RELATIONSHIP BETWEEN OCCUPATIONAL STRESS AND ACADEMIC OPTIMISM OF SECONDARY SCHOOL TEACHERS

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Abstract

The main purpose of the study was to investigate the occupational stress and academic optimism of secondary school teachers in Yangon Region. In this study, descriptive survey method and quantitative research design was used. Simple random sampling technique was used in this study. A total of 960 secondary school teachers were selected from Yangon Region in Myanmar. The Influence of Teachers' Occupational Stress Questionnaire (ITOSQ) developed by Mailumo (2018) and the School Academic Optimism Scale (SAOS) developed by (Hoy, Tarter, & Hoy, 2006) were used in this study. According to occupational stress, the results of means, standard deviations and independent samples *t*-test showed that SAT were higher than JAT in occupational stress; teachers experienced <20 years were higher than teachers experienced > 20 years in occupational stress; the teachers who described being inadequacy were higher than the teachers who described being adequacy in stress due to excessive workload, stress due to instructional materials, stress due to delay and non-payment of salaries, stress due to students' indiscipline and total occupational stress and there was not significantly different by class size in occupational stress. By one-way ANOVA, there were statistically significant differences in all dimensions of occupational stress by age. According to academic optimism, the results of means, standard deviations and independent samples *t*-test showed that JAT were higher than SAT in academic optimism, teachers experienced >20 years were higher than teachers experienced < 20 years in academic optimism, teachers who described being adequacy were higher than teachers who described being inadequacy in academic optimism, teachers teaching large class size were higher than teachers teaching small class size in each subscale of academic optimism except faculty trust in students and parents. By one-way ANOVA, there were statistically significant differences in collective teacher efficacy and academic emphasis by age. It was also found that higher level of occupational stress was significantly correlated with lower level of collective teacher efficacy.

Keywords: Occupational Stress, Academic Optimism, Academic Emphasis

Introduction

The Researchers recognized that teachers are the backbone of an educational activity. Then, the success and failure of educational activities depend mainly on their performance. Among teachers, secondary school teachers assist and guide the learning of adolescent students and facilitate them to develop adolescent's skills. Then, effective secondary teachers understand the perspectives and needs of adolescent students, cultivate and influence them with teaching effectiveness to achieve significant outcomes. So, they undergo greater stress than others.

Teacher stress, which causes teachers to develop various levels of psychological symptoms such as mild frustration, irritability, and anxiety as well as more serious psychosomatic and depressive symptoms, stems from some facets and conditions of their work as teachers (Kyriacou, 2001). Thus, the stress experienced by teachers endangers their own health and efficacy while also affecting student outcomes, and it has increasingly captured the attention of researchers as a major and widespread problem.

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Evidence from research indicates that teachers experience a variety of stress sources. Considerable ones among these sources are; having to teach unmotivated students, discipline problems, work overload, undefined roles or responsibilities, being evaluated by others, problematic relationships with colleagues and administrators, and poor working conditions (Kyriacou, 2001). On the other hand, building an effective learning environment along with improving student learning and achievement depend on teachers' belief about student academic achievement and their focus on academic tasks (Ballone & Czerniak, 2001;Kilinc, 2013; Pajares, 1992). This is because teachers are the central point of the classroom innovation, for continued growth and effective teaching, they need to be skilled, optimistic, motivated, and confident, believing that they can cultivate students and promote their learning outcomes. They must grow a sense of hope and job satisfaction that helps to reduce emotional and physical stress. They need to construct a culture called academic optimism because it contains a set of beliefs about the strengths and capabilities in schools in which is theme uniting efficacy and trust with academic emphasis.

So, to bolster teachers' job effectiveness, student success and to alleviate or restore occupational stress, it is important to discover academic optimism of teachers. With continuous demands placed on education, researchers and administrators focus mainly on the importance of academic optimism of teachers. Teacher academic optimism is made up of teacher efficacy, teacher trust in students and parents, and teacher academic emphasis (Beard, 2011). So, an attempt will be made in this study to find out occupational stress and academic optimism of secondary school teachers.

Objectives of the Study

Main Objective

The main purpose of the study is to investigate occupational stress and academic optimism of secondary school teachers from selected townships in Yangon region.

Specific Objectives

To examine occupational stress of secondary school teachers by age, designation, working experience, teacher adequacy and class size.

To examine academic optimism of secondary school teachers by age, designation, working experience, teacher adequacy and class size.

To investigate the relationship between occupational stress and academic optimism of secondary school teachers.

Definitions of the Key Terms

Occupational stress among teachers. Occupational stress refers to the experiences of teachers in their work place such as: unconducive working environment, inadequate infrastructural facilities, excess workload, inadequate instructional materials, delay of salaries, lack of in-service training and students' discipline which influence their job effectiveness in secondary schools (Mailumo, 2018).

Academic optimism. Academic optimism of school is a collective construct that includes the collective, affective and behavioral facets of collective efficacy, faculty trust in students and parents and academic emphasis (Hoy et al., 2006).

Teacher self-efficacy. It is a teacher's belief that what the teacher sets out to do with the students can actually be done and will have a positive effect on students (Hoy & Miskel, 2008).

Trust in parents and students. Trust in parents and students is a teacher's belief that student, parents and teachers can operate to improve student learning (Hoy & Tschannen, 2003).

Academic emphasis. Academic emphasis is the extent to which a school is driven by a quest for academic excellence (Hoy & Miskel, 2008).

Related Literature Review

The Demand-Control Theory by Karasek (1979)

The demand-control theory was propounded by Karasek (1979). The balance of job demands and individual autonomy is important for this theory. Workers who face high demands with minimal control are more prone to stress than others that is indicated by this theory. By the theory, if a person has minimal job demands and remarkable control, should meet the lowest levels of stress. For instance, a person who works in a busy tea shop would have high demand, they must make tea in the correct way within a very small time frame. This person would also have low control because he or she would not have the freedom to make choices about how or when the tea is made. According to the demands-control theory, a person in this situation would experience much more stress than someone with either more control or less demanding conditions.

According to the theory, when job demands are high and employees have little autonomy to influence their work processes, it often leads to increased stress, poor health outcomes, and lower job satisfaction. Stress is exacerbated by heavy workloads, infrequent breaks, lengthy hours, shift work, and routine tasks that lack intrinsic value, don't tap into workers' skills, and give little sense of control. Perceptions of stress and actual stress levels can be heavily affected by a person's sense of control and self-efficacy. Thus, an increase in control is positively correlated with job satisfaction.

The role of autonomy in workplace stress was particularly explained by the demand-control theory. Although it was commonly believed that high-demand jobs were more stressful than their low-demand jobs, the idea that control could impact this stress level was a novel discovery in the field of stress research. Karasek (1979) suggested that increased control could reduce stress, but only if the individual also possessed high self-efficacy. Since its development in the late 1970s, researchers critically evaluated and enhanced the demands-control theory, but its profound effect on organizational stress research is clear.

The demands-control theory has made a significant role on organizational stress research, demonstrating many relevant applications in the workplace. According to the demand-control theory, stress arises when there is a mismatch between the person and their environment or between the environment and the person. Essentially, when a person is overqualified for a given role or task, they may feel stress because the work could appear unsatisfying. Similarly, a lack of essential skills for a task can lead to feelings of being overwhelmed. In both cases, the employee's misalignment with the environment, leading to emotional distress.

The importance of demand-control theory for this study lies in the fact that principals must consider specific circumstances to improve teachers' job performance in secondary schools. The principal should view the decisions as relevant, and they must also gain support from

teachers and other critical players in the educational framework. If school administrators implement this theory in secondary schools, it could greatly alleviate teacher stress and lead to a noticeable enhancement in their job performance.

Theoretical Foundation of Academic Optimism

The goal of applying academic optimism is to educating teachers to lead the students to skill mastery and success. Academic optimism is a relatively new idea, as much of the work of Wayne K. Hoy and his colleagues have been done in the last two decades. If education leaders value academic optimism, then discovering which beliefs contribute to it might provide further advantages. From a historical view, the foundational theories of Dewey on learners, Festinger's cognitive dissonance, and Bandura's self-efficacy have collectively shaped the conceptual basis for Hoy's theories. Academic optimism of school is a collective construct that includes the collective, affective and behavioral facets of collective efficacy, faculty trust in students and parents and academic emphasis (Hoy, Tarter, & Hoy, 2006). The theoretical foundation of academic optimism are Bandura, 1986, 1997), Coleman's social capital theory (1990), Hoy and his colleagues' work on culture and climate (Hoy, Tarter & Kottkamp, 1990). All three elements have transactional relation with one another to form of academic optimism. The construct of academic optimism is based on results from several previous studies that focus on academic emphasis, collective efficacy and faculty trust in students and parents as properties related to student achievement (Goddard, et al., 2000).

Academic emphasis is the extent to which a school is driven by a quest for academic excellence (Hoy et al., 2006). In a press for academic achievement, schools set high but achievable academic goals for students, the learning is orderly and serious; students are motivated to work hard; and students respect academic achievement (Hoy et al., 2006). Some researchers highlight the significance academic emphasis has on student achievement (Lee & Bryk, 1989), while Hoy et al. (1991) identified academic emphasis as possibly the single most significant predictors of student achievement. The perception among teachers that their combined efforts will effectively benefit students and improve their performance that denotes collective efficacy. Faculty trust in students and parents is based in feelings that students and their parents are benevolent, reliable, competent, honest and open (Hoy & Tschannen-Moran, 1999).

The construct of academic optimism evolves from the general work of positive psychology. It goes beyond focusing on illness and pathology to look at areas of the human experience including well-being, hope, fulfillment, meaning academic optimism is rooted in humanistic psychology (Beard et al., 2009). Academic optimism is a set of beliefs about the strengths and capabilities in schools in which is theme uniting efficacy and trust with academic emphasis. The relationship between academic optimism and high achievement is influenced by collective faculty trust and collaborative efforts. It creates a school culture imbued with a sense of the possible (Hoy & Miskel, 2013).

The relationships between three major dimensions: academic emphasis, faculty trust in students and parents perceived collective efficacy of the faculty are graphically presented as a triadic set of interactions with each element functionally dependent on the others (Hoy et al., 2006). The postulated reciprocal causality between each pair of elements as shown in the figure **.**

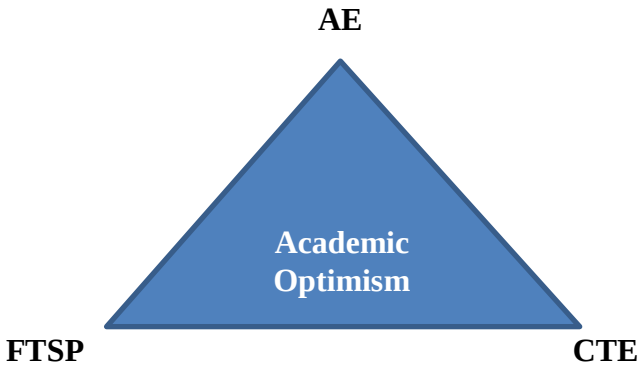

Figure 1 The Relationships of Academic Optimism

AE = Academic Emphasis
FTSP = Faculty Trust in Students and Parents
CTE = Collective Teacher Efficacy of the Faculty

Academic optimism is a collective construct comprising all three elements have transactional relation with one another to form a culture of academic optimism (Hoy et al., 2006). Hoy and colleagues theorized three dimensions that work together to form a single powerful force which could explain school performance. A shared belief among school faculty can be created by this force which is there conditions conducive to improving student performance and student performance will indeed improve. So, academic optimism creates a culture with a collective beliefs and norms that view teachers as capable, students as willing, parents as supportive, and academic success as achievable (Hoy & Miskel, 2013).

Method

Research Method

Design of this study was cross sectional in nature. Quantitative research design was used in this study. Descriptive survey method was used to measure secondary school teachers' occupational stress and academic optimism.

Participants of the Study

The participants were chosen by using random sampling technique. Firstly, from 16 townships located in Yangon Region, from 30 high schools located in the selected townships, the participants were randomly selected. Finally, 960 secondary school teachers participated in this study.

Instrumentation

The Influence of Teachers' Occupational Stress Questionnaire (ITOSQ) developed by Mailumo (2018) and The School Academic Optimism Scale (SAOS) developed by Hoy, Tarter, and Hoy (2006) were used as the research instruments in this study.

Data Collection Procedure

With the permissions of administrative personnel, pilot study was conducted with 50 secondary school teachers in BEHS 1 Hlaing Thar Yar in August, 2023. Afterwards, the actual data were collected, scored, and analyzed by using SPSS (version 22).

Data Analysis and Research Findings

Descriptive Statistics for Occupational Stress of Secondary School Teachers

To explore the occupational stress of secondary school teachers, descriptive statistics was carried out and the results were shown in Table 1. As the mean score of total occupational stress is 85.84 and the value of skewness of occupational stress is -0.366. So, the secondary school teachers in occupational stress were high. It may be interpreted they are likely to feel challenges, are not able to capable, show less adaptive capacities with environment and struggle to achieve student success.

Table 1 Descriptive Statistics of Occupational Stress of Secondary School Teachers

Variable	*N*	*M*	*Sk*	*SD*
Occupational Stress	960	85.84	-0.366	16.76

Table 2 Descriptive Statistics for Subscales of Occupational Stress of Secondary School Teachers

Variable	*N*	*M*	*SD*
Stress due to Poor Working Environment	960	11.93	2.67
Stress due to Inadequate Infrastructural Facilities	960	10.40	2.26
Stress due to Excessive Workload	960	12.42	2.94
Stress due to Inadequate Instructional Materials	960	11.24	3.45
Stress due to Delay and Non-payment of Salaries	960	14.31	3.99
Stress due to Lack of in-service Training	960	10.67	3.02
Stress due to Students' Indiscipline	960	14.88	3.50

By descriptive statistic, among seven subscales, stress due to students' indiscipline was the highest for the secondary school teachers in this study.

Comparison of Occupational Stress by Age

To investigate the differences in occupational stress of secondary school teachers by age, descriptive statistics was carried out and the results were shown in Table 3. It was clearly seen that the mean score of 20-30 age group was higher than that other age group in occupational stress.

Table 3 Descriptive Statistics for Occupational Stress by Age

Variable	Age	*N*	*M*	*SD*
Stress due to Poor Working Environment	20-30	54	12.83	2.49
	31-40	239	12.62	2.53
	41-50	250	11.94	2.80
	51 and above	417	11.41	2.57
Stress due to Inadequate Infrastructural facilities	20-30	54	11.11	2.50
	31-40	239	10.81	2.15
	41-50	250	10.36	2.36
	51 and above	417	10.09	2.18
Stress due to Excessive Workload	20-30	54	13.98	2.65
	31-40	239	13.31	2.77
	41-50	250	12.16	2.80
	51 and above	417	11.86	2.96

Variable	Age	*N*	*M*	*SD*
Stress due to Inadequate Instructional Materials	20-30	54	13.15	3.29
	31-40	239	11.67	3.26
	41-50	250	11.33	3.29
	51 and above	417	10.69	3.55
Stress due to Delay and Non-payment of Salaries	20-30	54	15.98	3.74
	31-40	239	15.12	3.71
	41-50	250	13.66	4.06
	51 and above	417	14.02	4.00
Stress due to Lack of In-service Training	20-30	54	11.74	2.40
	31-40	239	11.48	2.83
	41-50	250	10.80	2.88
	51 and above	417	9.98	3.12
Stress due to Students' Indiscipline	20-30	54	16.39	3.05
	31-40	239	15.32	3.17
	41-50	250	14.49	3.61
	51 and above	417	14.67	3.59
Total Occupational Stress	20-30	54	95.19	15.23
	31-40	239	90.33	14.90
	41-50	250	84.78	16.48
	51 and above	417	82.71	17.22

Then, one way ANOVA was calculated to obtain more detailed information on age-group about occupational stress. According to the results, there were statistically significant differences in all dimensions of occupational stress by age.

Table 4 ANOVA Results of Occupational Stress by Age

Variable		Sum of Squares	*df*	Mean Square	*F*	*p*
Stress due to Poor working environment	Between Groups	269.317	3	89.77	13.105***	.000
	Within Group	6549.007	956	6.85		
	Total	6818.324	959			
Stress due to Inadequate Infrastructural facilities	Between Groups	108.335	3	36.112	7.208***	.000
	Within Group	4789.248	956	5.01		
	Total	4897.583	959			
Stress due to Excessive Workload	Between Groups	468.729	3	156.243	19.137***	.000
	Within Group	7805.255	956	8.164		
	Total	8273.983	959			
Stress due to Inadequate Instructional Materials	Between Groups	368.243	3	122.748	10.642***	.000
	Within Group	11027.173	956	11.535		
	Total	11395.416	959			

Variable		Sum of Squares	*df*	Mean Square	*F*	*p*
Stress due to Delay and Non-payment of Salaries	Between Groups	449.087	3	149.696	9.680***	.000
	Within Group	14784.409	956	15.465		
	Total	15233.496	959			
Stress due to Lack of In-service Training	Between Groups	422.824	3	140.941	16.178***	.000
	Within Group	8328.841	956			
	Total	8751.666	959	8.712		
Stress due to Students' Indiscipline	Between Groups	225.342	3	75.114	6.247***	.000
	Within Group	11495.120	956	12.024		
	Total	11720.463	959			
Total Occupational Stress	Between Groups	13895.119	3	4631.70	17.343***	.000
	Within Group	255316.755	956	6		
	Total	269211.874	959	267.068		

****p*<0.001

Again, Post-Hoc comparison was computed by Tukey HSD method to find out the difference about which age-group is higher than that of the others. It was apparent that there were statistically significant differences in all dimensions of occupational stress by age. More exactly, 20-30 age group was significantly different 41-50 and 51 and above age groups, then, 31-40 age group was significantly different from 41-50 and 51 and above age group in total occupational stress. Then, 20-30 age group had higher occupational stress than 41-50 and 51 and above age groups, then, 31-40 age group had higher occupational stress than 41-50 and 51 and above age group in total occupational stress. It may be interpreted that 20-30 and 31-40 age groups had more likely to struggle in their carriers, cannot handle a stimuli causing stress. This finding was consistent with Murali (2014). In his research, the teachers who belonged to the age group of 31-40 years had higher occupation stress and the teachers who are > 51 years of age had lesser occupational stress.

Table 5 Results of Tukey HSD Multiple Comparison for Occupational Stress by Age

Variable	Age (*I*)	Age(*J*)	Mean Difference (*I*-*J*)	*p*
Stress due to Poor Working Environment	20-30	51 and above	1.421**	.001
	31-40	41-50	0.679*	.022
		51 and above	1.207***	.000
Stress due to Inadequate Infrastructural Facilities	20-30	51 and above	1.025**	.009
	31-40	51 and above	0.721***	.000
Stress due to Excessive Workload	20-30	41-50	1.821***	.000
		51 and above	2.118***	.000
	31-40	41-50	1.154***	.000
		51 and above	1.450***	.000

Variable	Age (*I*)	Age(*J*)	Mean Difference (*I*-*J*)	*p*
Stress due to Inadequate Instructional Materials	20-30	31-40	1.475*	.021
		41-50	1.820**	.002
		51 and above	2.455***	.000
	31-40	51 and above	0.981**	.002
Stress due to Delay and Non-payment of Salaries	20-30	41-50	2.321**	.001
		51 and above	1.962**	.003
	31-40	41-50	1.461***	.000
		51 and above	1.102**	.003

Table 5 Continued Results of Tukey HSD Multiple Comparison for Occupational Stress by Age

Stress due to Lack of In-service Training	20-30	51 and above	1.762***	.000
	31-40	51 and above	1.503***	.000
	41-50	51 and above	0.822**	.003
Stress due to Students' Indiscipline	20-30	41-50	1.901**	.002
		51 and above	1.717**	.004
	31-40	41-50	0.830*	.041
Total Occupational Stress	20-30	41-50	10.445***	.000
		51 and above	12.461***	.000
	31-40	41-50	5.595**	.001
		51 and above	7.611***	.000

*p<0.05, **p<0.01, ***p<0.001

Comparison of Occupational Stress by Designation

In order to make detailed investigation on occupational stress of participants with regard to their designation, means, standard deviations and independent samples *t*-test was conducted. The results revealed that there were significant differences in occupational stress by designation. The following table showed that there was significantly different between SAT and JAT in occupational stress. The mean scores of occupational stress of SAT were higher than that of JAT. It may be interpreted that SAT teachers take more responsibilities SAT teachers will suffer from stress with spare time cannot perform well for student achievement because of excess workload.

Table 6 Means, Standard Deviations and Results of Independent Samples *t*-test of Occupational Stress by Designation

Variable	Designation	*N*	*M*	*SD*	*t*	*df*	*p*
Stress due to Poor working environment	JAT	480	11.35	2.66	-6.930***	958	.000
	SAT	480	12.51	2.54			
Stress due to Inadequate Infrastructural facilities	JAT	480	9.97	2.23	-5.900***	958	.000
	SAT	480	10.82	2.21			
Stress due to Excessive Workload	JAT	480	11.73	2.89	-7.456***	958	.000
	SAT	480	13.11	2.82			
Stress due to Inadequate Instructional Materials	JAT	480	10.70	3.48	-4.937***	958	.000
	SAT	480	11.78	3.33			

Variable	Designation	*N*	*M*	*SD*	*t*	*df*	*p*
Stress due to Delay and Non-payment of Salaries	JAT	480	13.99	4.04	-2.485*	958	.01
	SAT	480	14.63	3.91			
Stress due to Lack of In-service Training	JAT	480	9.98	2.98	-7.180***	958	.000
	SAT	480	11.35	2.91			
Stress due to Students' Indiscipline	JAT	480	14.42	3.59	-4.152***	958	.000
	SAT	480	15.35	3.34			
Total Occupational Stress	JAT	480	82.14	16.92	-7.014***	958	.000
	SAT	480	89.55	15.75			

*p<0.05, ***p<0.001

Comparison of Occupational Stress by Working Experience

In order to make detailed investigation on occupational stress of participants with regard to their working experience, means, standard deviations and independent samples *t*-test was conducted. The following table showed that there were significantly different between teachers experienced < 20 years and teachers experienced > 20 years in occupational stress. Then, the mean scores of teachers experienced <20 years were higher than that of teachers experienced > 20 years in occupational stress. It can be assumed that teachers experienced <20 years may be high job expectation and concern their socioeconomic status. This finding was consistent with Murali (2014). In his research, high school teachers with less than 10 years of experience undergo greater stress.

Table 7 Means, Standard Deviations and Results of Independent Samples *t*-test of Occupational Stress by Working Experience

Variable	Service	*N*	*M*	*SD*	*t*	*df*	*P*
Stress due to Poor Working Environment	<20 years	467	12.39	2.62	5.268	958	.000
	>20 years	493	11.49	2.64			
Stress due to Inadequate Infrastructural Facilities	<20 years	467	10.71	2.35	4.271	958	.000
	>20 years	493	10.10	2.14			
Stress due to Excessive Workload	<20 years	467	13.05	2.82	6.640	958	.000
	>20 years	493	11.82	2.92			
Stress due to Inadequate Instructional Materials	<20 years	467	11.74	3.37	4.419	958	.000
	>20 years	493	10.77	3.45			
Stress due to Delay and Non-payment of Salaries	<20 years	467	14.68	3.91	2.797	958	.005
	>20 years	493	13.96	4.07			
Stress due to Lack of In-service Training	<20 years	467	11.39	2.84	7.453	958	.000
	>20 years	493	9.98	3.03			
Stress due to Students' Indiscipline	<20 years	467	15.30	3.34	3.641	958	.000
	>20 years	493	14.48	3.60			
Total Occupational Stress	<20 years	467	89.27	15.80	6.283	958	.000
	>20 years	493	82.60	17.00			

***p<0.01, ***p<0.001*

Comparison of Occupational Stress by Teacher Adequacy

In order to make detailed investigation on occupational stress of participants with regard to their teacher adequacy, means, standard deviations and independent samples *t*-test was calculated. The following table showed that the number of teacher who described being inadequacy was not significantly different from the number of teacher who described being adequacy in total occupational stress but the number of teacher who described being inadequacy was significantly different from the number of teacher who described being adequacy in stress due to excessive workload, stress due to delay and non-payment of salaries and stress due to students' indiscipline. The mean scores of the stress of teacher who described being inadequacy were higher than that of the stress of teacher who described being adequacy in stress due to excessive workload, stress due to inadequate instructional materials stress due to delay and non-payment of salaries and stress due to students' indiscipline and total occupational stress but the mean scores of the number of teacher who described being adequacy were higher than that of the number of teacher who described being inadequacy in other subscales. It may be interpreted that these teachers confronted with excess workload and these teachers taught extra hour.

Table 8 Means, Standard Deviations and Results of Independent Samples *t*-test of Occupational Stress by Teacher Adequacy

Variable	Teacher Adequacy	*N*	*M*	*SD*	*t*	*df*	*P*
Stress due to Poor Working Environment	No	329	11.84	2.62	-0.738	958	.460
	Yes	631	11.98	2.69			
Stress due to Inadequate Infrastructural Facilities	No	329	10.37	2.30	-0.209	958	.835
	Yes	631	10.41	2.24			
Stress due to Excessive Workload	No	329	12.78	3.05	2.771**	958	.006
	Yes	631	12.22	2.86			
Stress due to Inadequate Instructional Materials	No	329	11.33	3.76	0.571	958	.568
	Yes	631	11.19	3.28			
Stress due to Delay and Non-payment of Salaries	No	329	14.75	4.04	2.571*	958	.011
	Yes	631	14.06	3.94			
Stress due to Lack of In-service Training	No	329	10.61	3.07	-0.419	958	.675
	Yes	631	10.69	3.00			
Stress due to Students' Indiscipline	No	329	15.24	3.38	2.345*	958	.019
	Yes	631	14.68	3.55			
Total Occupational Stress	No	329	86.92	17.29	1.478	958	.140
	Yes	631	85.46	16.48			

*p<0.05, **p<0.01

Comparison of Occupational Stress by Class Size

In order to make detailed investigation on occupational stress of participants with regard to their class size, means, standard deviations and independent samples *t*-test was conducted. The results revealed that there was not significantly different in occupational stress by class size.

Table 9 Means, Standard Deviations and Results of Independent Samples *t*-test of Occupational Stress by Class Size

Variable	Class Size	*N*	*M*	*SD*	*t*	*df*	*p*
Stress due to Poor Working Environment	<50	371	11.97	2.78	0.370	958	.711
	> 50	589	11.90	2.59			
Stress due to Inadequate Infrastructural Facilities	< 50	371	10.44	2.33	0.532	958	.959
	> 50	589	10.37	2.21			
Stress due to Excessive Workload	< 50	371	12.57	2.95	1.239	958	.216
	> 50	589	12.33	2.93			
Stress due to Inadequate Instructional Materials	< 50	371	11.05	3.45	-1.352	958	.177
	>50	589	11.36	3.44			
Stress due to Delay and Non-payment of Salaries	< 50	371	14.43	3.94	0.712	958	.477
	> 50	589	14.24	4.01			
Stress due to Lack of In-service Training	< 50	371	10.88	2.87	1.736	958	.083
	> 50	589	10.53	3.11			
Stress due to Students' Indiscipline	< 50	371	15.02	3.50	1.101	958	.271
	> 50	589	14.78	3.49			
Total Occupational Stress	< 50	371	86.38	17.04	0.781	958	.435
	> 50	589	85.53	16.58			

Academic Optimism of Secondary School Teachers

To explore the academic optimism of secondary school teachers, standard Z Scores for School Academic Optimism Scale (SAOS) was carried out because SAOS contained two Likert scale and the results were shown in Table 10.

Table 10 Standard Z Scores for School Academic Optimism Scale (SAOS)

Attributes	No. of Items	Z scores
Collective Teacher Efficacy	12 items	-3.125E-08
Faculty Trust in Students and Parents	10 items	-8.02083E-07
Academic Emphasis	8 items	-8.75E-07

Among three sub-scales, the standard score of secondary school teachers was highest on collective teacher efficacy sub-scale. It can be interpreted that most of the participants can adjust with each other and they have ability to complete required challenges to positively student's achievement. On the other hand, the standard score of faculty trust in students and parents sub-scale was the second last stand. It can be interpreted that most of the participants had moderate mutually trustworthy partnership with the students and parents to improve student learning. Then, the standard score of secondary school teachers was found to be lowest on academic emphasis sub-scale. It can be due to the fact that the most secondary school teachers only possessed job

effectiveness and perspective that need to be modified in order to be able to perform responsibilities of a teacher towards academic press.

Comparison of Academic Optimism of Secondary School Teachers by Age

To investigate the differences in academic optimism of participants by age, descriptive statistical analysis was carried out and the results were shown in Table 11. It was clearly seen that the mean score of 20-30 age group was higher than that of other age group in faculty trust in students and parent subscale, then, 51 and above age group was higher than that of other age group in subscales of collective teacher efficacy and academic emphasis.

Table 11 Descriptive Statistics for Academic Optimism by Age

Variable	Age	*N*	*M*	*SD*
Collective Teacher Efficacy	20-30	54	51.81	5.57
	31-40	239	51.28	5.67
	41-50	250	51.36	6.26
	51 and above	417	52.59	5.09
Faculty Trust in Students and Parents	20-30	54	44.41	5.95
	31-40	239	43.21	6.95
	41-50	250	43.33	6.60
	51 and above	417	44.11	5.47
Academic Emphasis	20-30	54	26.02	3.91
	31-40	239	26.71	4.46
	41-50	250	26.76	4.72
	51 and above	417	27.94	4.07

Then, one way ANOVA was calculated to obtain more detailed information on age-group about academic optimism. According to the results, there were statistically significant differences in collective teacher efficacy, academic emphasis by age.

Table 12 ANOVA Results of Academic Optimism by Age

Variable		Sum of Squares	*df*	Mean Square	*F*	*p*
Collective Teacher Efficacy	Between Groups	362.041	3	120.680	3.865**	.009
	Within Group	29846.750	956	31.220		
	Total	30208.791	959			
Faculty Trust in Students and Parents	Between Groups	186.780	3	62.260	1.623	.182
	Within Group	36671.616	956	38.359		
	Total	36858.396	959			
Academic Emphasis	Between Groups	411.364	3	137.121	7.350***	.000
	Within Group	17834.698	956	18.656		
	Total	18246.063	959			

***p*<0.01, ****p*<0.001

Again, Post-Hoc comparison was computed by Tukey HSD test to find out the difference about which age group was higher than that of the others in academic optimism. From this result, there were significantly different between 31-40 age group and 51 and above age group, 41-50 age group and 51 and above age groups in collective teacher efficacy. Then, there were significantly different between 20-30 age group and 51 and above, 31-40 age group and 51 and

above age group, 41-50 age group and 51 and above age groups in academic emphasis. More specifically, the mean score of 51 and above age group had higher academic optimism than that of 20-30, 31-40, and 41-50 age groups in collective teacher efficacy and academic emphasis. It may be interpreted 51 and above age groups are more likely to plan, teach effectively and show high learning expectation.

Table 13 Results of Tukey HSD Multiple Comparison for Academic Optimism by Age

Variable	(*I*) Age	(*J*) Age	Mean Difference (*I*-*J*)	*p*
Collective Teacher Efficacy	31-40	51 and above	-1.309*	.021
	41-50	51 and above	-1.225*	.032
Academic Emphasis	20-30	51 and above	-1.924*	.011
	31-40	51 and above	-1.235**	.002
	41-50	51 and above	-1.182**	.004

*p<0.05, **p<0.01

Comparison of Academic Optimism by Designation

In order to make detailed investigation on academic optimism of participants with regard to their designation, means, standard deviations and independent samples *t*-test was conducted. The following table showed that there were significantly different between JAT teachers and SAT teachers in academic optimism. The mean scores of academic optimism of JAT were higher than that of SAT. It may be interpreted JAT teachers had more likely to seek challenges, set higher goals, put forth higher levels of exertion to accomplish goals and never give up easily as they have visualized positive results. This finding was inconsistent with Gilbert (2012). In his research, there was significant difference between elementary and secondary level teachers. Elementary teachers had higher academic optimism than secondary teachers.

Table 14 Means, Standard Deviations and Results of Independent Samples *t*-test for Academic Optimism by Designation

Variable	Designation	*N*	*M*	*SD*	*t*	*df*	*p*
Collective Teacher Efficacy	JAT	480	52.99	5.22	6.135***	958	.000
	SAT	480	50.81	5.78			
Faculty Trust in Students and Parents	JAT	480	44.51	5.60	4.083***	958	.000
	SAT	480	42.89	6.65			
Academic Emphasis	JAT	480	27.95	3.99	5.266***	958	.000
	SAT	480	26.49	4.59			

***p<0.001

Comparison of Academic Optimism by Working Experience

In order to make detailed investigation on academic optimism of participants with regard to their working experience, means, standard deviations and independent samples *t*-test was conducted. The following table showed that there were significantly different between teachers experienced > 20 years and teachers experienced < 20 years in subscales of academic optimism except faculty trust in students and parents. Then, the mean scores of teachers experienced >20 years were higher than that of teachers experienced < 20 years in subscales of academic optimism except faculty trust in students and parents. It may be interpreted the teachers experienced >20 years were capable and willing to be supportive and the tasks as achievable. The

finding was inconsistent with Gilbert (2012) that there was no significant difference on academic optimism by working experience.

Table 15 Means, Standard Deviations and Results of Independent Samples *t*-test of Academic Optimism by Working Experience

Variable	Working Experience	*N*	*M*	*SD*	*t*	*df*	*p*
Collective Teacher Efficacy	< 20 years	467	51.26	5.82	-3.458	958	.001
	> 20 years	493	52.50	5.35			
Faculty Trust in Students and Parents	< 20 years	467	43.68	6.69	-.103	958	.948
	> 20 years	493	43.72	5.69			
Academic Emphasis	< 20 years	467	26.73	4.49	-3.381	958	.001
	> 20 years	493	27.68	4.18			

**$p<0.01$

Comparison of Academic Optimism by Teacher Adequacy

In order to make detailed investigation on academic optimism of participants with regard to their teacher adequacy, means, standard deviations and independent samples *t*-test was calculated. The following table showed that there were significant differences between the number of teacher who described being adequacy and the number of teacher who described being inadequacy in faculty trust in students and parents. The mean scores of the stress of teacher who described being adequacy were higher than that of the stress of teacher who described being inadequacy in academic optimism. It may be interpreted group of sufficient teacher can share beliefs with each other than other group and can be expected to accomplish job effectiveness.

Table 16 Means, Standard Deviations and Results of Independent Samples *t*-test of Academic Optimism by Teacher Adequacy

Variable	Teacher Adequacy	*N*	*M*	*SD*	*t*	*df*	*p*
Collective Teacher Efficacy	No	329	51.60	5.78	-1.157	958	.247
	Yes	631	52.04	5.53			
Faculty Trust in Students and Parents	No	329	42.99	6.31	-2.504*	958	.012
	Yes	631	44.04	6.11			
Academic Emphasis	No	329	26.86	4.38	-1.807	958	.072
	Yes	631	27.40	4.35			

*$p<0.05$

Comparison of Academic Optimism by Class Size

In order to make detailed investigation on academic optimism of participants with regard to their class size, means, standard deviations and independent samples *t*-test was conducted. The following table showed that there were significantly different between teachers teaching small class size and teachers teaching large class size in collective teacher efficacy and academic

emphasis except faculty trust in students and parents. The mean scores of teachers teaching large class size were higher than that of teachers teaching small class size in each subscale of academic optimism. It may clearly be seen that teachers teaching large class size believed that every student in their class will succeed academically, fulfill their competencies and they can be better teachers.

Table 17 Means, Standard Deviations and Results of Independent Samples *t*-test of Academic Optimism by Class Size

Variable	Class size	*N*	*M*	*SD*	*t*	*df*	*p*
Collective Teacher Efficacy	< 50	371	51.36	5.753	-2.364*	958	.018
	> 50	589	52.24	5.500			
Faculty Trust in Students and Parents	< 50	371	43.28	6.350	-1.658	958	.098
	> 50	589	43.96	6.094			
Academic Emphasis	< 50	371	26.84	4.499	-2.134*	958	.033
	> 50	589	27.46	4.260			

*p<0.05

Correlation between Occupational Stress and Academic Optimism

To examine whether there was correlation between occupational stress and academic optimism of participants, Pearson product-moment correlation was employed. The data revealed that higher level of occupational stress was significantly correlated with lower level of collective teacher efficacy.

Table 18 Correlation between Occupational Stress and Academic Optimism

Variable	Occupational Stress	CTE	FTSP	AE
Occupational Stress	1	-.120**	.041	.041
CTE		1	.454**	.400**
FTSP			1	.485**
AE				1

**p<0.01

CTE = Collective Teacher Efficacy, FTSP=Faculty Trust in Students and Parents,

AE = Academic Emphasis.

Discussion and Recommendations

Teaching is art and mysterious and teachers today are under a great deal of stress exactly in any way. Stress among teachers is related to absenteeism, turnover, and early retirement, which negatively affect the climate of the school and lead to poor student outcomes, both academically and behaviorally (Brown & Uehara, 2008). Optimism of a person is a key to success in his life. Thus, a school with high academic optimism is a collectivity in which the faculty believes that it can make a difference, that students can learn, and academic performance can be achieved (Hoy et al., 2006).

In this study, the main purpose of this study was to investigate occupational stress and academic optimism of secondary school teachers. It can be explored that occupational stress and academic optimism of secondary school teachers affected the teachers' age, designation, working

experience, teacher adequacy and class size. By Pearson product-moment correlation, higher level of occupational stress was significantly correlated with lower level of collective teacher efficacy.

Based on the results, education leaders are in better understanding of occupational stress and academic optimism of secondary school teachers by each demographic and should facilitate with supportive and collaborative culture; should provide training for stress and time management, specific training to manage the behaviors of disruptive people and so on. To maintain academic optimism of secondary school teachers in Yangon region, teachers should be knowledgeable about, and utilize many different practices and hold various beliefs in order to adapt to meet various situations. Finally, in order to carry out academic excellence and to reduce occupational stress, secondary school teachers are essential high level of collective teacher efficacy.

Acknowledgements

We would like to offer respectful gratitude to Rector Dr. Kay Thwe Hlaing, Pro-rector Dr. May Myat Thu, Pro-rector Dr. Khin Khin Oo, Pro-rector Dr. Nyo Nyo Lwin, and Professors of Yangon University of Education for their administrative support. Moreover, we would also like to thank to all the participants for their active participation in data collection in this study.

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