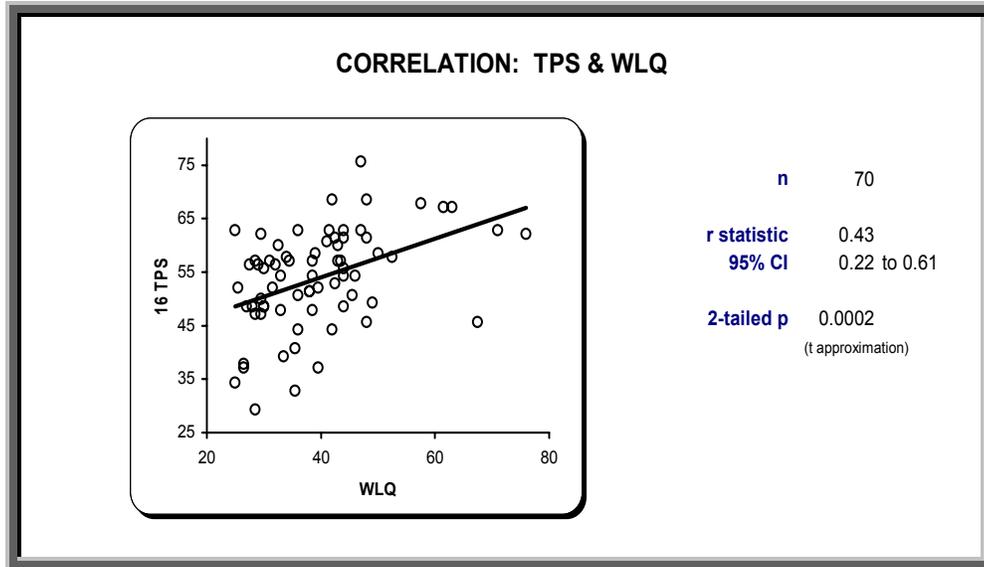


Figure 5.15: Overall Correlation between TPS & WLQ

Figure 5.15 indicates the correlation between procrastination and stress as measured by Pearson's coefficient of correlation (i.e. the r statistic). The squared correlation (i.e. r^2) provides a measure of how much of the variability in stress experienced can be "explained" by variation in procrastination. In this case, 0.43 is squared to 0.1849, which indicates that about 18.5% of the variability in stress levels is attributable to the procrastination behaviour of the respondents. The 2-tailed p value of 0.0002 is a test of a hypothesis about the "significance" of the correlation and indicates a relatively low level of significance for the correlation between the levels of procrastination and stress experienced by the respondents. This is also clear when viewing the dispersion of observations around the regression line depicted on the scatter plot.

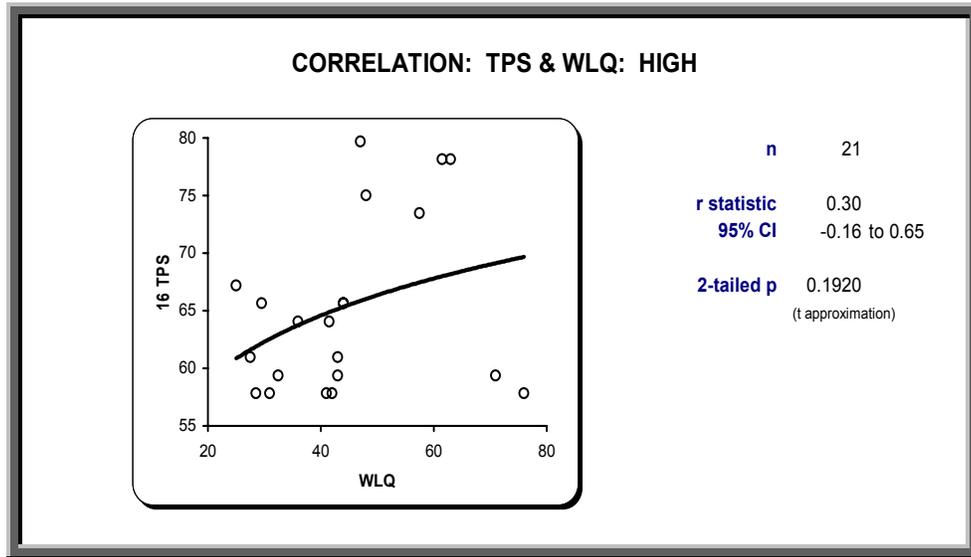


Figure 5.16: Correlation between TPS & WLQ: High

Figure 5.16 indicates the correlation between high levels of procrastination and stress as measured by Pearson’s coefficient of correlation (i.e. the r statistic). A positive correlation of 0.3 was calculated, which indicates a somewhat positive (1%) relationship between high levels of procrastination and stress. However, the 2-tailed p value of 0.1920 indicates a high significance of the correlation between elevated levels of procrastination and the resulting increased stress experienced by the respondents. As can be seen from the scatter plot, the observations are widely dispersed around the regression line, which explains the moderate level of correlation (albeit positive) as measured by the r statistic.

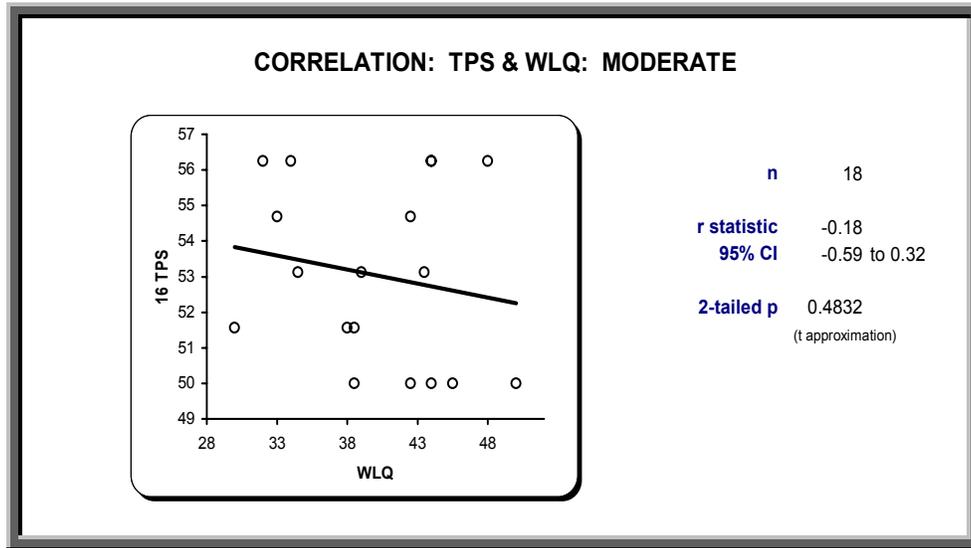


Figure 5.17: Correlation between TPS & WLQ: Moderate

Figure 5.17 indicates the correlation between moderate levels of procrastination and stress as measured by Pearson’s coefficient of correlation. An r-statistic factor of -0.18 was calculated, which indicates a weak negative relationship (<1%) between moderate levels of procrastination and stress. The 2-tailed p value of 0.4832 indicates a high significance of the correlation between moderate levels of procrastination and the resulting increased stress experienced by the respondents. However, the actual correlation factor is so low that this significance factor does not have much value. The scatter plot further indicates a low level of correlation based on the widely dispersed observations around the regression line.

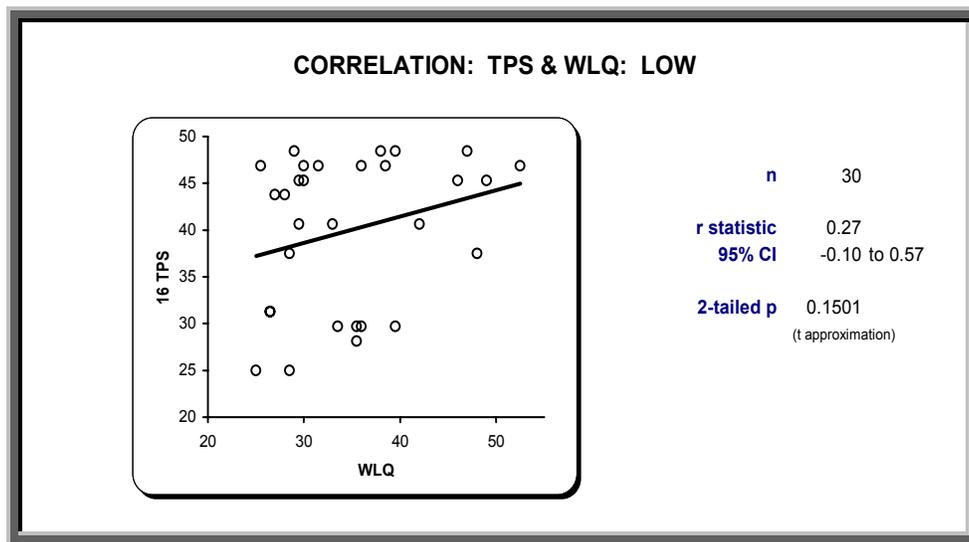


Figure 5.18: Correlation between TPS & WLQ: Low

Figure 5.18 indicates the correlation between low levels of procrastination and stress as measured by Pearson's r statistic. A positive correlation of 0.27 was calculated, which indicates a somewhat positive (<1%) relationship between high levels of procrastination and stress. The 2-tailed p value of 0.1501 indicates a high significance of the correlation between elevated levels of procrastination and the resulting increased stress experienced by the respondents. As can be seen from the scatter plot, the observations are widely dispersed around the regression line, which explains the low level of correlation (albeit positive) as measured by the r statistic.

5.6. SUMMARY

In this chapter statistical methods were used to generate the research results. This was performed by completing a descriptive statistical analysis on the datasets, which included an analysis of frequency distributions, central tendencies and variance as well as correlation between procrastination and stress.

The next chapter focuses on the conclusions derived from this study as well as recommendations for future research, which are supported by the literature study in prior chapters and the analysis of findings in this chapter.

CHAPTER 6

CONCLUSIONS AND RECOMMENDATIONS

6.1. INTRODUCTION

As noted in the beginning, a tremendous amount of research has been conducted regarding students' procrastination behaviour, but very little on that of teachers. The notion was raised that teaching is not only about educating students in academic subjects but more about educating them in lessons of life and therefore that the positive behaviours a teacher displays during the development years in students' lives will have a profound impact on their ultimate development.

This study was conducted to answer the question whether a significant relationship exists between procrastination and stress and, if such a relationship does exist, whether such knowledge can be used proactively to manage and reduce procrastination and stress, thereby improving the quality of life experienced by teachers.

6.2. REVIEW OF THE STUDY

This study endeavoured to gain a thorough understanding of procrastination and stress and to determine whether a relationship exists between procrastination and stress as experienced by high school teachers.

6.3. CONCLUSION

Literature clearly indicates that procrastinators tend to keep themselves ready to work, but end up avoiding the activity by working on less important obligations. This practice has significant concrete and emotional consequences, which

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include lost opportunities and income, lower productivity, lower morale, heightened stress, frustration and anger as well as lower motivation. This in turn leads to stress, which in turn leads to health problems, tendencies to drink and smoke and difficulties in setting priorities in their work and personal lives. This ultimately results in poor quality of life.

The two dimensions of stress (i.e. experiential and physiological) were explained and clearly indicated the far-reaching effects stress can have on individuals, leading from depression and feelings of inadequacy to a "fight or flight" syndrome. The study also showed that work-related stress may lead to mental and physical ill health. The growing rate of teacher burnout and the adverse implications this has for the learning environment in schools, on the achievement of educational goals as well as the development of negative cynical attitudes towards students were also mentioned.

The literature study unmistakably showed the far-reaching consequences of procrastination and stress in a teacher's life, which also undoubtedly highlights the extensive need to understand, review and manage these aspects in the life of a teacher.

The descriptive statistical analysis performed on the gathered information indicated that these datasets were an appropriate and realistic representation of tendencies by high school teachers to procrastinate as well as reflecting accurately the stress experienced by these teachers. The central tendencies and variance in the datasets indicated that most teachers had a moderate tendency to procrastinate and experienced low to moderate stress levels.

The notion that increased levels of procrastination would result in increased levels of stress was assessed by analysing the correlation between these two

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variables. Based on the statistical analysis performed, it was clear that some measure of correlation between procrastination and stress does exist. Not surprisingly, the correlation tended to be higher for respondents with a high tendency to procrastinate and conversely proved to be very weak for respondents with a low tendency to procrastinate. An interesting observation was noted for moderate procrastinators. For these individuals, virtually no correlation was noted. However, the little correlation that could be determined was, in fact, negative!

This led to the conclusion that stress experienced by respondents with low to moderate levels of procrastination was not necessarily related to their tendency to procrastinate. However, it seems reasonable to expect the stress experienced by respondents to increase to some degree if their tendency to procrastinate increased. An important fact to remember, however, is that correlation does not necessarily mean causation. Two variables may be related to each other, but this does not mean that one variable causes the other, they are merely indicative of each other.

6.4. RECOMMENDATIONS

An important aspect of human behaviour is that different individuals have different ways of doing things. Some people can only function efficiently when experiencing higher than normal stress levels. Therefore, they would have an inherent tendency to procrastinate in order to increase their stress levels to a level or degree that would facilitate optimal functionality. Care should be taken to maintain optimal balance, as this could easily result in over-extension, which could lead to excessively high stress levels.

Based on this study, it is clear that a positive relationship exists between high levels of procrastination and stress for high school teachers. The analysis

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performed focused on the relationship between procrastination and stress and the multidimensional aspects of personality types, different attitudes and “stress appetite” as well as variables like age, teaching experience, etc. were not analysed. When thinking about these different dimensions, questions like the relationship between age and procrastination (a possible inversed relationship?) as well as the influence of marital status, teaching experience, number of children, gender and even the level of education hint at the possibilities for future research projects. Clearly it would be extremely useful to expand this research to include such multi-faceted dimensions, thereby enabling us to more accurately identify and address situations and/or circumstances more likely to result in high procrastination and/or stress. Ultimately, this may assist in attaining a magnified view of the potential causes of procrastination and stress and providing an effective solution to improve the quality of life and education provided by high school teachers.

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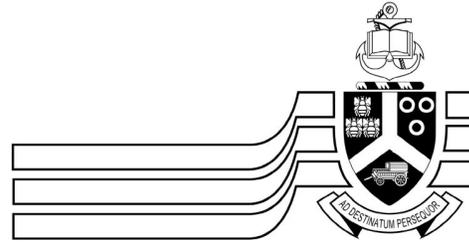
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ANNEXURE A: QUESTIONNAIRE COVER LETTER



University of Pretoria

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Faculty of Economic and Management Sciences
DEPARTMENT OF HUMAN RESOURCES MANAGEMENT
TELEPHONE: 420-2124

10 June 2004

Dear Teacher,

I am a Masters Student in Human Resources Management at the University of Pretoria under the supervision of Mr. G.J. Steyn. As partial fulfilment of the Masters Degree I have to conduct a research project. The purpose of my study is to determine whether there is a relationship between procrastination and the stress teachers experience in their work environment.

If you decide to volunteer for this study, you will be asked to complete 3 questionnaires, which will take approximately 40 minutes of your time. The 3 questionnaires consist of the following:

- **Demographic Questionnaire:**
This questionnaire will ask general background questions. For example: your gender, years of teaching experience, etc.
- **Procrastination Scale:**
The Procrastination Scale consists of 35 questions, which will enable the researcher to determine whether you have a tendency to procrastinate, and to what degree.
- **Quality of Work life Questionnaire:**

The Quality of Work life Questionnaire consists of 40 questions and focuses on the stress you experience in the work environment.

It is very important that you answer ALL the questions. As you complete the questionnaires do not ponder over a question too long. Read it and indicate the first reaction that comes to mind spontaneously.

Please be aware that you may discontinue your participation at any time. There are no known or anticipated risks to participating in this study. Participation in this project is voluntary and anonymous. (However, should you wish to receive feedback regarding the study, a space is provided for you to enter your contact details). Further, all information you provide will be considered confidential.

I would like to assure you that this study has been reviewed and received ethics clearance through the Department of Human Resources Management at the University of Pretoria. However, the final decision about participation is yours.

Should you have questions about the study, please feel free to contact:

Liesel van Wyk lieselvanwyk@cox.net, or Mr. G.J. Steyn gjsteyn@hakuna.up.ac.za

If you agree to voluntarily participate in this research project as described, please indicate your agreement by completing and returning the attached questionnaire. Please retain this consent cover form for your reference.

Thank you for agreeing to participate.

Regards

Liesel van Wyk

ANNEXURE B: BIOGRAPHIC QUESTIONNAIRE

BIOGRAPHIC QUESTIONNAIRE

Contact Details:

Name: _____
 Address: _____

 or _____
 E-mail: _____

Remember: This study is voluntary and anonymous. Only complete the contact details if you wish to receive feedback.

INSTRUCTION:

Please indicate your response to the following questions by circling the appropriate number.

Question 1

How old are you?	
< 21 years	1
21 – 29 years	2
30 – 39 years	3
40 – 49 years	4
50 – 59 years	5
60 + years	6

Question 5

How many years of teaching experience do you have... ?	
<1 year	1
1 – 5 years	2
6 – 10 years	3
11 – 14 years	4
15 + years	5

Question 2

What is your marital status?	
Married	1
Single	2
Divorced	3
Widowed	4

Question 6

Do you have any children?	
None	1
1	2
2	3
3 +	4

Question 3

What is your Highest Tertiary Qualification?	
Technicon diploma/degree	1
University degree	2
Postgraduate degree	3
Other	4

Question 7

How old are your children?	
N/A	1
<1	2
1 - 5	3
6 - 12	4
13 - 19	5
20 +	6

Question 4

What is your gender?	
Male	1
Female	2

ANNEXURE C: THE EXPERIENCE OF WORK AND LIFE CIRCUMSTANCES QUESTIONNAIRE (WLQ)

Item	Question	Virtually Never	Sometimes	Reasonably Often	Very Often	Virtually Always
1	As if you are coming up against a wall and simply cannot make any progress?	14.3%	67.1%	10.0%	8.6%	0.0%
2	Afraid, not knowing of what exactly?	42.9%	38.6%	7.1%	10.0%	1.4%
3	Uncertain (unsure, doubtful)?	12.9%	62.9%	11.4%	11.4%	1.4%
4	Worried?	8.6%	42.9%	22.9%	22.9%	2.9%
5	That your views clash with those of another person?	15.7%	40.0%	27.1%	14.3%	2.9%
6	That you are experiencing conflict?	17.1%	48.6%	25.7%	5.7%	2.9%
7	Bored?	48.6%	35.7%	8.6%	5.7%	1.4%
8	Irritated (annoyed)?	5.7%	45.7%	18.6%	28.6%	1.4%
9	That you have no confidence in yourself?	32.9%	38.6%	14.3%	11.4%	2.9%
10	That you depend too much on the help of others?	58.6%	34.3%	5.7%	1.4%	0.0%
11	Alone?	40.0%	38.6%	7.1%	10.0%	4.3%
12	That you would like to attack another person?	57.1%	28.6%	8.6%	4.3%	1.4%
13	That you merely accept things the way they are?	20.0%	44.3%	22.9%	8.6%	4.3%
14	That you are disturbed whenever you work hard at something?	40.0%	41.4%	11.4%	5.7%	1.4%
15	That you are losing control of your temper?	48.6%	34.3%	11.4%	4.3%	1.4%
16	That no-one wants to support you?	35.7%	48.6%	10.0%	5.7%	0.0%
17	That your work situation compares unfavourably with those of others?	27.1%	42.9%	17.1%	10.0%	2.9%
18	Despondent (cheerless, down)?	24.3%	57.1%	8.6%	7.1%	2.9%
19	That you have broken some or other rule?	50.0%	38.6%	4.3%	5.7%	1.4%

Item	Question	Virtually Never	Sometimes	Reasonably Often	Very Often	Virtually Always
20	Inferior (no self-confidence, unimportant)?	42.9%	37.1%	14.3%	5.7%	0.0%
21	That someone and/or a situation is annoying you terribly?	12.9%	50.0%	21.4%	14.3%	1.4%
22	Guilty?	57.1%	25.7%	10.0%	5.7%	1.4%
23	Downhearted?	28.6%	47.1%	14.3%	7.1%	2.9%
24	Fearful?	58.6%	21.4%	11.4%	4.3%	4.3%
25	That you can do nothing about a situation?	22.9%	50.0%	15.7%	11.4%	0.0%
26	Aggressive (want to hurt someone/break something)?	57.1%	29.0%	7.2%	4.3%	1.4%
27	That you are getting sad?	24.3%	54.3%	11.4%	7.1%	2.9%
28	Overburdened (too much work/responsibilities)?	5.7%	40.0%	20.0%	27.1%	7.1%
29	Angry?	22.9%	52.9%	14.3%	8.6%	1.4%
30	Afraid without knowing whether you are afraid of a particular person and/or situation?	55.7%	30.4%	2.9%	8.7%	1.4%
31	Not exactly sure how to act?	22.9%	64.3%	8.6%	4.3%	0.0%
32	That you are having trouble concentrating since you are worried about something?	38.6%	41.4%	12.9%	4.3%	2.9%
33	That you have no interest in the activities around you?	57.1%	37.1%	4.3%	1.4%	0.0%
34	That you need assistance continuously?	77.1%	20.0%	0.0%	2.9%	0.0%
35	That you do not wish to participate in anything?	58.6%	31.4%	5.7%	4.3%	0.0%
36	Afraid of colleagues and/or supervisors?	67.1%	27.1%	1.4%	1.4%	2.9%
37	That it seems as if you will never get out of this mess?	55.7%	35.7%	2.9%	4.3%	1.4%
38	Dissatisfied?	21.4%	54.3%	17.1%	5.7%	1.4%
39	That you are tearful (weeping, sorrowful)?	50.0%	34.3%	5.7%	4.3%	5.7%
40	That you have too much responsibility and too many problems?	21.4%	44.3%	22.9%	8.6%	2.9%

ANNEXURE D: THE 16-ITEM AND 35-ITEM TPS

16 TPS	35 TPS	Question	That's me for sure	That's my tendency	That's not my tendency	That's not me for sure
1	1	I needlessly delay finishing jobs, even though they are important.	2.9%	15.7%	37.1%	44.3%
2	2	I postpone starting things I don't like to do.	11.4%	41.4%	34.3%	12.9%
3	3	When I have a deadline, I wait until the last minute.	1.4%	22.9%	37.1%	38.6%
4	4	I delay making tough decisions.	11.4%	20.0%	47.1%	21.4%
	5	I stall on igniting new activities.	4.3%	25.7%	48.6%	21.4%
	6	I am on time for appointments.	68.6%	18.6%	4.3%	8.6%
5	7	I keep putting off improving my work habits.	1.4%	24.3%	50.0%	24.3%
	8	I get right to work, even on life's unpleasant chores.	17.1%	45.7%	31.4%	5.7%
6	9	I manage to find an excuse for not doing something.	2.9%	11.4%	60.0%	25.7%
	10	I avoid doing those things which I expect to do poorly.	11.4%	32.9%	41.4%	14.3%
	11	I put all the necessary time into even boring tasks, like studying.	17%	37.1%	37.1%	8.6%
7	12	When I get tired of an unpleasant job, I stop.	10.0%	25.7%	48.6%	15.7%
	13	I believe in "keeping my nose to the grindstone."	22.9%	57.1%	15.7%	4.3%
	14	When something is not worth the trouble, I stop.	18.6%	34.3%	44.3%	2.9%
	15	I believe that things I do not like doing should not exist.	5.7%	20.0%	42.9%	31.4%
	16	I consider people who make me do unfair and difficult things to be rotten.	8.6%	15.7%	42.9%	32.9%
	17	When it counts, I can manage to even enjoy studying.	42.9%	38.6%	12.9%	5.7%
8	18	I am an incurable time waster.	2.9%	14.3%	41.4%	41.4%
	19	I feel it is my absolute right to have other people treat me fairly.	44.3%	28.6%	14.3%	12.9%
	20	I believe that other people	1.4%	2.9%	47.1%	48.6%

16 TPS	35 TPS	Question	That's me for sure	That's my tendency	That's not my tendency	That's not me for sure
		don't have the right to give me deadlines.				
	21	Studying makes me feel entirely miserable.	4.3%	14.3%	51.4%	30.0%
9	22	I am a time waster now, and I can't seem to do anything about it.	1.4%	7.1%	45.7%	45.7%
10	23	When something is too tough to tackle, I believe in postponing it.	1.4%	27.1%	48.6%	22.9%
11	24	I promise myself I'll do something and then drag my feet.	5.7%	21.4%	48.6%	24.3%
12	25	Whenever I make a plan of action, I follow it.	31.4%	51.4%	12.9%	4.3%
	26	I wish I could find an easy way to get myself moving.	14.3%	28.6%	38.6%	18.6%
	27	When I have trouble with a task, it's usually my fault.	10.0%	31.4%	44.3%	14.3%
13	28	Even though I hate myself if I don't get started, it doesn't get me moving.	8.6%	10.0%	57.1%	24.3%
14	29	I always finish important jobs, with time to spare.	22.9%	55.7%	15.7%	5.7%
	30	I look for a loophole or shortcut to get through a tough task.	10.0%	38.6%	31.4%	20.0%
	31	When I'm done with my work, I check it over.	34.3%	47.1%	11.4%	7.1%
15	32	I get stuck in neutral even though I know how important it is to get started.	0.0%	30.0%	52.9%	17.1%
	33	I never met a job I couldn't lick. (I couldn't defeat)	21.4%	42.9%	24.3%	11.4%
16	34	Putting off until tomorrow is not the way I do it.	28.6%	34.3%	28.6%	8.6%
	35	I feel work burns me out.	15.7%	30.0%	40.0%	14.3%