Vol. 1, No. 1, 16-23, 2014
http://asianonlinejournals.com/index.php/AJEER

# Teacher Perceptions of Factors that Cause High Levels of Stress: The Case of the Zimbabwean Rural Primary School Teachers 

Zadzisai Machingambi<br>Zimbabwe Open University, Faculty of Applied Social Sciences<br>Kumbirai, C. Ngwaru<br>Zimbabwe Open University, Faculty of Applied Social Sciences<br>Maxwell Constantine Chando Musingafi<br>Zimbabwe Open University, Faculty of Applied Social Sciences


#### Abstract

The main thrust of this investigation was to use a descriptive survey research design to study teacher perceptions of factors that cause high levels of stress. Data were collected through a questionnaire and an interview schedule. The research instruments and data analyses procedures were pilot tested and subsequently refined. Teacher perceptions were analyzed within the framework of selected demographic factors. It is on the basis of these factors that hypotheses were formulated to guide the study. The study unveiled the following findings: The majority of teachers perceived most job factors to be highly stressful, and to contribute significantly towards an unfavourable work environment. Factored dimensions perceived to be stressful encompassed; low levels of remuneration, poor incentives package, high teacher-pupil ratio, high amount of clerical work, unfavorable supervisory climate and unprogressive leadership styles. As a result of these findings some conclusions were drawn. School based factors tended to shape perceptions more than any other factors. The study also observed that teacher perceptions did not vary significantly with selected demographic characteristics. Recommendations on reducing stress among Zimbabwean rural primary school teachers were structured around the key focus issues that underpinned the study.


Keywords: Teacher Perceptions, Stress, Rural, Primary School, Zimbabwe, Supervision, Psychological Phenomenon.

(cc) $\mathrm{Er}^{2}$<br>This work is licensed under a Creative Commons Attribution 3.0 License<br>Asian Online Journal Publishing Group

## 1. Background to the Study

Stress as a psychological phenomenon is not only ubiquitous, but also as old as mankind. From a biblical perspective episodes are abound that illustrate that, the very first human beings Adam and Eve were severely stressed after being hoodwinked by a serpent, leading to the subsequent introduction of the concept of death. However occupational stress as Hayes (1994) reveals, is traceable to the inception of the industrial revolution. The advent of organized labour brought into existence a whole host of concepts that are positively correlated to job stress. Such concepts inter alia, include supervision, leadership style, remuneration, performance management and organizational climate, (Stoner and Freeman, 1989).

It was not until after the end of the Second World War, that systematic studies on occupational stress were conducted. Since then, psychologists have been interested in stress and its effects on human behaviour (Lazarus, 1993). The original focus of research and theory was on the physical causes of stress; (Seyle, 1956), but soon interest broadened to include psychological factors. From the mid of the $19^{\text {th }}$ century, studies conducted yielded a rich pool of theories and models that were instrumental in the conceptualization of stress (Seyle, 1956; Holmes and Rahe, 1967; Glass, 1977). In recent times, research on stress had not only intensified but has improved in scope and frequency (Rolf, 1992; Bond, 1998); and (Antonovsky, 1979).

## 2. Statement of the Problem

Research by Baron and Bryne (1997) has shown that the physical and psychological effects of stress have direct and adverse consequences on productivity at work places. In view of the above observation, the writers have noted that due to the insurmountable circumstances unleashed by the decade long economic meltdown in Zimbabwe, teachers in rural areas have largely become acutely vulnerable to stress. However, from the foregoing it has emerged that research on occupational stress is much more developed in the western world. Besides this, research on stress that specifically targeted teachers seemed to be virtually missing. Consequently it was deemed necessary to determine teacher perceptions of factors that predispose them to high levels of stress at their work places from a Zimbabwean perspective. It was against this background that this study was conceived.

## 3. Statement of the Purpose

This study was concerned with the determination of teacher perceptions of job related factors that predispose them to high levels of stress. The study sought to find out if an association exists between teacher perceptions and selected demographic factors such as gender, professional qualifications, length of teaching experience and area of specialization in the primary education sector. The focal point of this investigation were primary school teachers based in Zimbabwe's rural areas.

## 4. Hypotheses

Hypotheses have been presented below in null form, to guide the researcher to test whether an association between teacher's perceptions and selected demographic factors, is statistically significant.
$\mathrm{HO}_{1}$ : There is no significant difference in teacher perceptions of factors that cause high levels of stress, when all teachers are considered in general.
$\mathrm{HO}_{2}$ : there is no statistically significant difference in teacher perceptions of causes of high levels stress when gender is considered.
$\mathrm{HO}_{3}$ : There is no difference in perceptions of factors that cause high levels of stress among teachers with different professional qualifications.
$\mathrm{HO}_{4}$ : There is no statistically significant difference in teacher perceptions of factors that cause high levels of stress when length of teaching experience is considered.
$\mathrm{HO}_{5}$ : There is no significant difference in teacher perceptions of factors that cause high stress levels among teachers in different operational areas of the primary education sector.

## 5. Significance of the Study

This study was considered significant from a variety of perspectives. It sought to analyze teacher perceptions of factors that cause high levels of stress in Zimbabwe. Knowledge generated through the study was deemed critically useful to policy makers, school managers, teachers themselves, central government, multilateral agencies and nongovernmental organizations concerned with the welfare of teachers particularly those operating in rural areas. Information on the pattern of teacher perceptions was observed to be instrumental in empowering school managers and other relevant stakeholders to reduce and manage stress among teachers (Hayes, 1994; Sue et al., 1997; Chiremba and Maunganidze, 2004).

Many studies (Seyle, 1956; Holmes and Rahe, 1967; Glass, 1977; Baron and Bryne, 1997) have shown a correlational link between stress and the development of psychopathology. In this connection, this study attempted to profer guidelines on stress management in educational work settings. Besides this, recommendations eventually propounded were tailored to take into account the unique and diverse characteristics of teachers as differentiated by gender, professional qualifications, length of teaching experience and areas of specialization. The above cited dimensions are all important in designing stress management interventions. The study was also considered significant in the sense that, it attempted to place stress as a psychological phenomenon into perspective in as far as it was prevalent among rural primary school teachers in Zimbabwe. Thus the prevalence of stress was examined within the context of the professional, economic and social dynamics as they obtained at the time to the study. Hence it is these critical considerations that formed the bedrock of the study.

## 6. Related Studies

Studies by Getzel and Jackson (1963) in Chicago found that there are certain characteristics that differed between male and female teachers, due to socialization and stereotyping. In this connection gender differences were found to be critical in shaping teacher perceptions of factors that cause job stress. Hence it was of utmost interest to find out whether the pattern of responses to the research questionnaire depicted gender differences.

Holmes and Rahe (1967) propounded a theory of stress, they branded the Social Readjustment Rating Scale (SRRS). The construction of the (SRRS) is premised on the assumption that all life changes are stressful regardless of whether they are desirable or not, planned or not, anticipated or not. This study was considered significant in the sense that it highlighted the link between stress and development of psychopathology inter alia. However, while Holmes and Rahe (1967) outlined a general theory of stress focusing on people in formal employment, this study instead focused singularly on rural primary school teachers in so far as they were affected by factors within their work settings.

Morrison and McIntyre (1969) concluded from their study, that sex had a pervasive influence on teacher perceptions of different factors within their work environment. When faced with the same stressful circumstances at the workplace male teachers are expected to be more resilient than their female counterparts. Women are regarded as emotionally fragile to effectively deal with stressful episodes.

Though Widling (1984) did not focus exclusively on teachers, nonetheless he conducted a large scale investigation on the impact of stress among different categories of workers. The research underpinned stress as a common variable behind the observed physical responses to events in the work environment.

The issue of work related stress has aroused a lot of interest among researchers. Zheng and Lin (1994) conducted a study that sought to determine teacher perceptions of factors that cause stress, at the workplace. The study revealed that mainland Chinese teachers ranked leadership styles $4^{\text {th }}$ in causing work related stress. American teachers ranked the same factor second. However across all samples teachers tended to regard low remuneration as one of the greatest source of occupational stress. Zheng and Lin (1994) inter alia, concluded that though stress contributes to physical and psychological illness, it does not cause illness itself. The same position is echoed by Sue et al. (1997).

Yet still, in another study Widom (2007) carried out an investigation that involved 1200 teachers. She sought to determine the influence of childhood abuse and neglect on the development of stress symptoms later in adult life. This study was deemed significant in the sense that it shed light on the factors that explain chronic vulnerability to stress. Widom compared 680 teachers who had reported abuse and neglect in their childhood with 520 teachers of similar age, race and social status, but were not exposed to abuse and neglect. The study revealed that $59 \%$ of teachers with a background of abuse and neglect had an increased risk of encountering high levels of stress that developed into life time depression. Widom's findings show that the tendency to develop symptoms of stress among teachers may not be explained singularly in terms of work related factors, but an individual's socio-cultural and psychological background also come into focus. This brings into perspective an important discourse on how to ascertain the relative contribution of factors within the work environment to the development of stress among individuals chronically predisposed to the condition. This study, however sought to find out the extent to which factors within the work environment cause stress amongst rural primary school teachers.

## 7. Methodology

This was a descriptive research which dealt with teacher perceptions of factors that cause high levels of stress. The descriptive research design was adopted for the study since it is appropriate for the studying contemporary phenomenon. The questionnaire and the interview schedule were the two principal information gathering instruments. The participants for the study were generated using a random sampling design.

### 7.1. Sample

For feasibility and practicability reasons a random sample of 60 teachers was drawn from 10 rural primary schools in Zaka District of Masvingo Province. Zaka District has 90 rural primary schools, and a teacher population of 2000 . The 60 teacher participants were subjected to conditions of service similar to those exposed to other rural teachers across the country. Consequently this sample was considered representative enough to be basis for credible generalizations. The lottery method was used to generate the sample.

### 7.2. Instrumentation

The principal data collection instrument was the questionnaire. However, cognizance was made of the limitations of questionnaire data. As a result an interview schedule was used to circumvent the pitfalls of the questionnaire. A teacher perception questionnaire (TPQ) was designed for the purpose of this study by the researcher. Section (A) of the questionnaire sought demographic information about the respondents. Section (B) elicited information on teacher perceptions of factors that cause high levels of stress. The interview schedule also contained two sections. Section (A) contained questions that enabled the respondents to elaborate more on expressed perceptions.

### 7.3. Method of Data Analysis

Data collected through the questionnaire was pooled together and scored. For positively worded items, the scoring was in the order 5,4,3,2 and 1 for Strongly Agree (SA), Agree (A), undecided (U), Disagree(D) and Strongly (SD) respectively. In the case of negatively worded items, the scoring was reversed (Oguneymi, 1995). With this scoring technique it was possible to estimate that the maximum score was $3000(5 \times 10 \times 60)$. Thus for HO 1 , if the respondents scored below the mean score of pooled responses (1500), it was assumed that there was no significant difference in perceptions of factors that cause high levels of stress among all teachers in general. If the pooled score was found to be above the mean score, then variations in teacher perceptions were said to be statistically significant. All the other hypotheses $\left(\mathrm{HO}_{2}, \mathrm{HO}_{3}, \mathrm{HO}_{4}, \mathrm{HO}_{5}\right)$ were tested using the chi-square test, at the 0,05 probability level. Interview data was reported on, using percentages, (Guilford and Fruchter, 1981).

## 8. Results

The major findings of this study are presented in the tables below. Summary of interview data is also unveiled in the second segment of this section.

### 8.1. Summary of Findings on $\mathrm{Ho}_{1}$

Table-1. Teacher perceptions of factors that cause high levels of stress

| Table-1. Teacher perceptions of factors that cause high levels of stress |  |  |  |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :---: | :---: |
| Statements | SA | A | U | D | SD |  |  |
| 1.The current level of remuneration is highly stressful | 48 | 9 | 0 | 2 | 1 |  |  |
| 2. Low incentives is a source of stress | 34 | 23 | 2 | 1 | 0 |  |  |
| 3. The high teacher-pupil ratio is a cause of high levels of stress | 18 | 34 | 2 | 6 | 0 |  |  |
| 4. The workload of 10 subjects per day is a source of stress | 20 | 21 | 6 | 9 | 4 |  |  |
| 5.Perfomance management cycle is not cumbersome and stressful | 6 | 11 | 7 | 13 | 23 |  |  |
|  |  |  |  |  | Continue |  |  |


| 6.Leadership style contributes towards the creation of a stressful work <br> environment | 25 | 26 | 3 | 4 | 2 |
| :--- | :--- | :--- | :--- | :--- | :--- |
| 7. Supervision practices are a source of stress | 5 | 18 | 9 | 22 | 6 |
| 8. Amount of clerical work involved is a cause of undue pressure leading to <br> stress | 27 | 19 | 8 | 4 | 2 |
| 9. Limited availability of basic resources is not a cause of stress | 2 | 13 | 5 | 21 | 19 |
| 10.Staff development activities place extra work <br> demands leading to stress | 5 | 10 | 6 | 32 | 7 |

Key 1: Positively worded items (1, 2, 3, 4, 6, 7, 8 and 10)
Negatively worded items (5 and 9)
2: scoring technique
i) Positively worded items $\quad 5 \quad 4$
ii) Negatively worded items

| A | A |  | U | D |
| :--- | :--- | :--- | :--- | :--- |
| 3 | 2 | 1 |  |  |

SD
$\begin{array}{lllll}12 & 3 & 4 & 5\end{array}$
The first null hypothesis $\left(\mathrm{Ho}_{1}\right)$ stated that there would be no significant difference in teacher perceptions of factors that cause high levels of stress among rural primary school teachers in general. With the scoring technique described in the key above, it was estimated that the maximum score possible for the respondents would be 3000 (ie $5 \times 10 \times 60$ ). Research data in table 1 shows that respondents scored (2238), a score that is above the mean score of (1500). The first null hypothesis $\left(\mathrm{HO}_{1}\right)$ is therefore rejected since the overall score $(2238)$ is greater than the expected mean score ( 1500 ). This finding leads to the conclusion that teacher perceptions of factors that cause high levels of stress varied significantly when all respondents in general, were considered

### 8.2 Summary of Findings on $\mathbf{H O}_{2}$ Using the $\mathbf{x}^{\mathbf{2}}$

Table-2. $\mathrm{X}^{2}$ scores on teacher perceptions of factors that cause high levels of stress according to gender.
( $\mathrm{N}=60: \mathrm{M}=36 \mathrm{~F}=24$ )

| Sex | Male |  | Female |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- |
| Item Nos on questionnaire | Observed |  | Expected | Observed | Expected |
| 1 | 33 | 31.7 | 24 | Total |  |
| 2 | 34 | 31.7 | 23 | 25.2 | 57 |
| 3 | 31 | 28.9 | 21 | 25.2 | 57 |
| 4 | 19 | 22.8 | 22 | 18.0 | 52 |
| 5 | 10 | 9.4 | 7 | 7.5 | 17 |
| 6 | 27 | 28.3 | 24 | 22.6 | 51 |
| 7 | 13 | 12.7 | 10 | 10.2 | 23 |
| 8 | 24 | 25.5 | 22 | 20.4 | 46. |
| 9 | 9 | 8.3 | 6 | 6.6 | 15 |
| 10 | 8 | 8.3 | 7 | 6.6 | 15 |
| Total | 208 |  | 166 |  | 374 |

Table-3. Calculation of $\mathrm{X}^{2}$ for teacher perceptions of factors that cause high levels of stress according to gender.

| $\mathbf{O}$ | $\mathbf{E}$ | $\mathbf{O}-\mathbf{E}$ | $\mathbf{O}-{ }^{\mathbf{E} / \mathbf{2}}$ | $\mathbf{( \mathbf { O } - \mathbf { E } ) \mathbf { 2 / \mathbf { E } }} \mathbf{0 . 0 5}$ |
| :--- | :--- | :--- | :--- | :--- |
| 33 | 31.7 | 1.3 | 1.69 | 0.16 |
| 34 | 31.7 | 2.3 | 5.29 | 0.15 |
| 31 | 28.9 | 2.1 | 4.41 | 0.63 |
| 19 | 22.8 | -3.8 | 14.44 | 0.03 |
| 10 | 9.4 | 0.6 | 0.36 | 0.05 |
| 27 | 28.3 | -1.3 | 1.69 | 0.01 |
| 13 | 12.7 | 0.3 | 0.09 | 0.08 |
| 24 | 25.5 | -1.5 | 2.25 | 0.05 |
| 9 | 8.3 | 0.7 | 0.49 | 0.01 |
| 8 | 8.3 | 0.3 | 0.09 | 0.05 |
| 24 | 25.2 | -1.2 | 1.44 | 0.19 |
| 23 | 25.2 | -2.2 | 4.84 | 0.17 |
| 21 | 23.0 | -2.0 | 4.00 | 0.80 |
| 22 | 18.1 | -0.5 | 15.21 | 0.03 |
| 7 | 7.5 | 1.6 | 0.25 | 0.08 |
| 24 | 22.6 | -0.6 | 1.96 | 0.03 |
| 10 | 10.6 | -0.6 | 0.36 | 0.12 |
| 22 | 20.4 | 0.4 | 2.56 | 0.05 |
| 6 | 6.6 | 0.00 | 0.36 | 0.02 |
| 7 | 6.6 |  |  | $X^{2}=2.76$ |
| 374 |  |  |  |  |

### 8.3. Summary of Findings on $\mathrm{Ho}_{3}$ Using $\mathrm{x}^{2}$

Table-4. $\mathrm{X}^{2}$ scores on teacher perceptions of factors that cause high levels of stress according to professional qualifications. ( $\mathrm{N}=$ 60: Certificate $=8$, Diploma $=44$ and graduate $=8$ )

| Professional <br> qualification <br> Item Nos on | Certificate |  | Diploma |  | Graduate |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| questionnaire |  |  |  |  |  |  |  |  |
|  | Observed | Expected | Observed | Expected | Observed | Expected | Total |  |
| 1 | 7 | 6.2 | 44 | 44.1 | 6 | 6.6 | 57 |  |
|  |  |  |  |  |  |  | Continue |  |


| 2 | 7 | 6.1 | 42 | 43.3 | 7 | 6.5 | 56 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 3 | 8 | 5.6 | 38 | 40.2 | 6 | 6.0 | 52 |
| 4 | 7 | 5.5 | 36 | 39.4 | 8 | 5.9 | 51 |
| 5 | 1 | 1.8 | 14 | 13.1 | 2 | 1.9 | 17 |
| 6 | 2 | 5.3 | 40 | 37.9 | 7 | 5.7 | 49 |
| 7 | 2 | 3.6 | 28 | 25.5 | 3 | 3.8 | 33 |
| 8 | 7 | 5.0 | 34 | 35.6 | 5 | 5.3 | 46 |
| 9 | 0 | 1.3 | 12 | 9.2 | 0 | 1.4 | 12 |
| 10 | 1 | 1.3 | 10 | 9.2 | 1 | 1.4 | 12 |
| Total | 42 |  | 298 |  | 45 |  | 385 |

Table-5. Calculation of $x^{2}$ for teacher perceptions of factors that cause high levels of stress according to levels of professional qualifications.

| 0 | E | O-E | $(\mathrm{O}-\mathrm{E})^{2}$ | $(\mathrm{O}-\mathrm{E})^{2} / \mathrm{E}$ |
| :---: | :---: | :---: | :---: | :---: |
| 7 | 6.2 | 0.8 | 0.64 | 0.10 |
| 7 | 6.1 | 0.9 | 0.81 | 0.13 |
| 8 | 5.6 | 2.4 | 5.76 | 1.00 |
| 7 | 5.5 | 1.5 | 2.25 | 0.40 |
| 1 | 1.8 | -0.8 | 0.64 | 0.35 |
| 2 | 5.3 | -3.3 | 10.89 | 2.05 |
| 2 | 3.6 | -1.6 | 2.56 | 0.71 |
| 7 | 5.0 | 2.0 | 4.00 | 0.80 |
| 0 | 1.3 | -1.3 | 1.69 | 1.30 |
| 1 | 1.3 | -0.3 | 0.09 | 0.06 |
| 44 | 44.1 | -0.1 | 0.01 | 0.00 |
| 42 | 43.3 | -1.3 | 1.69 | 0.03 |
| 38 | 40.2 | -2.2 | 4.84 | 0.12 |
| 36 | 39.4 | -3.4 | 11.56 | 0.29 |
| 14 | 13.1 | 0.9 | 0.81 | 0.06 |
| 40 | 37.9 | 2.1 | 4.41 | 0.11 |
| 28 | 25.5 | 2.5 | 6.25 | 0.24 |
| 34 | 35.6 | -1.6 | 2.56 | 0.07 |
| 12 | 9.2 | 2.8 | 7.84 | 0.85 |
| 10 | 9.2 | 0.8 | 0.64 | 0.06 |
| 6 | 6.6 | -0.6 | 0.36 | 0.05 |
| 7 | 6.5 | 0.5 | 0.25 | 0.03 |
| 6 | 6.0 | 0.0 | 0.00 | 0.00 |
| 8 | 5.9 | 2.1 | 4.41 | 0.74 |
| 2 | 1.9 | 0.1 | 0.01 | 0.00 |
| 7 | 5.7 | 1.3 | 1.69 | 0.29 |
| 3 | 3.8 | -0.8 | 0.64 | 0.16 |
| 5 | 5.3 | -0.3 | 0.09 | 0.01 |
| 0 | -1.4 | -1.4 | 1.96 | 1.4 |
| 1 | 1.4 | -0.4 | 0.16 | 0.11 |
| 385 | 385 | 0.00 |  | $\mathrm{x}^{2}=11.52$ |

Table 3 above depicts the calculation of $x^{2}$. Only the strongly agree and agree responses were pooled together and considered. The hypothesis that stated that there is no statistically significant difference in teacher perceptions of factors that cause high levels of stress between male and female teachers was tested. The observed $\mathrm{x}^{2}$ value of 2.76 was located in the non -critical zone since at the 0.05 level of significance, for 9 degrees of freedom a critical value 17.00 was established. Hence the null hypothesis was confirmed. Conclusively teacher perceptions of factors that cause high levels of stress did not vary significantly by gender.

Data from table 4 above was used to calculate $\mathrm{x}^{2}$ as shown in the table 5 . Only the strongly agree (SA) and agree (A) responses were pooled together and considered. The null hypothesis that stated that there was no significant difference in teacher perceptions of factors that cause high levels of stress among teachers with different professional qualifications was tested. For 18 degrees of freedom at the 0.05 level of significance $x^{2}$ value of 28.90 was reported. This was just above the calculated $\mathrm{x}^{2}$ value of 11.52 . Thus the null hypothesis was confirmed. This finding suggested that teachers' perceptions did not vary with level of professional qualifications.

### 8.4. Summary of Findings on $\mathrm{HO}_{4}$ Using $x^{2}$

Table-6. $\mathrm{X}^{2}$ scores on teacher perceptions of factors that cause high levels of stress according to length of teaching experience ( $\mathrm{N}=60: 0-10$ yrs $-26 ; 11-19$ years -24 and $20+$ years)

| Length of teaching experience | 0-10years $=26$ |  | 11-19 years=24 |  | $20+$ years $=10$ |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Items nos. on questionnaire | Observed | Expected | Observed | Expected | Observed | Expected | Total |
| 1 | 26 | 27.0 | 24 | 23.1 | 10 | 9.8 | 60 |
| 2 | 26 | 26.5 | 24 | 22.7 | 9 | 9.6 | 59 |
| 3 | 22 | 22.5 | 18 | 19.3 | 10 | 8.1 | 50 |
| 4 | 20 | 18.4 | 14 | 15.8 | 7 | 6.7 | 41 |
| 5 | 8 | 8.1 | 8 | 6.9 | 2 | 2.9 | 18 |
| 6 | 25 | 24.3 | 22 | 20.8 | 7 | 8.8 | 54 |
| 7 | 11 | 12.6 | 13 | 10.8 | 4 | 4.5 | 28 |
| 8 | 22 | 22.9 | 19 | 19.6 | 10 | 8.3 | 51 |
|  |  |  |  |  |  |  | Continue |


| 9 | 6 | 6.7 | 7 | 5.7 | 2 | 2.4 | 15 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 10 | 10 | 6.7 | 2 | 5.7 | 3 | 15 |  |
| Total | 176 |  | 151 |  | 64 | 391 |  |

Table-7. Calculation of x 2 for teacher perceptions of factors that cause high stress levels according to length of teaching experience.

| 0 | E | O-E | $(\mathrm{O}-\mathrm{E})^{2}$ | $(\mathrm{O}-\mathrm{E})^{2} / \mathrm{E}$ |
| :---: | :---: | :---: | :---: | :---: |
| 26 | 27.0 | -1.00 | 1.00 | 0.03 |
| 26 | 26.5 | -0.5 | 0.25 | 0.00 |
| 22 | 22.5 | -0.5 | 0.25 | 0.01 |
| 20 | 18.4 | 1.6 | 2.56 | 0.13 |
| 8 | 8.1 | -0.1 | 0.01 | 0.00 |
| 25 | 24.3 | 0.7 | 0.49 | 0.02 |
| 11 | 12.6 | -1.6 | 2.56 | 0.20 |
| 22 | 22.9 | -0.9 | 0.81 | 0.03 |
| 6 | 6.7 | -0.7 | 0.49 | 0.07 |
| 10 | 6.7 | 3.3 | 10.89 | 1.62 |
| 24 | 23.1 | 0.9 | 0.81 | 0.03 |
| 24 | 22.7 | 1.3 | 1.69 | 0.07 |
| 18 | 19.3 | -1.3 | 1.69 | 0.08 |
| 14 | 15.8 | -1.8 | 3.24 | 0.20 |
| 8 | 6.9 | 1.1 | 1.21 | 0.17 |
| 22 | 20.8 | 1.2 | 1.44 | 0.06 |
| 13 | 10.8 | 2.2 | 4.84 | 0.44 |
| 19 | 19.6 | -0.6 | 0.36 | 0.01 |
| 7 | 5.7 | 1.3 | 1.69 | 0.29 |
| 2 | 5.7 | -3.7 | 13.69 | 2.40 |
| 10 | 9.8 | 0.2 | 0.04 | 0.00 |
| 9 | 9.6 | 0.16 | 0.36 | 0.03 |
| 10 | 8.1 | 1.9 | 3.61 | 0.44 |
| 7 | 6.7 | 0.3 | 0.09 | 0.01 |
| 2 | 2.9 | -0.9 | 0.81 | 0.27 |
| 7 | 8.8 | -1.8 | 3.24 | 0.36 |
| 4 | 4.5 | -0.5 | 0.25 | 0.05 |
| 10 | 8.3 | 1.7 | 2.89 | 0.34 |
| 2 | 2.4 | -0.4 | 0.16 | 0.06 |
| 3 | 2.4 | 0.6 | 0.36 | 0.15 |
| 391 |  | 0.00 |  | $\mathrm{x}^{2}=7.52$ |

Data presented in table 6 above was used to calculate the $x^{2}$ as reflected in table 7.This provided basis for testing the null hypothesis that stated that there was no statistically significant difference in teacher perceptions of factors that cause high levels of stress according to length of teaching experience. At the 0.05 level of confidence, and for 18 degrees of freedom, a critical value of 28.90 was established. This was greater than the observed $\mathrm{x}^{2}$ value of 7.57 hence the null hypothesis was confirmed.

### 8.5. Summary of Findings on $H 0_{5}$ Using $x^{2}$

Table-8. $\mathrm{X}^{2}$ scores on teacher perceptions of factors that cause high levels of stress according to area of specialization $(\mathrm{N}=$ $60:$ Infant $=15$; lower Junior $=20$; Upper Junior $=25$ ).
$\left.\begin{array}{llllllll}\hline \begin{array}{l}\text { Areas of } \\ \text { specialization }\end{array} & \text { Infant } & & \text { Lower junior department } & \text { Upper department } & \\ \hline \begin{array}{l}\text { Item nos } \\ \text { questionnaire }\end{array} & \text { on } & \text { Observed } & \text { Expected } & \text { Observed } & \text { Expected } & \text { Observed } & \text { Expected }\end{array}\right]$ Total

On the basis of data presented above in table 8 , it was possible to calculate the $x^{2}$ and subsequently test the null hypothesis $\mathrm{Ho}_{5}$

For the data presented in tables 8 and 9, only the Strongly Agree (SA) and Agree (A) responses were pooled together and considered. Once more the null hypothesis that stated there was no difference in teachers' perception of factors that cause high stress levels among rural teachers operating in different areas of the primary education sector was subjected to the court of empirical evidence. The computed $x^{2}$ value of 4.93 was found to be smaller than $x^{2}$ critical value of 28.90 for 18 degrees freedom (DF) at 0.05 level of significance. Thus the observed $x^{2}$ value was located in the non critical region; hence null hypothesis was confirmed. Consequently it was possible to deduce that teacher perceptions did not vary with area of specialization.

Table-9. Calculation of $x^{2}$ for teacher perceptions of factors that cause high levels of stress according to area of specialization.

| O | E | O-E | $(\mathrm{O}-\mathrm{E})^{2}$ | $(\mathrm{O}-\mathrm{E})^{2} / \mathrm{E}$ |
| :---: | :---: | :---: | :---: | :---: |
| 14 | 14.2 | -0.2 | 0.04 | 0.00 |
| 15 | 14.7 | 0.3 | 0.09 | 0.00 |
| 13 | 13.2 | -0.2 | 0.04 | 0.00 |
| 10 | 9.7 | 0.3 | 0.09 | 0.00 |
| 4 | 4.2 | -0.2 | 0.04 | 0.00 |
| 14 | 12.2 | 1.8 | 3.24 | 0.26 |
| 4 | 6.2 | -2.2 | 4.84 | 0.78 |
| 13 | 12.4 | 0.6 | 0.36 | 0.02 |
| 5 | 3.4 | 1.6 | 2.56 | 0.75 |
| 2 | 3.4 | -1.4 | 1.96 | 0.5 |
| 19 | 18.8 | 0.2 | 0.04 | 0.00 |
| 20 | 19.5 | 0.5 | 0.25 | 0.01 |
| 16 | 17.5 | -1.5 | 2.25 | 0.12 |
| 14 | 12.9 | 1.1 | 1.21 | 0.09 |
| 5 | 5.6 | -0.6 | 0.36 | 0.06 |
| 17 | 16.2 | 0.8 | 0.64 | 0.03 |
| 8 | 8.2 | -0.2 | 0.04 | 0.00 |
| 17 | 16.5 | 0.5 | 0.25 | 0.01 |
| 3 | 4.6 | -1.6 | 2.56 | 0.55 |
| 6 | 4.6 | 1.4 | 1.96 | 0.42 |
| 24 | 23.8 | 0.2 | 0.04 | 0.00 |
| 24 | 24.7 | -0.7 | 0.49 | 0.01 |
| 24 | 22.2 | 1.8 | 3.24 | 0.14 |
| 15 | 16.3 | -1.3 | 1.69 | 0.10 |
| 8 | 7.12 | 0.88 | 0.70 | 0.10 |
| 18 | 20.5 | -2.5 | 6.25 | 0.30 |
| 13 | 10.4 | 2.6 | 6.76 | 0.65 |
| 20 | 20.9 | -0.9 | 0.81 | 0.03 |
| 6 | 5.8 | 0.2 | 0.04 | 0.00 |
| 6 | 5.8 | 0.2 | 0.04 | 0.00 |
| 377 | 377 | 0.00 |  | $\mathrm{x}^{2}=4.93$ |

### 8.6. Summary of Data Collected Through the Interview Schedule

As a follow-up to the questionnaire, respondents were afforded the opportunity to elaborate on factors they perceived to be highly stressful. Consequently an interview schedule was used to collect data on factors perceived to be causes of stress, at the work place. Responses were pooled together and reported using percentages. In descending order of magnitude, the following 5 factors were cited as major causes of high levels of stress at the work place; remuneration $(100 \%)$ low incentives $(100 \%)$ laborious amount of clerical work $(96 \%)$; work load of 10 subjects per day $(90 \%)$ and undemocratic leadership styles ( $85 \%$ ).

## 9. Discussion of Major Findings

Data collected through both the questionnaire and interview schedule came up with almost common themes in terms of factors perceived to be most stressful. Generally the salient factors identified as major stressors encompassed; low level of remuneration, poor incentives package, high workload per day, tedious clerical work, poor leadership styles and an unfavorable supervisory climate. These findings seemed to concur with part of (Zheng and Lin, 1994) research results which attested to the influence of leadership style and remuneration as chronic causes of stress among teachers.

The first hypothesis sought to determine the general pattern of teachers' perceptions of factors that cause stress. When all teachers were considered variations in teacher perceptions were detected. The second hypothesis postulated that there would be no significant difference in teacher perceptions by gender. The major finding of this hypothesis was that teacher perceptions did not vary significantly with gender, hence the initial conjectural position was confirmed. This was not surprising because both male and female teachers were exposed to the same conditions of service and it was most unlikely that they would exhibit perceptions differentiated by gender.

The third hypothesis had predicted no significant relationship between teachers' perceptions and professional qualifications. A significance test run on the hypothesis revealed that teacher's perceptions were almost homogenous and were not differentiated by professional qualifications. An underlying factor was that teachers regardless of selected demographic characteristics were likely to demonstrate similar perceptions on factors that cause high levels of stress, given the universality of conditions of service to which they were exposed.

The fourth scenario had hypothesized that there would be no significant association between teacher perceptions and length of teaching experience. Similarly this hypothesis was not rejected. The significance test showed that perceptions did not vary with length of teaching experience. This finding was in tandem with data obtained through interviews. The majority of interviewees demonstrated almost similar attitudes towards factors that cause stress. Convergence of opinions was also demonstrated on possible intervention strategies to mitigate work related stress.

The fifth hypothesis had ruled out an association between teacher perceptions and area of specialization. Consistent with findings on the preceding three hypotheses, the results showed that teacher' perceptions did not vary significantly with area of specialization in the primary education sector. The finding was in tandem with the assumption that regardless of area of specialization teachers were subjected to the same conditions of service and would show similar perceptions of factors that cause work-place related stress.

## 10. Summary, Conclusions and Recommendations

This study was premised on the assumption that teachers' perceptions of factors that cause high levels of stress among primary school teachers would vary with selected demographic variables. Significance tests run on the 5 hypotheses depicted quite interesting results. When responses for the 60 participants were pooled together and considered in general, significant variations in teacher perceptions emerged. However, when mutually inclusive categories such as gender, qualifications, teaching experience and area of specialization, were considered no significant variations in teacher perceptions were depicted. Both questionnaire and interview data gave credible evidence suggesting that certain factors manifest in the work environment caused high levels of stress among primary school teachers operating in rural areas. In descending order of significance, some of the major factors unveiled by the study included: low remuneration; low incentives package; tedious amount of clerical work; workload of 10 subjects per day and ineffective leadership styles.

On the basis of the above findings and conclusions, some recommendations were enunciated. Thus it was recommended that:

- Salary/remuneration levels be adjusted upwards in line with regional pay rates.
- The salary structure be reviewed to reasonably differentiate salary levels by grade, qualifications and length of teaching experience.
- Incentives be abolished to remove the rural -urban pay disparities and in conformity with the equal pay for the same job labour principle.
- If the government wants to retain the concept of incentives, it should pay rural based teachers a substantial rural allowance to cushion them from low incentives.
- Central government should accede to international donors' offer to incentivize rural school teachers.
- A systematic streamlining of unnecessary documentation by teachers be undertaken to allow for maintenance of only basic professional records.
- Subject specialization be introduced in the primary education sector as a mechanism to control high teaching loads and duplication of effort.
- Heads of schools be regularly staff developed on sound school management principles and the need to establish a conducive organizational climate.
- Central government should make available basic resources for implementing the concept of performance management.
- Further research be conducted to unravel other factors, besides those unearthed by this study, that contribute towards the prevalence of high levels of stress among primary school teachers, particularly those operating in rural areas.


## References

Antonovsky, A., 1979. Health, stress and coping. San Francisco: Josey Bass.
Baron, R.A. and D. Bryne, 1997. Social psychology. 8th Edn., London: Alyn and Company.
Bond, M., 1998. Stress and self awareness. New York: Heinemann Nursing.
Chiremba, W. and L. Maunganidze, 2004. Health behaviour: Module HPSY 401. Harare: ZOU.
Getzel, J.W. and P. Jackson, 1963. Research on teaching. Chicago: International Journal of Education, 3.
Glass, D.C., 1977. Behaviour pattern: Stress and coronary disease. New Jersey: Lawrence Erlbaum Publishers.
Guilford, J.P. and B. Fruchter, 1981. Fundamentals of statistics in psychology and education. Singapore: McGraw Hill.
Hayes, N., 1994. Foundations of psychology and education. Singapor: McGraw Hill.
Holmes, T. and R. Rahe, 1967. Holmes rahe life changes scale. Journal of Psychosomatic Research, 11(3): 213 - 218.
Lazarus, A.S., 1993. From psychological stress to the coping process. New York: McGraw Hill.
Morrison, A. and D. McIntyre, 1969. Teachers and teaching. Chicago: Penguin Publishers. Choice and.
Oguneymi, B., 1995. Perception of population education concepts: Focus on Nigerian pre-service social studies teachers. Zimbabwe Journal of Educational Research, 7(3): 242 - 258.
Rolf, J., 1992. Risk and psychopathology. London: Cambridge University Press.
Seyle, H., 1956. The stress of life. New York: McGraw Hill. Prentice Hall: Englewood Cliffs.
Stoner, J.A. and R.E. Freeman, 1989. Management. New York: McGraw Hill. Prentice Hall: Englewood Cliffs.
Sue, D., D. Sue and S. Sue, 1997. Understanding abnormal behaviour. 5th Edn., New York: Houghton Mifflin Company.
Widling, T., 1984. Is stress making you sick. American Health, 6(2): 2-5.
Widom, C.S., 2007. Abuse leads to depression. Archives of General Psychiatry, 1(3): 15-25.
Zheng, Y.P. and K.M. Lin, 1994. A nationwide study of stressful events in Mainland China. Psychosomatic Medicine, 56(3): 296 - 305.

## Bibliography

Widom, C.S., 1977. A methodological approach for studying non-institutionalized psychopaths. Journal of Consulting and Clinical Psychology, 45(2): 674-683.
Sutherlands, V.J. and E.L. Cooper, 1990. Understanding stress. London: Chapman and Hall.

