

**A quantitative study on the psychological factors influencing stress on education
professionals in primary schools.**

Ainsley Smith

Supervisor: Jeremy Hopper

Presented to

The Department of Psychology

Manchester Metropolitan University



**Manchester
Metropolitan
University**

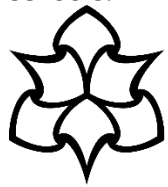
In Partial Fulfilment of the Requirements

for the Degree of

Master of Science in Psychology (Conversion Award)

Accredited by the British Psychological Society

July 2019



**Manchester
Metropolitan
University**

Department of Psychology

Assignment Title: Dissertation

Student Number: 18051932

Unit title: Dissertation (2CP3D225_1819_1)

Unit Leader: Dr George Kountouriotis

Total Word Count*: 6500

(*Excluding main title, numerical tables, figures, references section and appendices).

Please check the box below to confirm that this is your own work:

☒ I confirm that this is my own work

Please indicate below whether you have checked the similarity of your work using *Turnitin*:

I have checked my work using the 'Check your originality report here' link on Moodle.

This is a copy
Authorship - Ainsley Smith

Abstract

This study aimed to explore the relationship between stress and how it can decrease job satisfaction, motivation and wellbeing of education professionals, who work in nursery or primary education settings. 65 participants took part from many different localities across the United Kingdom, who completed an online questionnaire to report their level of stress they experienced in their job role. The responses were analyzed using a multiple linear regression and Pearson correlation statistics test, that found a strong positive linear correlation between stress and all three dependent variables. All three dependent variables were statistically significant predictors to increased stress. The hypothesis was supported, and it was concluded that stress causes decreased job satisfaction, motivation and well-being to the primary education workforce. Based on the findings, it is recommended that future research should develop stress interventions that can be measured to reduce stress and provide a required change to the education profession.

Keywords: Stress; Education Professionals, Job Satisfaction, Motivation, Well-being, Teaching, Children, Primary School Education.

The psychological factors influencing stress on education professionals in primary schools.

1.0 Introduction

Stress has become the most widespread mental health issue facing modern society in recent years. For those in education, it has become a major issue across the profession. 57% of the UK workforce have considered leaving the education sector within the past two years, because of factors relating to stress (Education Support Partnership, 2018). The consequences of stress have profound effects that have never appeared more momentous. A robust and comprehensive understanding of stress is required, for all who dedicate their working lives to teaching or supporting children. Therefore, an awareness of the rising risk of those suffering and combating stress in primary education is fundamental to a healthy education workforce (Education Support Partnership, 2018).

The Department for Education (2018) most recent School Workforce Statistics showed a 0.6% decline in full-time equivalent primary school teachers from 2016 to 2017. Furthermore, in 2011, 50.1% of the overall school workforce, was formed by teachers with QTS, that has now steadily fallen to 47.7% in 2017, with many qualified teachers choosing to leave the education profession completely or continue within a supporting role (Department for Education, 2018).

The term stress has always been a widespread phenomenon used throughout human history (Shahsavarani et al., 2015). From Aristotle, Hippocrates and many other Ancient Greeks they were greatly aware of stress and its adverse effects in humans and animals (Fink, 2010).

Evidently, stress has always been an important characteristic present in all life; that has widened over time, through the complexities of human social, ecological and personal environment, interactions with surrounding issues, and diversity of stress experiences

(Shahsavarani et al., 2015). However, one of the most important concepts in the study of stress, is its definition (Fink, 2010). Stress has a wide variety of meanings, for different people, in different professions, under many different conditions, that are mixed with stress and all its aspects within every-day life. (Shahsavarani et al., 2015; Fink 2010).

The earliest definition available was developed by Selye (1956) who considered stress to be a nonspecific response of the body to any demand for change. However, this is not an entirely appropriate definition for the modern age, of what is known about the physical and mental strains of stress (The Physiological Society, 2016). Within the 21st century, stress is a prevalent issue for everyone who experiences stressful situations (The Physiological Society, 2016).

The UK education profession has been commonly acknowledged, to be the most stressful occupation sector to work in today (Titheradge et al., 2018). Educators in primary schools especially experience stressful situations when the demands of a situation, exceed their ability to cope with those demands (Alhija, 2015). In addition, a modern definition of stress in education is required. Stress in education is defined, as an experience from exposure to a range of stressors, by which a teacher or other professional experience unpleasant emotions, that elicits a stress response, and taxes an individual's physiological or psychological well-being; to possibly provoke a subjective state of mental or physical tension (Titheradge et al; 2018, Alhija, 2015; Anisman and Merali; 1999).

In addition, it is important to have a clear understanding of the stressors that cause a stress response to educators. Paquette and Rieg (2016) claim retaining high-quality education professionals who are just beginning their careers is a significant accomplishment, but, also a worldwide concern to the retainment of these educators. Unfortunately, attracting and retaining successful individuals in education continues to be a challenge for localities nationwide

(Skaalvik and Skaalvik, 2011; Watson et al., 2010). Paquette and Rieg (2016) found teaching workload, managing time, classroom management, and enforcing discipline to be the highest stressors among participants.

However, Klassen et al., (2013) created a study with a multidimensional scale of teacher engagement, referred to as the Engaged Teacher Scale (ETS), that reflected upon the characteristics of teachers' work in the classroom and school. Klassen et al., (2013) indicated that early success in managing stressors in the education profession may be the key to increasing self-efficacy. This is important in relation to stress management, as a healthy classroom climate increases student social, emotional and academic outcome (Klassen et al., 2013). As a result, improvements in classroom climate may reinforce a teachers' enjoyment of teaching, efficacy and commitment to the profession (Jennings and Greenberg, 2009). Therefore, teachers who devote energy to form meaningful, warm and nurturing relationships with children and parents, are thereby creating a positive feedback loop that might prevent teacher stress and burnout (Klassen, et al., 2013, Jennings and Greenberg, 2009).

The ETS scale created by Klassen et al., (2013) provides an effective step in measuring teacher engagement. But, their knowledge of how real classroom teachers report self-engagement that is reflective of many factors of stress is limited. However, Mérida-López et al., (2017) conducted a study looking at the effects of 288 teachers job role stress and emotional intelligence, for predicting individual teacher engagement. The findings suggested that EI (emotional intelligence) was positively correlated to stress. Teachers with higher EI scores reported less stress arising from ambiguous information from their teaching role, as well as less stress that arose from contradictory information provided at work (Mérida-López et al., 2017).

Mérida-López et al. (2017) study supports that EI training is required to have any impact on increasing teachers' engagement. Also, the role of the key factors of stressors are of critical importance, to the enhancement of occupational wellbeing and reduction of stress within the education profession. Although, Mérida-López et al., (2017) has provided limited acknowledgement of organizational factors that cause stress, to explain teachers level of engagement and how the positive aspects of work attitudes can be promoted within teaching. Therefore, this study will aim to provide a necessary analysis of the key factors that cause stress that relate to the stressors of working in the education.

Skaalvik and Skaalvik (2015) explored the relationship between teacher's job satisfaction, work-related stress, consequences of stress and coping strategies, among 30 working Norwegian teachers and four retired teachers. The methodology used within this study was semi-structured interviews conducted with each respondent (Skaalvik and Skaalvik, 2015). The main findings of the study found that teachers job satisfaction was a key variable to measuring the effects of teachers belonging and exhaustion, and specifically on their decision to leave the profession (Skaalvik and Skaalvik, 2015).

However, a problem with the research by Skaalvik and Skaalvik (2015) was that participants were asked questions based on their responses and open-ended questions about their job satisfaction. This is problematic, as interviews are hard to analyze. Firstly, the research participants did not elaborate in enough detail to provide a sufficient response to the questions, and secondly, often the interviewer interactions are removed from the context of the interview topic, making data less effective and very complex, to discover clear patterns and findings (Potter and Hepburn, 2008; Roulston, 2014; Skaalvik and Skaalvik 2015).

A more recent study by Cancio et al., (2018) looked at stress perception and the strategies to cope with stress of special education needs (SEN) teachers. The research was conducted using an online questionnaire distributed to SEN teachers in the USA within three states via email, using convenience sampling resulting in 211 survey responses. The findings suggested that SEN teachers were suffering from exhaustion and were tired from their job role, that caused them a great amount of stress. Also, Cancio et al., (2018) found that stress interfered with the quality of the SEN teachers work. In addition, schools needed to engage in a continuous evaluation of their SEN teachers job satisfaction, to provide them the most effective support and intervention.

However, a problem of the research by Cancio et al., (2018) was that it conducted as an exploratory study design, thus making it very difficult to have strong confidence in the reliability and validity of the results. Moreover, the findings of the study suggested that future research is required to understand the effects and consequences of stress on teacher's job satisfaction and coping mechanisms to reduce the effects of stressors. Also, Cancio et al., (2018) conducted a regression analysis that was only exploratory and needed to use a wider random sample, including a variety of the education workforce and not just a focus on SEN teachers. Therefore, their results should not be taken as a final word, of the implications and problem for primary school teacher stress.

On the contrary, stress is an issue that does not exclude the wider education workforce (Health and Safety Executive, 2018). Stress and burnout can affect all those who work with children in a primary school setting; including Early Years Practitioners (EYP's), Learning Support Assistant's (LSA's) and school leaders, such as Head Teachers (Mistry et al., 2004; Tucker, 2011; Nislin et al., 2016). Considering that within UK primary education, these are well-

established job roles defined within a school setting, there has been considerably less research on the stress of these professionals (Mistry et al., 2004; Tucker, 2011; Nislin et al., 2016). As a result, this study on stress will highlight how teachers and the wider education workforce in primary school settings, are vulnerable to different levels of stress, using a variety of psychological factors.

From the previous research derived, this research study will focus upon three critical factors that are paramount to understanding education professionals stress in primary schools, these are; job satisfaction, motivation and wellbeing. These factors have been specifically chosen as many studies have analyzed these individually, but not combined them collectively in one study. Therefore, the aim of this research is to understand the factors that cause educational professionals to stress working in primary education settings, and how stress impacts upon these issues.

Job satisfaction is a crucial indicator of employment, that is strongly correlated to motivation that are both very essential factors to the continuing growth of the education systems around the world (Olorube, 2006; Bota, 2013). Furthermore, wellbeing is critical to the sustained mental health of the education workforce, as poor mental wellbeing of school staff can inevitably affect pupil's wellbeing, and to fostering a positive supporting relationship in the classroom environment (Harding et al., 2019). As a result of previous literature, the experimental hypothesis of this research study is testifying if stress causes education professionals decreased levels of job satisfaction, motivation and wellbeing in the primary education sector.

2.0 Method

2.1 Method: Design

This study was based on a questionnaire design. The questionnaire was created using an online survey platform called Qualtrics XM. The questionnaire adopted a multiple regression analysis and used a within-subjects design to expose each participant to all the conditions. The independent variable measured was stress, and the dependent variables consisted of; job satisfaction, motivation and well-being. The questionnaire had 25 questions, with two questions on the participants job demographic, based on a single multiple-choice answer. For the other 23 questions, two psychometric Likert response scales were designed that reflected on the different types of questions being asked. They were designed to measure each of the participants responses, that reflected upon each of the outcome variables.

The first Likert was a custom designed scale that measured job satisfaction and motivation variables on a five-point rating scale, ranging from ‘Strongly Agree’ representing a score of five, to ‘Strongly Disagree’ representing a score of one. There were five questions on job satisfaction and five questions on motivation, e.g. “23. Have you ever considered leaving the education profession?”.

The second Likert scale was structured on the PSS (Perceived Stress Scale). The PSS measured the well-being and job satisfaction variable, ranked on a five-point rating system, that ranged from ‘Very Often’ representing a score of one, to ‘Never’ representing a score of five. Within the PSS Likert, there was five question on well-being, five questions on how the participants wellbeing effected pupils, and three questions on the impact of stress on job satisfaction, including questions such as e.g. “22. I have a strong rapport with children”.

It was crucial, for both Likert scales needed to follow a one to five scoring system, to ensure that, after the participants had completed the questionnaire, the scoring system in place matched between them when calculating participants overall stress level scores. An overall stress score was calculated from both Likert scales. A score total of 93 to 115 represented the participant had 'extreme stress' and the lowest possible score was 23, this showed the participant had 'no stress'. Although, question one and two on job demographics were excluded from the scoring system, as they did not reflect on measuring stress. However, those questions were highly important questions to the interpretation of why the participants had a certain level of stress scores.

2.2 Participants

Both male and female adults over the age of 18 participated in this study, who worked within a teaching or supporting role, within a public or private primary education establishment; this also included the participation of nursery and early year's settings. The participants were randomly selected to respond using voluntary sampling. They were recruited via an anonymous email invitation to take part in the questionnaire, sent by the principal researcher. The email invite was distributed by the individual schools to staff, with instructions specifying that only staff who worked within a direct contact role with children could participate. Also, a few participants were recruited from social networking sites, Twitter and LinkedIn.

The participants localities varied widely from emails distributed to primary education establishments located in the following counties of the United Kingdom; South, North and East Ayrshire, Renfrewshire, Dumfries and Galloway in Scotland. Also, primary schools were emailed in Lincolnshire, Leicestershire, Cambridgeshire, The City of London and Essex,

England. Additionally, participants were recruited from Manchester Metropolitan University via the Research Participant Pool.

The participants could participate if they worked within any preschool or primary age groups, that ranged from EYFS (Early Years Foundation Stage) up to Year 6 in England, and Primary 7 in Scotland only. Participants data was only deleted, if they did not fully complete the questionnaire or if requested to do so. The participants were not provided any incentives or gifts, to participate in this study, other than receiving a copy of the final project electronically via email after completion. No participants requested removal of their data. In addition, the principal researcher had no influence or affiliation to any of the schools that voluntarily participated.

2.3 Materials

The materials consisted of a questionnaire, that was displayed through a web browser using a compatible electronic device, with an internet connection. To view the questionnaire in full, see Appendix A. Before participants could proceed, the PIS (Participant Information Sheet) was displayed (See Appendix B) before they could answer any questions. These were statements including, for example, “I confirm that I have read the Participant Information Sheet”. Also, the consent form asked questions such as “I consent to take part in the above study”. To view the consent form incorporated within the online questionnaire, see Appendix C.

There was a wide variety of questions, for example “Question 1: What age group do you teach or support in?” and within a Likert scale questions, such as “7. There is too much administrative paperwork in my job”. Lastly, questions were displayed on anonymity, to remove participant responses if required, asking questions such as, “What is the last two letters of your

home address postal code?”. All participant responses were stored electronically using the secure online survey platform.

2.4 Procedure

The participants were sent an email from the principal researcher containing an explanation about the study and a hyperlink directing them to Qualtrics XM, that hosted the questionnaire for individuals to participate. The questionnaire was valid from 04th April 2019 and expired on 12th June 2019, no other participant could contribute after that date. The questionnaire was completed once by each participant. The questionnaire took approximately five to ten minutes to complete. It was unknown where participants took part in the study, but it was most likely at a school or home setting, from the analysis.

Participants were told to read the Participant Information Sheet before starting the questionnaire and then agree to each of the consent form statements. If an individual did not agree to each statement, they were blocked by the survey platform from proceeding. After completion, participants data would be stored on Qualtrics, viewed only by the principal researcher. The survey platform calculated participants total stress scores from each of the dependent variables within the questionnaire. However, this was not visible to participants, as it was not ethically viable or appropriate, to provide these details to individuals.

When the survey termination date was reached, all the participants data was exported to IBM SPSS (Version 25, (See Appendix E for SPSS Output) from Qualtrics XM and saved as the SPSS data set file format. The data was stored securely and reviewed by the principal researcher, then analysed within IBM SPSS by conducting various descriptive and inferential statistics tests.

2.5 Ethical Considerations

The project received ethical approval from Manchester Metropolitan University and followed BPS ethical standards (see Appendix D). Three questions on anonymity were required for participants to create their anonymous code, for removal of their data if necessary. In addition, if the survey was accessed outside of the United Kingdom a Geo IP restriction was applied. For participants who agreed to consent, they completed the questionnaire with no survey timeout for the browser session. Lastly, consideration was taken to ensure that the questionnaire was designed with equal opportunities and ease of access respective of people with a reading or visual impairment.

This is a copy
Authorship - Ainsley Smith

3.0 Results

3.1.1 Data Preparation

The results from 65 participants responses of the questionnaire have indicated a variety of issues. The raw data needed to be correctly identified and interpreted by the SPSS statistics software. This required splitting the original response scores, separating each Likert scale question into the appropriate independent variable; job satisfaction, motivation and well-being, to prepare the results for analysis correctly.

3.1.2 Data Interpretation

The raw data file did not correctly understand the scoring system. For SPSS to understand the stress level ranges, the participants total stress scores had to be recoded into a different variable. This was to ensure the data correctly followed the lowest and highest ranges of the stress levels, within the scoring system. For more in depth, understanding of the data analysis, a log of the SPSS output has been included in Appendix E, to interpret the data file. Also, within Appendix F is a copy of the stress level ranges used within the stress scoring system and Likert scale design in Appendix G.

3.2 Descriptive Statistics

As shown in figure one the participants who taught or supported within an EYFS/ Reception class had the highest frequency of moderate stress recorded ($N = 7$). In addition, the highest level of stress was recorded in Year 5 ($N = 5$). The lowest level of stress with a meaningful result was combined from Year 1, Year 4 and N/A; that was a category reserved for leadership and professionals who worked across multiple age groups. No participant was recorded within the extreme stress level ranges.

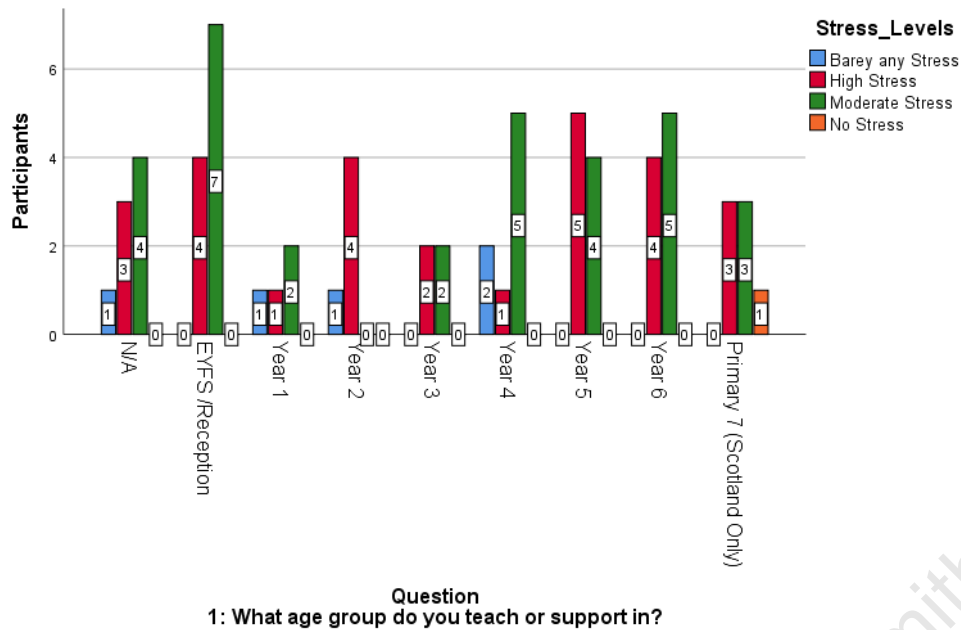


Figure 1.

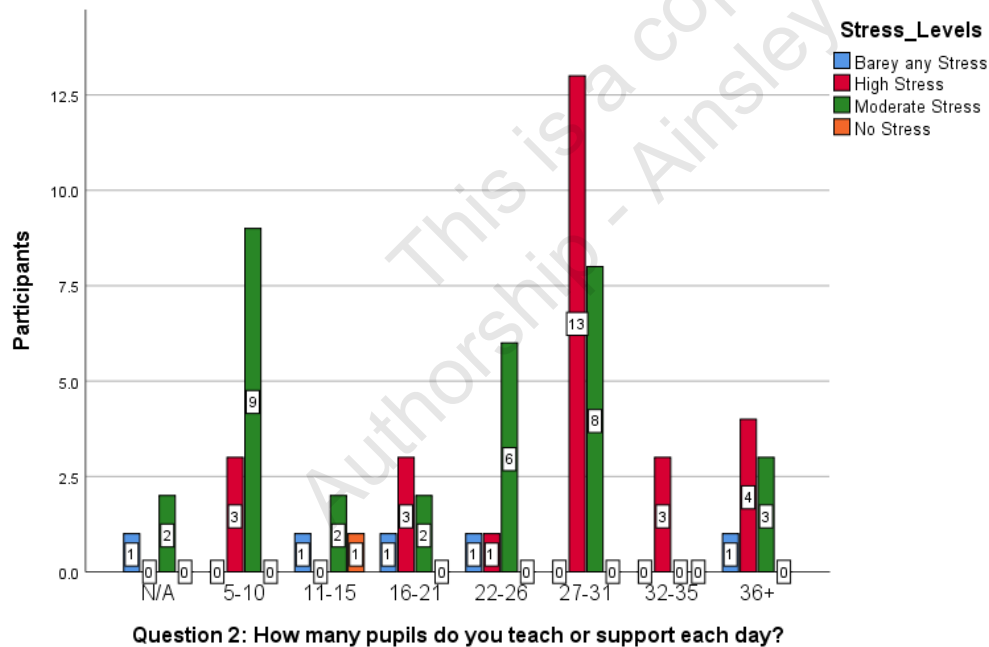


Figure 2.

Furthermore, as figure two shows that there was generally an increasing trend of higher stress levels when the class increased in size. A class size between 27 to 31 showed that participants had greater levels of high (N = 13) and moderate stress (N = 8). Although,

participants who were teaching or supporting small class sizes or groups of 5 to 10 pupils, displayed significant levels of high ($N = 3$) and moderate stress ($N = 9$) as well.

Table 1 presents the mean (M) and standard deviation (SD) for each of the three independent variables measured. Also, the participants stress scores include all three independent variables combined, to provide a total mean ($M = 64.00$) and standard deviation ($SD = 12.39$) from all participants who completed the questionnaire ($N = 65$). The overall results showed participants had a mean score of moderate stress.

Table 1. Mean and Standard Deviation for each variable

Variable	N	Mean	SD
Participant Stress Scores (Total)	65	64.00	12.39
Job Satisfaction Scores	65	26.15	4.12
Motivation Scores	65	17.24	3.33
Wellbeing Scores	65	20.96	5.20

3.3 Justification for Methods of Analysis

Two separate parametric tests of analysis were conducted on the data set. Parametric testing was chosen, as the data was normally distributed. The 23 Likert scale questions were analyzed, and the data measurement type was ordinal scale. Firstly, a multiple linear regression analysis was conducted. To provide an estimation of the relationship between the dependent variable and three independent variables. This regression analysis was used as it provided a statistical model of normality for parametric assumptions, a probability plot and the results from ANOVA to test the hypothesis from the regression model. Table 2 shows the results of the multiple linear regression analysis.

Secondly, a two-tailed Pearson correlation coefficient was calculated to understand the relationship between the variables. By doing this each variable could be analyzed individually, to determine the strength of the relationship between stress and the three independent variables.

This method of statistical testing can then be used to reject the null hypothesis or accept the alternative hypothesis. A correlation coefficient would be significant at the 0.01 level. Table 3 shows the results of Pearson correlation coefficient.

3.4 Inferential Statistics

3.4.1 Linear Regression

Table 2 shows the results of a multiple regression analysis calculated to predict stress decreases job satisfaction, motivation and wellbeing. The results of the regression indicated the three predictors explained 94.4% of the variance. A significant regression equation was found ($R^2 = .944$, $F(3, 61) = 344.566$, $p < .001$). Participants showed that stress is equal to $-8.55 - .82$ (Job Satisfaction) + 1.25 (Motivation) + 1.39 (Wellbeing). Where a one unit increase for each dependent variable represented increased stress. It was found that job satisfaction, predicted stress ($\beta = 0.27$, $p < .001$), as did motivation ($\beta = 0.33$, $p < .001$) and wellbeing ($\beta = 0.58$, $p < .001$). See Appendix E for more statistical information.

Table 2: Multiple regression analysis of Participants Stress Scores

Variable	B	β (beta score)	T	Sig. (p)
(Constant)	-8.55	.	-3.34	.001
Job Satisfaction	0.82	0.27	7.38	.001
Motivation	1.25	0.33	9.32	.001
Wellbeing	1.39	0.58	16.68	.001

Note: $R^2 = .944$ (* $p < .05$) Results based on the dependent variable of Participants Stress Scores.
(Dependent Variable Labelled SC0 in SPSS Output; See Appendix E)

Figure three suggests the P-Plot of residuals are normally distributed. The normal probability plot of the residuals is approximately linear supporting that the error terms are normally distributed.

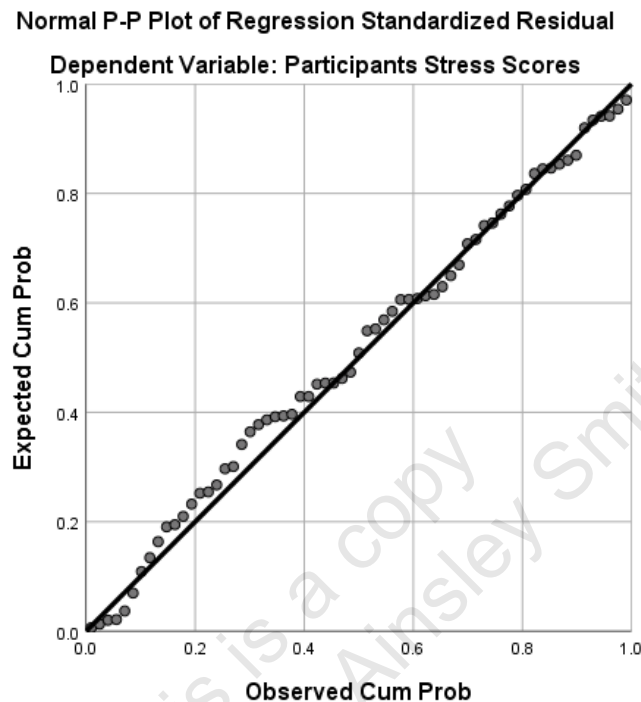


Figure 3. Probability Plot

3.4.2 Pearson Correlation Coefficient

A Pearson correlation coefficient was conducted using a two-tailed significance test. Results indicated a significant positive correlation between job satisfaction and participants stress, $r = .724$, $p < .01$. Furthermore, there was a positive correlation between motivation and participants stress, $r = .720$, $p < .01$. Lastly, there was a positive association indicated from wellbeing and participants stress, $r = .856$, $p < .01$.

A strong positive association was found between job satisfaction and motivation, $r = .512$, $p < .01$ and wellbeing, $r = .471$, $p < .01$. More detailed results can be seen in table 3 and Appendix E.

Table 3. Pearson Correlation Matrix

	Participants Stress Scores	Job Satisfaction Scores	Motivation Scores	Wellbeing Scores
Participants Stress Scores	—	.724	.720**	.856**
Job Satisfaction Scores	.724**	—	.512**	.471**
Motivation Scores	.720**	.512**	—	.413**
Wellbeing Scores	.856**	.471**	.413**	—

**. Correlation is significant at the 0.01 level (2-tailed).

This is a copy
Authorship - Ainsley Smith

4.0 Discussion

4.1 Overall Study Results

The purpose of this study was to analyse the relationship between stress on job satisfaction, motivation and well-being, on education professionals who work within a teaching or supporting role in a UK primary school environment. It was hypothesised that stress causes decreased levels of job satisfaction, motivation and well-being in the primary education sector. The research aim was to understand the factors that cause education professional stress working in primary education settings and how stress impacts upon these issues.

In addition, results found stress was associated to education professionals in many different age groups of children. Although, question one did not highlight largely significant differences, it presented a very clear account of age groups that caused the most noticeable levels of stress. Furthermore, question two found a noticeable trend in higher class sizes causing increased stress, and some smaller class sizes that caused the most levels of stress. This reflects previous research, that the number of pupils within a classroom can affect the pressures of quality learning outcomes for every child's learning and teaching effectiveness which can inevitably lead towards increased levels of stress for the educator (Blatchford et al., 2002; Ruggles, 2003; Filges, 2018).

Overall, the main findings from the Likert scale questions have showed the hypothesis was supported. The results showed a mean level of medium stress was found from the participants scores. All three predictors provided a significant variance, to specific causes of stress within the primary education sector. Flock (2013) argues that despite the crucial role of education professionals supporting the demands in fostering primary school children's academic

achievement; social, emotional, and psychological needs, there is insufficient support to addressing teacher stress.

4.2 Results relation to Theory and Application

4.2.1 Job Satisfaction

The results of this study have shown stress remains a significant challenge in the classroom attributed to overall decreased job satisfaction and rising teacher turnover rates (Flock et al., 2013). As a profession, globally education has significant staff resignation, most often due to stress and its related factors (Flock, et al., 2013). Therefore, these results reflect the documented rate of teacher turnover over the past decade in public schools (Ingerson, 2001; NCES; 2009, 2011, 2019). In addition, Wright and Bonett (2007) found employee job performance, motivation and psychological wellbeing, are strong predictors to stress and employee turnover.

This reflects the results from the job satisfaction variable, showed a significant correlation as a main predictor of participant stress, as well as a relationship between motivation and wellbeing. Previous research has shown, within an organization, job satisfaction is seen as one of the most significant predictors of stress; correlated to staff turnover and an employee's commitment to job progression (Griffith et al., 2000; Wright, 2004).

Moreover, job satisfaction is viewed as the oldest measure to understand the systematic approach, to the operationalisation of workplace happiness and wellbeing (Wright and Bonett, 2007; Wright, 2004). Although, there has been a lack of major research studies carried out recently into UK primary schools, from self-reported questionnaires using stress scales. To specifically raise attention to the nature of teacher stress that is inclusive of the wider education workforce, with a specific focus on staff welfare in a primary school (Chaplain, 1995; Borg

1990). However, research by Klassen et al., (2010) looked at the effects of teacher's self-efficacy and job satisfaction in relation to gender and years of experience. It was found that teachers with higher overall teaching stress had lower job satisfaction, whereas, teachers with lower stress had higher job satisfaction. Likewise, teachers who reported greater workload had greater overall stress and lower job satisfaction scores (Klassen et al., 2010). As a result, the findings from this study reinforce previous researchers' findings, that there is a significant correlation between job satisfaction and stress. In addition, a growing number of researchers have found connections between gender and work-related stress (Klassen et al., 2010).

Moreover, Antoniou et al., (2006) measured job satisfaction and stress with a special emphasis on gender. It was found that female staff showed higher occupational stress and burnout, which had an adverse effect on their job satisfaction levels (Antoniou et al., 2006). Although gender was not measured explicitly within this study, it was possible participants gender was a contributing factor to the results, that was not fully considered within the real-world application of this study.

4.2.2 Motivation

Massari et al., (2013) conducted research looking at motivation of kindergarten and primary school teachers and its relation to stress, when children pursue competitive extra curricula activities. Results showed, that stress levels were much higher for those teachers with extrinsic motivation, than those with intrinsic motivation who especially respect the values of primary education and engage in activities with real interest and goals for children (Massari et al., 2013). On reflection, participants of this study who had a genuine enjoyment in engaging with children and enjoyment for their job role, had a noticeably lower correlation to stress levels.

Although, many participants in this study reported low levels of motivation from a lack of job enjoyment and promotion opportunities, that correlated to high stress levels.

It is important to view educator's motivation for their work, is determined by both intrinsic (values, needs, and attitudes) and extrinsic motivation (promotion, salary, and performance goals) (Massari, et al., 2013). Studies have shown there is a dependency between these two categories of motivational factors, related to self-determination theory (Massari, et al., 2013; Ryan and Deci, 2000). However, extrinsic motivation should not be perceived as a cause for low satisfaction, there can be a positive correlation between intrinsic and extrinsic motivation, if the external incentives are perceived as support to professional development (Massari, et al., 2013; Osterloh et al., 2002).

On the contrary, Massari et al., (2013) only identified to what extent intrinsic motivation could provide protective effects against stress within primary teaching, with no specific type of motivation as a focus. This reflects the original research aim of this study; to understand the factors that caused stress, with no specific focus on the participants intrinsic or extrinsic motivation within the motivation variable (Ryan and Deci, 2000).

However, previous studies reinforce the results of this study to confirm stress is a contributing factor to increased or decreased motivation of education professionals, who work in the primary sector. With intrinsic motivation being the highest source of empowerment in the workplace; challenged by constant progression of teacher's professional identity (Canrinus, 2012, Davis and Wilson, 2000).

4.2.3 Wellbeing

Many previous studies have confirmed, that wellbeing is a strong predictor of happiness for individuals working within a primary school and its correlation to stress within the education profession (De Stasio, et al., 2017). The results of this study showed that education professionals who were happy in their job role, reported higher levels of wellbeing, in contrast to those who had lower wellbeing and increased levels of stress. Therefore, this strong relation between stress and psychological wellbeing, enables those individuals with positive emotions to cope better with stressful events within a primary school (Pillay, 2005). Also, primary educators who displayed a positive view of their work, and have positive relationships with colleagues, pupils and pupil's families, were most likely to report higher levels of wellbeing and lower stress (De Stasio, et al., 2017).

However, noticeably wellbeing results showed evidence that many participants were not acknowledged in organisational change, or the decision-making process; an essential factor for effective communication and wellbeing within a primary or nursery education setting (Konu et al., 2010; Siraj-Blatchford et al., 2006).

Furthermore, this study results have discovered that education professionals are exposed to several school environment factors, that can impact upon their psychological wellbeing and increase stress levels. Specifically, this derives from being required to deal with extreme learning difficulties; disruptive pupil behavior, conflict amongst colleagues, problematic relationships with parents, and the effects of increasingly larger class sizes and setting boundaries to establish pupil relationships (De Stasio et al., 2017; Fernet et al; 2012; Hong, 2012; Blatchford et al., 2007).

Interestingly, the participants result of this study showed relationship and rapport with children to be of significant value. Although, many previous studies have largely ignored the interpersonal relationship between pupil and teacher, as a factor of great significance to teacher wellbeing (Spilt, 2011; Kyriacou 2001; Friedman, 2000).

The importance of pupil and teacher relationships can be interpreted from the “Transactional Model of Stress and Coping of Lazarus and Folkman” (1984) and Lazarus (1991). This theory provides an appropriate explanation to understand how teacher-child relationships influence teachers wellbeing and stress (Biggs et al., 2017; Spilt 2011). According to this model, an individual’s response to stress is supported by the interpretation of an external stressor which subsequently triggers an emotional response. Most prominently, the intensity of stress depends on the importance of the value or goal that is being pressurised. The model focuses on the prolonged experience of discrete emotions, as a key predictor of wellbeing to a specific event or situation (Spilt, 2011). Therefore, this model can interpret this study’s findings, to how relationships with individual children is of great value to lowering educator’s stress as a key predictor to psychological wellbeing (Spilt, 2011). As, Hargreaves (2000) previous research found that relationships with students were the most important source of enjoyment and motivation.

Spilt (2011) supports that personal relationships with children provide teachers with internal rewards and give meaning to their employment. As, teacher-child relationships are often the core reason for staying in the education profession (Chiong et al; 2017; O’Connor, 2008; Hargreaves, 1998). This may have been a true reflection for many participants of this research, although this was not specifically or intentionally measured.

Although, much research has acknowledged that teachers who show a genuine interest and form a close relationship with children, provides a protective factor to regulate against cortisol, and increase wellbeing for both teacher and pupil, as well as improve behavioural and colleague engagement (De Stasio et al., 2017; Oberle and Schonert-Reichl, 2016; Cadima et al., 2015).

4.4 Results relation to Introductory Research

The introduction reviewed a considerable amount of previous research literature on stress. This research project has reinforced the high levels of stress reflected from primary school teaching; support and leadership staff in many recent and older studies. The results correlate to Titheradge et al., (2019) that found high and sustained levels of psychological stress by primary school teachers require effective support. Considering, positive or negative wellbeing of teachers is strongly associated to impact upon children's wellbeing, quality of teacher-pupil relationships, colleague engagement and effective learning, suggests an urgent need for intervention is required for these professionals (Titheradge et al., 2019; Harding et al., 2019).

However, Skaalvik and Skaalvik (2015) results showed all teachers reported high job satisfaction, that was not observed from the participants of this study. Although, as comparable to this study many individuals experienced a high degree of stress in their job role, noticeably with high workloads, severe time pressure in the school, and administrative paperwork (Skaalvik and Skaalvik, 2015). This may explain some of the high levels of exhaustion and correlation between stress and the predictor variables focused on in this study.

However, Skaalvik and Skaalvik (2015) did not highlight teachers' motivation for staying in education or leaving, based upon the awareness of stress by school leaders and line managers. Whereas this study saw this as a decisive factor, to teacher's decision to leave the education

profession. As Mulford (2003) argues a skilled and well supported leadership team in a primary school are a major influence on teachers' self-efficacy, on a sense of ownership and purpose in the way teachers approach their job.

Previous research by Klassen et al., (2013) had just focused on teacher engagement that reflected the factors working in the classroom, in schools and especially the social interactions between teachers and students. Klassen et al., (2013) developed an engaged teacher scale, with five dimensions; physical, cognitive, emotional and social connections between children and colleagues. Although, as this research implied teacher engagement is affected by a wide array of stressors, that can impact an individual to be extrinsically or intrinsically motivated to perform within their job role (Deci and Ryan, 2000).

In addition, this study has expanded the research by Mérida-López et al., (2017) by critically examining the impact of job demands and other critical factors and its relation to teachers' level of stress. Moreover, this research has further informed how work attitudes need to be understood to provide necessary emotional intelligence interventions for educators (Mérida-López et al., (2017).

Cancio et al., (2018) conducted research on the stress of SEN teachers and provided a strong basis in which to design and analyse this study. Although, there was intentionally no specific focus on special needs education within this research, there was some inclusion of SEN educators. However, it should be noted all mainstream primary school teachers are responsible and accountable for the inclusion and development of all pupils in their class, including the provision and support for pupils with SEN (Department for Education, 2015). As a result, this study reinforced the issues raised by Cancio et al., (2018) on a broader scale. Also, this project

was not just focused on job satisfaction but included motivation and wellbeing as contributing stress factors to SEN and mainstream primary educators.

4.5 Implications

Overall, there has been several implications of this project. Firstly, this study had been inclusive of a variety of education professionals, including; primary school teachers, early years practitioners, teaching assistants and school leaders (Jeon et al., 2018; Nislin, 2016). In addition, there was much outdated research focused on LSA and leadership professionals with mostly inconclusive findings (Tucker, 2010; Mistry, 2004). Therefore, the inclusion of the wider early years and primary workforce showed how work pressures, school environment and self-efficacy, were evident stressors. This resulted in participants reporting lower job satisfaction, motivation and wellbeing correlated to higher levels of stress.

Secondly, this research has showed how effective school leadership is required to maintain staff wellbeing that can recognise the need for change and plan for and manage the change process (Siraj-Blatchford et al., 2006). Although, it should be highlighted school leaders are under significant levels of stress and decreased wellbeing, from prolonged exposure to job demands and the overall task responsibility of managing a school (Beusaert et al., 2016).

Most importantly, this project implies the workload must be reduced on teachers, particularly; staff meetings, paperwork and documentation (Skaalvik and Skaalvik, 2015). As the hypothesis was accepted, this clearly acknowledges teaching is a considerably stressful career for the entire primary sector workforce (Kokkinos, 2007). Overall, results showed engagement with children was a vital decisive factor to how participants dealt with stress and drive for a continued commitment and love of the profession (Harmsen et al., 2018; Fransson and Frelin, 2016; Wong, 2017).

4.6 Limitations and Conclusion

This research has not been without some limitations. Noticeably, a major issue of this project was the limited sample size of only 65 people who volunteered to participate. This was primarily due to a lack of primary school settings being prepared to engage in participation with an academic organisation. Also, many schools refused participation due to issues with staff disclosure of information, lack of interest in this critical issue and understanding the benefits of supporting the project. Although, this study had a very limited time constraints in which to recruit participation of schools, considering that many previous studies had much longer to conduct their research (e.g. Harding et al., 2019; Cancio et al., 2018; Skaalvik and Skaalvik, 2015).

Secondly, the study had no mention of participants job roles or gender, that may have been a contributing factor to the levels of stress recorded. In addition, there were many stressors found in previous research that determined how participants responded. Therefore, this study should have asked more questions based on those prior known stressors, to understand how participants coped with specific issues in their school.

Overall, stress has been shown to be a multifactorial issue associated to causing decreased job satisfaction, motivation and wellbeing. Future studies must now develop intervention strategies that can be used to manage and support the education workforce. As previous decades of research awareness, and this project has now shown, the issues of stress will not be solved without a promise made to change.

References

Alhija, F. N.-A. (2015) 'Teacher Stress and Coping: The Role of Personal and Job Characteristics.' *Procedia - Social and Behavioral Sciences*, 185 pp. 374-380.

Anisman, H., & Merali, Z. (1999) Understanding stress: Characteristics and caveats. *Alcohol Research & Health*, 23(4), 241-249.

Antoniou, A. S., Polychroni, F. and Vlachakis, A. N. (2006) 'Gender and age differences in occupational stress and professional burnout between primary and high-school teachers in Greece.' *Journal of Managerial Psychology*, 21(7) pp. 682-690.

Beusaert, S., Froehlich, D. E., Devos, C. and Riley, P. (2016) 'Effects of support on stress and burnout in school principals.' *Educational Research*, 58(4) pp. 347-365.

Biggs, A., Brough, P. and Drummond, S. (2017) 'Lazarus and Folkman's Psychological Stress and Coping Theory.' pp. 349-364.

Blatchford, P., Moriarty, V., Edmonds, S. and Martin, C. (2002) 'Relationships between Class Size and Teaching: A Multimethod Analysis of English Infant Schools.' *American Educational Research Journal*, 39(1) pp. 101-132.

Blatchford, P., Russell, A. and Bassett, P. (2007) 'The effect of class size on the teaching of

pupils aged 7-11 years.' *School effectiveness and school improvement*, 18(2) pp. 147;172;-172.

Borg, M. G. (1990) 'Occupational Stress in British Educational Settings: a review.' *Educational Psychology*, 10(2) pp. 103-126.

Bota, O. A. (2013) 'Job Satisfaction of Teachers.' *Procedia - Social and Behavioral Sciences*, 83 pp. 634-638.

Cadima, J., Doumen, S., Verschueren, K. and Buyse, E. (2015) 'Child engagement in the transition to school: Contributions of self-regulation, teacher-child relationships and classroom climate.' *Early Childhood Research Quarterly*, 32 pp. 1-12.

Cancio, E. J., Larsen, R., Mathur, S. R., Estes, M. B., Johns, B. and Chang, M. (2018) 'Special Education Teacher Stress: Coping Strategies.' *Education and Treatment of Children*, 41(4) pp. 457-481.

Canrinus, E. T., Helms-Lorenz, M., Beijaard, D., Buitink, J. and Hofman, A. (2012) 'Self-efficacy, job satisfaction, motivation and commitment: exploring the relationships between indicators of teachers' professional identity.' *European Journal of Psychology of Education*, 27(1) pp. 115-132.

Chaplain, R. P. (1995) 'Stress and Job Satisfaction: a study of English primary school teachers.' *Educational Psychology*, 15(4) pp. 473-489.

Chiong, C., Menzies, L. and Parameshwaran, M. (2017) 'Why do long-serving teachers stay in the teaching profession? Analysing the motivations of teachers with 10 or more years' experience in England.' *British Educational Research Journal*, 43(6) pp. 1083-1110.

Davis, J. and Wilson, S. M. (2000) 'Principals' Efforts to Empower Teachers: Effects on Teacher Motivation and Job Satisfaction and Stress.' *The Clearing House: A Journal of Educational Strategies, Issues and Ideas*, 73(6) pp. 349-353.

De Stasio, S., Fiorilli, C., Benevene, P., Uusitalo-Malmivaara, L. and Chiacchio, C. D. (2017) Burnout in special needs teachers at kindergarten and primary school: Investigating the role of personal resources and work wellbeing.' *Psychology in the Schools*, 54(5) pp. 472-486.

Department for Education. (2015) *Special educational needs and disability code of practice: 0 to 25 years. Statutory guidance for organisations which work with and support children and young people who have special educational needs or disabilities*. London: Department for Education.
[Online] [Accessed on 10th July 2019]

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/398815/SEND_Code_of_Practice_January_2015.pdf

Department for Education. (2018) *School Workforce in England: November 2017*. London:

Department for Education. [Online] [Accessed on 20th May 2019]

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/719772/SWFC_MainText.pdf

Education Support Partnership. (2018) *Teacher Wellbeing Index 2018*. London: Education Support Partnership. [Online] [Accessed on 20th May 2019]

https://www.educationsupportpartnership.org.uk/sites/default/files/teacher_wellbeing_index_2018.pdf

Fernet, C., Guay, F., Senécal, C. and Austin, S. (2012) 'Predicting intraindividual changes in teacher burnout: The role of perceived school environment and motivational factors.' *Teaching and Teacher Education*, 28(4) pp. 514-525.

Filges, T., Sonne-Schmidt, C. S. and Nielsen, B. C. V. (2018) 'Small class sizes for improving student achievement in primary and secondary schools: a systematic review.' *Campbell Systematic Reviews*, 14(1) pp. 1-107.

Fink, G. (2010) 'Stress: Concepts, Definition and History.' *In Reference Module in Neuroscience and Biobehavioral Psychology*. pp. 549-555.

Flook, L., Goldberg, S. B., Pinger, L., Bonus, K. and Davidson, R. J. (2013) 'Mindfulness for Teachers: A Pilot Study to Assess Effects on Stress, Burnout, and Teaching Efficacy.' *Mind, Brain, and Education*, 7(3) pp. 182-195.

Fransson, G., Frelin, A., Avdelningen för, u., Utbildningsvetenskap, Högskolan i, G. and Akademin för utbildning och, e. (2016) 'Highly committed teachers: what makes them tick? A study of sustained commitment.' *Teachers and Teaching*, 22(8) pp. 896-912.

Friedman, I. A. (2000) 'Burnout in teachers: Shattered dreams of impeccable professional performance.' *Journal of Clinical Psychology*, 56(5) pp. 595-606.

Griffeth, R. W., Hom, P. W. and Gaertner, S. (2000) 'A Meta-Analysis of Antecedents and Correlates of Employee Turnover: Update, Moderator Tests, and Research Implications for the Next Millennium.' *Journal of Management*, 26(3) pp. 463-488.

Harding, S., Morris, R., Gunnell, D., Ford, T., Hollingworth, W., Tilling, K., Evans, R., Bell, S., Grey, J., Brockman, R., Campbell, R., Araya, R., Murphy, S. and Kidger, J. (2019) 'Is teachers' mental health and wellbeing associated with students' mental health and wellbeing?' *Journal of Affective Disorders*, 253 p. 460.

Hargreaves, A. (1998) 'The emotional practice of teaching.' *Teaching and Teacher Education*, 14(8) pp. 835-854.

Hargreaves, A. (2000) 'Mixed emotions: teachers' perceptions of their interactions with students.' *Teaching and Teacher Education*, 16(8) pp. 811-826.

Harmsen, R., Helms-Lorenz, M., Maulana, R. and van Veen, K. (2018) 'The relationship

between beginning teachers' stress causes, stress responses, teaching behaviour and attrition.'

Teachers and Teaching, 24(6) pp. 626-643.

Hong, J. Y. (2012) 'Why do some beginning teachers leave the school, and others stay?

Understanding teacher resilience through psychological lenses.' *Teachers and Teaching*, 18(4)

pp. 417-440.

Ingersoll, R. M. (2001) 'Teacher turnover and teacher shortages: an organizational analysis.'

American Educational Research Journal, 38(3) pp. 499-534.

Jennings, P. A. and Greenberg, M. T. (2009) 'The Prosocial Classroom: Teacher Social and

Emotional Competence in Relation to Student and Classroom Outcomes.' *Review of Educational*

Research, 79(1) pp. 491-525.

Jeon, L., Buettner, C. K. and Grant, A. A. (2018) 'Early Childhood Teachers' Psychological

Well-Being: Exploring Potential Predictors of Depression, Stress, and Emotional Exhaustion.'

Early Education and Development, 29(1) pp. 53-69.

Klassen, R. M. and Chiu, M. M. (2010) 'Effects on Teachers' Self-Efficacy and Job Satisfaction:

Teacher Gender, Years of Experience, and Job Stress.' *Journal of Educational Psychology*,

102(3) pp. 741-756.

Klassen, R. M., Yerdelen, S. and Durksen, T. L. (2013) 'Measuring Teacher Engagement: Development of the Engaged Teachers Scale (ETS).' *Frontline Learning Research*, 1(2) pp. 33-52.

Kokkinos, C. M. (2007) 'Job stressors, personality and burnout in primary school teachers.' *The British journal of educational psychology*, 77(Pt 1) pp. 229-243.

Konu, A., Viitanen, E. and Lintonen, T. (2010) 'Teachers' wellbeing and perceptions of leadership practices.' *International Journal of Workplace Health Management*, 3(1) pp. 44-57.

Kyriacou, C. (2001) 'Teacher Stress: Directions for future research.' *Educational Review*, 53(1) pp. 27-35.

Lazarus, R. S. (1991) 'Progress on a cognitive-motivational-relational theory of emotion.' *American Psychologist*, 46(8) pp. 819-834.

Lazarus, R. S. and Folkman, S. (1984) *Stress, appraisal, and coping*. New York: Springer.

Massari, G.-A., Muntele, D. and Curelaru, V. (2013a) *Motivation, Work-stress and Somatic Symptoms of Romanian Preschool and Primary School Teachers*. Vol. 84.

Mérida-López, S., Extremera, N. and Rey, L. (2017) 'Contributions of Work-Related Stress and Emotional Intelligence to Teacher Engagement: Additive and Interactive Effects.' *International journal of environmental research and public health*, 14(10) p. 1156.

Mistry, M., Burton, N. and Brundrett, M. (2004) 'Managing LSAs: an evaluation of the use of learning support assistants in an urban primary school.' *School Leadership & Management*, 24(2) pp. 125-137.

Mulford, B. (2003) *School leaders: Changing roles and impact on teacher and school effectiveness. A paper commissioned by the Education and Training Policy Division, OECD, for the activity "Attracting, developing and retaining effective teachers.* Tasmania: OECD.

NCES – National Center for Education Statistics (2009) *The Condition of Education 2009.* Washington, DC: U.S. Department of Education. [Online]
<https://nces.ed.gov/pubs2009/2009081.pdf>

NCES – National Center for Education Statistics. (2011) *The Condition of Education 2011.* Washington, DC: U.S. Department for Education. [Online] [Accessed on 03rd July 2019]
<https://nces.ed.gov/pubs2011/2011033.pdf>

NCES – National Center for Education Statistics. (2019) *The Condition of Education 2019.* Washington, DC: U.S. Department for Education. [Online] [Accessed on 03rd July 2019]
<https://nces.ed.gov/pubs2019/2019144.pdf>

Nislin, M., Sajaniemi, N., Sims, M., Suhonen, E., Maldonado, E. F., Hyttinen, S. and Hirvonen, A. (2016) 'Occupational well-being and stress among early childhood professionals: the use of an

innovative strategy to measure stress reactivity in the workplace.' *Open Review of Educational Research*, 3(1) pp. 1-17.

O'Connor, K. E. (2008) "'You choose to care': Teachers, emotions and professional identity." *Teaching and Teacher Education*, 24(1) pp. 117-126.

Oberle, E. and Schonert-Reichl, K. A. (2016) 'Stress contagion in the classroom? The link between classroom teacher burnout and morning cortisol in elementary school students.' *Social Science & Medicine*, 159 pp. 30-37.

Ololube, N. P. (2006) Teachers Job Satisfaction and Motivation for School Effectiveness: An Assessment. 18(9),

Osterloh, M., Frost, J. and Frey, B. S. (2002) 'The Dynamics of Motivation in New Organizational Forms.' *International Journal of the Economics of Business*, 9(1) pp. 61-77.

Paquette, K. R. and Rieg, S. A. (2016) 'Stressors and coping strategies through the lens of Early Childhood/Special Education pre-service teachers.' *Teaching and Teacher Education*, 57 pp. 51-58.

Pillay, H., Goddard, R. and Wilss, L. (2005) 'Well-being, burnout and competence : implications for teachers.' *Australian Journal of Teacher Education*, 30(2) pp. 21-31.

Potter, J. and Hepburn, A. (2005) 'Qualitative interviews in psychology: problems and possibilities.' *Qualitative Research in Psychology*, 2(4) pp. 281-307.

Roulston, K. (2014) 'Interactional problems in research interviews.' *Qualitative Research*, 14(3) pp. 277-293.

Ruggles, L., M. (2003) *Is there a relationship between class size and student achievement?*

Michigan, MI: University of Michigan-Flint [Online] [Accessed on 01st July 2019]

<https://deepblue.lib.umich.edu/bitstream/handle/2027.42/117901/Ruggles.pdf?sequence=1&isAllowed=n>

Ryan, R. M. and Deci, E. L. (2000) 'Self-Determination Theory and the Facilitation of Intrinsic Motivation, Social Development, and Well-Being.' *American Psychologist*, 55(1) pp. 68-78.

Selye, H. (1956) *The Stress of Life*. New York, NY: McGraw-Hill Book Company

Shahsavarani, A. M., Abadi, M. A. E., and Hakimi Kalkhoran, M. (2015) 'Stress: Facts and Theories through Literature Review.' *International Journal of Medical Reviews*, 2(2), pp. 230-241.

Siraj-Blatchford, I., Manni, L. and University of London. Institute of, E. (2007) *Effective leadership in the early years sector: the ELEYS study*. London: University of London, Institute of Education.

Skaalvik, E. M. and Skaalvik, S. (2015) 'Job Satisfaction, Stress and Coping Strategies in the Teaching Profession—What Do Teachers Say?' *International Education Studies*, 8(3), pp. 181-192.

Skaalvik, S. and Skaalvik, E. M. (2011) 'Teacher job satisfaction and motivation to leave the teaching profession: Relations with school context, feeling of belonging, and emotional exhaustion.' *Teaching and Teacher Education*, 27(6) pp. 1029-1038.

Spilt, J. L., Helma, M. Y. K. and Thijs, J. T. (2011) 'Teacher Wellbeing: The Importance of Teacher—Student Relationships.' *Educational Psychology Review*, 23(4) pp. 457-477.

The Physiological Society. (2016) *Stress Modern Britain*. London: The Physiological Society. [Online] Accessed on 22nd May 2019] <https://www.physoc.org/sites/default/files/press-release/4042-stress-modern-britain.pdf>

Titheradge, D., Hayes, R., Longdon, B., Allen, K., Price, A., Hansford, L., Nye, E., Ukoumunne, O. C., Byford, S., Norwich, B., Fletcher, M., Logan, S. and Ford, T. (2019) 'Psychological distress among primary school teachers: a comparison with clinical and population samples.' *Public Health*, 166 pp. 53-56.

Tucker, S. (2010) 'An investigation of the stresses, pressures and challenges faced by primary school head teachers in a context of organisational change in schools.' *Journal of Social Work Practice*, 24(1) pp. 63-74.

Watson, J., Harper, S., Ratliff, L. and Singleton, S. (2010) Holistic Wellness and Perceived Stress: *Predicting Job Satisfaction among Beginning Teachers*, 17(1), pp. 29-37.

Wong, V. W., Ruble, L. A., Yu, Y. and McGrew, J. H. (2017) 'Too Stressed to Teach? Teaching Quality, Student Engagement, and IEP Outcomes.' *Exceptional Children*, 83(4) pp. 412-427.

Wright, T. A. (2004) The role of "happiness" in organizational research: Past, present and future directions.' *In*Vol. 4. Emerald Group Publishing Limited, pp. 221-264.

Wright, T. A. and Bonett, D. G. (2007) 'Job Satisfaction and Psychological Well-Being as Nonadditive Predictors of Workplace Turnover.' *Journal of Management*, 33(2) pp. 141-160.

Appendices

Appendix A: Copy of Questionnaire

Question 1: What age group do you teach or support in?

N/A	EYFS /Reception	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Primary 7 (Scotland Only)
-----	--------------------	--------	--------	--------	--------	--------	--------	---------------------------------

Question 2: How many pupils do you teach or support each day?

N/A	5-10	11-15	16-21	22-26	27-31	32+
-----	------	-------	-------	-------	-------	-----

Questions on Job Satisfaction Variable

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
3. There is little time to prepare for my lessons/responsibilities.	1	2	3	4	5
4. There is too much work to do.	1	2	3	4	5
5. The pace of the school day is too fast.	1	2	3	4	5
6. My caseload/class is too big.	1	2	3	4	5
7. There is too much administrative paperwork in my job.	1	2	3	4	5

Questions on Motivation Variable

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
8. I would like my job role to be more enjoyable	1	2	3	4	5
9. My working hours are too long	1	2	3	4	5
10. I would like more promotion opportunities	1	2	3	4	5
11. I know my role within a school has a positive impact on children's learning	1	2	3	4	5
12. I would like more involvement in the process of setting my pupils' learning goals	1	2	3	4	5

Questions on Wellbeing Variable

Scale- Perceived Stress Scale

	Very Often	Fairly Often	Sometimes	Almost Never	Never
13. I enjoy working in primary sector education	1	2	3	4	5
14. I get support from my colleagues when needed	1	2	3	4	5
15. There is enough consultation when an organizational change is proposed	1	2	3	4	5
16. I cope with the pace of organizational change	1	2	3	4	5

17. I receive appropriate training at this school	1	2	3	4	5
---	---	---	---	---	---

Questions on Wellbeing effect on pupils Variable

Scale- Perceived Stress Scale

	Very Often	Fairly Often	Sometimes	Almost Never	Never
18. The leader(s) at this school are approachable	1	2	3	4	5
19. Pupils are happy and positive in learning with me	1	2	3	4	5
20. I have a positive relationship with parents	1	2	3	4	5
21. I find time to speak to pupils on things other than learning	1	2	3	4	5
22. I have a strong rapport with children	1	2	3	4	5

Questions related to stress factors

Scale- Perceived Stress Scale

	Very Often	Fairly Often	Sometimes	Almost Never	Never
23. Have you ever considered leaving the education profession	1	2	3	4	5
24. Is stress taken seriously by your line manager and the leader(s) at your school	1	2	3	4	5

25. Does stress from working in the education profession affect you outside of your job role	1	2	3	4	5
--	---	---	---	---	---

This is a copy
Authorship - Ainsley Smith

Appendix B: Copy of Participant Information Sheet

Participant Information Sheet

A quantitative study on the psychological factors influencing stress on education professionals in primary schools.

Dear Participant,

My name is Ainsley Smith and I am conducting this research as a student in the MSc Psychology (Conversion Award) programme at Manchester Metropolitan University, Manchester, United Kingdom via online distance learning.

What is the study about?

The purpose of this study is to understand the stress of educational professionals who work within primary education either within a public or private school establishment and the factors that cause and relate to stress in your job role this is including job satisfaction, motivation and wellbeing.

Why have I been approached?

You have been approached because the study requires information from people who have direct contact with children, working within a teaching or support role, within a primary school setting.

Do I have to take part?

No. It's completely up to you to decide whether or not you take part in my study. However, you will be providing valuable support to my project from your participation.

What will I be asked to do if I take part?

If you decide you would like to take part, you would be asked to complete an online questionnaire that asks 25 questions related to your stress working in the education profession.

Each question will ask you to reflect on your role within a primary school establishment. The questions you answer will reflect on your experiences of stress and you will be asked to rate from 1 to 5 using different rating scales.

Will my data be identifiable?

The information you provide is confidential and anonymous. The data collected for this study will be stored securely and only the researchers conducting this study and study auditors will have access to these data:

- At the end of the study, the results obtained from the online questionnaire will be analysed using IBM SSS a professional statistical analytics software package.

- Electronic versions of the consent forms will be encrypted (that is no-one other than the researcher will be able to access them).
- Files on the computer that include your data will be encrypted (that is no-one other than the researcher will be able to access them) through an online survey platform called Qualtrics XM using an online account only accessible by the principal researcher.
- All your personal sensitive data will be confidential and will be kept separately from your questionnaire responses (i.e. research data).

Data Protection and Transparency

Manchester Metropolitan University is the sponsor for this study based in the United Kingdom. We will be using information from you in order to undertake this study and will act as the data controller for this study. This means that we are responsible for looking after your information and using it properly.

Your rights to access, change or move your information are limited, as we need to manage your information in specific ways in order for the research to be reliable and accurate. If you withdraw from the study, we will keep the information about you that we have already obtained (but will destroy the research data). To safeguard your rights, we will use the minimum personally-identifiable information possible.

You can find out more about how we use your information by contacting ethics@mmu.ac.uk.

As a university we use personally-identifiable information to conduct research and our legal basis for processing personal data is a 'public task'. As a publicly-funded organisation, we have to ensure that it is in the public interest when we use personally-identifiable information from people who have agreed to take part in research. This means that when you agree to take part in a research study, we will use your data in the ways needed to conduct and analyse the research study.

Research should serve the public interest, which means that we have to demonstrate that our research serves the interests of society as a whole. We do this by following the [UK Policy Framework for Health and Social Care Research](#).

If you wish to raise a complaint on how we have handled your personal data, you can contact our Data Protection Officer who will investigate the matter. If you are not satisfied with our response or believe we are processing your personal data in a way that is not lawful you can complain to the Information Commissioner's Office (ICO).

Our Data Protection Officer is Christopher Woolley (contact C.Woolley@mmu.ac.uk or legal@mmu.ac.uk).

What will happen to the results?

The results will be summarised and reported and may be submitted for publication in an academic or professional journal.

Are there any risks?

There are no risks anticipated with participating in this study that are beyond those encountered in everyday life. However, if you experience any distress following participation you are encouraged to inform the researcher and contact the resources provided at the end of this page.

Are there any benefits to taking part?

Although you may find participating interesting, there are no direct benefits and no incentives for anyone in taking part.

Who has reviewed the project?

This study has been reviewed and approved by the Department of Psychology Research Ethics Committee at Manchester Metropolitan University.

Where can I obtain further information about the study if I need it?

If you have any questions about the study, please contact the main researcher:

[Ainsley Smith, Ainsley.smith@stu.mmu.ac.uk]

Or Contact:

[Jeremy Hopper, Dissertation Supervisor, j.hopper@mmu.ac.uk, (0)161 247 2332]

Complaints

If you wish to make a complaint or raise concerns about any aspect of this study and do not want to speak to the researcher, you can contact:

Dr George Kountouriotis

Senior Lecturer

Tel: (0161) 247 2497 | Email: g.kountouriotis@mmu.ac.uk

Department of Psychology | Manchester Metropolitan University | Manchester | M15 6GX

If you wish to speak to someone outside of the Department of Psychology, you may also contact:

Professor Carol Haigh

Faculty Head of Ethics

Tel: +44 (0)161 247 5914 | Email: c.haigh@mmu.ac.uk

Faculty of Health, Psychology & Social Care | Manchester Metropolitan University | Manchester | M15 6GX

Thank you for taking the time to read this information sheet.

Resources in the event of distress

Should you feel distressed either as a direct result of taking part the following resources may be of assistance.

A lot of care and consideration has been taken to not cause you any distress. However, if you have become distressed from completing this questionnaire, please contact the principal researcher at the earliest convenience, to understand what caused distress and to remove your results, if you require.

We cannot provide psychological therapy. For dealing with stress, refer to professional services below, or contact your local general practitioner (GP).

<https://beta.nhs.uk/find-a-psychological-therapies-service/>

<https://www.samaritans.org/how-we-can-help/contact-samaritan/>

Thank you

This is a copy
Authorship - Ainsley Smith

Appendix C: Copy of Consent Form

Consent Form

Study Title: The psychological factors influencing stress on education

professionals in primary schools.

We are asking if you would like to take part in a research project on stress of education professionals.

Please read each statement below and tick each box if you agree.

If you have any questions or queries before signing the consent form please contact the principal researcher, Ainsley Smith, ainsley.smith@stu.mmu.ac.uk

- I confirm that I have read the Participant Information Sheet (Version No:002, Date: 01/04/2019) and fully understand what is expected of me within this study.
- I confirm that I have had the opportunity to ask any questions and to have them answered by the principal researcher beforehand.
- I understand that my participation is voluntary and that I am free to withdraw up until 07/06/2019 without giving any reason, without my legal rights being affected in any way.
- I understand that in order for my data to be withdrawn, I will need to contact the researcher via email by no later than the 07/06/2019, with the inclusion of the anonymous code and the approximate time I took the questionnaire.
- I understand that failure to provide the anonymous code I created will not allow the researcher to trace my responses and remove them and they will still be included in the analysis and write up of the project.
- I understand that the information from my responses will be pooled with other participants' responses and may be published.
- I understand that any information I give will remain strictly confidential and anonymous.
- I consent to Manchester Metropolitan University keeping records of my responses in the final project for moderation purposes of the project.
- I confirm I am aged over 18, and that I may choose to terminate my participation in the study at any time and for any reason.

Please note if you do not agree to the above statements you will not be able to proceed with the questionnaire.

If you do not complete the questionnaire you can return to your partially completed questionnaire for up to 2 weeks, to return where you left off. You cannot continue your questionnaire after this time and your data will be recorded.

For data integrity under GDPR Regulation (EU) 2016/679 (General Data Protection Regulation) your location data will be securely recorded, to understand the geographic region where you are completing the questionnaire. In addition, this questionnaire will record your browser information, this will not be displayed or seen as a visible question.

If you have found this questionnaire from a third-party company; including Twitter and CallForParticipants, email invitation link or direct web address link, your method of access to the questionnaire will be recorded. This is for the purpose of removing your data if requested and understanding the diversity of the data recorded.

The questionnaire will close on 07/06/2019 at 00:00 then you can no longer participate in this research study. If you wish to complete the questionnaire after this date, please contact the principal researcher by the 07/06/2019 before a draft and then final dissertation is produced and submitted to Manchester Metropolitan University.

All data is protected by Qualtrics XM platform. All questionnaire data will be exported to IBM SPSS for analytics. You can request and receive the results of this study on 31/08/2019

On behalf of Manchester Metropolitan University and myself as principal researcher, I thank you very much for your participation in this research!

Your questionnaire will take 10 to 15 minutes to complete. Good luck!

- I consent to take part in the above study.

Appendix D: Copy of Ethical Approval Letter



Date: 02/04/2019

Project Title: The psychological factors influencing stress on education professionals in primary schools.
PsychREC Ref No.: 9589

Subject: Letter of Approval of research study

Dear Ainsley Smith,

I am writing to you as the Principal investigator of the project titled "The psychological factors influencing stress on education professionals in primary schools." on behalf of the Department of Psychology Research Ethics Committee (PsychREC) to inform you about the outcome of the review of your ethics application.

Document Type	File Name	Date	Version
Project Proposal	Research Proposal	10/03/2019	1
Additional Documentation	RE Draft Questionnaire (002)	26/03/2019	002
Consent Form	Consent Form	01/04/2019	002
Information Sheet	Participant Information Sheet_Quantitative_GDPR	01/04/2019	002

I am glad to let you know that PsychREC has granted you favourable opinion for the project to commence (PsychREC Ref No.: 9589 9589).

Please note that the opinion is provided on the grounds that you will comply with all regulations outlined in the application. Any changes to the documentation or study procedures outlined in your application will require the submission of an amendment and approval by PsychREC.

If you have any further questions, feel free to contact me.

Yours Sincerely,

Ms Layla Rajah

Appendix E: Copy of SPSS Output

****SPSS OUTPUT START****

```
COMPUTE JobSatScores=Q3_7_1 + Q3_7_2 + Q3_7_3 + Q3_7_4 + Q3_7_5 +  
Q23_25_1 + Q23_25_2 + Q23_25_3.  
  
EXECUTE.  
  
COMPUTE MotivationScores=Q8_12_1 + Q8_12_2 + Q8_12_3 + Q8_12_4 + Q8_12_5.  
  
EXECUTE.  
  
COMPUTE WellbeingScores=Q13_17_1 + Q13_17_2 + Q13_17_3 + Q13_17_4 +  
Q13_17_5 + Q18_22_1 + Q18_22_2  
+ Q18_22_3 + Q18_22_4 + Q18_22_5.  
  
EXECUTE.  
  
STRING Stress_Levels (A30).  
  
RECODE SC0 (93 thru 115='Extreme Stress') (70 thru 92='High Stress') (47 thru  
69='Moderate Stress')  
(24 thru 46='Barely any Stress') (Lowest thru 23='No Stress') INTO Stress_Levels.  
  
VARIABLE LABELS Stress_Levels 'Stress_Levels'.  
  
EXECUTE.  
  
  
DESCRIPTIVES VARIABLES=SC0  
  
/STATISTICS=MEAN STDDEV RANGE MIN MAX.
```

DESCRIPTIVES VARIABLES=JobSatScores MotivationScores WellbeingScores

Participants

/STATISTICS=MEAN STDDEV RANGE MIN MAX.

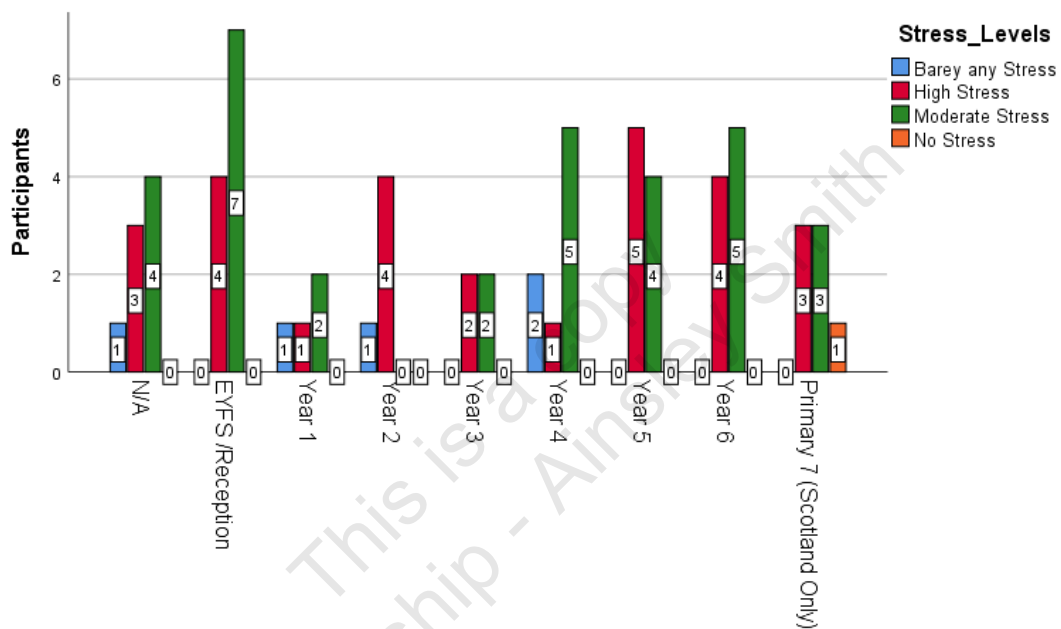
GRAPH

/BAR(GROUPED)=COUNT BY Q1 BY Stress_Levels.

Graph

Notes		
Output Created		25-JUN-2019 14:28:29
Comments		
Input	Data	*PRIVATE*The psychological factors influencing stress on education professionals in primary schools_May 30, 2019_06.40.sav
Active Dataset		DataSet1
Filter		<none>
Weight		<none>
Split File		<none>

N of Rows in Working Data File		65
Syntax	GRAPH	
		/BAR(GROUPED)=COUNT BY Q1 BY Stress_Levels.
Res	Processor Time	00:00:00.20
ources	Elapsed Time	00:00:00.19



Question
1: What age group do you teach or support in?

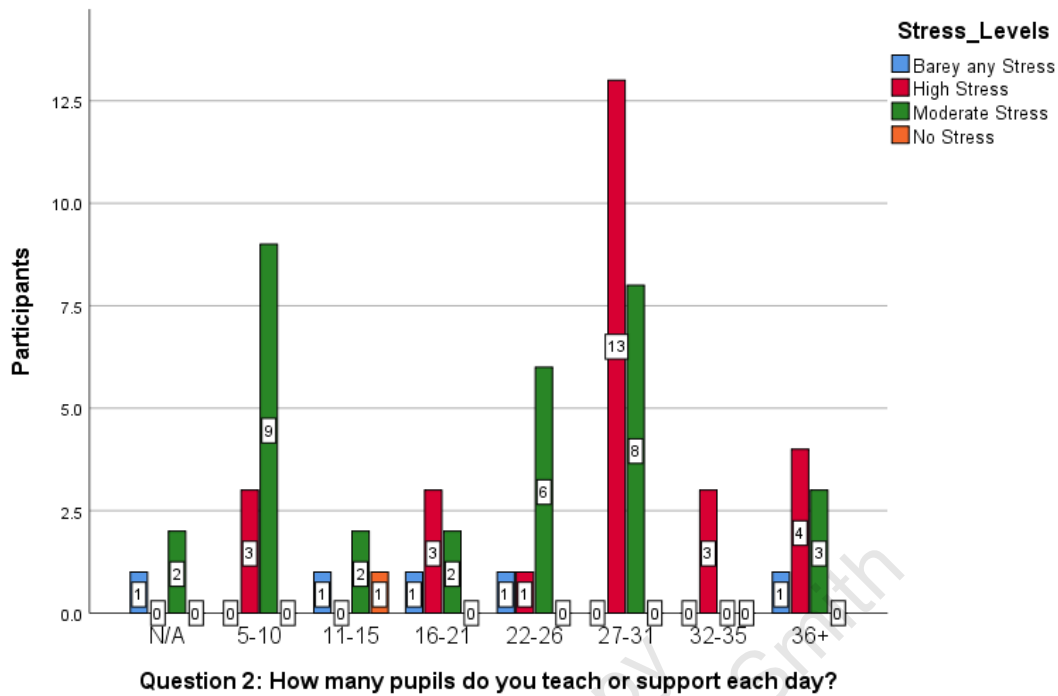
GRAPH

/BAR(GROUPED)=COUNT BY Q2 BY Stress_Levels.

Graph

Notes

Output Created		26-JUN-2019 13:08:13
Comments		
t	Input Data	*PRIVATE*\The psychological factors influencing stress on education professionals in primary schools_May 30, 2019_06.40-_June 24, 2019_05.17.sav
	Active Dataset	DataSet1
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	65
	Syntax	GRAPH /BAR(GROUPED)=COUNT BY Q2 BY Stress_Levels.
Res	Processor Time	00:00:00.28
ources	Elapsed Time	00:00:00.22



DESCRIPTIVES VARIABLES=SC0 JobSatScores MotivationScores WellbeingScores
/STATISTICS=MEAN STDDEV MIN MAX.

Descriptives

Notes

Output Created

26-JUN-2019
17:10:42

Comments		
Input	Data	*PRIVATE*\The psychological factors influencing stress on education professionals in primary schools_May 30, 2019_06.40-_June 24, 2019_05.17.sav
	Active Dataset	DataSet2
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	65
Missing Value Handling	Definition of Missing	User defined missing values are treated as missing.
	Cases Used	All non-missing data are used.
Syntax		DESCRIPTIVES VARIABLES=SC0 JobSatScores MotivationScores WellbeingScores /STATISTICS=MEAN STDDEV MIN MAX.
Resources	Processor Time	00:00:00.00
	Elapsed Time	00:00:00.00

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Participants Stress	6	23	85	6	12.390
Scores	5	.00	.00	4.0000	.77

JobSatScores	6	8.	35	2	4.1201
	5	00	.00	6.1538	9
MotivationScores	6	5.	23	1	3.3355
	5	00	.00	7.2462	6
WellbeingScores	6	10	33	2	5.2020
	5	.00	.00	0.9692	7
Valid N (listwise)	6				
	5				

CORRELATIONS

/VARIABLES=SC0 JobSatScores MotivationScores WellbeingScores

/PRINT=TWOTAIL NOSIG

/MISSING=PAIRWISE.

Correlations

Notes	
Output Created	27-JUN-2019 12:48:59
Comments	

Input	Data	*PRIVATE*\\The psychological factors influencing stress on education professionals in primary schools_May 30, 2019_06.40- _June 24, 2019_05.17.sav
	Active Dataset	DataSet1
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	65
Missing Value Handling	Definition of Missing	User-defined missing values are treated as missing.
	Cases Used	Statistics for each pair of variables are based on all the cases with valid data for that pair.
Syntax		CORRELATIONS /VARIABLES=SC0 JobSatScores MotivationScores WellbeingScores /PRINT=TWOTAIL NOSIG /MISSING=PAIRWISE.
Resources	Processor Time	00:00:00.03
	Elapsed Time	00:00:00.03

Correlations

Particip		
ants Stress	JobSat	Motivat
Scores	Scores	ionScores

Participants Stress Scores	Pearson Correlation	1	.724**	.720**
	Sig. (2-tailed)		.000	.000
	N	65	65	65
JobSatScores	Pearson Correlation	.724**	1	.512**
	Sig. (2-tailed)	.000		.000
	N	65	65	65
MotivationScores	Pearson Correlation	.720**	.512**	1
	Sig. (2-tailed)	.000	.000	
	N	65	65	65
WellbeingScores	Pearson Correlation	.856**	.471**	.413**
	Sig. (2-tailed)	.000	.000	.001
	N	65	65	65

Correlations

		WellbeingScores
Participants Stress Scores	Pearson Correlation	.856**
	Sig. (2-tailed)	.000
	N	65
JobSatScores	Pearson Correlation	.471**
	Sig. (2-tailed)	.000
	N	65
MotivationScores	Pearson Correlation	.413**
	Sig. (2-tailed)	.001
	N	65
WellbeingScores	Pearson Correlation	1
	Sig. (2-tailed)	
	N	65

** . Correlation is significant at the 0.01 level (2-tailed).

REGRESSION

/DESCRIPTIVES MEAN STDDEV CORR SIG N

/MISSING LISTWISE

/STATISTICS COEFF OUTS CI(95) R ANOVA CHANGE ZPP

/CRITERIA=PIN(.05) POUT(.10)

/NOORIGIN

/DEPENDENT SC0

/METHOD=ENTER JobSatScores MotivationScores WellbeingScores

/RESIDUALS HISTOGRAM(ZRESID) NORMPROB(ZRESID).

Regression

		Notes
Output Created		28-JUN-2019 11:52:10
Comments		
Input	Data	*PRIVATE*\The psychological factors influencing stress on education professionals in primary schools_May 30, 2019_06.40-_June 24, 2019_05.17.sav

	Active Dataset	DataSet1
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	65
Missing Value Handling	Definition of Missing	User-defined missing values are treated as missing.
	Cases Used	Statistics are based on cases with no missing values for any variable used.
Syntax	REGRESSION /DESCRIPTIVES MEAN STDDEV CORR SIG N /MISSING LISTWISE /STATISTICS COEFF OUTS CI(95) R ANOVA CHANGE ZPP /CRITERIA=PIN(.05) POUT(.10) /NOORIGIN /DEPENDENT SC0 /METHOD=ENTER JobSatScores MotivationScores WellbeingScores /RESIDUALS HISTOGRAM(ZRESID) NORMPROB(ZRESID).	
Resources	Processor Time	00:00:00.44
	Elapsed Time	00:00:00.39
	Memory Required	52240 bytes
	Additional Memory	608 bytes
	Required for Residual Plots	

Descriptive Statistics

	M	Std.	
	ean	Deviation	N
Participants Stress	6	12.390	6
Scores	4.0000	77	5
JobSatScores	2	4.1201	6
	6.1538	9	5
MotivationScores	1	3.3355	6
	7.2462	6	5
WellbeingScores	2	5.2020	6
	0.9692	7	5

Correlations

		Particip ants Stress Scores	JobSat Scores	Motivat ionScores
Pearson Correlation	Participants Stress Scores	1.000	.724	.720
	JobSatScores	.724	1.000	.512
	MotivationScores	.720	.512	1.000
	WellbeingScores	.856	.471	.413
Sig. (1-tailed)	Participants Stress Scores	.	.000	.000
	JobSatScores	.000	.	.000
	MotivationScores	.000	.000	.
	WellbeingScores	.000	.000	.000
N	Participants Stress Scores	65	65	65
	JobSatScores	65	65	65
	MotivationScores	65	65	65
	WellbeingScores	65	65	65

Correlations

WellbeingScores		
Pearson Correlation	Participants Stress Scores	.856
	JobSatScores	.471
	MotivationScores	.413
	WellbeingScores	1.000
Sig. (1-tailed)	Participants Stress Scores	.000
	JobSatScores	.000
	MotivationScores	.000
	WellbeingScores	.
N	Participants Stress Scores	65
	JobSatScores	65
	MotivationScores	65
	WellbeingScores	65

Variables Entered/Removed ^a			
Model	Variables Entered	Variables Removed	Method
1	WellbeingScores, MotivationScores, JobSatScores ^b		Enter

a. Dependent Variable: Participants Stress Scores

b. All requested variables entered.

Model Summary ^b						
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics R Square Change	F Change
1	.972 ^a	.944	.942	2.99600	.944	34.4566

Model Summary^b

Model	df1	Change Statistics	
		df2	Sig. F Change
1	3	61	.000

- a. Predictors: (Constant), WellbeingScores, MotivationScores, JobSatScores
b. Dependent Variable: Participants Stress Scores

ANOVA^a

Model		Sum of	df	Mean	F	Sig.
		Squares		Square		
Regression	Regr	9278.4	3	3092.	3	.0
	ession	65		822	44.566	00 ^b
	Resi	547.53	6	8.976		
	dual	5	1			
Total		9826.0	6			
		00	4			

- a. Dependent Variable: Participants Stress Scores
b. Predictors: (Constant), WellbeingScores, MotivationScores, JobSatScores

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
Regression	(Constant)	-	2.561		-	.0
		8.552			3.340	01
	JobSatSco	.828	.112	.275	7.	.0
	res				382	00
Motivation Scores		1.251	.134	.337	9.	.0
					323	00
Wellbeing Scores		1.398	.084	.587	1	.0
					6.683	00

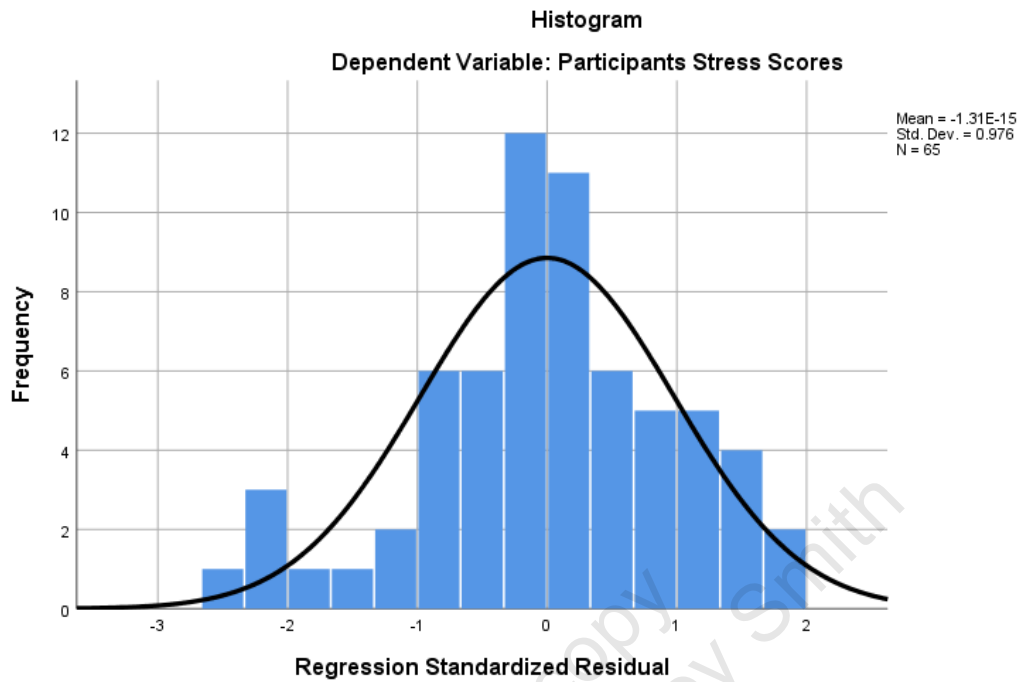
Coefficients ^a					
Model	95.0% Confidence Interval for B		Zero -order	Correlations	
	Lower Bound	Upper Bound		P artial	Pa rt
(Constant)	-13.672	-3.432			
JobSatScor	.604	1.053	.724	.687	.223
MotivationS	.983	1.520	.720	.767	.282
WellbeingS	1.230	1.565	.856	.906	.504

a. Dependent Variable: Participants Stress Scores

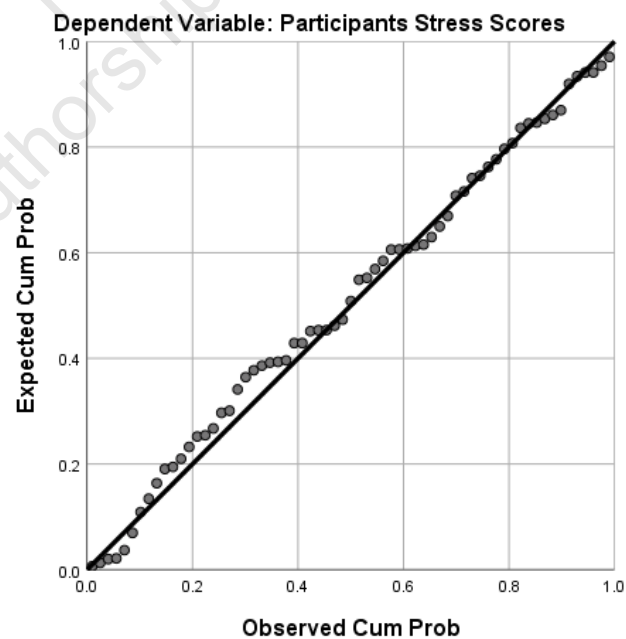
Residuals Statistics ^a					
	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	18.3086	83.2899	64.0000	12.04060	65
Residual	-.746093	5.66547	.00000	2.92493	65
Std. Predicted Value	-.3795	1.602	.000	1.000	65
Std. Residual	-.2490	1.891	.000	.976	65

a. Dependent Variable: Participants Stress Scores

Charts



Normal P-P Plot of Regression Standardized Residual



****SPSS OUTPUT END****

Appendix F: Copy of Stress Scoring System

Stress Scale

- A custom made stress scoring system was designed to meet the needs of my research and the Likert scales that were used within the questionnaire.
- This customized method of scoring was calculated using the 23* quantitative questions, based on the three independent** variables of job satisfaction, motivation and wellbeing.

- Stress Scoring System
- No Stress = 23
- Barely any Stress = 24 – 46
- Moderate Stress = 47 – 69
- High Stress = 70 – 92
- Extreme Stress = 93 – 115

How were the score levels calculated?

1** x 23(*questions) = 23 (No Stress)

2 x 23 = 46 (Barely any Stress)

3 x 23 = 69 (Moderate Stress)

4 x 23 = 92 (High Stress)

5 x 23 = 115 (Extreme Stress)

Total Score = Between 23 and 115.

This is a copy of the authorship - Ainsley Smith

Appendix G: Likert Scoring Design

Questions on Job Satisfaction (DV) Dependent Variable 1

EXAMPLE This question type is not currently supported

1

Q3- Job Satisfaction

7

Clear

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
3. There is little time to prepare for my lessons/responsibilities.	1	2	3	4	5
4. There is too much work to do.	1	2	3	4	5
5. The pace of the school day is too fast.	1	2	3	4	5
6. My caseload/class is too big.	1	2	3	4	5
7. There is too much administrative paperwork in my job.	1	2	3	4	5

18. The leader(s) at this school are approachable

19. Pupils are happy and positive in learning with me

20. I have a positive relationship with parents

21. I find time to speak to pupils on things other than learning

22. I have a strong rapport with children

	Very Often	Fairly Often	Sometimes	Almost Never	Never
18. The leader(s) at this school are approachable	1	2	3	4	5
19. Pupils are happy and positive in learning with me	1	2	3	4	5
20. I have a positive relationship with parents	1	2	3	4	5
21. I find time to speak to pupils on things other than learning	1	2	3	4	5
22. I have a strong rapport with children	1	2	3	4	5

Questions related to stress factors (DV) Dependent Variable 1

EXAMPLE This question type is not currently supported

5

Q23- Job Satisfaction and Stress

25

Clear

	Very Often	Fairly Often	Sometimes	Almost Never	Never
23. Have you ever considered leaving the education profession	5	4	3	2	1
24. Is stress taken seriously by your line manager and the leadere(s) at your school	1	2	3	4	5
25. Does stress from working in the education profession affect you outside of your job role	5	4	3	2	1