

Job Satisfaction, Job Stress, and Trust in Management as predictors to teacher's Intention to quit

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ARTICLE INFORMATION

Article History:

Received: October 13, 2020

Received in revised form: December 27, 2021

Accepted: December 28, 2021

Keywords:

job satisfaction, job stress, pay, promotion, supervision

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ABSTRACT

A cross sectional descriptive correlational research design was utilized to determine which among job satisfaction facets, job stress, and trust in management facets most contributes to employee's job satisfaction. Through stratified sampling, 200 teachers from Pampanga were recruited and were asked to answer the Stress in General (SIG), Trust in Management, Intention to Quit, and Job Descriptive Index (JDI). Pearson product-moment correlation and multiple regression were used for data analysis. As highlighted in the study, job satisfaction and job in stress did significantly predict intention to quit. This means that as teachers are job satisfied and have less stress, they are less likely to plan to intend to quit.

Introduction

Increasing turnover on teacher accompanied by succeeding scarcity of qualified teachers is increasingly an international concern (Ingersoll, 2017). While the role of teachers is widely recognized, the dilemma whether teachers are job satisfied with their work is often missed (Liang & Akiba, 2017). Decreased prestige of the teaching profession accompanied by poor working conditions and low salary may lead to increase teacher turnover (TemaNord, 2010). In fact, this increase in teacher turnover extracts a significant financial cost related to separation, recruitment, hiring, and training (Ingersoll, 2017; Sibieta, 2018; Worth & De Lazzari, 2017).

While the role of teachers in student learning is widely recognized, the question whether teachers are satisfied with their job is often missed. Ballard and Grawitch (2016) stated that job satisfaction has numerous salient and far-reaching implications. First, those teachers who are satisfied with their job are less susceptible to burnout and stress. Second, teachers may provide better learning support and higher instructional quality for their students. Lastly, job satisfied teachers may demonstrate higher productivity, decrease absenteeism, less prone to leave the profession, stronger job commitment, and decrease teacher turnover (Han, Trinkoff, & Gurses, 2015).

Palha, Macedo, and Simaes (2018); and Elsherbeny and El-masry (2018) argued

that a diminishing prestige of the teaching profession, together with dissatisfaction in their working environment, deprivation of support from supervisor, lack of communication with their colleagues, and low wages are the prevailing reasons for teacher turnover. In addition, majority of teachers were not satisfied with regards to their pay and compensation. Dissatisfying benefits and rewards, low chance to be promoted, long working hours, and suspension of incentives are also some areas of concern. Waltz, Munoz, Johnson, and Rodriguez (2020) stated that professional relationships, rewards, communication, professional development, and workload/staffing may influence teacher job satisfaction.

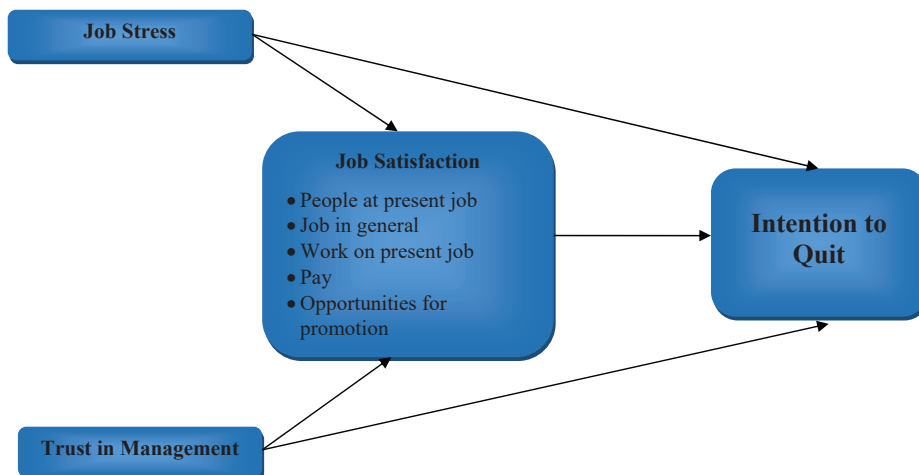
Job stress would influence a person's intention to leave the profession (Lo, Chien, Hwang, Huang & Chiou, 2018). Among the other significant variables, Labrague, Gloe, McEnroe, Konstantinos and Colet (2017) argued that low job satisfaction, paired with an increased workload have been linked to increase in teacher turnover. In line with such, it is beneficial for the institution to find ways to consider teacher's job satisfaction (Hazell, 2010) by looking into some issues

related to lack of adequate access, lack of time, lack of institutional support, inter-collaboration with other professionals, and increase workload and responsibilities (Mkony, O'Sullivan, Owibingire, Fyfe & Omer, 2012; Yang, Liu, & Liu, 2018; Wellmon, Gilin, Kanuss & Linn, 2012).

Conceptual Framework

The framework (Figure 1) shows that job satisfaction, job stress and trust in management predict teacher's intention to quit. In addition, the framework also shows that job satisfaction may have moderating effect on job stress and trust in management in terms of predicting intention to quit.

Job satisfaction is defined as the degree of satisfaction employees feel with their job with regards to satisfaction with job in general, people at their present job, opportunities for promotion, work on present job, pay, and the supervision (Balzer et al., 1997). Job stress can be described as the unhealthy emotional and physical reaction that occurs when the work requirements do not match the needs, resources, or capabilities of the employee (Balzer et al.,



1997). Third, trust in management is a belief that an employee feels towards his/her institution. It represents the belief of employees towards institution's objectives and managers regarding institutional actions for the benefit of the employees. Lastly, intention to quit refers to the desire to stop working for an organization (Balzer et al., 1997).

The study aims to determine if the teacher's intention to quit may be influenced by certain factors such as pay, promotion, job in general, stress and trust in management. Specifically, the research sought answer the following questions:

1. How may the teacher's job satisfaction be described in terms of:
 - 1.1. people at present job;
 - 1.2. job in general;
 - 1.3. work on present job;
 - 1.4. pay;
 - 1.5. opportunities for promotion; and
 - 1.6. 1.6. supervision?
2. What is the teachers' level of job stress?
3. What is the teachers' level of trust in management?
4. How would the teachers rate their chance of voluntarily leaving their current employer?
5. Is there a significant relationship between teacher's job satisfaction facets, job in stress general, trust in management, and intention to quit?
6. Does teacher's job satisfaction, job stress, and trust in management influence their intention to quit?

Methodology

Research Design

A cross sectional descriptive correlational research design was selected to determine which among job satisfaction facets, job stress, and trust in management most contribute to employee's job satisfaction.

Sample and Setting

The researcher employed stratified sampling to select 200 elementary teachers from west district schools in Pampanga. Two hundred (200) participants engaged in this study. Most of the participants are female (62%), belonging to the age group 20-25 years (45%) and had been less than a year working in the institution (38%).

Instrument

The researcher utilized survey to collect massive data in a short span of in a standardized way to accommodate the four variables in the study. There are four scales that were selected in relation to study: Job Descriptive Index (JDI), Stress in General (SIG), Trust in Management, and Intention to Quit.

- The Job Descriptive Index is a tool to measure ones' satisfaction with their jobs. The JDI is comprised of five facets, including satisfaction with: coworkers, the work itself, pay, opportunities for promotion, and supervision.
- The Stress in General is used to

assess employees' stress on their workplace.

- The Trust in Management is designed to assess ones' feelings of trust toward management. Coefficient alpha was .79.
- Intention to Quit. Intention to quit measures is a tool used to evaluate ones' feelings of trust toward senior management in their organization. Coefficient alpha was .81.

Data Collection Procedures

The researcher requested for an approval from the committee of the Office of the Schools Division Superintendent of Angeles City to conduct the data collection for the current study. The researcher contacted the principal thru either email and phone call. With the approval of the Schools Division Superintendent, the questionnaires were administered to 200 teachers of west district schools and were personally retrieved by the researcher. Out of 215 teachers, only 200 participants responded to the survey (retrieval rate of 93%). An individual informed consent was secured from the study participants before the conduct of the survey. The researcher first explained the details and the nature of study including the potential risks and benefits associated in taking part in this study, as well as their right to refuse and/or withdraw anytime in this study.

Data Analysis

Using the SPSS (Statistical Package for Social Sciences version 20) software, frequency, percentage, mean, and standard deviation were determined for the descriptive portion of the study. To determine correlation, Pearson Product-

Moment Correlation was used to determine relationship of job in stress and selected demographic variables to specific facets of job satisfaction. Lastly, multiple regression was used to determine which among job satisfaction, job stress, and trust in management are predictors to teacher's Intention to quit. In addition, multiple regression was used to determine the moderating effect of job satisfaction on job stress and trust in management in terms of predicting intention to quit.

Ethical Consideration

An individual informed consent was secured from the study participants. The researcher explained in details the nature of the study, including the potential risks and benefits that will be associate with obtained in taking part in this study, as well as their right to refuse and/or withdraw any time in this study. Moreover, the participants are assured that no identifying information will be reported in any section of this study.

Results and Discussion

This section offers a summary of the research findings and analysis which includes descriptive results, correlation among the following variables: job satisfaction facets, job in stress general, trust in management, and intention to quit; Lastly, the effect of job satisfaction on job stress and trust in management in terms of predicting intention to quit.

Job Satisfaction on Facets

Table 1 shows the different facets of job satisfaction: people on present job, job in general, work on present job, supervision, pay (with subdomains), and opportunities for promotion (with subdomains). Job satisfaction in this study refers to the

Table 1*Participants' Job Satisfaction on Facets and Job in Stress in General*

Job Satisfaction facets	Mean	SD
People	2.26	.828
General	2.79	.170
Present	2.61	.373
Supervision	2.55	.595
Pay	2.15	1.38
Income adequate for normal expenses	4.14	8.42
Fair	2.36	1.28
Barely live on income	2.07	1.33
Bad	2.36	1.28
Comfortable	2.00	1.41
Less than I deserve	1.57	1.51
Well paid	1.43	1.45
Enough to live on	1.86	1.41
Underpaid	1.57	1.51
Promotion	1.65	.791
Regular promotion	1.21	1.42
Fairly good chance for promotion	1.71	1.38
Good opportunities for promotion	1.29	1.38
Opportunities somewhat limited	1.79	1.48
Promotion on ability	2.14	1.41
Dead-end Job	2.57	1.09
Good chance for promotion	1.07	1.33
Very limited	1.64	1.45
Infrequent promotion	1.43	1.45
N= 200		

response of a teacher to the work condition as these perceptions are molded by different facets (Skaalvik & Skaalvik, 2011).

Table 1 also shows that the mean scores reflected that participants had relatively high degree of satisfaction on their job as teachers in general ($x=2.79$, $SD=.170$), working with their colleagues ($x=2.61$, $SD=.373$) and they are satisfied with their principal's supervision ($x=2.55$, $SD=.595$). However, pay ($x=2.15$, $SD=1.38$)

and promotion ($x=1.65$, $SD=.791$) scored lowest. These results indicate that most participants are not satisfied with the pay and perceived that they have a little chance of being promoted. Benefits and rewards, as well as promotion, are areas of concern for a low level of job satisfaction.

Since most of the participants perceive that they have a little chance of being promoted ($x=1.65$, $SD=.791$), most of the sub-variables on opportunity for promotion got low ratings (from $x=1.07$ to 1.79 , $SD=1.33$ to 1.48). It may then be inferred that the teachers' perceived opportunity for promotion in their present job is quite low and may negatively be associated to their commitment to the organization, probably leading to quitting intentions. Such results highlight the importance of justness in performance appraisal system and more opportunity for promotion (Rubel & Kee, 2015). The teacher's reported low score on opportunity for promotion is in line with their reported low score on pay ($x=2.15$, $SD=1.38$) as well.

Job in Stress General

Stress is an enigma, paradox, and a double edged sword. It can be part of a 'fight or flight' response or may be considered as detrimental to health. Table 2 shows that most of the teacher-participants did not perceive their present work as stressful ($x=.91$, $SD=.780$). This finding is also reflected on the participant's high degree of satisfaction on work on job in general ($x=2.79$, $SD=.170$), and work on present job ($x=2.61$, $SD=.373$).

Table 2*Participants' Job in Stress General*

Stress in general	Mean	SD
	.91	.780

Trust in Management

Trust in management is a perception on how an employee feels towards his/her institution, particularly on the institution's objectives and managers regarding institutional actions for the benefit of the employees (Msuya, 2016). Table 3 shows that most participants describe management as competent ($x=2.90$, $SD=.503$), honest ($x=2.92$, $SD=.394$), ethical ($x=2.91$, $SD=.452$), trusted ($x=2.88$, $SD=.477$), qualified ($x=2.88$, $SD=.477$) and concerned for employees' welfare ($x=2.86$, $SD=.513$). However, unpredictability gained the highest among negative variables ($x=2.23$, $SD=1.16$).

Table 3

Descriptive Statistics for Trust in Management

Trust in Management	Mean	SD
Qualified	2.88	.477
Loyal to employees	2.82	.575
Consistent	2.55	.925
Dishonest	2.92	.394
Incompetent	2.90	.503
Concerned for employees' welfare	2.86	.513
Changed mind often	2.48	.948
Unethical	2.91	.452
Knows what's going on	2.74	.676
Treat employees fairly	2.51	.948
Unpredictable	2.23	1.162
Can't be trusted	2.88	.477
N= 200		

Intention to Quit

The meanscores reflect that most participants had intent to quit working in the institution within a year ($x=6.52-6.72$, $SD=.740- 1.04$) This maybe linked to participant's report that they are not satisfied with their pay and perceived that they have a little chance of being promoted.

Table 4

Participants' Intention to Quit

Intention to quit	Mean	SD
Intention to quit in General		
I will voluntarily quit my job in the next three months	6.72	.740
I will voluntarily quit my job in the next six months	6.52	1.04
I will voluntarily quit my job in the next year	5.92	1.49
I will voluntarily quit my job in the next two years	4.59	1.93
Time Intention to quit		
I intend to leave this organization before too long	2.07	1.34
I do not intend to leave my present employer	2.24	1.49
I intend to quit working for this company immediately	1.62	.962
I expect to leave this company soon	2.05	1.33
N= 200		

Correlations among job satisfaction facets, job in stress general, trust in management, and intention to quit

The correlation among job satisfaction facets, job in stress general, trust in management, and intention to quit is highlighted in Table 5. An indirect relationship was observed between job satisfaction to job in stress general, $r= -.500$, $p < .05$ and intention to quit, $r= -.338$, $p < .05$. This indicates that increase in job satisfaction may associate to decrease in job in stress and perceived intention to quit. Consequently, a positive relationship

was observed between intention to quit and Job in stress general, $r = .259$, $p < .05$. This result indicates that an increase in job stress may associate to increase perceived intention to quit.

Table 5

Correlations among Job Satisfaction Facets, Job in Stress General, Trust in Management, and Intention to Quit (n=200)

Job satisfaction	1	2	3	4
1. Job Satisfaction	--	-.500*	.463	-.338*
2. Job in stress general		--	.020	.259*
3. Trust in Management			--	.154
4. Intention to quit				--

* $p < .05$

Job satisfaction facets, Job in stress general, and trust in management as predictors to Intention to quit

It was found that job in stress general had positive regression weights (Beta= .384, $t(49) = .845$, $p < .05$) while job satisfaction had significant negative regression weights (Beta= -.104, $t(49) = -.690$, $p < .05$) to intention to quit, indicating that only job satisfaction and job in stress did significantly predict intention to quit. These findings mean that as teachers are job satisfied with their job and have less stress, they are less likely to plan to intend to quit. Since teaching is known to be a highly nerve-racking profession, teacher stress has been associated with unfavorable professional outcomes, such as absenteeism, burnout, stress itself, and intention to quit (Solomon et al., 2015).

Consequently, the predictive ability of job in stress to job satisfaction in addition to predictive ability of job satisfaction to intention to quit prove that job satisfaction may have moderating effect on job stress

in terms of predicting job satisfaction. However, among job satisfaction facets, only pay (Beta= .095, $t(49) = .619$, $p < .05$) and promotion (Beta= .200, $t(49) = .905$, $p < .05$) significantly predict intention to quit. This result indicates that as teachers are job satisfied with their pay and do perceive to have opportunity to get promotion, they are less likely to plan to intend to quit. Recent findings suggest that if teachers could get a higher paying job, they will leave teaching as soon as possible. This finding indicates that higher pay have negative association to teacher's intention to quit (Von der Embse et al., 2016).

Table 6

Regression Coefficients examining Job Satisfaction, Job in Stress General, and Trust in Management to Intention to Quit

Predictor	β	r
People	.201	-.263
General	.094	.111
Present	.013	.416
Pay	-.095	-.619*
Promotion	-.200	-.905*
Supervision	-.094	-.151
Job Satisfaction	-.104	-.690*
Job in stress general	.384	.845*
Trust in management	.147	.815
$R^2 = .475^a$		
* $p < .05$		

Dependent variable: Intention to quit

Lastly, job in stress general had significant positive regression weights to intention to quit (Beta= .384, $t(49) = .815$, $p < .05$). This result indicates that as job in stress increases, it may lead to teacher's intention to quit. Their intentions to quit their present job is one of the issues that confronts educational policy makers and school administrators. Previous research reveal that most of the teachers perceive

teaching as rewarding but a stressful profession. Being stressed in the teaching profession in addition to lower pay and poor compensation would lead to teacher quitting from their current profession (Von der Embse et al., 2016).

Increasing turnover of teachers accompanied by succeeding scarcity of qualified teachers is increasingly an international concern. While the role of teachers is widely recognized, the notion whether teachers are job satisfied with their job is often overlooked. Job dissatisfaction accompanied by poor working conditions and low salary may lead to teacher turnover which in turns affects the overall school performance.

As highlighted in the study, job in stress general had significant negative regression weights to job satisfaction indicating that only job in stress general have significant negative influence to job satisfaction. This finding also means that teachers who are job satisfied are less likely to experience job in stress. It was also found that job satisfaction and job in stress significantly predict intention to quit. This result also means that as teacher are job satisfied with their job and have less stress, they are less likely to plan to intend to quit.

Consequently, the predictive ability of job in stress to job satisfaction in addition to predictive ability of job satisfaction to intention to quit prove that job satisfaction may have a moderating effect on job stress in terms of predicting job satisfaction. However, among job satisfaction facets, only pay and promotion significantly predict intention to quit. This result indicates that as teachers are job satisfied with their pay and do perceive to have the opportunity for promotion, they are less likely to plan to intend to quit.

Recent studies have also revealed that teacher shortage is still a global issue, a gap on teacher retention and teacher turnover

rate. It was suggested that the crucial part of addressing the high teacher attrition rate is to focus more on teacher retention rather than on teacher recruitment. Based on the current findings, most of the teachers have planned to exit their current job within two years. It can be argued that high teacher attrition rate and low teacher retention rate can erode the teacher's professional maturity that would directly impact student achievement and overall institutional goals, if not addressed. Moreover, the huge costs would be incurred in recruiting, hiring as well as inducting new teachers (Solomon et al., 2015).

Therefore, the key fundamentals to attract and retain dedicated and passionate teachers are through making the teaching profession highly engaging and attractive by giving the teachers the necessary rewards, pay and incentives. Slight changes in the educational policies in relation to nature of work, working conditions, professional development, opportunity of promotion, and pay, and compensation would bring positive outcomes for recruiting and retaining teachers.

Conclusion and Recommendations

The study aims to determine if the teacher's intention to quit may be influenced by certain factors such as pay, promotion, job in general, stress and trust in management. The result in the study showed that there is an indirect significant relationship between job satisfaction to job in stress general, and intention to quit. A positive relationship was also observed between intention to quit and job in stress general. This would reject the null hypothesis that there is no significant association between teacher's job satisfaction, job in stress general, trust in management, and intention to quit. The institution must find ways to reduce teachers' job stress and maintain job satisfaction in the working environment. Barriers such as lack of adequate access, lack of time, lack of

institutional support and increase workload and responsibilities are barriers to teaching

Consequently, it was found that job in stress general had positive regression weights while job satisfaction had significant negative regression weights to intention to quit, indicating that only job satisfaction and job in stress did significantly predict intention to quit. This means that as teacher are job satisfied with their job and have less stress, they are less likely to plan to intend to quit. This would reject the null hypothesis that job satisfaction and Jjob in stress didn't significantly predict intention to quit. However, among job satisfaction facets, only pay, and promotion significantly predicts Intention to quit.

Employee's job attitude and wellbeing depend on the working group they belong. Support from manager and the management itself have also considerable impact on employee's job satisfaction and intention to quit. High level of employee satisfaction is correlated to employee commitment, higher productivity and increase retention.

The study highlighted the significant effects of job satisfaction and work stress on teacher's turnover intentions, especially if job satisfaction plays a mediating role. Based on the results of study, institution must consider job satisfaction of their employee and identify factors that affect it. Thus, the study recommends more effective regulations by putting emphasis on improving teacher's job satisfaction through more attractive and competitive benefit and wage packages, and providing more opportunities for continual training and career development.

Satisfied employees are less likely to look for another job. In addition, employees who resigned take their knowledge and skills from previous institution and may use it to a new one. As a result, institution will take a hard time because new hires take time to develop similar skills. On the other

hand, job satisfaction is associated to better performance and more productive of the employee. Job satisfaction can be measure by conducting studies or surveys which can use for decision making.

Since job in stress general had positive regression weights while job Satisfaction had significant negative regression weights to intention to quit, it is recommended that the school administrator must prioritize managing these variables and eliminating the possible factors such as problems with coworkers, salary, promotion opportunities and current work which can further lead them to leave their jobs. Highly committed employees tend to be satisfied and contented with their work. This is in line with the Two-Factor Theory that specifies that factors such as achievement, recognition, responsibility, etc., are satisfiers, the presence of which causes satisfaction but their absence does not result in dissatisfaction. On the other hand, factors such as supervision, salary, working conditions, etc., are dissatisfiers, the absence of which causes dissatisfaction. Their presence, however, does not result in job satisfaction.

The major limitations for this study are representation and generalizability. Job satisfaction of one institution is different to other although both populations face same stressors. Expanding the sample size to several institutions may yielded a better result. On the other hand, adding qualitative data also helps to further understand the relationship between these variables. This study was confined itself to the teachers who are working in Angeles City; therefore, there is a need comparative study on job satisfaction among teachers working in private and public schools in Pampanga.

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References

- Ballard, D., & Grawitch, M. (2016). The Psychologically Healthy Workplace: Building a win-win for organizations and employees. *American Psychological Association*, 123-128.
- Balzer, W. K., Kihm, J. A., Smith, P. C., Irwin, J. L., Bachiochi, P. D., Robie, C., Sinar, E. F., & Parra, L. F. (1997). *Users' manual for the job descriptive index (JDI; 1997 Revision) and the job in general scales*. Bowling Green.
- Elsherbeny, E., & El-masry, R. (2018). Job Satisfaction among Nurses working in Mansoura University Hospital: Effect of Socio-demographic and work characteristics. *Egyptian Journal of Occupational Medicine*, 42, 2:227-240. <http://dx.doi.org/10.21608/ejom.2018.6807>.
- Han, K., Trinkoff, A.M., & Gurses A. (2015). Work-related factors, job satisfaction and intent to leave the current job among United States nurses. *Journal of Clinical Nursing*, 24(21-22), 3224-32. <https://doi: 10.1111/jocn.12987>.
- Hazell, K. W. (2010). Job stress, burnout, job satisfaction, and intention to leave among registered nurses employed in hospital settings in the state of Florida. *ProQuest Dissertations and Theses*, 495
- Ingersoll, R. (2017). Misdiagnosing America's teacher quality problem. In G. K. LeTendre & M. Akiba (Eds.), *International handbook of teacher quality and policy*, 79-96. Routledge.
- Labrague, L., Gloe, D., McEnroe-Petitte, D., Tsaras, K., & Colet, P. (2018). Factors influencing turnover intention among registered nurses in Samar Philippines. *Applied Nursing Research*, 39,200-206. <http://dx.doi.org/10.1016/j.apnr.2017.11.027>.
- Liang, G., & Akiba, M. (2017). Teachers' working conditions: A cross-national analysis using the OECD TALIS and PISA data. In G. K. LeTendre & M. Akiba (Eds.), *International handbook of teacher quality and policy*, 388-402.
- Lo, W., Chien, L., Hwang, F., Huang, N., & Chiou, S. (2018). From job stress to intention to leave among hospital nurses: A structural equation modelling approach. *Journal Advance Nursing*, 74(3), 677-688. <http://dx.doi.org/10.1111/jan.13481>.
- Mkony, C., O'sullivan, P., Owibingire, S., Fyfe, M., & Omer, S. (2012). Universities in transition to improve public health. *Journal of Public Health Policy*, 33(1), 150-70.
- Palha, M., Macedo, A., & Simaes, C. (2018). Nurses' job satisfaction in long term care: The role of socio-demographic and professional variables. *International Journal of Nursing*, 5, 2. <http://dx.doi.org/10.15640/ijn.v5n2a2>.
- Rubel, M., & Kee, D. (2015). High commitment compensation practices and employee turnover intention: Mediating role of job satisfaction. *Mediterranean Journal of Social Sciences*, 6,6,S4
- Sibieta, L. (2018). *The teacher labour market in England: Shortages, subject expertise and incentives*. Education Policy Institute.
- Skaalvik, E. M., & Skaalvik, S. (2014). Teacher self-efficacy and perceived autonomy: Relations with teacher

engagement, job satisfaction, and emotional exhaustion. *Psychological Reports*, 114(1), 68–77.

Solomon, H., von der Embse, N, Kilgus, S, Bowler, M., & Curtiss, C. (2015). Initial development and factor structure of the Educator Test Stress Inventory. *Journal of Psychoeducational Assessment*, 33(3), 223-237. <http://dx.doi.org/10.1177/0143034315609094>.

Von der Embse, N, Pendergast, L, Segool, N, Saeki, E., & Ryan, S. (2016). The influence of test-based accountability policies on school climate and teacher stress across four states. *Teaching and Teacher Education*, 59,492-502.

Wellmon, R., Gilin, B., Knauss, L. & Linn, M. (2012). Changes in student attitudes toward interprofessional learning and collaboration arising from a case-based educational experience. *Journal of Allied Health*, 41(1), 26-34.

Waltz, LA, Muñoz, L., Weber Johnson H, Rodriguez T. (2020). Exploring job satisfaction and workplace engagement in millennial nurses. *Journal of Nursing Management*, 28(36), 73–81.

Worth, J., & De Lazzari, G. (2017). *Teacher retention and turnover research. Research update 1: Teacher retention by subject*. Slough.

Yang, Y., Liu, X., & Gardella, J. (2018). Effects of professional development on teacher pedagogical content knowledge, inquiry teaching practices, and student understanding of interdisciplinary science. *Journal of Science Teacher Education*, 29(4), 263-282.